MODELLING AND AUTOMATING BUSINESS PROCESS FOR A RECRUITING APP

Project report submitted in partial fulfilment of the requirements for the degree

Of

BACHELOR OF TECHNOLOGY

In

COMPUTER SCIENCE AND ENGINEERING

By

Srishti Gupta (161453)

Under the supervision
Of

Dr. PRADEEP KUMAR GUPTA
(Associate Professor)

To

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING AND INFORMATION TECHNOLOGY

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
WAKNAGHAT, SOLAN – 173234
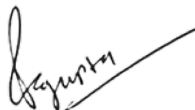**HIMACHAL PRADESH, INDIA**

CANDIDATE'S DECLARATION

This is to certify that the work which is being presented in the report entitled "**Modelling & Automating Business Process for a Recruiting App**" in partial fulfilment of the requirements for the degree of **Bachelor of Technology** in **Computer Science and Engineering** submitted in the department of Computer Science and Engineering, Jaypee University of Information Technology Waknaghat is an authentic record of our own work carried out over a period from March 2020 to June 2020 under the supervision of **Dr. Pradeep Kumar Gupta** (Associate Professor, Senior Grade, Computer Science & Engineering Department).The matter embodied in the report has not been submitted for the award of any other degree.

Srishti Gupta, 161453

This is to certify that the above statement made by the candidates is true to the best of my knowledge.

(Supervisor Signature)

Dr. Pradeep Kumar Gupta

Associate Professor (Senior Grade)

Department of Computer Science & Engineering

Dated: 2nd June 2020

ACKNOWLEDGEMENT

With great pleasure I avail this opportunity to express my profound sense of gratitude and indebtedness to my coach **Mr. Praveen Parameswaran** and trainer **Mr. Shibu Kalidhasan** at Cognizant Technology Solutions India Pvt. Ltd. for his efficacious advice, perpetual and prolific encouragement and constructive criticism during the course of the training. I would also like to express my sincere gratitude to my cohort members of the training for their help.

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Srishti Gupta, 161453
Dated: 2nd June 2020

PROJECT REPORT UNDERTAKING

I , Ms. Srishti Gupta, Roll No. 161453, Branch Computer Science and Engineering is doing my internship with Cognizant Technology Solution Pvt Ltd. from 7th February 2020 to 5th June 2020.

As per procedure I have to submit my project report to the university related to my work that I have done during this internship.

I have compiled my project report. But due to COVID-19 situation my project mentor in the company is not able to sign my project report.

So I hereby declare that the project report is fully designed/developed by me and no part of the work is borrowed or purchased from any agency. And I'll produce a certificate/document of my internship completion with the company to TNP Cell whenever COVID-19 situation gets normal.

Signature:

Name: Srishti Gupta

Date: 2nd June 2020

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LIST OF ABBREVATIONS

CRM   …………………………………………… Customer Relationship Management

SAAS ………………………………………….... Software as a Service

PAAS ………………………………………… Platform as a Service

M-D   ………………………………………….... Master –Detail Relationship

ORG   ………………………………………… Organization

API   …………………………………………. Application Programme Interface

URL   …………………………………………. Unique Resource Locator

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ABSTRACT

CRM is a technology that allows you to manage relationships with your customers and prospects and track data related to all of your interactions. It also helps teams collaborate, both internally and externally, gather insights from social media, track important metrics, and communicate via email, phone, social, and other channels. In Salesforce, all of this information is stored securely in the cloud. Salesforce is your customer success platform, designed to help you sell, service, market, analyze, and connect with your customers. Salesforce has everything you need to run your business from anywhere. Using standard products and features, you can manage relationships with prospects and customers, collaborate and engage with employees and partners, in order to store your data securely in the cloud securely and safely. But standard products and features are only the beginning. Its platform allows you to customize and personalize the experience for your customers, partners, and employees and easily extend beyond out of the box functionality.

Trailhead is a learning experience platform—a library of educational content that we can access whenever we like and is the fun way to learn. With engaging, bite-size content, Trailhead helps to gain new skills and to add values to our existing ones. Trailhead is gamified, with assessments that demonstrate our skills, and badges and points that illustrate our progress. And Trailhead content is self-serve: Whenever we want to learn something new, Trailhead is at our fingertips.

Salesforce offers Trailhead as a way to teach, how to use products and learn about other topics, such as UX design or career building. Trailhead structure follows a defined hierarchy. At the top are trails, which are composed of modules. Modules are made of units, and each unit ends with an assessment. Salesforce Trailhead content stays current through the regularly scheduled releases.

CHAPTER-1: INTRODUCTION

1.1 Introduction:

Customers want to take a unified journey with your company and get what they need, exactly when they need it. This means seeing the right ads at the right time, connecting with knowledgeable salespeople, and receiving personalized support and service throughout their journey. With Salesforce, you can provide all of these things at scale with our solutions for marketing, sales, service, and commerce.

Salesforce also enables you to train your workforce, quickly build apps that make your employees more efficient, and use artificial intelligence and analytics to give you an all-inclusive understanding of your customers. And we recognize that no two businesses have the same needs. You can tailor Salesforce for your business and industry, with the help of a rich ecosystem of documentation, experts, and services.

Salesforce has four core values.

- **Trust**—Trust is our number one value. Nothing is more important than the trust of our customers—and all stakeholders. We deliver trusted infrastructure and communicate openly.
- **Customer Success**—We know that we succeed when our customers succeed, so since day one, we've built a company around delivering customer success.
- **Innovation**—We empower Trailblazers with technology to succeed in the Fourth Industrial Revolution, and we incorporate the latest innovations into our products three times a year so that our customers can stay ahead in their industries.
- **Equality**—We believe that equality and diversity make us a better company and community. We respect and value employees from every background.

We believe that values create value. Values connect and inspire us, and they are the foundation of our culture at Salesforce. Being a Trailblazer begins with wanting to make a difference in the world, and the belief that we can enable our customers and partners to do just that.

Salesforce is considered as the world's best CRM Platform. Salesforce helps in providing cloud-based, CRM applications in the diverse disciples of Sales, service and marketing. It has evolved the enterprises in terms of software delivery and usage. Since Salesforce is a cloud

based software, it doesn't need any IT experts for setting it up. All it need is a system with a good browser and high bandwidth internet connection. Salesforce provides the most ideal way to connect with the customers, it understands how important it is to build meaningful and long lasting relationship with the customer. Thereby helping the enterprise in identifying the customer's needs, and in addressing their problems easily and faster. Salesforce tries to deploy those apps which are customer focused or customer-centric.

It is basically the CRM which helps in managing the relationships and interactions with the leads and customers. With the help of salesforce, tracks of various leads, accounts, opportunities and contacts can be recorded without requiring any external storage in the system.

It is mainly the customer success platform, which is developed to help customers in selling, providing services, and in analysing the market in order to connect with the customers in a way. It comprises of everything that the business owner may need to start their business from anywhere around the globe. Using standard features and products, salesforce helps in collaborating and in engaging with the partners and employees. Moreover, it stores the customer's data securely in the cloud.

Salesforce can be termed as a cloud based solution for CRM. Salesforce company offers software as a service(SaaS). Salesforce allows to provide better services to partners, customers, stakeholders and potential customers. The Salesforce Technology has become very popular in the recent years. Salesforce uses cloud technology to build various solutions for customer problems and help establish better connections with the customer and expand the customer base as well. Salesforce aspects revolve around Marketing, Sales and Services.

Figure 1.1: Customer Management 360

Salesforce is based on multi-tenant architecture. Multiple customers are provided with same technology for usage with latest release. Application and infrastructures are updates automatically. This provides an edge for companies to focus more on innovation and management of technology is taken care by Salesforce. Salesforce Customer 360 is a unique mechanism of providing a single customer ID and connect all the apps to provide a single view of customer. Customer 360 gives an overall view of your customer by combining the unstructured and structured of the customer available to your organization.

Figure 1.2: Architecture of salesforce

1.2 Problem Statement:

Since implementing Salesforce 6 months ago, AW Computing has been paving a way for an upward trajectory in sales and revenue. And with that comes the need to beef up the staff across a variety of other departments. AW Computing, wants to help their recruiting team in handling the hiring process efficiently.

In this project, employing an admin skill to make custom objects, relationships, page layouts, and more, in order to offer the HR team quick access to the information in the Recruiting App. In the Lightning platform, the only way to navigate is by clicking on the tabs. Each and every tab is considered as the base line for editing and viewing the information about the specific object. Whenever any custom objects are built for any app, custom tabs will be created which will look similar to those of normal objects. In addition, any customizations that will be created will seem perfect to the users.

For this project, it continues customizing AW Computing's Recruiting app, which the HR team are using at work to place applicants into open positions within the corporate. AW Computing would like their recruiters to have an efficient user interface that helps them match the right candidate with the right job more quickly.

As AW Computing is growing, they keep searching for new talent. Now the company demands for the automation for the creation of interviewer records for hiring managers. The company wish to establish an approval process for new position. Also, the created solution must be user- friendly for candidate scoring.

1.3 Objective:

The objective of project is to help AW Computing to establish its business securely and fastly in the field of Technology. For that AW computing wants to recruit new employees, but doing so manually is very tedious for the company so it wants to automate the process for Recruitment.

In order to help AW computing, model a recruitment app and automate it so that interviewers can write their comments about the interviewee in terms of experience, leadership skills, and core competencies.

AW Computing has an HR team, having a tool that helps to see the job listings that are posted, whether they are active and more. Just create custom objects and junction objects to make the recruiting app more efficient. Customizing page layouts, creating relationships and adding filters provides app user with easy access to the information they need. Adding Custom fields to the recruiting app helps the HR team to capture information critical to the hiring process.

Building forms in selecting application will smooth out the work process for making the records of the meeting and giving endorsements to the new positions. Finally, making a stream for the application would streamline the whole procedure of rating the competitors and in making the rating procedure predictable with the selecting application.

1.4 Methodology:

Step 1: Creation of Objects:

Creating Custom Objects as Review Object and a Job Posting Site Object on a Recruiting App helps to know about the Job Posting Site whether it is active or not, technical or not.

Step 2: Creation of a Junction Objects:

A Juction Object named Job Postings is a Custom Object involving 2 ace detail relationship, which fits in the space between business sites and positions.

Step 3: Creating a Self-relationship with the Position Object

Lookup relationship can link object with another Standard Object or Custom Object, or can link an object with itself is called a self-relationship.

Step 4: Creating Custom Field

Creating custom recruiting field of Review Object such as Core Competencies, leadership skills and Experience to capture interview outcome information.

Modelling a Recruiting App :

| Creating Custom Objects | → | Creating a Junction Object | → | Creating a Self relationship | → | Creating Custom Field |

Figure 1.3: Modelling a Recruiting App

CHAPTER-2: LITERATURE SURVEY

2.1 Existing System

As clients of the Internet, we're all acquainted with the captivating, inventive, innovative and in some cases senseless manners by which it has changed how we work and play. From Social Networking Sites to wikis to sites and then some, it's energizing to watch the advancements happening that are changing the manners in which we convey and work together.

While these progressions have surely affected how we work with the substance, a comparable arrangement of Internet-driven thoughts and advances is changing how we manufacture and work with business applications.

While yesterday's business applications required thousand, if very few dollars and now and again long periods of expert administrations help to arrange and tweak, the innovations, offered by the web today make it a lot simpler to make, design, and use business utilizations of numerous kinds. To be sure, the office of the web has enabled us to disentangle new sorts of business issues that, as a result of unpredictability or cost, had recently stayed far off.

Similarly, as the progressions that moved distributing innovation from paper to bits made is workable for us to have data about everything in the entire right readily available, the adjustments in application innovation make it likeness conceivable to envision a solid, undertaking class application for almost any business need.

These better approaches for building and running applications are empowered by the planet of distributed computing, where you get to applications or applications, over the web as utilities rather than as bits of programming running on your work area or in the server room. This model is as of now very normal for purchaser applications like email and photograph sharing, and most likely business applications like client relationship management(CRM)

2.2 Drawbacks of Existing System:

By utilizing the common framework we've to deal with a high design framework to run some enormous programming's which is uses to build up the applications. This may require immense expense to search for and keep up.

We need to search for the each and every product's which are utilized for building up the applications. Additionally, we need to refresh the product's most recent adaptation. This needs upkeep dangers like affordable hazard and specialized hazard.

The principle hindrance of the overall framework over cloud condition is absence of versatility. Despite the fact that we are having high arranged frameworks and refreshed programming's we need to take the framework with us when we are moving from one spot to other spot. This will make hazard to the clients.

Another inconvenience of the current framework is absence of catastrophe recuperation. That implies on account of any fiasco happens all the information accessible in the framework can't be recuperated. Consequently, it might prompt the loss of information. The current framework additionally needs high starting expense to set up the framework.

2.3 Proposed System

Since there is part of issues accessible in the current framework another innovation is utilized in this task called as cloud computing. The proposed framework is this venture is to build up an application in the distributed computing condition and need to send it and to dispatch the applications in cloud.

The cloud condition utilized in this venture is called as salesforce condition. A straightforward application is created in the distributed computing condition and conveyed in a similar domain utilizing the apparatuses gave there itself. The application is propelled as a site inside the cloud. The security gave by the stage provide (salesforce) is utilized in this application.

2.4 Insights about Salesforce Objects

In Salesforce, we consider database tables as items, we consider segments fields, and columns as records. So rather than a record spreadsheet or table, we have an Account object with fields and a lot of indistinguishably organized records [1].
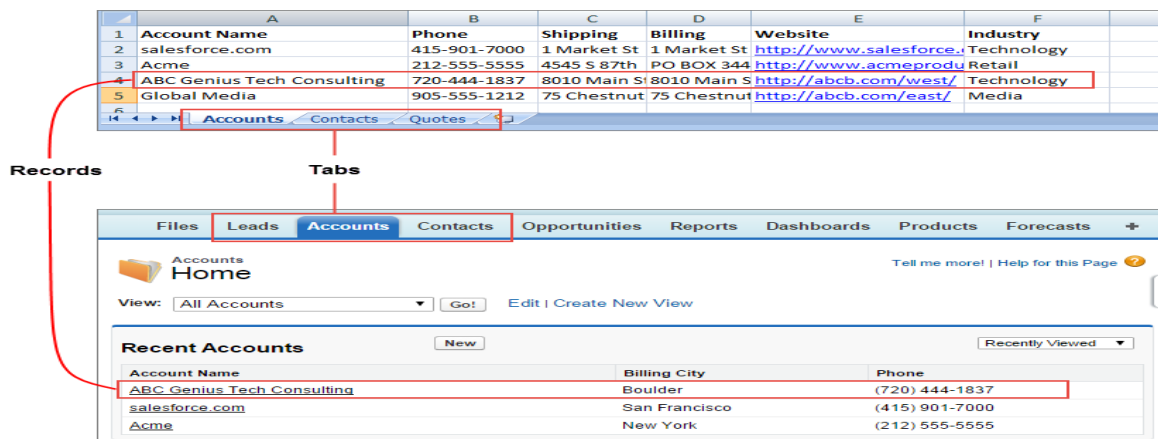

Figure 2.1: Mapping Excel Components to Salesforce

Salesforce accompanies standard items previously set up and prepared for use.

Here are a portion of the centre standard items, and a portrayal of how everyone is utilized. We'll plunge into these articles in more noteworthy detail as you progress in the direction of your identification for the module.

2.5 Relationship Between Salesforce Objects

There are two primary sorts of Object relationships: Lookup relationship and Master- Detail relationship.

Regularly, lookup relationship is used when items are just related now and again. In some cases, a contact is related with a particular record, however in some cases it's only a contact. Items in lookup relationships normally function as independent articles and have their own tabs in the UI. Model: Contact Object (query with Account Object) [2]

In Master - detail relationship, the detail object doesn't fill in as an independent. It's profoundly subject to the master. Actually, if a record on the ace item is erased, all its related detail records are erased as well [2] . At the point when you're making expert detail connections, you generally make the relationship field on the detail object.

2.5.1 Master - Detail Relationship

- You can't have a detail record without master. *[No stranded point by point records are allowed]*
- The detail record acquires sharing guidelines from the master *[No Sharing Rule can be characterized on the detail Object]*
- You can't edit the relationship to the master in master - detail relationship.
- The number of master - detail connections can be utilized and constrained. *[1 Object can have at the most 2 M-D connections defined]*
- You can't set profile object authorizations for a detail record.
- Master-detail connections are consequently remembered for report record types.

2.5.2 Lookup Relationship

- Lookups are by and large for use where there is a need to have a connection between two objects.
- Lookups are utilized to interface two objects together when you don't need the conduct of the master - detail, especially around sharing principles, profile consents
- Lookups are commonly used to reference generally shared information, for example, reference information.
- Lookups are utilized when you have to relate various 'guardians' to the detail record.

2.6 SALESFORCE USERS

A client is the person who signs in to Salesforce organization. Clients are essentially representatives who are working in the organization, for example, salespeople, supervisors, and IT authorities, who need access to the organization's records.

Each and every user in Salesforce has a user account [3]. The user account determines the user, and its unique account settings, necessary to access the features and records of the user.

The record of client includes -

- User's First and Last Name
- Username
- Email Address
- License
- Profile
- Role *(optional)*

Figure 2.2: Salesforce User

2.6.1 Usernames

Every client has its own subtleties, both a username and an email address. The username must be in same configuration as an email address and should be one of a kind over all Salesforce organization. It is frequently client's email address, as it is unique [3].

2.6.2 User Licenses

A client permits help client to realize which highlights they can access in Salesforce Platform. For instance, one can permit clients access to standard Salesforce highlights and Chatter with the standard Salesforce permit. Be that as it may, on the off chance that the client needs to access of just a few highlights in Salesforce, at that point the client has a lot of licenses to look over. For instance, if administrator needs to give a client access to Chatter without permitting them to learn any information in Salesforce, administrator can give them a Chatter Free license[3].

2.6.3 Profiles

Profiles mentions to clients what they can do in Salesforce. It accompanies a lot of authorizations, which award the client, access to specific items, fields, tabs, and records. Every client can be related with just one profile. Select profiles relying on a client's activity work. Clients can be allowed access to more things with the assistance of consent set[3].

There are two kinds of Profiles accessible in Salesforce: Standard Profile and Custom Profile.

Standard Profiles: Standard Profiles are those which cannot be deleted and Permissions on them can also be not edited. Some of the Standard Profiles are

- System Administrator
- Standard User
- Solution Manager
- Marketing User
- Contract Manager
- Read Only
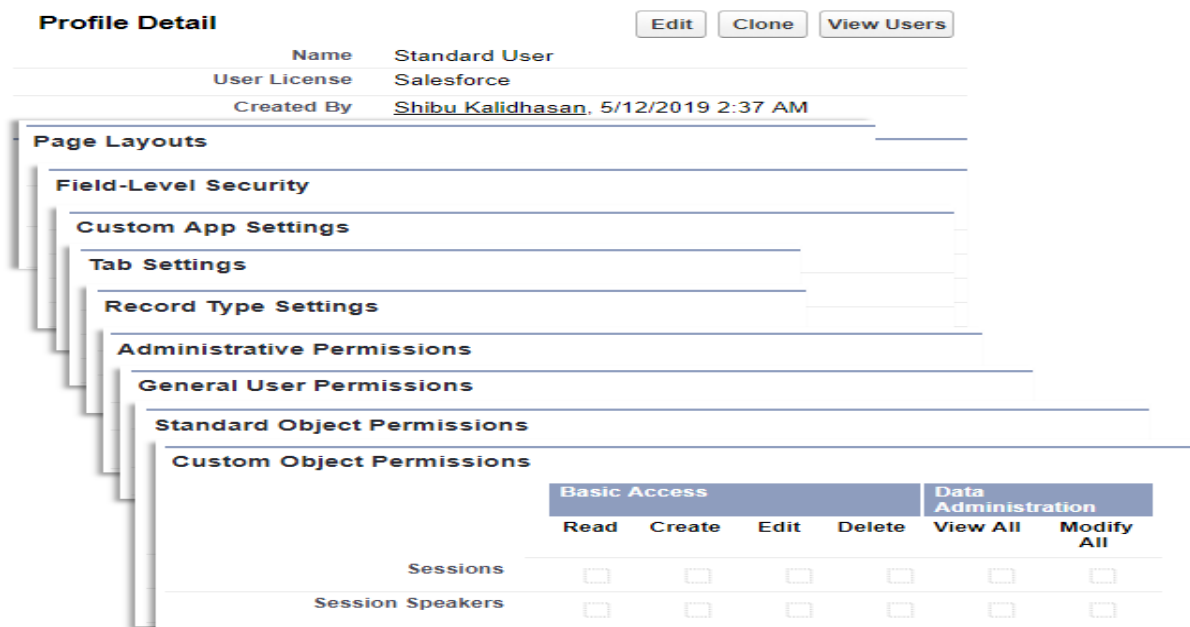
Figure 2.3 : Standard Profile

Custom Profiles: Since Permissions like administrative permissions, general user permissions, object-level permission, and the Password never expires settings on a Standard Profile cannot be modified. So, in order to serve the purpose, it is a suggested to always create Custom Profiles for the Users by cloning and modifying an existing Profile. You can only delete a custom profile from the salesforce org whenever users are not assigned to it.

2.6.4 Roles

Jobs assists with figuring out what clients can see in Salesforce dependent on their assignment in the job chain of command. Clients at the highest point of the order can see just as access all the information claimed by clients beneath them. Clients at lower levels can't view or access information possessed by clients above them, or in different branches, except if sharing guidelines award them the necessary access. Jobs are discretionary however every client must be related with one user [3].

2.6.5 Alias

An alias is a short name to uniquely identify the user on list pages, reports, etc where their entire name can't fit. By default, the alias comprises of the first letter of user's first name and the first four letters of their last name [3].

CHAPTER-3: SYSTEM DEVELOPMENT

3.1 Requirements:

3.1.1 User Requirements

• A rapid Internet Connection is required as an interface between the Salesforce Service Provider and client.

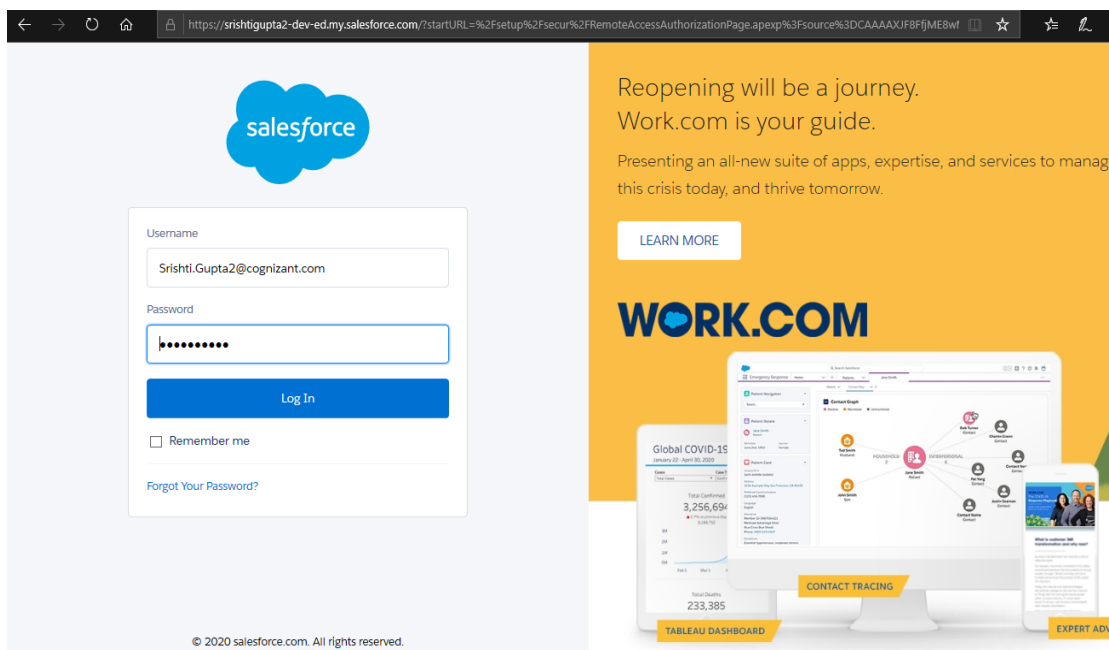• User name and Password is given by Salesforce to the client to work with the application.

Figure 3.1: Salesforce Log-in Page

3.1.2 Functional Requirements:

• Understanding the cloud environment provided by the Salesforce.com.

• Learning Salesforce Fundamentals

• Developing an application using Salesforce.com Environment.

• Providing the user accounts

• Accessing the application from user accounts and should work with the application clearly.

• Installing a Package **"RECRUITING APP PACKAGE"** from App Launcher in salesforce developer org for all the users as admins.

1. Log into your Salesforce org.
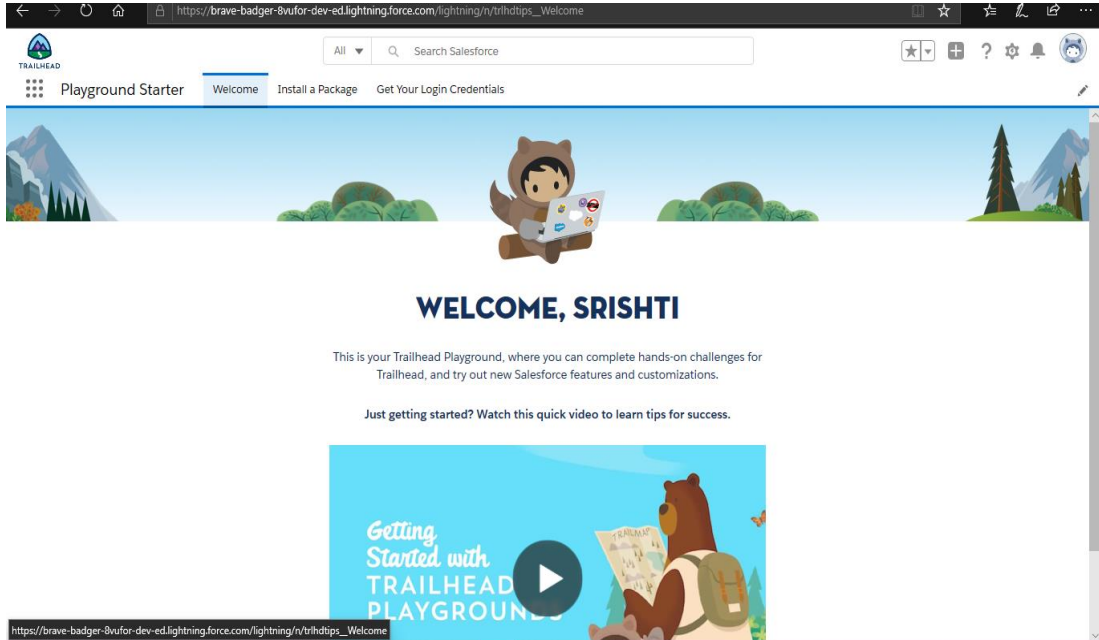
Figure 3.2: Welcome Screen

2. Go to **Install a Package** tab and Paste the package id `04t0P000000N9rs` into the field.

3. Click Install.
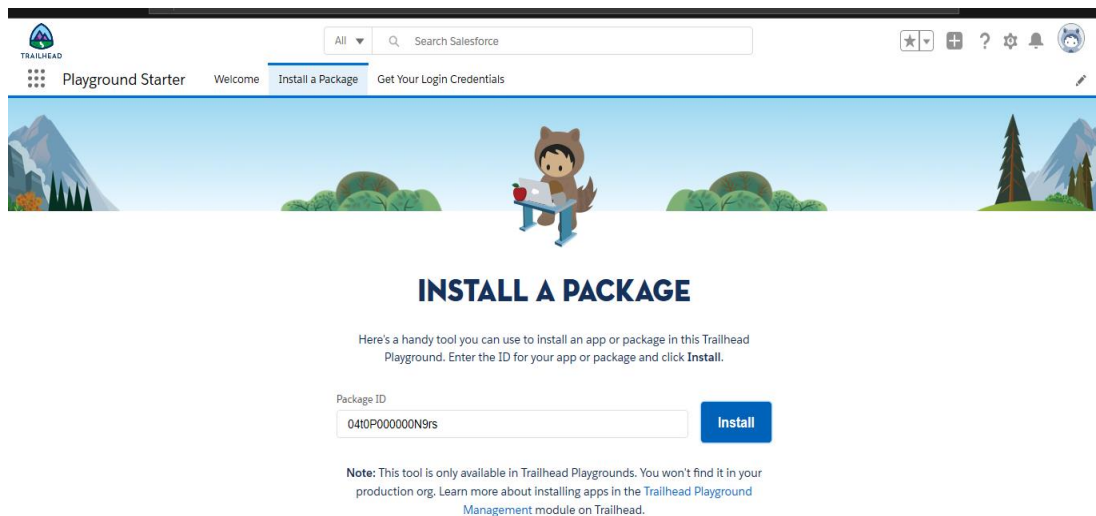
Figure 3.3: Installing a Package

4. Select **Install for Admins Only**, then again click I**nstall**.
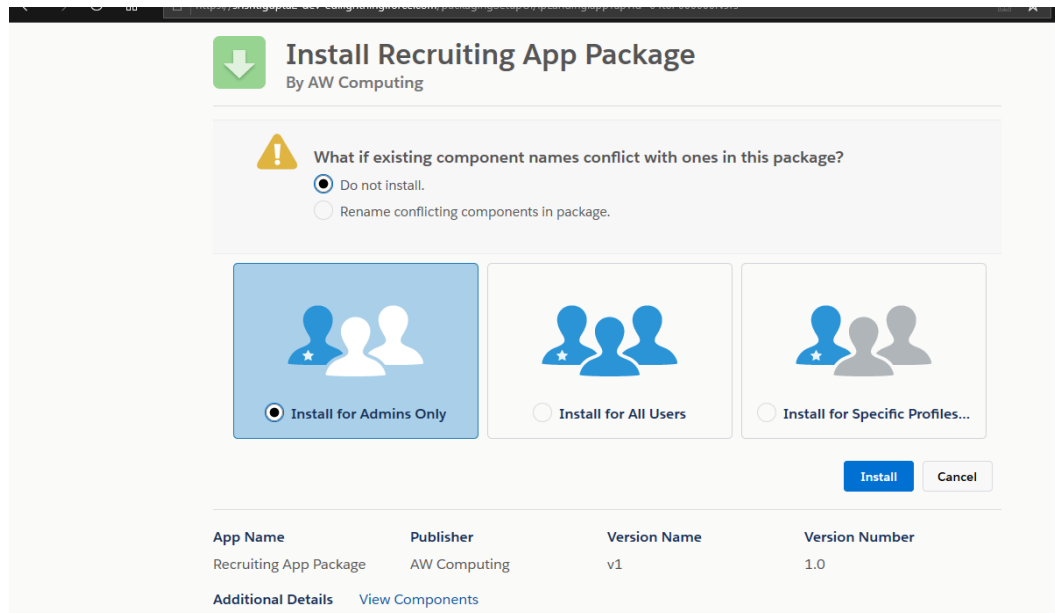
Figure 3.4: User access to Package

3.1.3 Non-functional Requirements

Performance Requirements:

    • The exhibition will be completely founded on Internet association. The client probably won't stress over their nearby framework. The nearby framework might be utilized as a terminal.

Safety Requirements:

    • There are the conceivable outcomes of information because of the interference of association in Internet. Along these lines, the client must guarantee about the continuous web association.

Security Requirements:

    • All the security issues will be given by the salesforce.com specialist organization itself.

    • No clients will be permitted to enter or see the subtleties without appropriate secret phrase ensured confirmation.

3.2 Modelling of a Recruiting App

3.2.1 Creation of Objects:

Objects in Salesforce are considered as database tables with data. The essential article in the Salesforce information model speaks to accounts/organizations and associations engaged with the business, for example, clients, accomplices, and contenders. A record is like a column in a database table.

Items previously made by Salesforce are called standard articles. Items we make in association are called custom articles

Made the custom object as "Review" in the accompanying way,

Figure 3.5: Path to Create an Object

- Enter the Label name as *Review*, Plural name as *Reviews* which be utilized as Tab name and Object name as Review which will likewise be utilized as an API name.
- Usually, the custom items are put away with the addition of __c to get simple access through API.
- Enter the record name *Review Number*, as it is a required field while making a custom item and select its information type as *Auto-Number* in this arrangement *"Rev-{0000}"* beginning with 1.
- Next, Check the checkbox to permit reports, exercises and track field history, to be actuated which are essentially for report creation and different exercises.
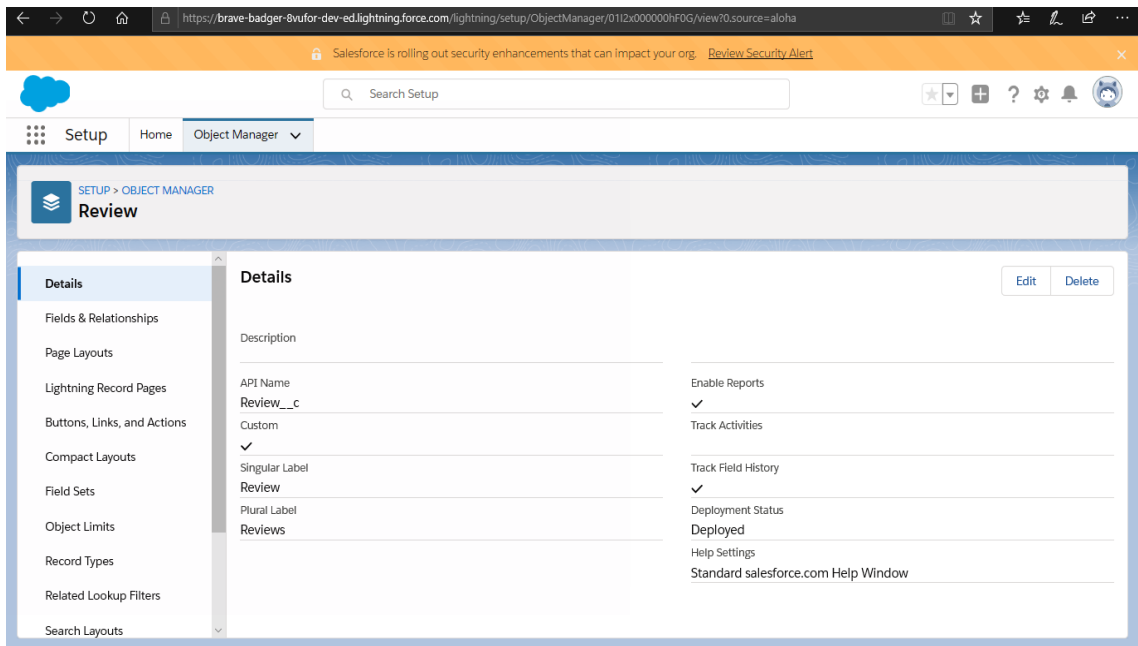
Figure 3.6 : Review Object

Similarly, another custom object as "Job Posting Site"

- Enter the Label name as *Job Posting Site*, Plural name as *Job Posting Sites* which be utilized as Tab name and Object name as Job Posting Site.

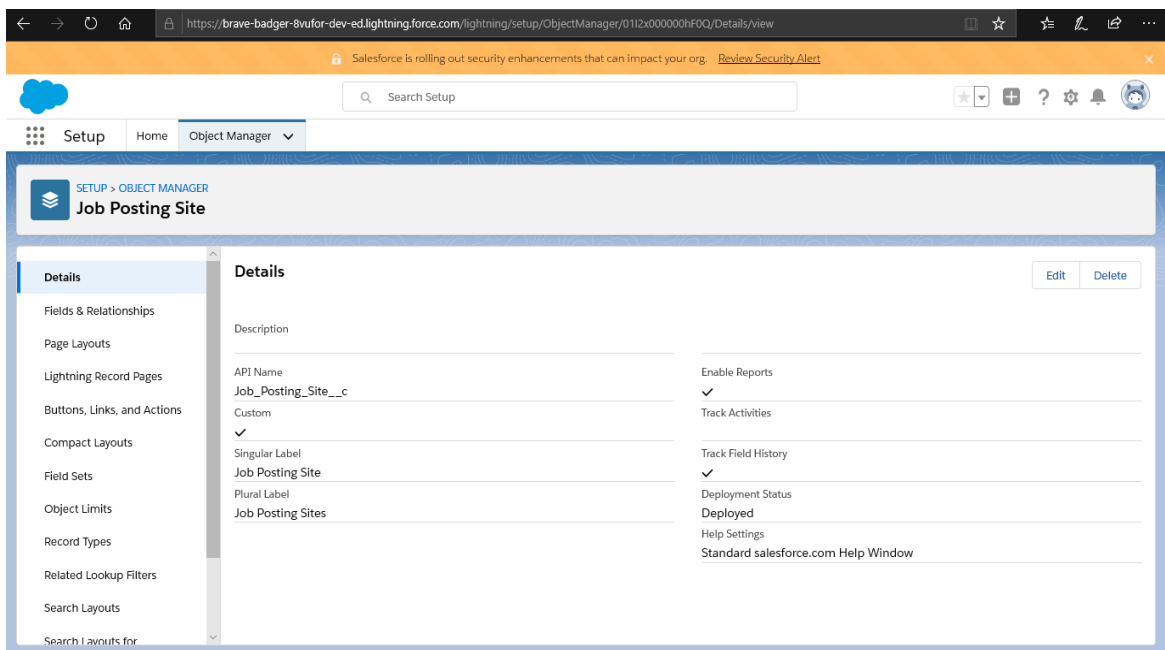- Enter the record name *Site Name*, and select its information type as *Text* in this configuration.

Figure 3.7 : Job Posting Site Object

In comparative style, For the Recruitment App, four custom items were made.

1. Position: Tracks all the vacant situation in all the office.
2. Competitor: Tracks the records of the considerable number of up-and-comers who have applied for the post.
3. Employment form: Tracks the subtleties of the Job Application.
4. Questioner: Tracks the records of all the Interviewer.

3.2.2 Fields

Salesforce has been giving us numerous inbuilt fields called standard fields like " Name", "Created By", "Proprietor", "Last Modified By" and so forth. Each item in Salesforce has a lot of standard fields that is answerable for catching information for that kind of an article.

Salesforce permits clients to make new custom fields in the organization to store extra data. These fields are named as custom fields. Under a specific custom field, there are assortment of datatypes accessible for these fields like Text, Text Area, Rich Text Area, URL Number, Currency, Boolean, Roll up Summary, Email, Phone, and so forth.
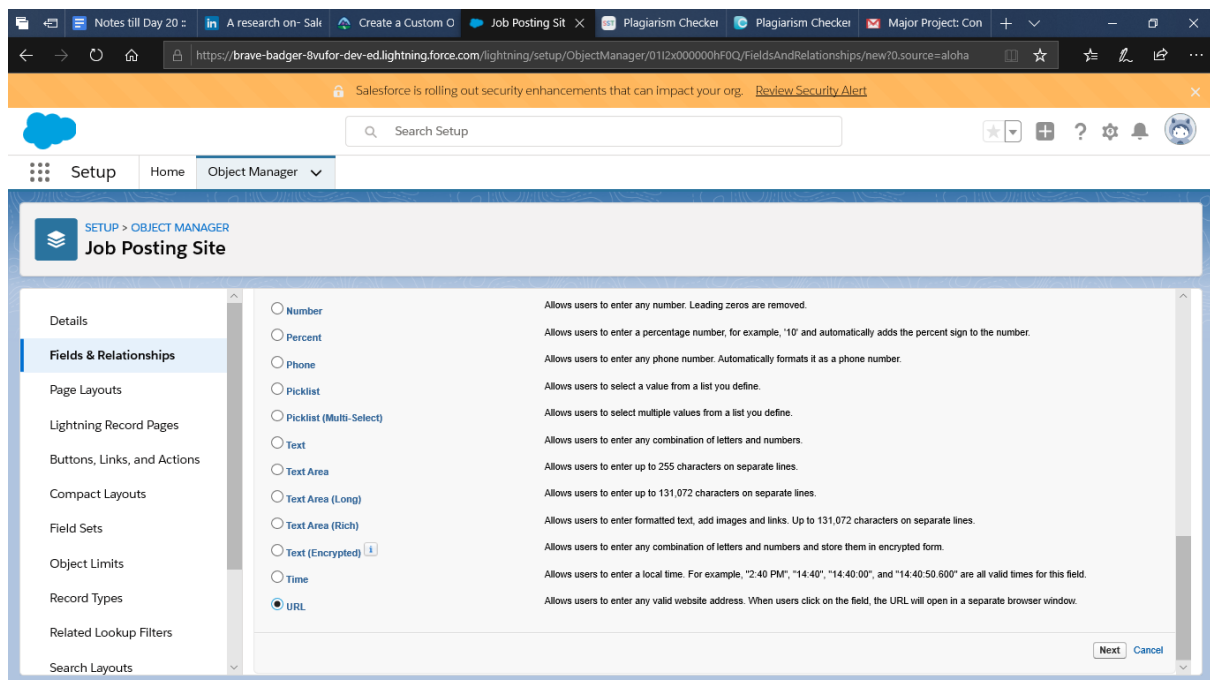
Figure 3.8: Data Types of Custom Fields

Managers can then arrange the field level security and can design how these fields ought to be set (noticeable/read-just/alter/compulsory).
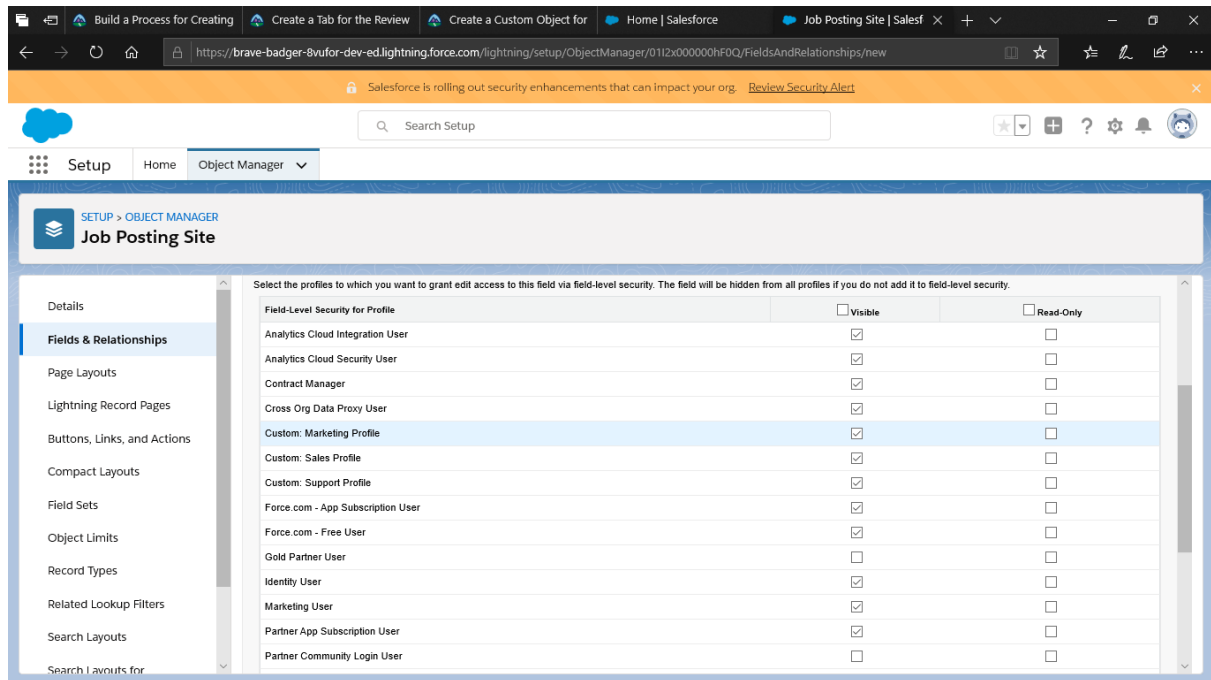
Figure 3.9: Field Level Configurations

Made some increasingly custom fields to the article *Job Posting Site* in the accompanying manner -

Figure 3.10: Path to create custom Field of Job Posting Site

- Enter Data Type as *URL* and Field label as *"Job Posting Site URL".* This custom field will tell the URL of website where the Job Posting was listed.
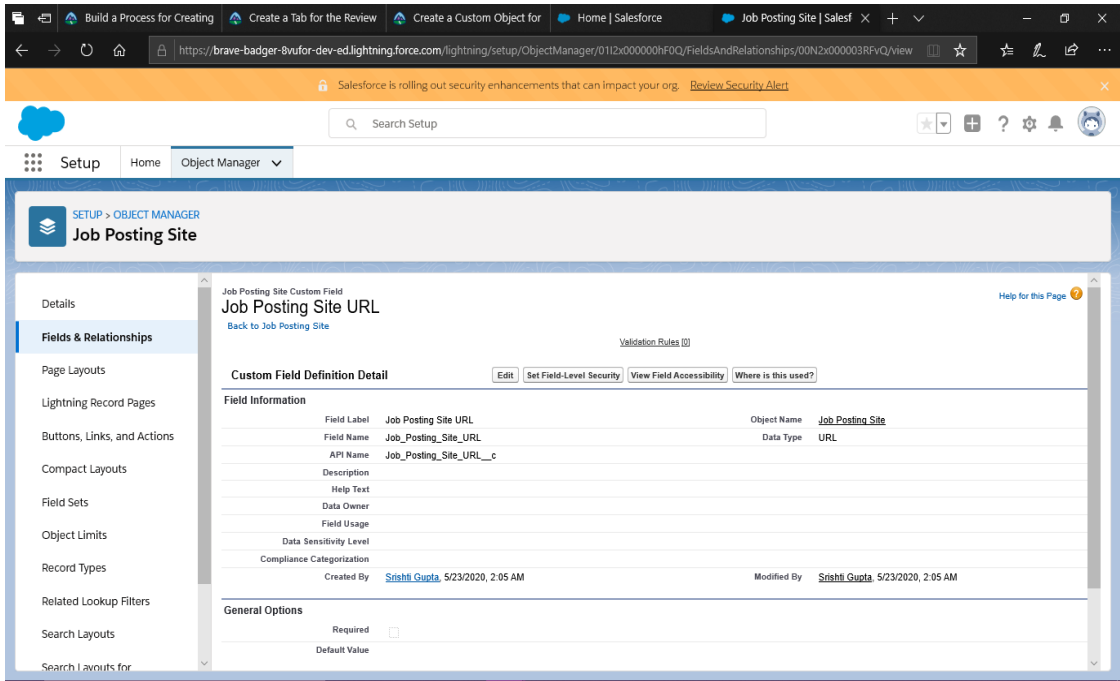
Figure 3.11: Custom Field- Job Posting Site URL

Enter Data Type as **_Picklist_** and Field label as **_"Status"_.** It will help to track the current status of the Job Posting Site URL whether it is active or not. Enter values with each worth isolated by another line as-

- o Active
- o Inactive
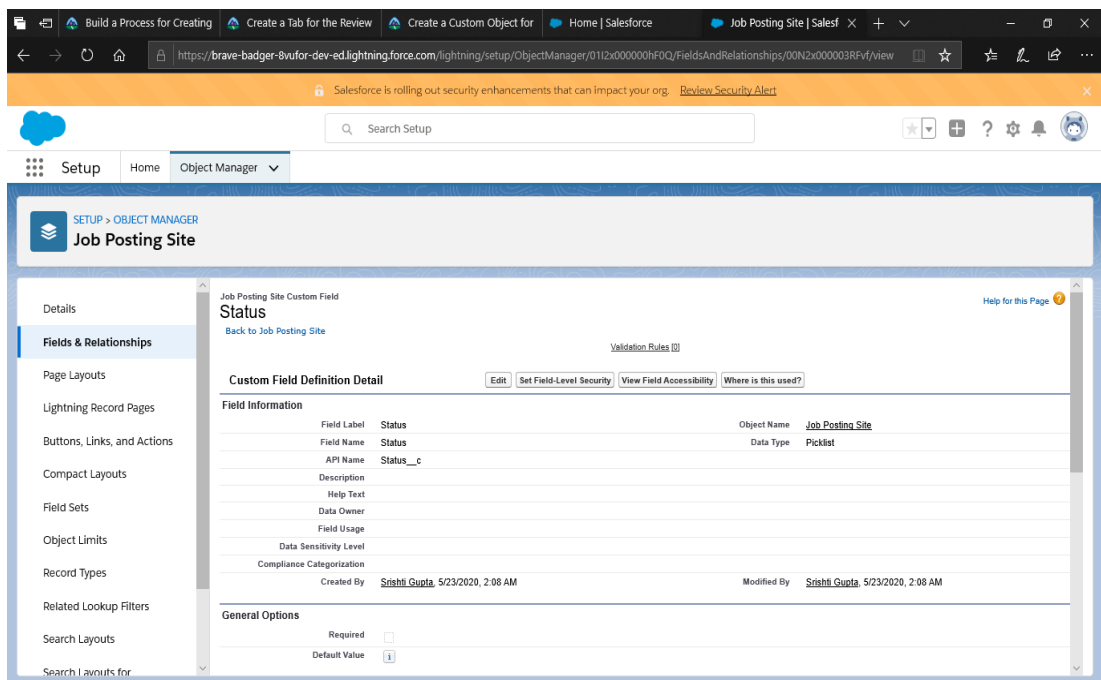
Figure 3.12: Custom Field - Status

- Enter Data Type as ***checkbox*** and Field label as ***"Technical Site".*** It will help to track the type of the Job Posting Site URL whether it is technical or not.
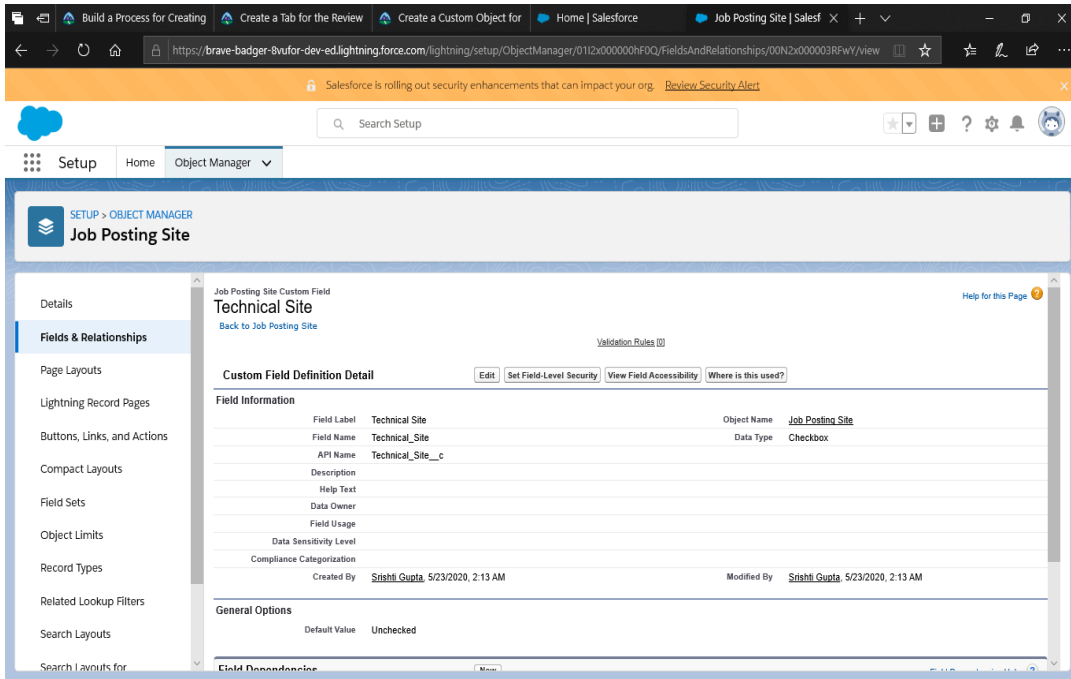
Figure 3.13: Custom Field- Technical Site

- Enter Data Type as ***Text Area*** and Field label as ***"Description".*** This field will keep the description about the Job Posting website URL.
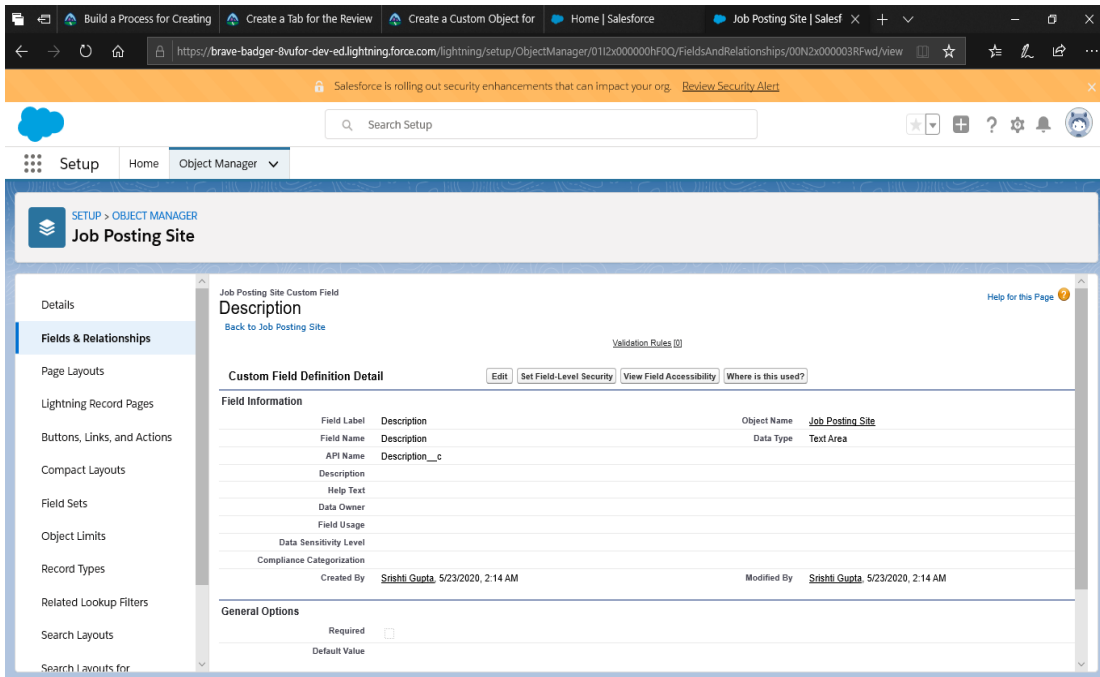
Figure 3.14: Custom Field – Description

3.2.3 Creation of Junction Objects:

Subsequent stage while improving HR's enlisting application, is to make an intersection object called Job Posting. An intersection object is a unique sort of custom article with two ace detail connections, and it is set apart as the way to make many-to-numerous relationship.

A vocation posting field fits in the middle of positions and work sites. It is to be noticed that one position can be posted a few times, and one work site can have a few activity postings, however a vocation posting will consistently speak to a solitary situation on a solitary business site.

To put it plainly, the Job Posting object has a many-to-one relationship with both Position and Job Posting Site object. These many-to-one connections can lead an approach to make a many-to-numerous connection between the two objects.

Creating Junction Object for Job Posting in the accompanying way–

- Go on Object manager tab, create a custom object with label as *Job Posting*, Plural label as *Job Postings,* record name as *Job Posting Number* with data type as *Auto Number* in the display format of JOBPOST-{0000} starting with 1.
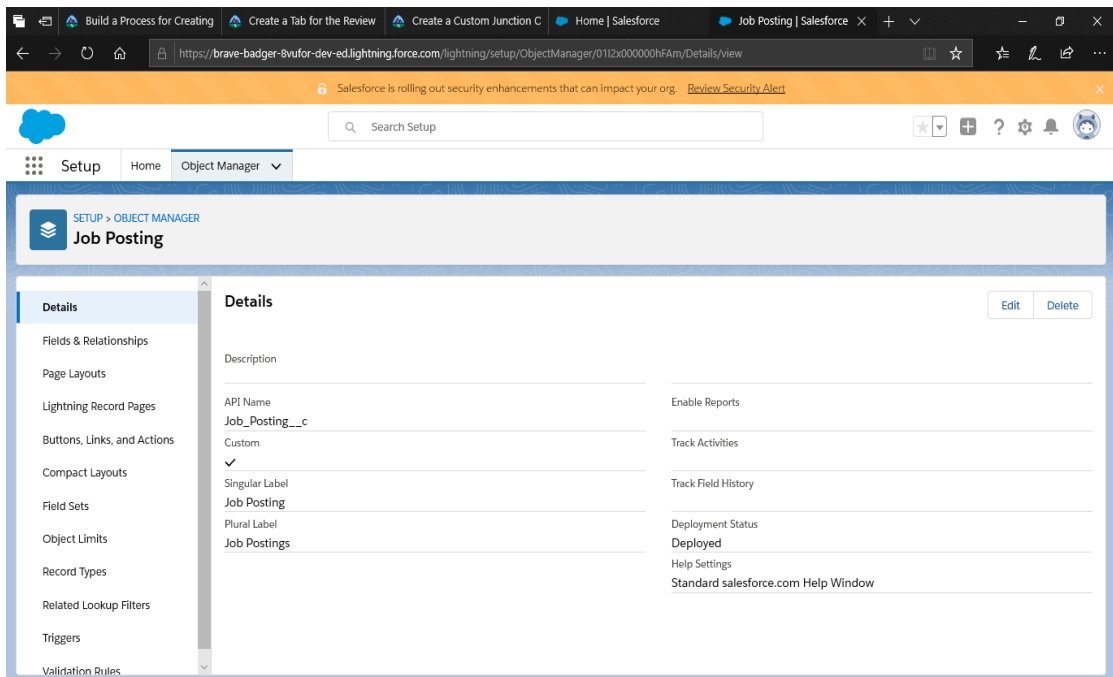

Figure 3.15: Junction Custom Object – Job Posting

- Creating master-detail relationship between Job Posting and Position. Click on Job posting Object and click *Fields & Relationships*, then select *Master-Detail Relationship* as the Data Type. For the field Related to, select *Position*. Enter the field label as *Position*.

- Now creating another master-detail relationship between Job Posting and Job Posting Site. Click on Job posting Object and click *Fields & Relationships*, then select *Master-Detail Relationship* as the Data Type. For the field Related to, select *Job Posting Site*. Enter the field label as *Job Posting Site*.

3.2.4 Creation of Self Relationship:

When members of HR team are looking for a position in their recruiting app, then each recruiter should be able to identify other open positions that are requiring similar skills or having matching job descriptions, thereby allowing recruiters to easily determine the most appropriate roles for candidates.

For setting this up, create a lookup relationship, which will link two objects together. Linking an object with another standard or custom object, or with an object itself is called a self-relationship

Creating a self-relationship with the Position object.

- Go to Object Manager, click Position as an Object. From Field & Relationship tab, select *lookup Relationship* as the Data Type. Select *Position* in Related to Picklist. Change the Field Label to *Related Position* and Field Name to *Related Position.* Finally Change the Related List Label to *Related Positions.*
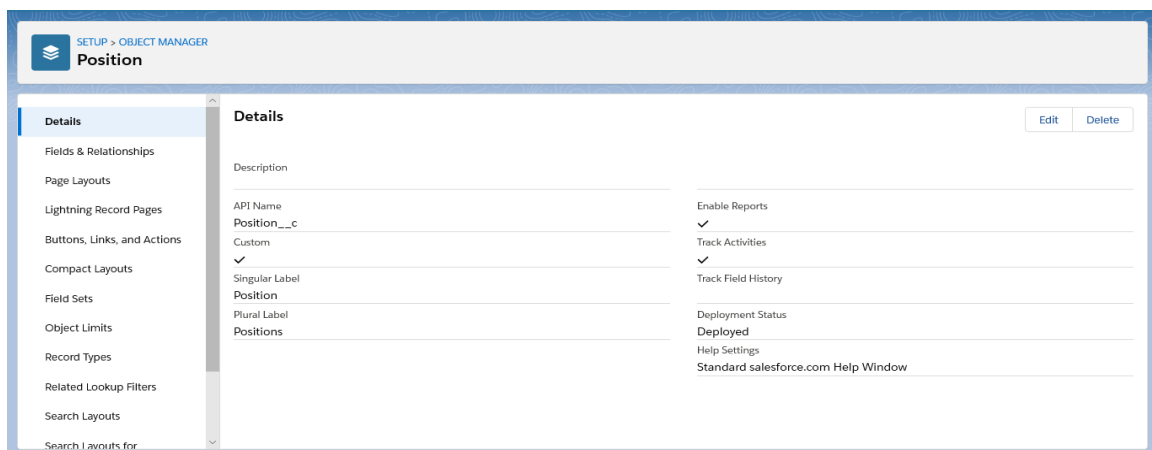

Figure 3.16: Self – Relationship with the position object
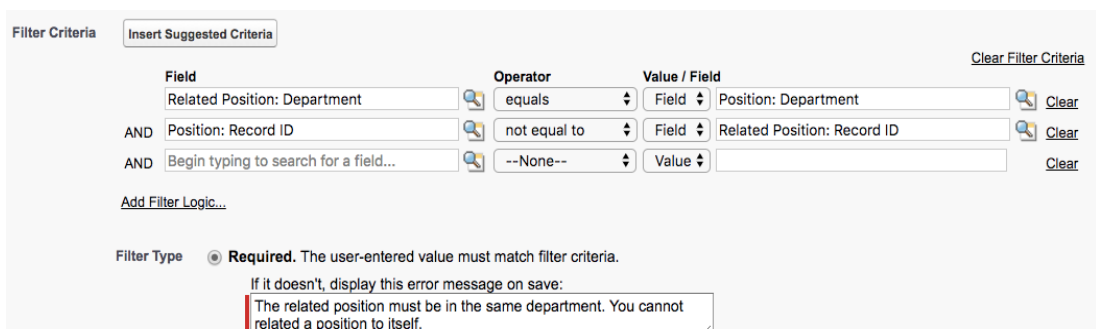
Adding a Lookup Filter

Now add the lookup filters by department and record ID, to help recruiters to narrow down their searches.

- Clicking on the dropdown menu next to Related Position and edit it
- In the Lookup Filter section, click on the checkbox of *Show Filter Settings.*
- Click on the lookup icon and Insert *Related Position* from the first column and *Department* from the second column.
- Select *equals* Operator in the field.
- Select *field* as Value/Field in the field.
- For the next row, Insert *Position* from the first column, *Department* from the second column.

Now fill in the next row of filter criteria.

- Click on the lookup icon and Insert *Position* from the first column and *Record ID from* the second column.
- Select not *equal to* Operator in the field.
- Select *field* as Value/Field in the field.
- For the next row, Insert *Related Position* from the first column, *Record ID* from the second column.
- For Filter Type, ensure checkbox *Required* is selected.
- If it doesn't, display this error message on save, enter –

"The related position must be in the same department. You cannot relate a position to itself."

Figure 3.17 : Adding lookup filter

3.2.5 Creation of Custom Recruiting Fields:

In this last step of modelling the recruiting app, creating custom recruiting fields monitor the interview process by capturing the interview outcome information. Interviewers are supposed to rate and comment on each candidate in the diverse disciples of core competencies, experience and leadership skills and each interviewer should give feedback on whether they would recommend a candidate for hiring or not.

Creating Custom Picklists

Create custom picklist fields for Competencies, experiences and Leadership Skills so that interviewers can quickly rate candidates on a scale of 1 to 5.

- Click on Review object from Object Manager. From field & Relationships, select *Picklist* as the data type.
- Enter Field Label *Core Competencies.*
- Select Enter values, with each worth isolated by another line and enter the qualities as follows -

  - 1
  - 2
  - 3
  - 4
  - 5

- Enter the Help Text –

  "For this category, rate candidate on a scale of 1(lowest) to 5 (highest)".
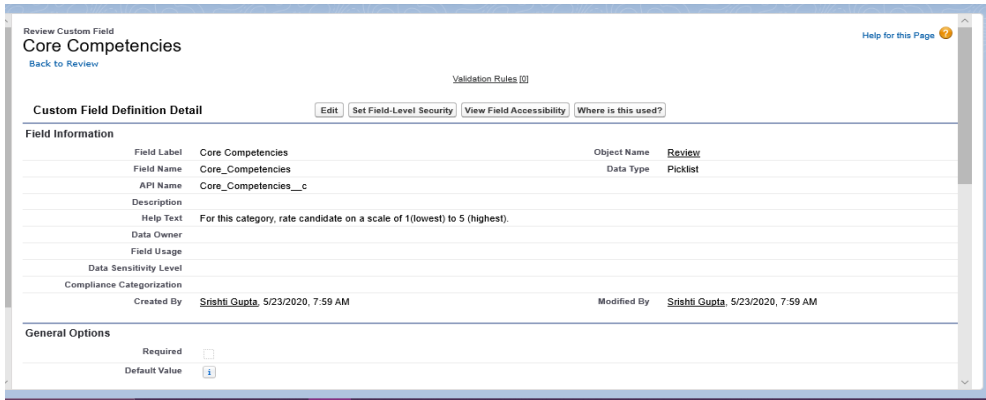
Figure 3.18: Custom Field- Core Competencies

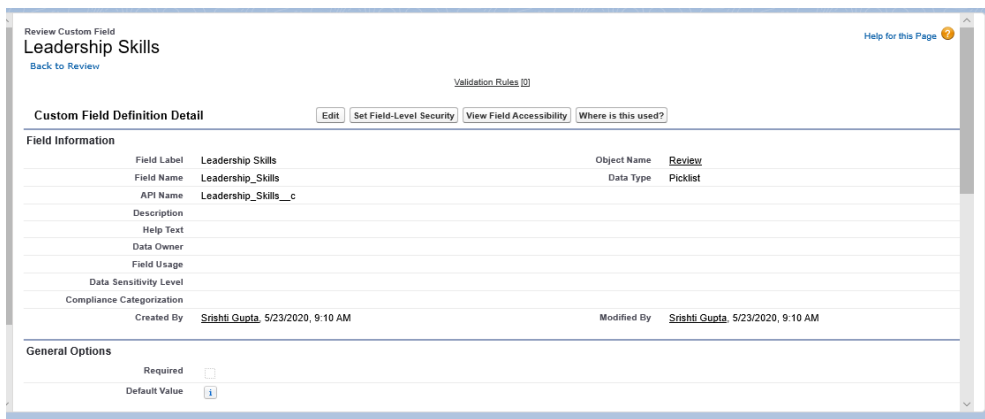Similarly, create two more picklists with *Leadership Skills* and *Experience* as the field labels.

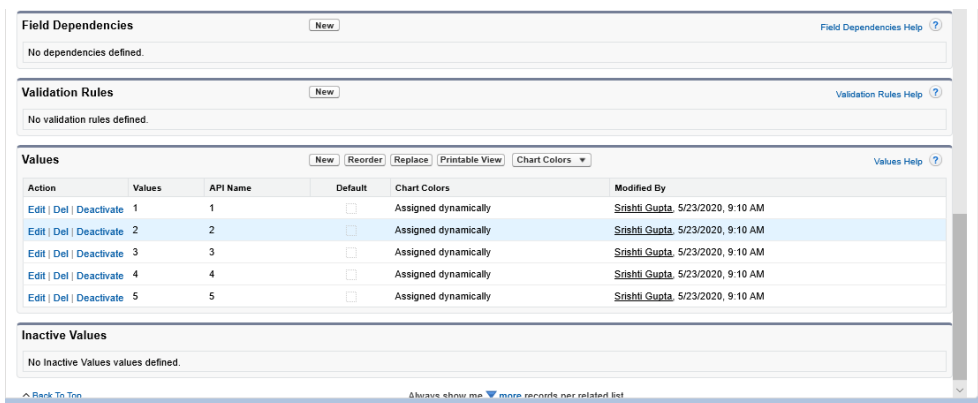Figure 3.19: Custom Field – Leadership Skills

Figure 3.20: Field values of Leadership Skills

Creating Custom Text Fields

Creating custom text fields for *Core Competencies, Experience, and Leadership Skills*, so that interviewers can add their valuable comments about the candidates.

- Enter *Text Area* as the datatype, Field Label as *Core Competencies Comments*.

Figure 3.21: Core Competencies Comments

Similarly create another two text areas with *Leadership Skills Comments* and *Experience Comments* as field labels.

Figure 3.22 : Leadership Skills Comments

Figure 3.23: Experience Comments

Create a checkbox field

Creating a checkbox field allowing interviewers to recommend candidates for hiring.

- Enter *Checkbox* as the datatype, Field Label as *Recommend for Hire.*
- Enter *Help Text* as –
  "*Do You recommend that were hire this candidate?*"

Create a Text field
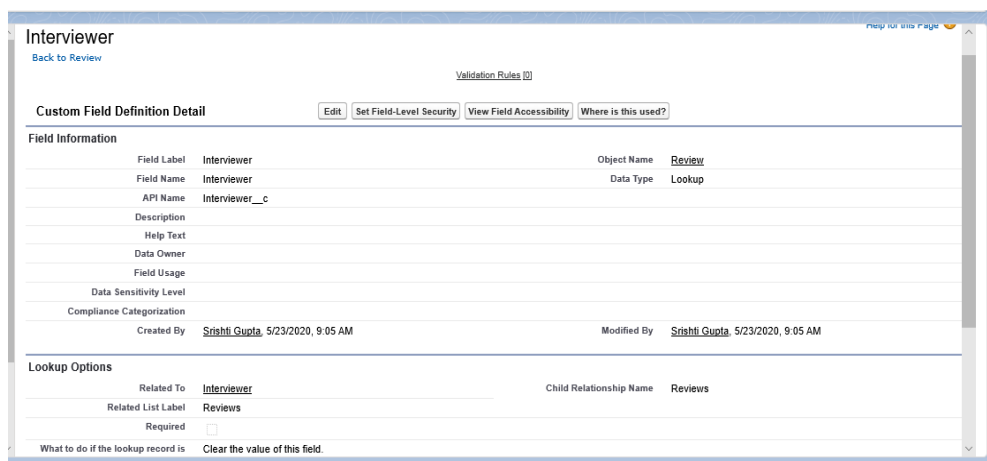
Now create a text field to allow interviewers to give reasons in support of their recommendation.

- Enter *Text Area* as the datatype, Field Label as *Reason Recommended*.

Create a Relationship

Create a lookup relationship for Interviewer.

- Enter *Lookup Relationship* as the datatype, Field Label as *Interviewer.*
- In Related to Field, select *Interviewer.*

Figure 3.24 : Custom Field - Interviewer

Finally, create a master-detail relationship for Job Application.

- Enter *Master-Detail Relationship* as the datatype. In Related to Field, enter *Job Application.* and Field Label as *Job Application.*

Figure 3.25: Custom Field – Job Application

3.3 Setting up a Process For a Recruiting App

As a matter of first importance, there is a need to handle robotized questioner records by setting up the lightning procedure manufacturer which will help computerizing undertakings utilizing conditions and activities. The administrators will pick the assessment standards, figuring out which items would profit the situation. Administrators must build up the models that records should meet to trigger the standard. At that point the time triggers will decide when the procedure activity gets fires.

When the standards is set up, quick or time-subordinate activities will be gotten under way. Those activities can incorporate making a record, refreshing a record, sending an email, presenting on Chatter, submitting for endorsement, propelling a stream, or essentially calling an Apex class.

Make a procedure with a quick activity -
- From Setup, select Process Builder and snap on new and name the procedure as "Make Interviewer Record". The procedure begins when a record changes lastly spare it.
- Click on the catch as + Add Object. Select Position from Object picklist and select just when a record is made under Start the Process.
- Now the criteria name could be *Hiring Manager Not Blank.*
- Set the conditions as below and save it.

FIELD	Position:Hiring_Manager__c
OPERATOR	Does Not Equal
TYPE	Global Conatant
VALUE	$GlobalConstant.Null

Table 3.1: Criteria for Process Builder-Interviewer record

Define Criteria for this Action Group

Criteria Name * ⓘ

Hiring Manager Not Blank

Criteria for Executing Actions *
- ● Conditions are met
- ○ Formula evaluates to true
- ○ No criteria–just execute the actions!

Set Conditions

	Field *	Operator *	Type *	Value *	
1	[Position__c].... 🔍	Does not equal ▾	Global Constan ▾	$GlobalConstant.N ▾	✕

+ Add Row

Figure 3.26: Defining the Criteria

- Under Immediate Actions, click on + *Add Action* with the following details.
  - ○ Action Type*: Create a Record*
  - ○ Action Name: *Create Interviewer record.*
  - ○ Record Type: *Interviewer*
- Now, Set Field Values by relating the Employee field with the Hiring Manager.
  - ○ Field: *Employee*
  - ○ Type: *Field Reference*
  - ○ Value: *Hiring_Manager__c*
- Relate the interviewer record with the position record by clicking on + *Add Row-*.
  - ○ Field: *Position*
  - ○ Type: *Field Reference*
  - ○ Value: *Record ID*
- Finally *save*, *activate* and *confirm.*
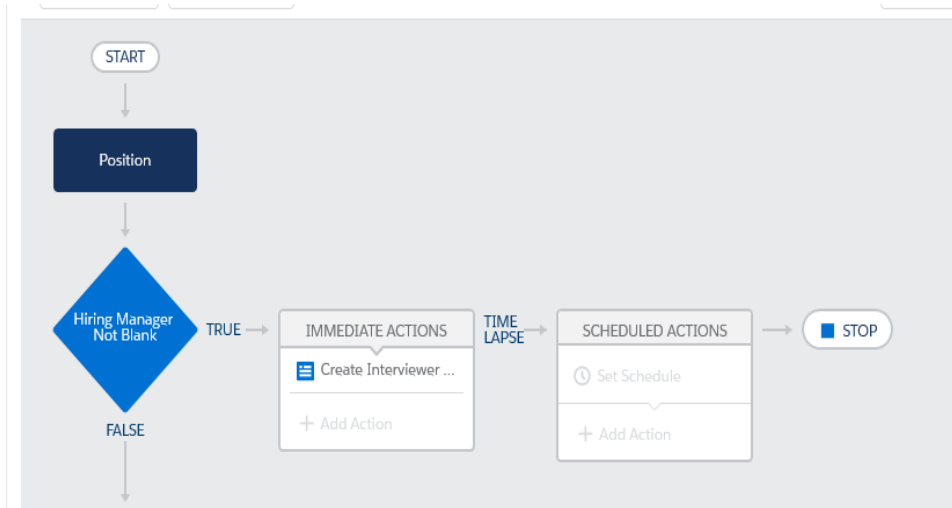
Figure 3.27: Process Builder

3.4 Creating an Approval Process

3.4.1 Setting up a Multistep Approval Process

Approval Process will specify who will be approving at each step and the actions to be taken when a record is approved, rejected, or recalled.

Create multistep approval process.

- Select *Approval Processes* from setup and select *Position* from the Manage Approval Processes For picklist.
- Click *Create New Approval Process* and select *Use Standard Setup Wizard* from the picklist and enter the Process Name as *New position Approval*.
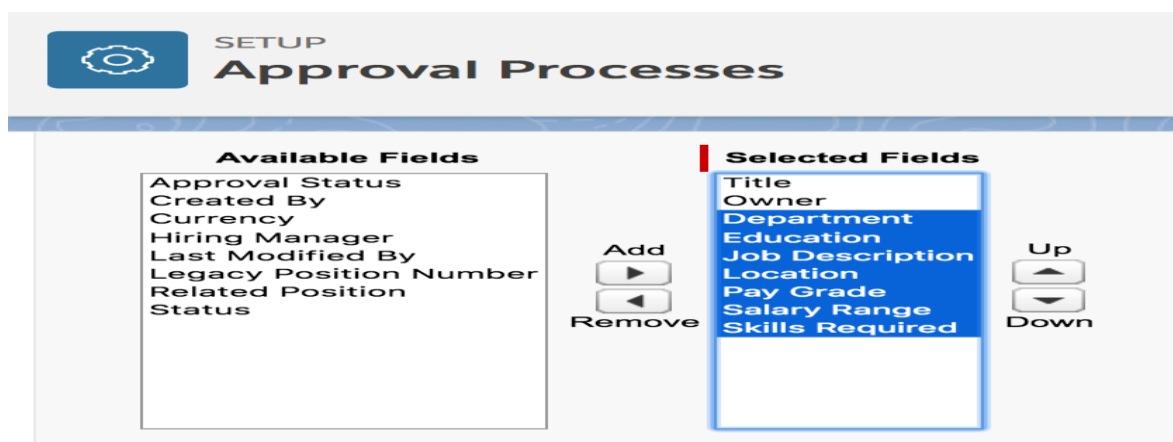
Figure 3.28: Setting up Approval Processes

3.4.2 Creating Approval Steps

Now the basic approval process had been just created. Next to create initial submission actions.

- Under the Initial Submission Actions related list, Select *Add New*, then finally select *Field Update.* Then for Name, enter *Approval Status to Pending.* and for Field to Update, select *Approval Status* from the picklist.
- Under Specify New Field Value, click on *A specific value*, then select *Pending*.

Now create approval steps.

- Select the New Approval Step and name it as *Manager of Position Number*, and select all records should enter this step and automatically assign using the user field selected earlier as Manager.

3.4.3 Create the Final Actions

Finally creating the final actions i.e. approval or rejection, along with their related email alerts.

- Under the Final Approval Actions related list, click on the button *Add New* and select *Field Update* from the picklist.
- Enter the name as *Approval Status to Approved.* And in field to update, select *Approval Status.*
- Under Picklist Options, click on checkbox of *A specific value*, then select *Approved* from the picklist.

Details for the second field update.

- Enter the name as *Status to Open* and for Field to Update, click *Status* from the picklist.
- Under Picklist Options, click on checkbox of *A specific value*, then select *Open* from the picklist.

Setting up email alerts.

- Under the Final Approval Actions related list, Select the button *Add New* and click on *Email Alert.*
- Enter for description as *Email position owner about approval.*
- Under Email Template, click on lookup icon and select the email name with *Position Approved* and for Recipient Type, select *Owner.*
- Under the Available Recipients column, add *Position Owner* to the Selected Recipients column.

Now at last create the final rejection actions.

- Under the Final Approval Actions related list, Select the button *Add New* and click on *Field update*.
- Enter for name as *Approved Status to Rejected.* And for Field to Update, click on *Approval Status* from the picklist.
- Under Picklist Options, click on checkbox of *A specific value*, then select *Not Approved* from the picklist.

Fill in the details for the next field update.

- Enter for Name as *Status to Closed* and for Field to Update, Click on *Status* from the picklist.
- Under Picklist Options, click on checkbox of *A specific value*, then select *Closed* from the picklist.

Now setting up an email alert.

- Under the Final Approval Actions related list, Select the button *Add New* and click on *Email Alert.*
- Enter for description as *Email position owner about rejection.*
- Under Email Template, click on lookup icon and select the email name with *Position Rejected* and for Recipient Type, select *Owner.*
- Under the Available Recipients column, add *Position Owner* to the Selected Recipients column.

3.5 Creating a Process for Approval

Since approval process is set up, so now continue to automate recruiting tasks by creating another process which automatically submits new positions for approval.

Use Process Builder to Create another procedure

- From Setup, select Process Builder and snap on new and name the procedure as "*Submit New Positions for Approval* ". The procedure begins when a record changes lastly spare it.
- Click on the catch as + Add Object. Select Position from Object picklist and select when a record is made or altered under Start the Process.
- Now the measures name could be Position prepared for Approval.
- Set the conditions as underneath and save it.

Field	Operator	Type	Value
Status	Equals	Picklist	New
Job Description	Does not equal	Global Constant	$GlobalConstant.Null
Department	Does not equal	Global Constant	$GlobalConstant.Null
Education	Does not equal	Global Constant	$GlobalConstant.Null
Hiring_Manager__c	Does not equal	Global Constant	$GlobalConstant.Null

Table 3.2: Conditions for criteria position ready for approval.

- Under Immediate Actions, select +**Add Action** and complete the details as per the below table.

Field	Value
Action Type	**Submit for Approval**
Action Name	Submit Position for Approval
Object	**Position__c**
Approval Process	**Specific approval process: New Position Approval – New_Position_Approval**

Table 3.3: Details of the Action

- Finally *Save, Activate*, then *Confirm.*

Now at last, setting automating processes for the recruiting team is all done. Move on to the last step,   testing the performance of the processes for the Recruiting   App.

CHAPTER-4: PERFORMANCE ANALYSIS

4.1 Analysis of Modelling of a Recruiting App:

Now since the process, flows and approvals are being created in the salesforce developer org, it is a time to test all of them –

Test the Interviewer Process Builder

Since the procedure developer is initiated, it's an ideal opportunity to test the procedure made. Be that as it may, as a matter of first importance, include a recruiting director client.

- From Setup, enter "Users" in the Quick Find box and select Users.
- Click New User and fill in the subtleties according to the table.

Field	Value
First Name	Kathy
Last Name	Cooper
Email	enter your own email
Username	kcooper@[your initials + your favorite color].com (e.g., kcooper@APyellow.com)
Nickname	kcoop
Title	Customer Support Manager
Role	**Customer Support, North America**
User License	**Salesforce Platform**
Profile	**Standard Platform User**

Table 4.1: Hiring Manager's Details

- Deselect the checkbox with "Produce new secret key and tell client right away".
- Click Save.

Presently test the procedure you made.

- Click on the App Launcher symbol, at that point click on Recruiting App. From Position tab click on New and top off the accompanying subtleties.
- Select Nontechnical Position as the record type, at that point Next and top off the subtleties.

Field	Value
Title	Super Support Supervisor
Status	New
Department	Support
Location	US
Hiring Manager	Kathy Cooper
Job Description	Manage a team that fields inquiries and cases from customers
Pay Grade	S-200

Table 4.2: Record Type detail for Nontechnical Position

- Click on **Save**.

- Then, Click on the **Related** tab. From the related list, click an Interviewer number and note down the values in the Employee and Position fields.

4.2 Analysis of Process Automation of a Recruiting App:

4.2.1   Result of Process Builder – Create Interview Records

Now test the process "*Create Interview Record*" which is being created.

- Click to open the App Launcher icon, then select *"Recruiting App"*.

- Click on the tab named *Positions*, and select the New button to add the new position.

- Select *"Nontechnical Position"* as the record type, and fill in the details as per the table.

Field	Value
Title	Super Support Supervisor
Status	New
Department	Support
Location	US
Hiring Manager	Kathy Cooper
Job Description	Manage a team that fields inquiries and cases from customers
Pay Grade	S-200

Table 4.3: Details of Positions

- Click the **Related** tab and from the Interviewers related list, select an Interviewer number and fill the values in the Employee and Position fields respectively.

Now an automated process for creating interviewer records is set up and tested, move on to the next step, and create a Candidate Rating Flow.

4.2.2 Result of Process Builder – Create a Candidate Rating Flow

Right now, the AW Computing hiring managers have to manually enter a number when they rate candidates. But they want this process to be more user friendly, with radio buttons.

To set this up, first of all create a flow. Flows, build using Flow Builder will automate business processes by simply executing logic, interacting with the database available in salesforce, and collecting data from the users.

Create Radio Buttons for Experience

- From Setup, enter flows in the Quick Find box and select it. Click *New Flow* and Under Flow Types, select *Screen Flow.*
- Click on *Create.* Add a screen element in the prompt for the Review information by dragging the Screen *element* from the palette onto the flow window.
- Enter the label as *New Review.*

Add radio button choices to rate a candidate on a scale of 1 being poor to 5 being excellent for Experience, along with a text box for comments.

- Click *Radio Buttons* from the Input section of the palette on the left. Enter *experience* in the Label field. The API Name of the field will take default value.
- Set the Data Type as *Number.* Click the Choice field, select *+New Resource*, select *Choice* as the Resource Type, and fill in the details as per the table.

Field	Value
API Name	Excellent
Choice Label	Excellent
Data Type	**Number**
Choice Value	5

Table 4.4: Details of Radio Buttons choice 1

- Click on *Done* and go back into the Choice field and then select *Excellent* from the Choices options.
- Click on +*Add Choice* four times. Click the second Choice field and then select +New Resource. Select *Choice* as the Resource Type, and fill the details as per the table.

Field	Value
API Name	VeryGood
Choice Label	Very Good
Data Type	**Number**
Choice Value	4

Table 4.5: Details of Radio Buttons choice 2

- Click **Done** and go back into the second Choice field and click on *Very Good* from the Choices options.
- Click the third Choice field and select +*New Resource* and then select *Choice* as the Resource Type, and fill the details as per the table

Field	Value
API Name	Average
Choice Label	Average
Data Type	**Number**
Choice Value	3

Table 4.6 : Details of Radio Buttons choice 3

- Click **Done** and go back to the third Choice field and click on *Average* from the Choices options.
- Click on +*Add Choice* four times. Click the second Choice field and then select +New Resource. Select *Choice* as the Resource Type, and fill the details as per the table.

Field	Value
API Name	BelowAverage
Choice Label	Below Average
Data Type	**Number**
Choice Value	2

Table 4.7: Details of Radio Buttons choice 4

- Go back into the fourth Choice field and select *Below Average* from the Choices options.
- Click the fifth Choice field and select +*New Resource* and then select *Choice* as the Resource Type, and fill the details as per the table
-

Field	Value
API Name	Poor
Choice Label	Poor
Data Type	**Number**
Choice Value	1

Table 4.8: Details of Radio Buttons choice 5

- Click back to the fifth Choice field and click on *Poor* from the Choices options. Click *Text* from the Input section of the palette on the left. Enter the label as "*Experience Comments*" The API Name field will be filled automatically.

Though the first set of radio buttons are set, but don't click Done on the screen just yet. Similarly create radio buttons for Core Competencies and leadership Skills.

Add Screen Elements

Finally, add screen elements to the flow in order to create a checkbox and textbox so that recruiters can recommend a candidate for hiring.

- Click on the *Checkbox* from the Input section of the palette on the left. Enter the label Name as *"Recommend for Hire"*.

- Click on *Text* from the Input section of the palette on the left. Enter the label as "Reason Recommend" and finally Click **Done** to close the screen.

New Review window should look like this.

Figure 4.1: Review Window

Set a Start Element

Now that the flow is created, set its start element.

- Connect the Start element to the *"New Review Screen"* element by clicking and just holding the Start circle and then dragging the cursor to the New Review element.

- Finally, see that the two elements are connected with a solid line.

Verify that your screen looks something like this.

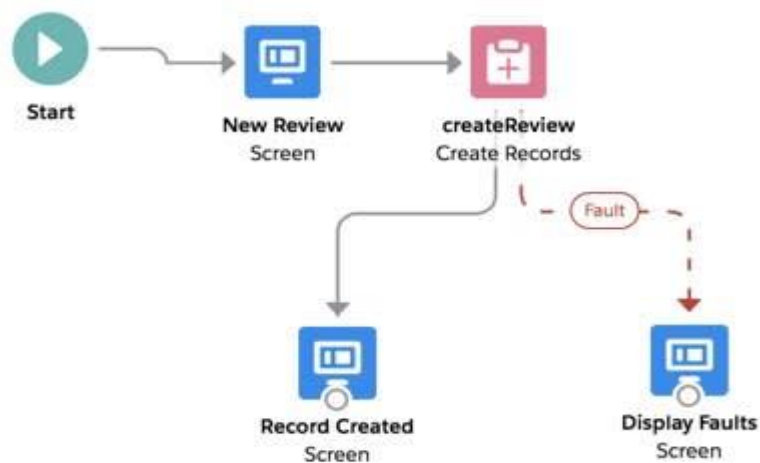Figure 4.2 : Screen Element

- Click **Done**.

Figure 4.3: Flow Builder

Deploy the Flow

Now that the New Review Flow is set up, create a custom button for launching it.

- From Setup, click on the *Object Manager* and select *Job Application*. Click on the *Buttons, Links, and Actions.* Select *New Button or Link*.
- Enter Label Name as "*New Review*."
- Select *Detail Page Button* as the display type and paste the link into the text box. Finally click *Save*.

Now add the New Review button to the page layout.

- While still viewing Job Application in Object Manager, click *Page Layouts*.
- Click dropdown next to Job Application Layout and select *Edit*.
- Click *Buttons* in the page layout editor.
- Drag the *New Review* button to the Custom Buttons section of the Job Application Detail.
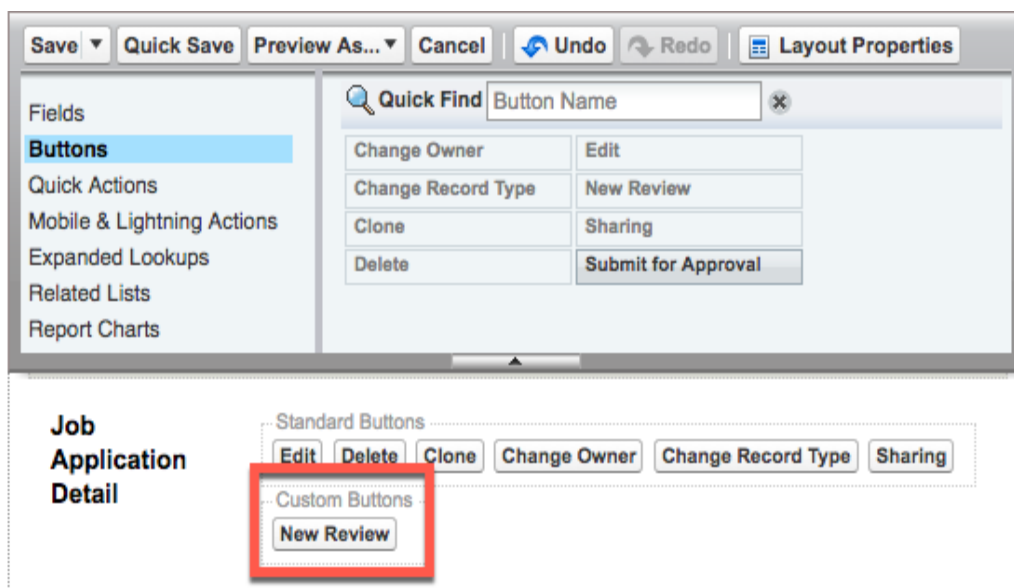

Figure 4.4: Deploying the Flow

- Click **Save**.

By setting up processes, creating an approval process, and building a flow, you've automated a number of tasks for the recruiting team. With less busy work to take care of, the team can spend more of their time on the important task of finding the best candidates for the open positions at AW Computing. Well done!

Chapter-5: Conclusions

5.1 Conclusions

As seen in the figure, Salesforce automates everything thereby providing the fastest path from Idea to App. Salesforce provides tools and the functions that can help in building the app, rather wasting energy in building the infrastructure and tools first. Salesforce has 3 major reason for using it:

- It is a fast working model, since Traditional software takes more period of time, Salesforce can deploy within months or even weeks if the user has its sound knowledge.

- It is easy to use as salesforce provides 80% features by just Point and Click approach and for rest 20 % it is programmatic approach like Apex, triggers.

- Salesforce is very much effective because of its easy configuration which is being provided to users, all types of business needs can be completed effectively with the salesforce.
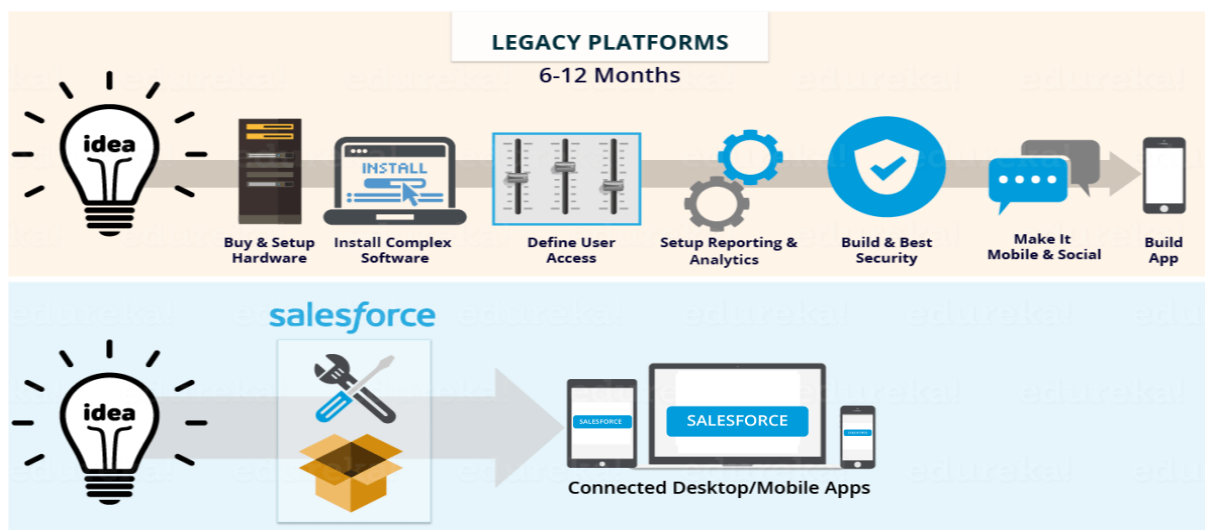

Figure 5.1: Salesforce as a Solution

Salesforce unites the business functions effectively, thereby helping company to achieve customer's demands. Due to the powerful API, Salesforce allows any sort of integration virtually. Salesforce aims to improve its services continuously by undergoing 3 releases per year.

5.2 Future Scope:

Upgrading the application improvement with all the Einstein perspective on salesforce. Salesforce engineering, envision a heap or pile of layers that sit on over the other. Thus, the past form can be improved with the most recent arrivals of Salesforce.

Figure 5.2: Future Scope of Salesforce

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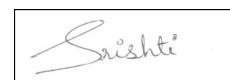**Title of the Thesis/Dissertation/Project Report/Paper (In Capital letters):** MODELLING AND AUTOMATING BUSINESS PROCESS FOR A RECRUITING APP

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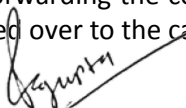
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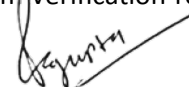- Total No. of pages accommodate bibliography/references = 1

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