

**“Special Pricing Agreement (SPA)”**

**A PROJECT**

*Submitted in partial fulfillment of the requirements for the award of the degree of*

**BACHELOR OF TECHNOLOGY**

**IN**

**COMPUTER SCIENCE AND ENGINEERING**

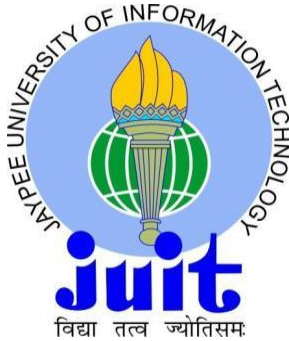
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**to**



**JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY**

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## **CERTIFICATE**

I hereby declare that the work presented in this report entitled “**Simple Pricing Agreement**” in partial fulfillment of the requirements for the award of the degree of **Bachelor of Technology** in **Computer Science and Engineering** submitted in the department of Computer Science & Engineering and Information Technology, Jaypee University of Information Technology, Waknaghat is an authentic record of my own work carried out over a period from August 2018 to December 2018 under the supervision of **Mrs Prachi Pandey**.

The matter embodied in the report has not been submitted for the award of any other degree or diploma.

Prashant Upadhyay(151333)

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

Mrs Prachi Pandey

Sr. Associate - Cognizant

Dated: 30/11/2018

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## **ABSTRACT**

Special Pricing Agreement (SPA) , due to the increasing demand of the internet which has make life easier for everyone. Nowadays it is applied in every field we are going to build a software SPA which will be used by the organization in keeping the tracks of their products and what can we do to maximize the profit of the organization. In this project we will develop a software SPA(Special Pricing Agreement) we will develop a software in which a employee and admin can login and will enter the details of the products. Admin will check the details of the product .

The interface will be developed user friendly so that the employee can't find a problem in using the software. In this way the software will be used by the organization to maximize their profit.

In this way the organization will have the track of their record and the records will be kept safely and will not be misused by any 3<sup>rd</sup> person and will keep the record of their product selling

# **CHAPTER 1**

## **Introduction**

## **1.1 Objectives**

With the increasing demand of the internet, it has become the crucial part of the life. Today in 21<sup>st</sup> century it is applicable in any field. From buying the products to selling the products it play a important role. Due to which now vendors and consumers come closer to each other.

For fulfilling the needs of the vendors, building a web-site which lets the vendors to keep the records of the products they sell and how much they earn in that month.

## **1.2 Project Overview**

The project basically revolves around the smooth functioning of the business by storing the products data and analyzing what is the demand in the near future. It also makes the task easier or less disheartening for both the user(employee) and admin(boss) as each and every detail of the product is stored in the database so user and admin can view that what is being sold and what is to be sold so that they can maximize the profit of their organization.

The project also offers user friendly interface which is way to more interactive so that no complications are arise in the middle of the business.

## **1.3 Intended Audience**

- a. Organization employee
- b. Organization admin

## **1.4 Significance**

The skill to manage the variation in the pricing in the distribution channel offers organization with a powerful advantage. Overwhelmingly, manufacturers that offer special pricing agreements (SPAs) to their distributors which can support the wide range of end to end customer and organizational situational needs.

These advantages leads to increased profit margins, but also leverage end to end customer loyalty, product-line control, proactive sales activities, while also negotiate channel conflict and margin decline.

SPAs are important mechanisms for the distributors and also to their supply partners alike. However, SPAs are no where without their fair share of controversy and complexity.



Definition of the SPA(Special Pricing Agreement)- An agreement to sell products to the distributor at levels beneath the 'normal' distributor price based on some commercial situation.

Current situations of SPAs as they are applicable to different market situations:

- The current procurement of a distributor to maintain end to end customer's business.
- Very large volume end to end customer that requests supplementary service(s)
- Hold of product in line position against competing new distributor in the market.
- The acquisition of a new market
- Competing pressure from distributor pricing

SPAs will commonly can be categorized as one of three classifications when makers offer wholesalers limited estimating:

1. of certain stock from the catalog.
2. for specific end to endcustomer or group type.
3. on everything.

**Chapter 2**  
**Process Architecture**

## 2.1 Methodology

- Agile  
Agile methodologies are the process that promotes regular **emphasis** of the development and testing throughout the SDLC of the project development. One and the other the development and testing activities are coincident unlike a Waterfallmodel.

The agile software improvement focuses on 4 important values.

1. Consumer association over contract negation.
  2. Individual or team interactions over and over on processes tool.
  3. Respond to changing over of a plan.
  4. Working on software of complete documentation.
- The **agile process** is breaker into respective models that developers work on.
  - Smaller projects are resolve very quickly. For the larger projects, it is the difficult task to think the development time.
  - Error can be fixed at any time or in the intermediate of the project or at the end also.
  - Software development is focused more than the documentation.
  - Developers and Testers work together

- SDLC

The SDLC(Software Development Lifecycle) is the systematic process for developing the software that establish the quality and exactness of the software built. SDLC process focuses to produce the high-quality software which can meets the customer expectations. The software development cycle should be completed in the pre-defined time frame or cost.

SDLC consists of a accurate plan which explains how to build, plan, and maintain the specific software. Each and Every phase of the SDLC cycle has its own process and deliverables that can be feed into the later phase.

The whole SDLC process is split into the following stages:

- Stage 1: Requirement collection and analysis
- Stage 2: Feasibility study:
- Stage 3: Design:
- Stage 4: Coding:
- Stage 5: Testing:

- Stage 6: Installation/Deployment:
- Stage 7: Maintenance:

- Client-Server Model

The client-server model is the shared communication frameworks of the network process among services clients, requestors and services providers. The client-server connection is established through the network or a Internet.

The client-server model is the root network computing view also building functionality for email exchanges or Web and database access. Web technology and protocols built around a client-server model is following:

- Simple Mail Transfer Protocol (SMTP)
- Domain Name System (DNS)
- Hypertext Transfer Protocol (HTTP)
- Telnet

Clients include the chat applications, Web browsers, and email-software, among others as more . Servers include the Web or database or application or chat and email, etc.

## 2.2 Model View Controller (MVC) Framework

1. Model
2. View
3. Controller

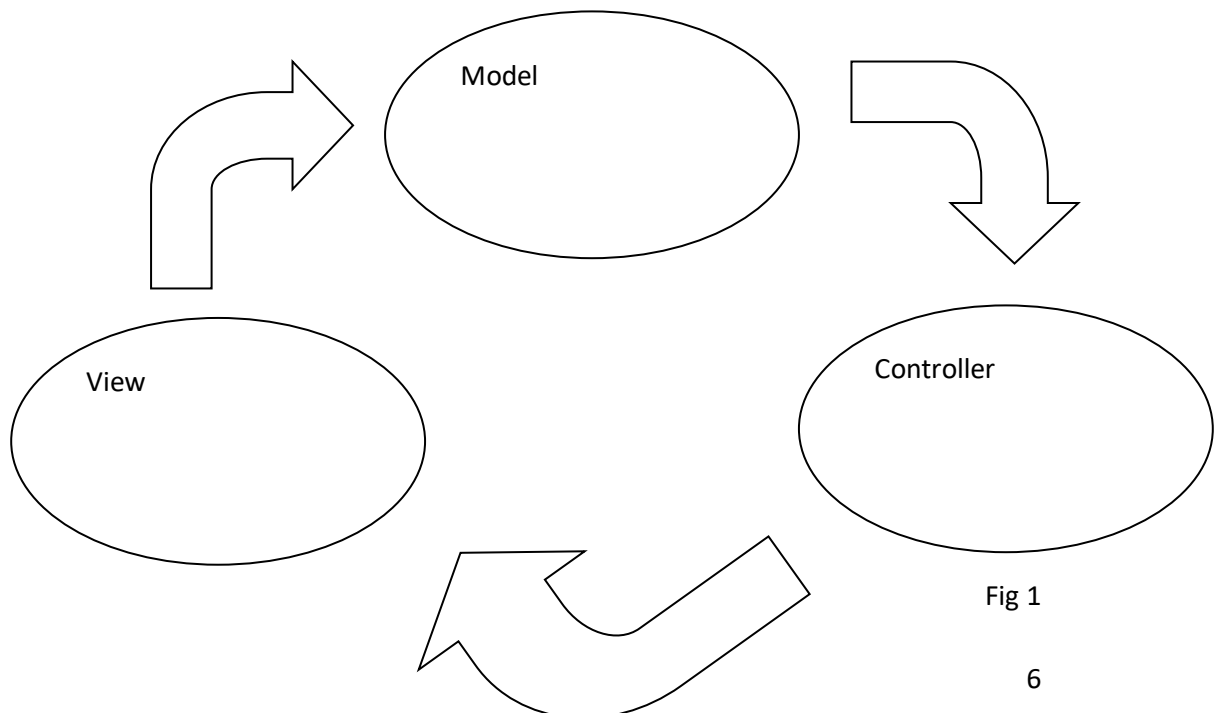


Fig 1

MVC is the system considering programming, and for set up the program's records. To infer the possibility that our code ought to be sorted out by the capacity, envelopes will be made by engineers for each piece of MVC. (The thought is that it must be partitioned dependent on the fnct of each piece of the code is every now and again alluded to as division.) MVC gives us a beginning stage to make an interpretation of our plans to code, and it is likewise make returning to our code simpler, since we will likewise have the option to recognize what code do what. What's more, the organization standard MVC advances and makes it simpler for different designers to comprehend our code.

**Model:** Model code typically reflects a real world object. The code can also hold a raw data, and it will also define the important components of our software. For example, if we were building a To-do software, the model (MVC) code would also define what a “list” and what a “task” is .

**View:** View code is also make up of all the function that directly contact with the developer. This is the code which is making our software look nice, and otherwise it also defines how the user sees and contact with it.

**Controller:** Controller code acts as a communication between the Model and Viewit receives user input and it decides what to do with the input. It is the brain of the software, and also ties up together with the model and view.

### 2.3 Technologies used

Front End	C#, Asp.net MVC
Back End	SQL Server Management Studio

Tabel 1

Asp.net MVC :

Although web forms are very successful in the developing, Microsoft think of developing the ASP.net MVC. **The performance of Asp.net MVC is the main issue.**

In the building the web application, there are four main aspects of asp.net which define the performance:-

- Response time issues in asp.net mvc
- Problem of Unit Testing in asp.net mvc
- HTML customization in webform of asp.net
- Re use of the code behind class in c#

ASP.net MVC come through on the above parameters

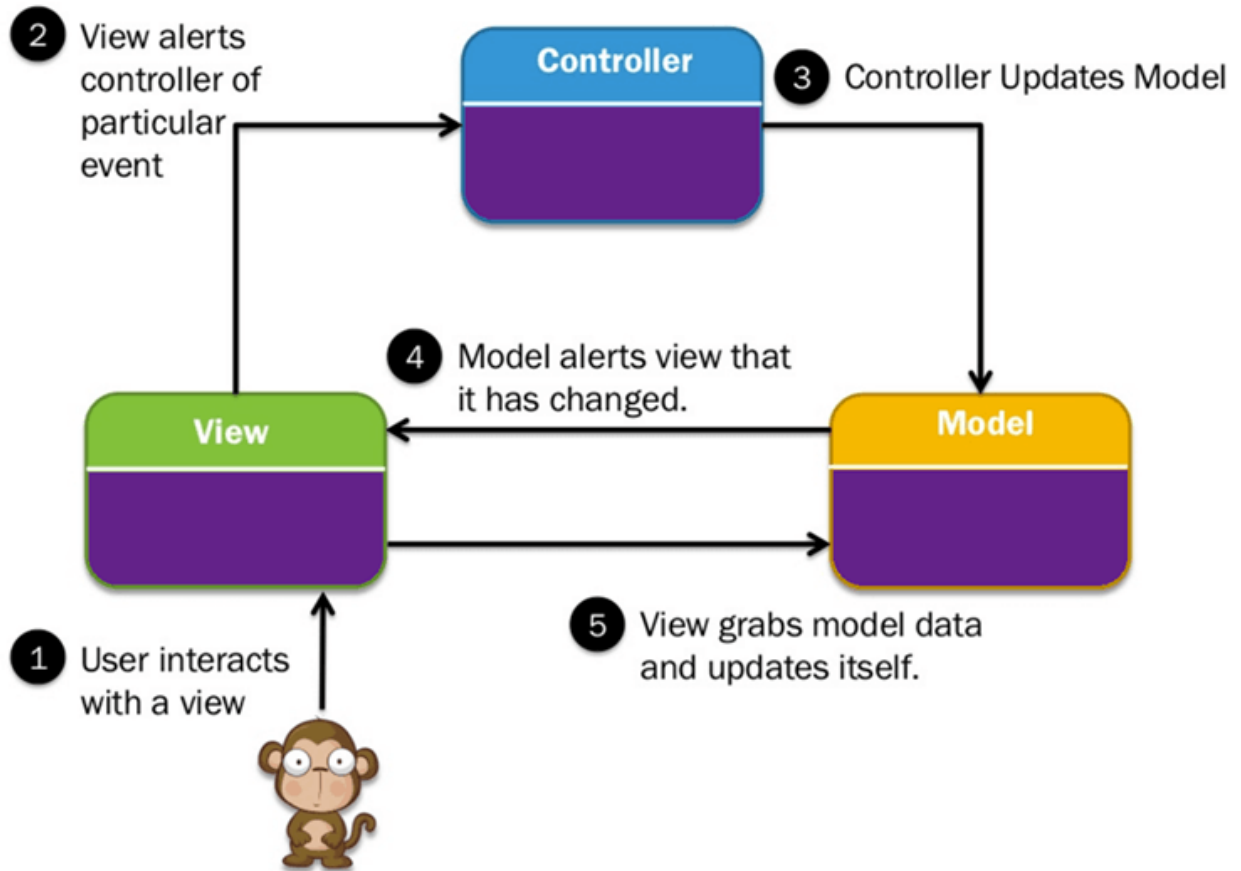


Fig 2

The biggest advantage of the **ASP.net MVC** are:

1. It enables the full control of the HTML.
2. It also provides the clean separation of concerns(SoC).
3. It enables Test Driven Development (TDD).
4. It easy integration with JavaScript frameworks.
5. The following the design nature of the web.
6. Restful urls which enables Separation of concerns(SOC).
7. NoPostBack and ViewState events in the asp.net.

- ASP.net MVC make Easy and frictionless testability with Full command over our HTML.

- We need to follow that it is not a replacement of ASP.Net web-forms based software application.
- The access of MVC software development must be decided based on the software application needs and the feature implemented by the ASP .net MVC to suit the proper software development use.
- It offers Highly maintainable software applications by as default
- With ASP.net we can't see the design page viewing like the .aspx page of asp.net.
- As the best practice, the model should be included session maintenance, business logic which is to needed, validation part that should be there, and data logic part is included.

## C#

With the presentation of the .NET system, Microsoft incorporated another language called C# (pronounced C Sharp). C# is intended to be a basic, current, universally useful, object-oriented programming language, acquiring key ideas from a few different language, most prominently Java.

C# could hypothetically be compiled to machine code, however, all things considered, it's constantly utilized in mix with the .NET framework. Along these lines, applications written in C#, requires the .NET framework to be introduced on the PC running the application. While the .NET framework makes it conceivable to utilize a wide scope of dialects, C# is now and again referred to as the .NET language, maybe on the grounds that it was structured together with the system.

C# is an Object Oriented language and does not offer worldwide factors or functions. All the thing is enclosed by classes, even basic sorts like int and string, which acquire from the System.Object class.

The bigger the network the better it is as new apparatuses and programming projects will create improve it. C# has a huge network so the improvements are done to make it exist in framework and not become wiped out.

## Backend

### SQL Server Management Studio:

SQL Server Management Studio (SSMS) is the software application previously propelled with Microsoft SQL Server 2005 that is utilized for designing, overseeing, and regulating all parts inside Microsoft SQL Server. The apparatus incorporates both content editors and graphical devices which work with articles and highlights of the server

## 2.4 Hardware and Software Requirements

Technology	Hardware	Software
C#, Asp.net	Desktop PC with 8 GB Ram	Microsoft Visual Studio 2017 SQL(Server Management Studio)

Table 2



## **Chapter 3**

### **Detailed Business Requirement**

### **3.1 Detailed Business Requirement**

Business Requirement ID	Short Description	Detailed Description
Requirement_1	Initial Selection	The ability of the computer is to allow the user to determine Sales-User/Sales-Admin
Requirement_2	Sales-User Login	The ability of the computer to get the details of the Sales-User and authenticate the user credentials of the Sales-User from the database
Requirement_3	Sales-Admin Login	The ability of the computer to get the details of the Sales-Admin and authenticate the admin credentials of the Sales-Admin from the database
Requirement_4	Product Details	The ability of the computer to display all the product in grid view form
Requirement_5	Display details	The ability of the computer to display all the details of the product
Requirement_6	Edit Details	The ability of the computer to edit the details of the product
Requirement_7	Approve/Deny Product	The ability of the computer to approve or deny the product to save in database
Requirement_8	Product registration	The ability of the computer to get the fundamental details of the product
Requirement_9	Sales-User logoff	The ability of the computer to enable Sales user to logoff
Requirement_10	Sales-Admin logoff	The ability of the computer to enable Sales Admin to logoff

Table 3

### 3.2 Flowchart

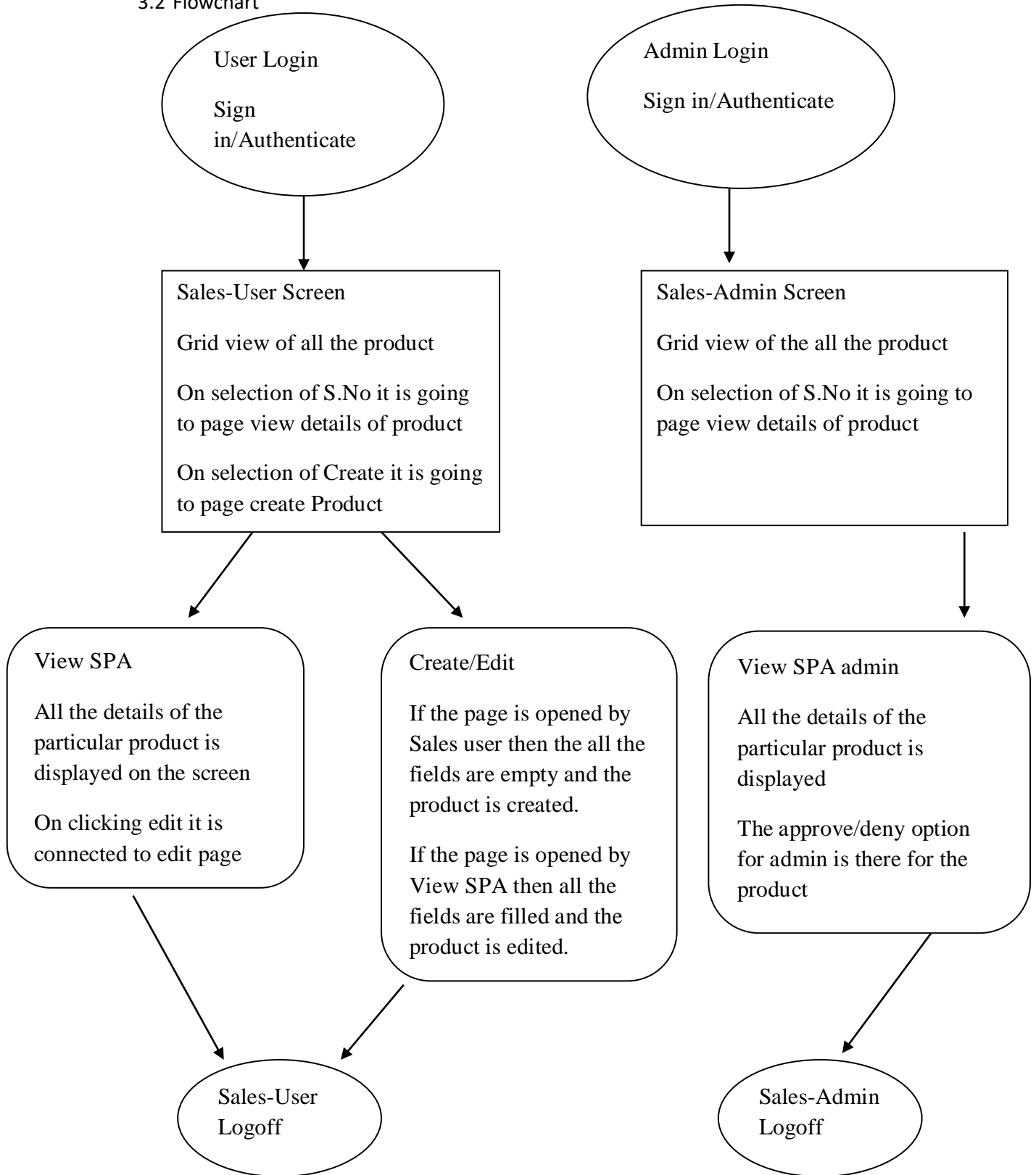


Fig 3

### **3.3 Mechanism**

- An interface for SPA(Special Pricing Agreement) is created.
- Sales-User/Sales-Admin login is given
- Login is only possible if all the credentials is right if it is wrong then the alert message is there to enter the right credentials.
- After Sales-User login then the Grid view of all the product is displayed.
- Hyperlink is there in the S.NO. is there for view the details of the product is displayed.
- When the data is displayed there is option of edit the product details is there.
- In sales-user page there is also the option of Create the product.
- In creating the product all the details should be entered correctly otherwise the message would be seen.
- After creating the product the product is displayed in the grid view .
- If the login Sales-Admin then the page is displayed of the grid view of all the product.
- There is also the textfeild of search box where the admin can search the particular product using S.NO.
- Hyperlink is there in the S.NO. is there for view the details of the product is displayed.
- The admin can approve and deny according to the status of the product if it is pending then the product is deleted else the page is displayed of the gridview.
- The data of the product is stored in the SSMS(Sql Server Management Studio) with SPAID as identity column.
- The database can edited and also can store the data accordingly.
- Logout option is available for Sales-User and Sales-Admin both.

For the connection purpose the command is :

```
SqlConnection sqlcon =  
new SqlConnection(@"DataSource=PC450857\SQLEXPRESS;Initial  
Catalog=User;Integrated Security=True");
```

This is the command used for the connection from visual studio to SSMS(SQL Server Management Studio)

Similarly for the select command is:

```
SqlCommand cmd = new SqlCommand("select * from SPA where SPAID="  
+ int.Parse(Request.Params["SPAID"]) + """, sqlc);
```

Like this there are also command of the insert, update and delete.

For the user interface we have used the HTML, CSS . to design the page.

**Chapter 4**  
**Conclusion**

SPA(Special Pricing Agreement) is the best use of the internet for any organization who sell their product. It keeps the track of the product when it can , which brand it belong, from where it is coming, who is the manager, what is the project name and many more. The concept of SPA(Special pricing agreement ) is that it benefited the organization that what is the sales and what can they do so that they can maximize their profit. The user can enter the data of the product manually and admin can check the data if the data entered is correct and accordingly approve or deny it.

The advantages of SPA is that the organization can know about their costumer and from whom they are buying the product and can be loyal to each other. The data can be edited or updated or created accordingly in the database. The special pricing agreement is that the distributor is buying the product on the special price so that the it can't be changed in the near future.

**Chapter 5**

**Data Used**



<b>Field Name</b>	<b>Field Type</b>
SPA ID	Int
Status	Varchar(50)
Brand	Varchar(50)
SPAtype	Varchar(50)
Project Name	Varchar(50)
Preferred Start Date	Date
Preferred End Date	Date
Discount	Int
Style	Varchar(50)
Finish	Varchar(50)
Species	Varchar(50)
Construction	Varchar(50)
Comments	Varchar(200)

**Product Detail Table (Table 4)**

<b>Field Name</b>	<b>Field Type</b>
User_Name	Varchar(50)
Password	Varchar(50)

**Sales-User Login Table(Table 5)**

<b>Field Name</b>	<b>Field Type</b>
Admin_Name	Varchar(50)
Password	Varchar(50)

**Sales-Admin Login Table(Table 6)**