THOR

Project report submitted in partial fulfillment of the requirement for the degree of Bachelor of Technology

In

Computer Science and Engineering/Information Technology

By

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Under the supervision of

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Declaration

I hereby declare that the work presented in this report entitled **" THOR "** in fulfillment of the requirements for the award of the degree of **Bachelor of Technology** in **Computer Science and Engineering/Information Technology** 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 Feb 2019 to May 2019 under the supervision of **Mrs. Priyanka Kaushal, As Lead Consultant** . The matter embodied in the report has not been submitted for the award of any other degree or diploma.

Pallavi Katoch, 151372

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

Mrs. Priyanka Kaushal

Lead Consultant

Genpact

Dated: 23 May'19

ACKNOWLEDGEMENT

It is our privilege to express our sincerest regards to our project supervisor **Mrs. Priyanka Kaushal** for their valuable inputs, able guidance, encouragement, whole-hearted cooperation and direction throughout the duration of our project.

We deeply express our sincere thanks to our Head of Department **Prof. Dr. Satya Prakash Ghrera** for encouraging and allowing us to present the project on the topic "**THOR**" at our department premises for the fulfillment of the requirements leading to the award of B-Tech degree.
At the end I would like to express my sincere thanks to all my friends and others who helped me directly or indirectly during this project work.

Dated: 23 May'19 Pallavi Katoch (151372)

ABSTRACT

THOR is a project management system, which helps in management of Project in its various stages. In this project, resources with various levels can be created which performs various tasks in the project and in the project management system. Using THOR we can Initiate a project and get resources assigned to it. It also displays the various information related to the project. It not only helps in the assignment of resources to various projects but also helps in getting the resources released from projects if they are no more required in it. With its help, the "Project Manager" can also give feedback to any resources assigned to the project. The allocation of any resource to the projects could also be seen using it. We can say that it is not only serves as Project Management System but also as a partial Resource Management System. It also help us in managing various stages of the project.

LIST OF FIGURES

INTRODUCTION

THOR is a project management system, which helps in management of Project in its various stages. This project is developed for **Genpact's** internal uses. It is designed to manage and store project information that are used to developed a project. We have different groups as Sales, PMO, Administrator and Allocator which will help the project applications a controlled access to information and automated distribution of information.

In this modern era, mostly all the organizations are sorted in projects so THOR is the project management project where we can raise the request on new project arrival. Earlier managing the projects were problematic managers and PMO faced a lot of problems so besides doing this manually they decided to work with the help of sequence.

We will fill the Initiate Project form. That means new project is created with required fields and team require to work on this project in near future. We will fill the new user details and submit the task using new process and then we will manage resource profile and we will Create Resource. Once we raise a request for new user then task will come to administrator My Task List. On which we need to create his account in active directory manually and then submit this task. Which will allow new user to login to this portal. Admin can comment or if he need more details then can send this task back. We will add the requirement for the resources required on project assigned to him. He need to go to My Task then pick the task assigned to him for Assign resource on project X. Once request completed then this task will be send to allocator for assigning resource.

Business case for doing this Project

This project helps in making the management of various stages of project more efficient by automating the process and taking it from excel to another stage. By using it, the progress of any project can be can be tracked and managed more efficiently at any time and resource requirements for any project can be raised by "Project Manager" and can be met by the

“Resource Allocator” also we can manage the different stages of the project like “Requirement gathering”, “development” or “Production/Go live”.

Project Scope

In this project, resources with various levels can be created which performs various tasks in the project and in the project management system. Using THOR we can Initiate a project and get resources assigned to it. It also displays various information related to the project. It not only helps in the assignment of resources to various projects but also helps in getting the resources released from projects if they are no more required in it. With its help, the “Project Manager” can also give feedback to any resources assigned to the project. The allocation of any resource to the projects could also be seen using it. We can say that it is not only serves as Project Management System but also as a partial Resource Management System. It also help us in managing various stages of the project.

Problem Statement

Project team members maintain the status of their assigned tasks on individual desk. On demand reports are prepared by collecting status information from individuals and submitted to relevant authority.

Objective of the Project

The objective for THOR project: To enhance the speed of work, affordable and better by applying their common knowledge, bringing together a selection of resources and attainments in a project. Because reasonable conspire with teams improves capacity, speed of work will improve, result making and optimizes of making a right decisions in right direction, it also improve the intercept valuable fortune and time. It is a Web based application that can surprisingly increase performance, productivity and efficiency within an organization. Since sequence application can’t be accessed through any web browser, desktop installation. Moreover, people who are good coders and they stay out of the way they are able to use it along the way, while they stay in locations in different place and collaborate with the teams.

Role in the Project

The team of this project is divided in two groups: **One group** is for the role of developers **other group** is for quality assurance. I am the part of this first group.

Motivation of the project

In modern enterprises, all or most of an organization's activities are sorted into projects. This makes software to play an important play for successful project management. Project managers who never used any IT tools like sequence are often face problem among a project's, and have a difficult time correlate the execution of tasks in the project.

Project Management System will take care about the time and investment which will be involved during the development of the projects which are going on or going to be assigned. When we look for various phase of analysis, system design, coding, testing and how to maintain the work which are usually involved in the entire development work. For organizations Time and Money is important in the market. So, they have to keep very sharp eye on every bit of their investment. This system will keep track of invested time on particular phase and generate reports to make future inspection and take proper actions to normalize the problem.

Project management systems are made to manage and store project data. By number of groups as we have in any project for example we have Sales, programmers or project managers & Resource Allocators will be let by project applications a controlled access to information and automated distribution of information. The main aim for association for doing work is that it is inexpensive and we have a better way to apply their knowledge, bringing together a selection of resources and attainments in a project. Valid collaboration with teams improves productivity, speeds up result-making and optimizes of making a right decisions, it also helps to intercept precious intellectual fortune and time. To define such kind of improvement to increase the efficiency and to make easier to write the code we needed from the company to make an inside system for project management.

Existing System

For this time the main problem while writing the code is that where we waste the extra money and losing the stock market position because of bad luck and also wasting time on other things. All the works which we used to do it maintain on using manual file by which it generate the problems for the organization to prepare reports on projects. It's difficult by the managers to keep record on projects which are working in different teams and take immediate action to complete the projects within less time. Usual system not able to provide pop ups and different notifications for the important ones based on their maximum time involved and status along with predictions for their deadlines of the project.

LITERATURE SURVEY

Project Management System will take care about the time and investment which will be involved during the development of the projects which are going on or going to be assigned. When we look for various phase of analysis, system design, coding, testing and how to maintain the work which are usually involved in the entire development work. For organizations Time and Money is important in the market. So, they have to keep very sharp eye on every bit of their investment. This system will keep track of invested time on particular phase and generate reports to make future inspection and take proper actions to normalize the problem.

The waterfall techniques which is existing we used earlier were complex and created many problems and they use to provide no result until the complete project was done to be delivered at the time of end project. This means that there was no view for improving the things and the client of project had no idea about the progress of the project until the full was ready. And that was what these experts wanted to avoid.

To enhance the speed of work, affordable and better by applying their common knowledge, bringing together a selection of resources and attainments in a project. Because reasonable conspire with teams improves capacity, speed of work will improve, result making and optimizes of making a right decisions in right direction, it also improve the intercept valuable fortune and time.

THOR

Raise the request on new project arrival. He/she will fill the Initiate Project form. That means new project is created with required fields and team require to work on this project in near future. Only PM user can raise this request. Purpose for this section is to release the resources from one project and if required then assign the resource to other project-using request for more resources section. Here project manager cannot release himself. Only the resource(s) other than project manager can be released.

Sequence-

Sequence is **PNMsoft's** BPMS (Business Process Management Software) developed by PNMsoft. The development of sequence platform provides the platform for making different forms in the workflows from the toolbar, different tasks through drop down process from toolbox, messages are taken from toolbox in various forms ,flow connections and sublime to connect the workflow. Sequence processes are easy to handle as we have workflow in the beginning and easy to design forms and different properties from the toolbox, Sequence uses integration.

Tools Used

BPM (Business Process Management) with the help of **Genpact's** own Product **Sequence Cora**.

Concept – the BPM Workflow .

In BPM frameworks, solutions are always based on a workflow which is made through sequence. The way through it works in a real-time business scenario then it should be dynamic other than that it should progress through a series of steps ('a process') in time. Basing a solution on sequential activities is effective in encouraging teams to execute goals within a set period. The BPM inspire the progression through tasks by sending the participants reminders of their tasks' status and due date so now the teams who use these BPM workflow are tend to perform in a better way to accomplish the enterprise goals more correctly and project will work in a good manner . On Submit, Record will be saved in database. Now this project task will be send to PMO Group where PMO group user can fetch the task and assign project manager from the list, to which he/she wants to work on this project. After submission, this project will be shown too particular

Project Manager's task list, to whom it is assigned. On Close, Click will cancel and close current tab.

Sequence Cora

Genpact's **Cora SeQuence** is an good Business Process Management (BPM) software On Submit, Record will be saved in database. Now this project task will be send to PMO Group where PMO group user can fetch the task and assign project manager from the list, to which he/she wants to work on this project. After submission, this project will be shown too particular

Project Manager's task list, to which it is assigned. On Close, Click will cancel and close current tab.

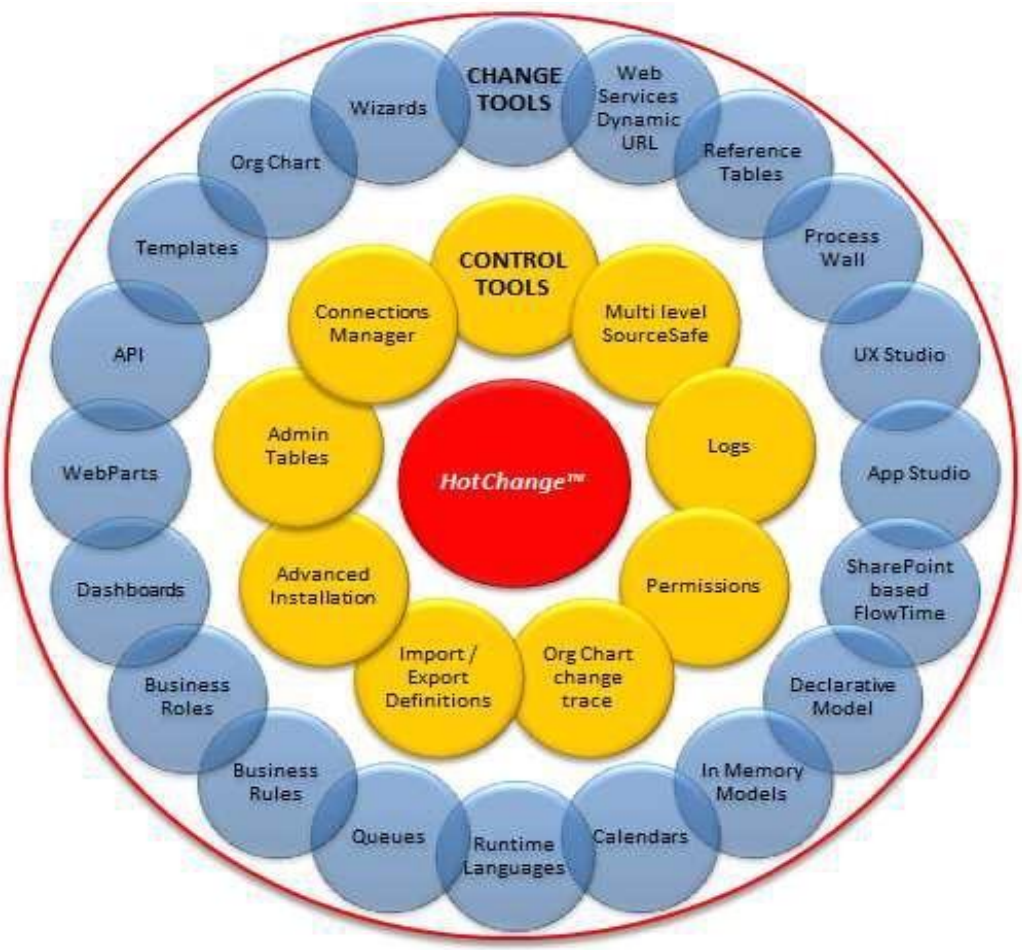

CHANGE TOOLS
Wizards
Web Services Dynamic URL
Org Chart
Reference Tables
Templates
Process Wall
API
UX Studio
WebParts
App Studio
Dashboards
SharePoint based FlowTime
Business Roles
Declarative Model
Business Rules
In Memory Models
Queues
Runtime Languages
Calendars
CONTROL TOOLS
Connections Manager
Multi level SourceSafe
Admin Tables
Logs
HotChange™
Advanced Installation
Permissions
Import / Export Definitions
Org Chart change trace

Fig no.-1

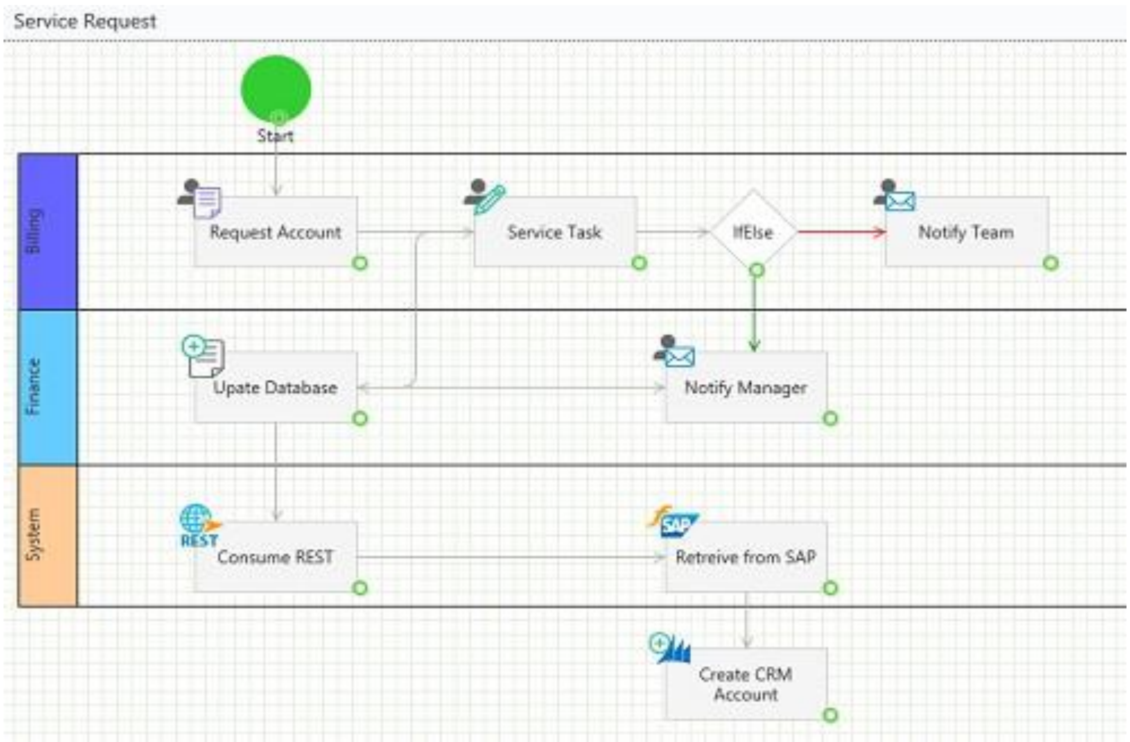

Service Request
Start
Billing
Finance
System
Request Account
Service Task
IfElse
Notify Team
Upate Database
Notify Manager
REST
Consume REST
SAP
Retreive from SAP
Create CRM Account

Fig no.-2

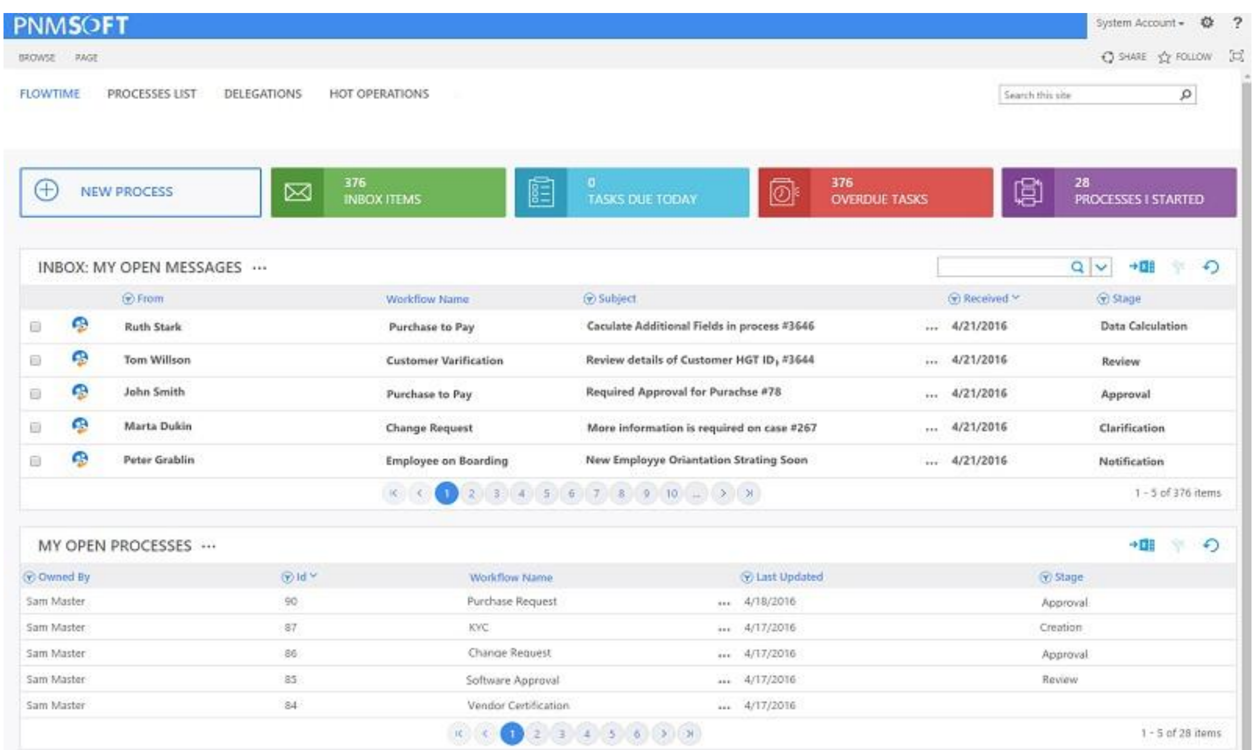

PNMSOFT
System Account
BROWSE
PAGE
SHARE
FOLLOW
FLOWTIME
PROCESSES LIST
DELEGATIONS
HOT OPERATIONS
Search this site
NEW PROCESS
376 INBOX ITEMS
0 TASKS DUE TODAY
376 OVERDUE TASKS
28 PROCESSES I STARTED
INBOX: MY OPEN MESSAGES ...
From
Workflow Name
Subject
Received
Stage
Ruth Stark
Purchase to Pay
Caculate Additional Fields in process #3646
4/21/2016
Data Calculation
Tom Willson
Customer Varification
Review details of Customer HGT ID, #3644
4/21/2016
Review
John Smith
Purchase to Pay
Required Approval for Purachse #78
4/21/2016
Approval
Marta Dukin
Change Request
More information is required on case #267
4/21/2016
Clarification
Peter Grablin
Employee on Boarding
New Employye Oriantation Strating Soon
4/21/2016
Notification
1 - 5 of 376 items
MY OPEN PROCESSES ...
Owned By
Id
Workflow Name
Last Updated
Stage
Sam Master
90
Purchase Request
4/18/2016
Approval
Sam Master
87
KYC
4/17/2016
Creation
Sam Master
86
Change Request
4/17/2016
Approval
Sam Master
85
Software Approval
4/17/2016
Review
Sam Master
84
Vendor Certification
4/17/2016
1 - 5 of 28 items

Fig no.-3

Smart Analytics

For high visibility and real-time analytics, SeQuence includes Smart Analytics which enable process owners and managers to create dashboards relating to KPI. Corrective actions can be focused efficiently.

Fig no.-4

Intelligent Solutions for CRM and ERP

How can you ensure that CRM and ERP data and user activities drive mission-critical workflows?

Cora SeQuence integrates with CRM and ERP systems, enabling your organization to manage CRM & ERP-related activities more efficiently using automated workflows.

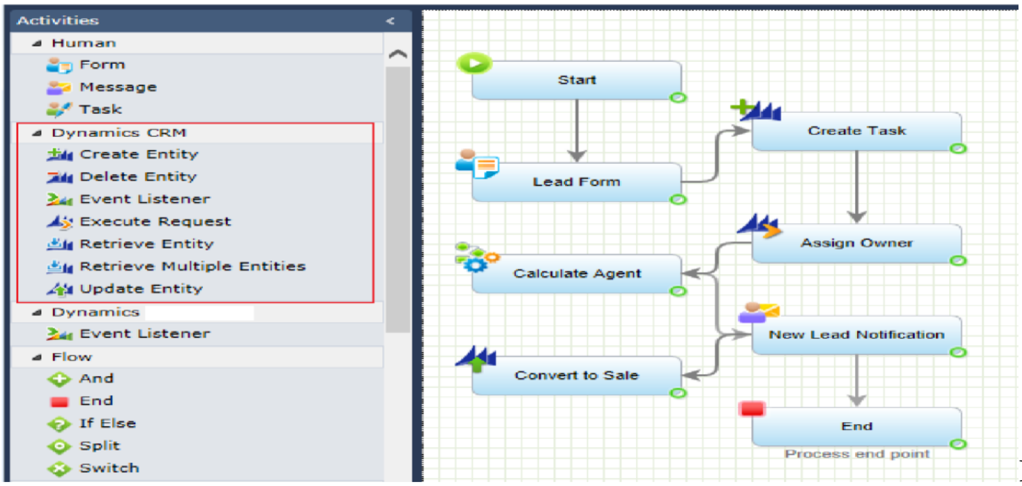


Fig no.-5

Methodology Used

Agile methodology was followed for the project development.

Agile

AGILE is the methodology in a good way which promotes a continuous iteration of development and the resources and the work is allotted to the team members. Both the development part and testing activities are concurrent unlike the Waterfall model.

The agile software development works on majorly in four steps -

- Doing work alone and the team interactions over processes and tools
- Working over complex documentation of the project.
- Customer interaction is needed will help the product to more good and will be what they want.
- Response of the project is good only when we are regular feedback and the continuous iterations.

History of Agile

Agile was introduced on platform where development methodologies are there and got together to work hard. In order to make sure that the estimate and efforts are going on the right direction it is important to check that the user stories are small so that work can be done easily and in small span of time. The more the user story is divided in chunks it will be easy and the more accurate to work on.

Earlier, software development used to take much time that by the time projects were ready to be delivered at that time the business moving faster and the requirements of that business had changed. Thus a project was not able to meet the business needs even if it was able to meet its goal it was of no use. But here the winners of different software engineering techniques came all together and the result of their work hard was what they called the “agile”.

The existing waterfall techniques were very difficult and had no idea of sending back the feedback to the final product was ready to be delivered. This totally means that there was no future scope that the client had no idea of the progress what is going on his project and what status is on project. And that was what these experts wanted to avoid for so long.

How to Practice Agile?

A continuous iteration of development and the resources and the work is allotted to the team members. Both the development part and testing activities are concurrent unlike the Waterfall model. There are various Agile Methodologies that are in practice in various diversified industries.

Fig no.-6

Scrum, Kanban, Extreme Programming are most popular amongst them.

All these methodologies majorly focuses on the software development and build better software effectively and efficiently.

Scrum

Scrum can easily be considered to be the most popular agile framework. The term ‘scrum’ is much considered synonymously to ‘agile’ by most practitioners. But that is a misconception. Scrum is the technique where you can implement agile in any project for better results. The scrum comes from the sports rugby. Where the players play together in an interlocked position pushing the opponents. Each player has a defined role in the game and can play both offensive and defensive as per the game is demanding on that particular situation and in the same way the scrum in IT believes in strong self-managed development teams with the main specific and clear defined goals in any IT.

These roles include – **Product Owner (PO), Scrum Master (SM) and the development team consisting of the programmers and testers**. They work in an iterative way which we call sprints.

The first step is the creation of the product backlog by the **PO**. It’s a to-do list of stuff to be done by the scrum team. Then the scrum team selects the top priority items and tries to finish them within the time box called a sprint.
A good way to recall all of this is to memorize the 3-3-5 framework. It generally means that a scrum project has 3 roles, 3 artifacts, and 5 events.

Roles: PO, Scrum master, and development team.

Artifacts: Product Backlog, Sprint Backlog and Product increment.
Events: Sprint, Sprint planning, Daily Scrum, Sprint review and Sprint retrospective.

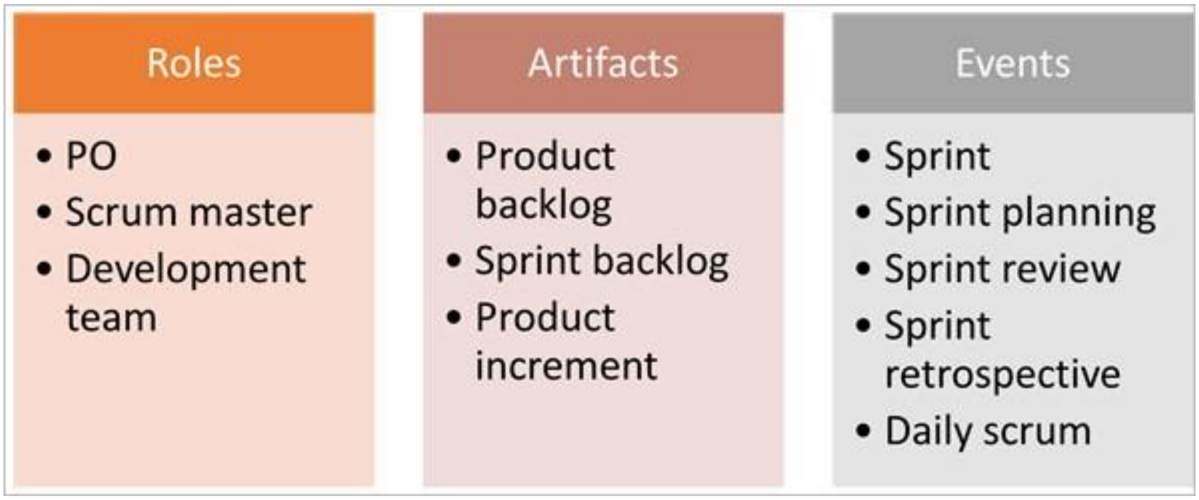


Fig no.-7

Important SCRUM Terminologies

1) Scrum Team

Scrum team is a team comprising of seven with + or – two members. These members are proficient and which includes the developers, testers, database support members, BA. Along with the product owner and a scrum master.

All these members work together in close place for a period of time to develop and implement the features of the project. SCRUM team sitting arrangement plays a very vital role in their get together, they never sit in cabins but in a huge table.

2) Sprint

Sprint is a predefined interval or time frame in which the work has to be completed and make it ready for review or ready for production deployment. This time box usually lies between 2 weeks to 1 month. In our day to day life when we say that we follow 1-month Sprint cycle, it simply means that we work for one month on the tasks and make it ready for review by the end of that month.

3) Product Owner

The product owner is the key stakeholder or the lead user of the application to be developed. The product owner is the person who represents the customer side. He/she has the final authority and should always be available for the team.
He/she should be reachable when anyone has any doubts that need clarification. It is important for the product owner to understand and not to assign any new requirement in the middle of the sprint or when the sprint has already started.

5) Business Analyst (BA)

BA is a person who is responsible for getting the required things which a customer demands and finalize or mobilize the requirement of a particular document based on which the user stories are generated. A Business Analyst plays a very vital role in SCRUM.
If there are any equivocation in the User Stories or Acceptance area then BA will be the one who approximate the technical (SCRUM) team and BA takes it up to the PO otherwise it is possible resolves on his own. In large projects where projects are huge and number of people are working there may be more than one BA but in small projects, the SCRUM Master may act as the BA as well. It is always a way to have a BA when the project kick starts.

6) User Story

User stories are the requirements which we divide in chunks for smaller work pressure or feature which has to be implemented in near future.
In the scrum, we don’t have those huge requirements from the costumer rather the requirements are defined in a smaller chunks. We have the following format:

- As a type of user in the project
- I want to achieve a target for my project
- To achieve some result for the project

7) Epics

Epics are user stories where we have the user stories and developers write codes in a brilliant way which are not there any other platform and are kept for future works in the projects.

If we relate it with our life and we imagine we are going for a break. We have everything in places like our hotel bookings, travelers check, normal bookings etc. But if we plan break plan for next year then we don't have clear idea that we may go to any place but we don't have complete plan.

An Epic is just like you next year's break plan, where we have no idea that whether we want to go and when and with whom we are going, all these description we have no idea at this point of time. In a similar way, there are some attributes which are required to be implemented in near future. Mostly a feature begins with an Epic and then we work on the stories which could be implemented in a way that project can be completed in short span of time.

8) Product Backlog

The product backlog is a source where all the user stories are kept in a database. This is maintained by the SRUM manager. Product backlog can be imagined as a wish list of the product owner who work in project as per the requirements of the product or the project.

In order to make sure that the estimate and efforts are going on the right direction it is important to check that the user stories are small so that work can be done easily and in small span of time. The more the user story is divided in chunks it will be easy and the more accurate to work on.

9) Sprint Backlog

The Scrum team works really hard on it to check the feasibility and decides on the stories to work on a Particular sprint of the particular project. The list of all the user stories where the scrum team works on a particular sprint of a particular project is known as Sprint backlog.

10) Story Points

Story points solve the complexity of a user story as divided in small parts and will be easy to work. Every story description, estimation and efforts for a story are resolved. A story point is relative which help the project and the members to understand better which is not absolute. In order to make sure that the estimate and efforts are going on the right direction it is important to check that the user stories are small so that work can be done easily and in small span of time. The more the user story is divided in chunks it will be easy and the more accurate to work on.

Activities in SCRUM Methodology

#1) To Plan the Meeting

A planning of a meeting is the initial point of Sprint. The main part of meeting is where the entire team get together and the SCRUM Master selects a user story based on the project from the team to work on it and the better results in the next task. The scrum team decides the difficulties of the project .The team identifies the tasks and work on time is main part in project for completion. The team tries to write the dependencies which they would like to discuss in the meeting.

#2) Decision making in Sprint Tasks

The actual work done by the scrum team to achieve their task and take the user story seriously and do the work as soon as possible in good mannner.

#3) Daily Standup

A stand-up call every day where team meets not more than 15 minutes which states 3 points:

- What did the team member do yesterday?
- What did the team member plan to do today?

The Scrum master who initiate the meeting where if any team member is facing any kind of problem, then they can talk to SCRUM master and get the issue resolved. In Stand ups, the progress of the team is seen by the scrum master for better results in the project and also in the organizations.

#4) Review Meeting

When we end the cycle of sprint, the SCRUM team members meet together and elaborate the part they have completed and their current status which will provide the user stories to the product owner. The product owner may check whether the user stories are as per there criteria which they provided. The responsibility of the Scrum master is to manage the meeting.

#5) Development of Meeting

The meeting will happen just after the status of the meeting.
The SCRUM team meets, discusses & document the following points:

- What going well in Sprint (Best practices)?
- If something is not well, why is it not going well?

Agile Testing Methodology

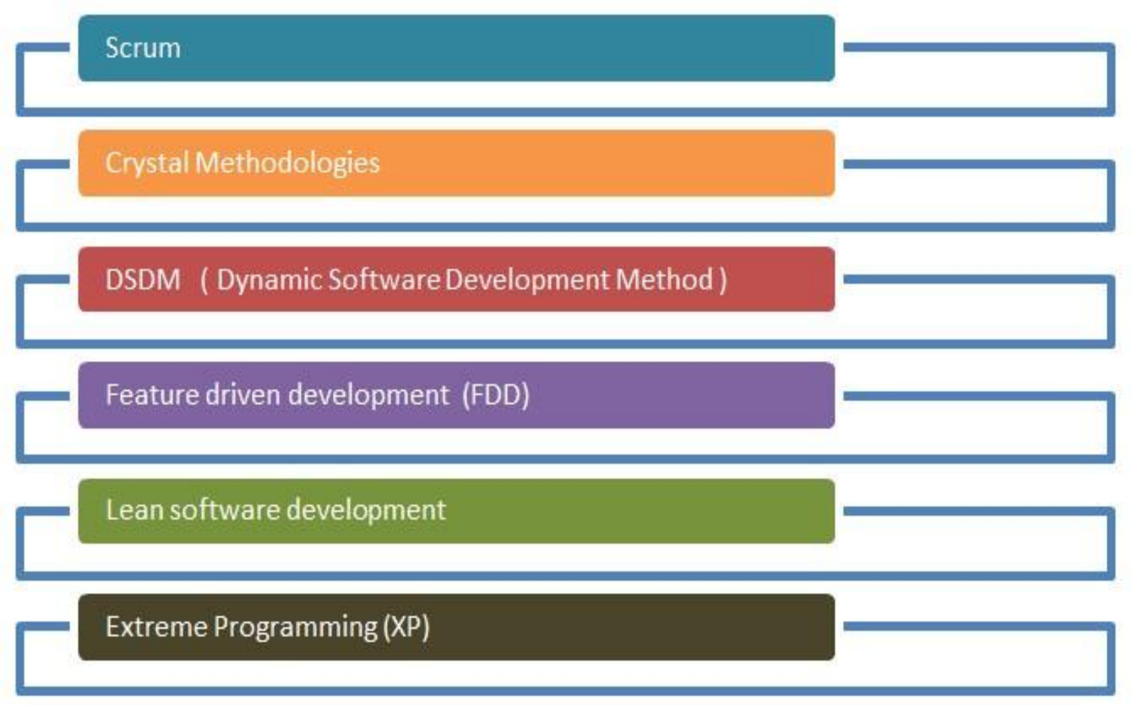


Fig no.-8

Since agile methodology was followed for the project development so following steps were followed:

Case stories: The case stories were made to decide what is to be done in each sprint.

Project Backlogs: The case stories were broken and added into Project Backlogs to get the required work done in each sprint.

Sprint planning: The planning for each sprint and which tash is assigned to which team member was decided in the sprint planning.

Daily status call: These calls were meant to review the work done by each resource daily.

Sprint review: In the sprint review it was reviewed that what all has been done from the Project backlogs which were to be done in the sprint and what will be moved in the next sprint.

Sprint Retrospection: In this it was looked upon that what went well and what requires improvement.

Benefits of using Agile Methodology

- The customers regularly get an overview and the project result at the end of each iteration for better performance and to save time.
- Each part provide the customer to with a software which meets the expectation of the project as details are provided to them.
- The developer gather the information or requirement provided by customer and then they can accommodate the change in the earlier stage of the development part.
- A regular two-way communication is there so that the customer is involved in giving feedback process and also all the partners as stakeholders which are technical and business where they have a clear view about the project.
- Project progress is total efficient and will fulfills the project requirements.

Design of the project

Roles used in project THOR

Sales – User can raise the request on new project arrival. He/she will fill the Initiate Project form. That means new project is created with required fields and team require to work on this project in near future.

PMO Group (Project Manager Office) – PMO Group user can fill the new user details and submit the task using new process Manage resource profile Create Resource.

Administrator – Once PMO raise a request for new user then task will come to administrator My Task List. On which he need to create his account in active directory manually and then submit this task. Which will allow new user to login to this portal. Admin can comment or if he need more details then can send this task back to PMO.

PM (Project Manager) – Will add the requirement for the resources required on project assigned to him. He need to go to My Task then pick the task assigned to him for Assign resource on project X. Once request completed then this task will be send to allocator for assigning resource.

Allocator – His role is to assign resource on the project, he has option to search the resource who are most fit to the requirement and assigned them to project X. This will send the notification to assigned user as well.

Thor Workflow Diagram

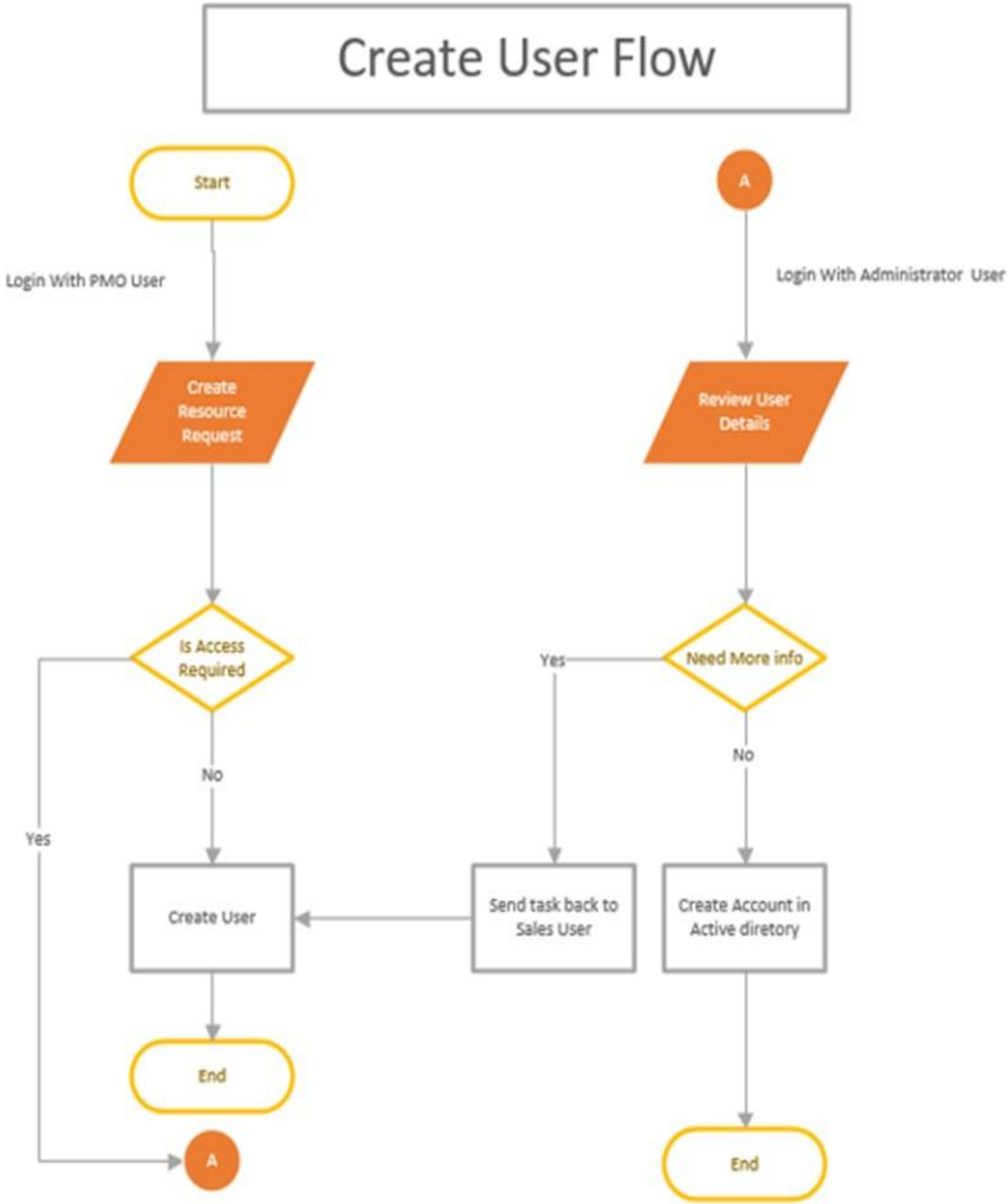
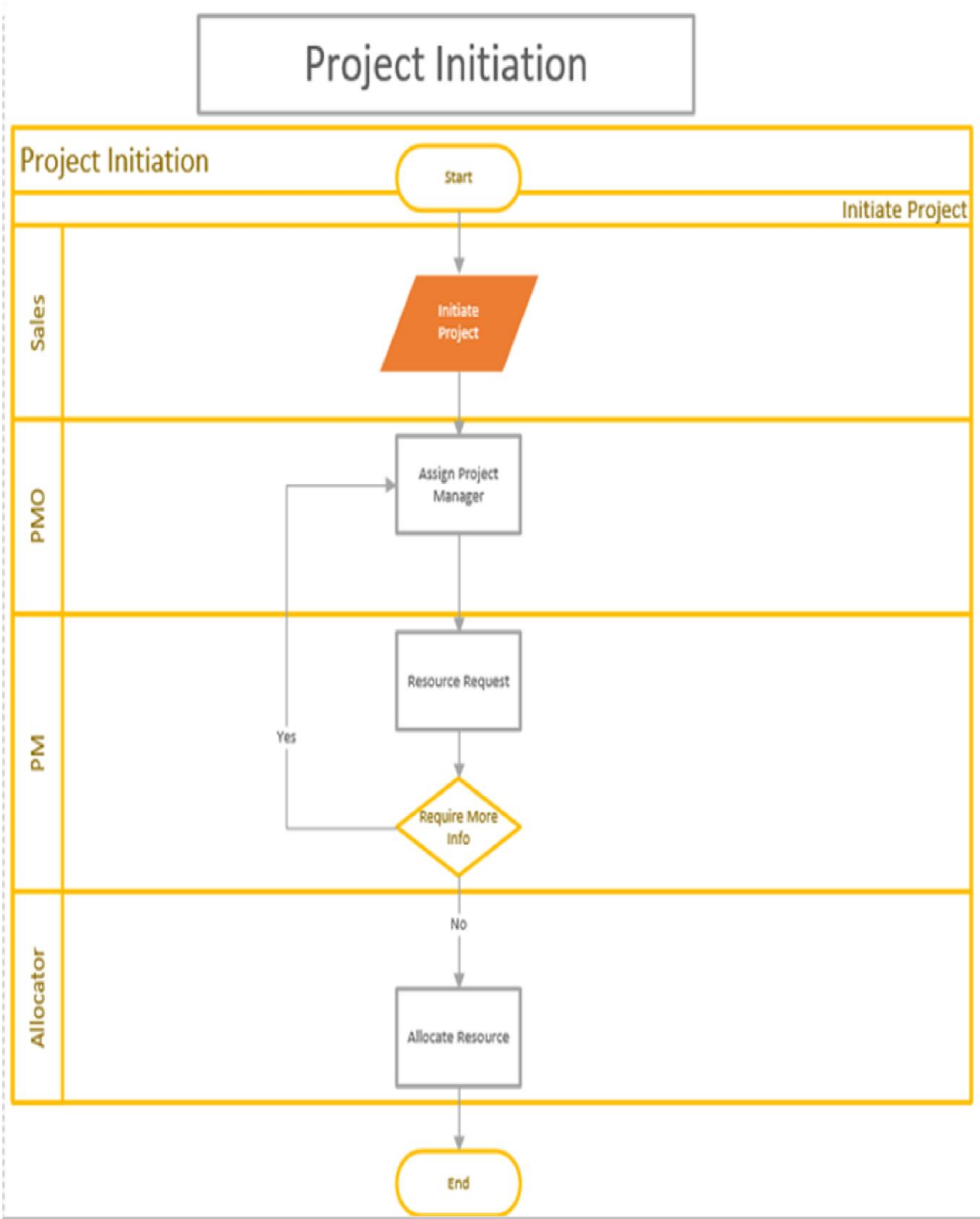

Create User Flow
Start
Login With PMO User
Create Resource Request
Is Access Required
No
Yes
Create User
End
A
A
Login With Administrator User
Review User Details
Need More info
Yes
No
Send task back to Sales User
Create Account in Active diretory
End

Fig no.-9



Project Initiation
Project Initiation
Start
Initiate Project
Sales
Initiate Project
PMO
Assign Project Manager
PM
Resource Request
Yes
Require More Info
No
Allocator
Allocate Resource
End

Fig no.-10

Resource Details – PMO Role

Field Name	Datatype	Mandatory	Editable	Description/Validation
First Name	String (50)	Y	Y	
Last Name	String (50)	Y	Y	
User Name	String(30)	Y	Y	Should not allow spaces
Phone Number	String(20)		Y	
Date of Birth	Date		Y	
DOJ Genpact	Date		Y	
DOJ Pnmsoft	Date		Y	
Email	String	Y	Y	Email Validation
OHR ID	Number		Y	
Genpact Designation	Lookup	Y	Y	
Region	Lookup	Y	Y	
Reporting Manager	Lookup		Y	
Regional Manager	Lookup	Y	Y	
Department	Lookup		Y	
Pnmsoft Role(s)	Lookup	Y	Y	
Is Access Required	Boolean		Y	Will decide if user has access to portal or not
Comments				
Add Comment	String(1000)		Y	
Button "Submit"				On Click will save the data in DB
Button "Cancel"				On Click will cancel and close

				current tab.

Table-1

Business rule Validation

Record will be saved in database with new user created and if “Is Access Required” is checked then task will go to “Administrator” Role user. Who will create User using above username in Active directory.

In addition, after submission, user account will be created. Usually they will be Project Manager, Team lead, PMO, Sales users who will manage this application and they have rights to perform/assign task between them. If “Is Access Required” is not checked that means user account will be created but user will not have right to login this portal. Usually it would be Product Specialist, QA etc. users. To whom once they assigned on project, they will be notified.

PMO Form

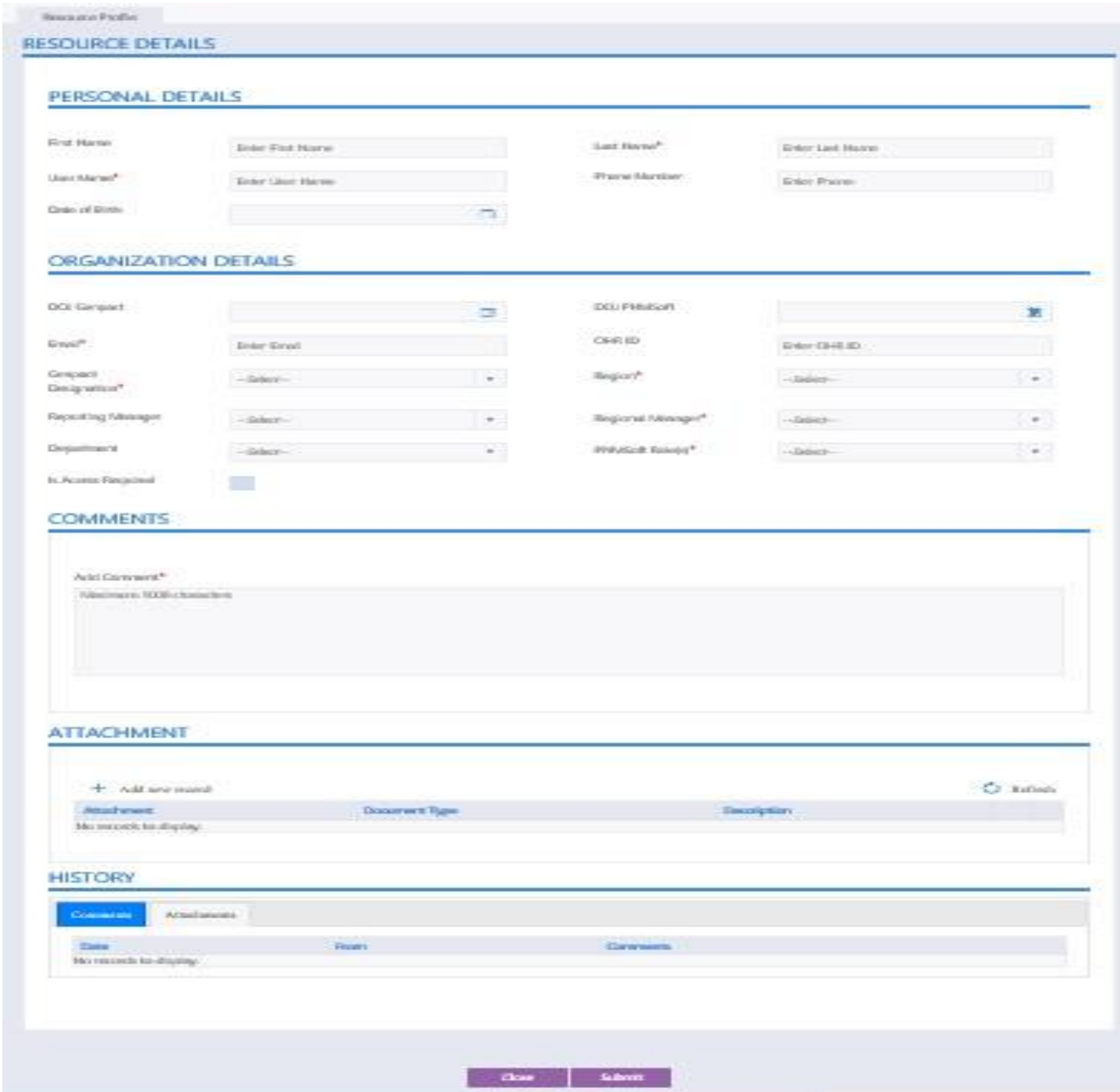


Fig no.-12

Resource Details – Administrator Role Administrator user login →Need to fetch the task

Field Name	Datatype	Mandatory	Editable	Description/Validation
First Name		Y	N	
Last Name		Y	N	

User Name		Y	N	
Phone Number			N	
Date of Birth			N	
DOJ Genpact			N	
DOJ Pnmsoft			N	
Email		Y	N	
OHR ID			N	
Genpact Designation		Y	N	
Region		Y	N	
Reporting Manager			N	
Regional Manager		Y	N	
Department			N	
Pnmsoft Role(s)		Y	N	
Comments				
Add Comment	String(1000)		Y	
Button “Submit”				On Click will save the data in DB
Button “Close”				On Click will cancel and close current tab.
Button “Need More Details”				On Click will send this to PMO User.

TABLE - 2

Business rule Validation

- On Submit Click, Record will be saved in database. Now this user can login to this portal and do the task assigned to him.
- On Close, Click will cancel and close current tab.
- On Click on "Need More Details", will send this task back to PMO user it means administrator has added comment and want more information before allowing this user to get portal access.

Administrator Screen

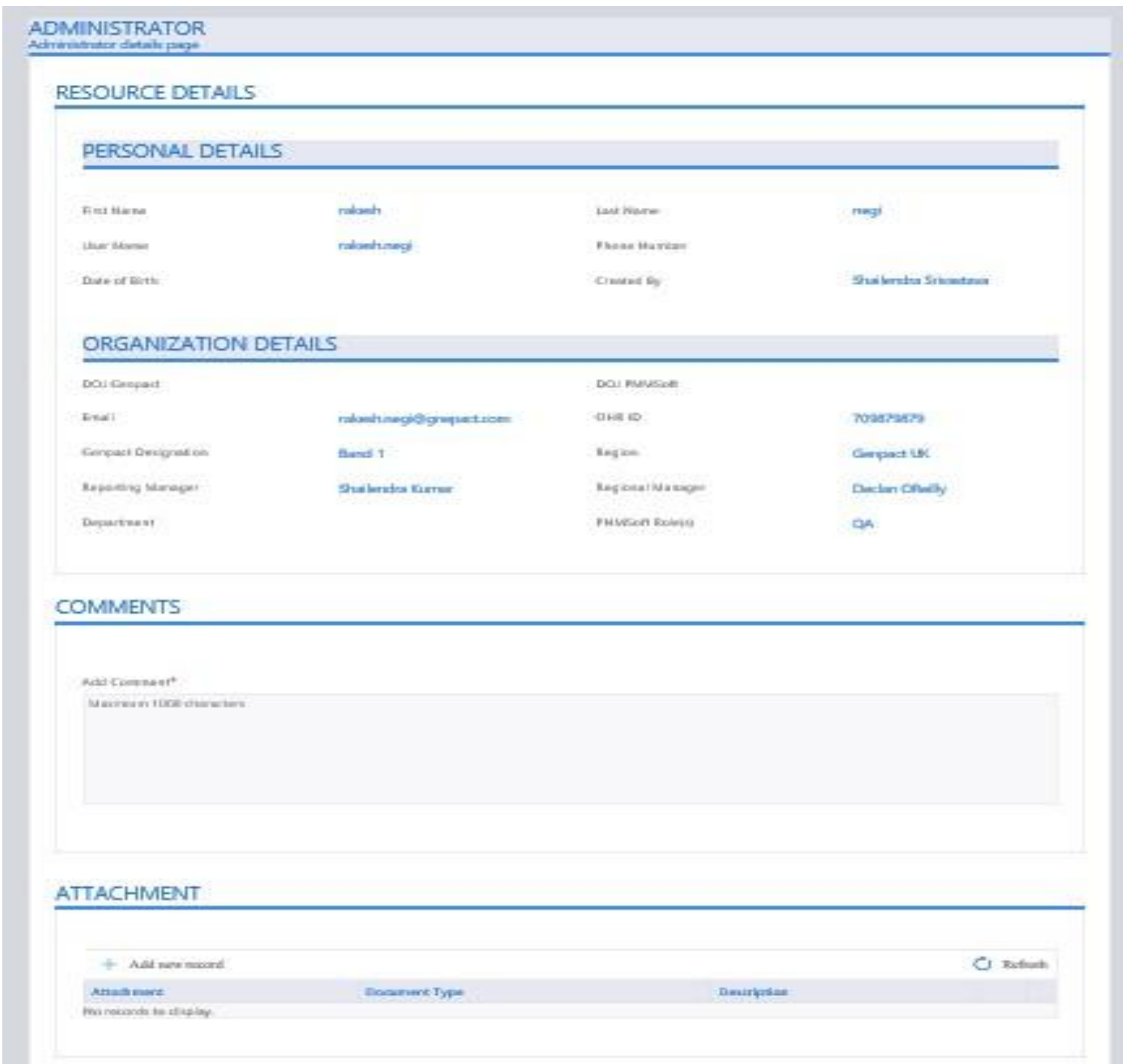


Fig no.-13

Project Initiation –

Sales user - will login to the portal and New Process → Manage Project → Project Initiation

It will allow sales user to enter new project requirement.

Field Name	Datatype	Mandatory	Editable	Description/Validation
Project Name	String(50)	Y	Y	
Client Name	String(50)	Y	Y	
SFDC ID	String(10)		Y	
Region	Lookup		Y	
Account Manager	Lookup		Y	
Tentative Deal Value	Lookup	Y	Y	
Priority	Lookup		Y	
Country	Lookup		Y	
Tentative Start Date	Date	Y	Y	
Tentative End Date	Date	Y	Y	
Comments				
Add Comment	String(1000)		Y	
Button “Submit”				On Click will save the data in DB
Button “Close”				On Click will cancel and close current tab.

TABLE-3

Business rule Validation

On Submit, Record will be saved in database. Now this project task will be send to PMO Group where PMO group user can fetch the task and assign project manager from the list, to whom he/she wants to work on this project. After submission, this project will be shown too particular Project Manager’s task list, to whom it is assigned. On Close, Click will cancel and close current tab.

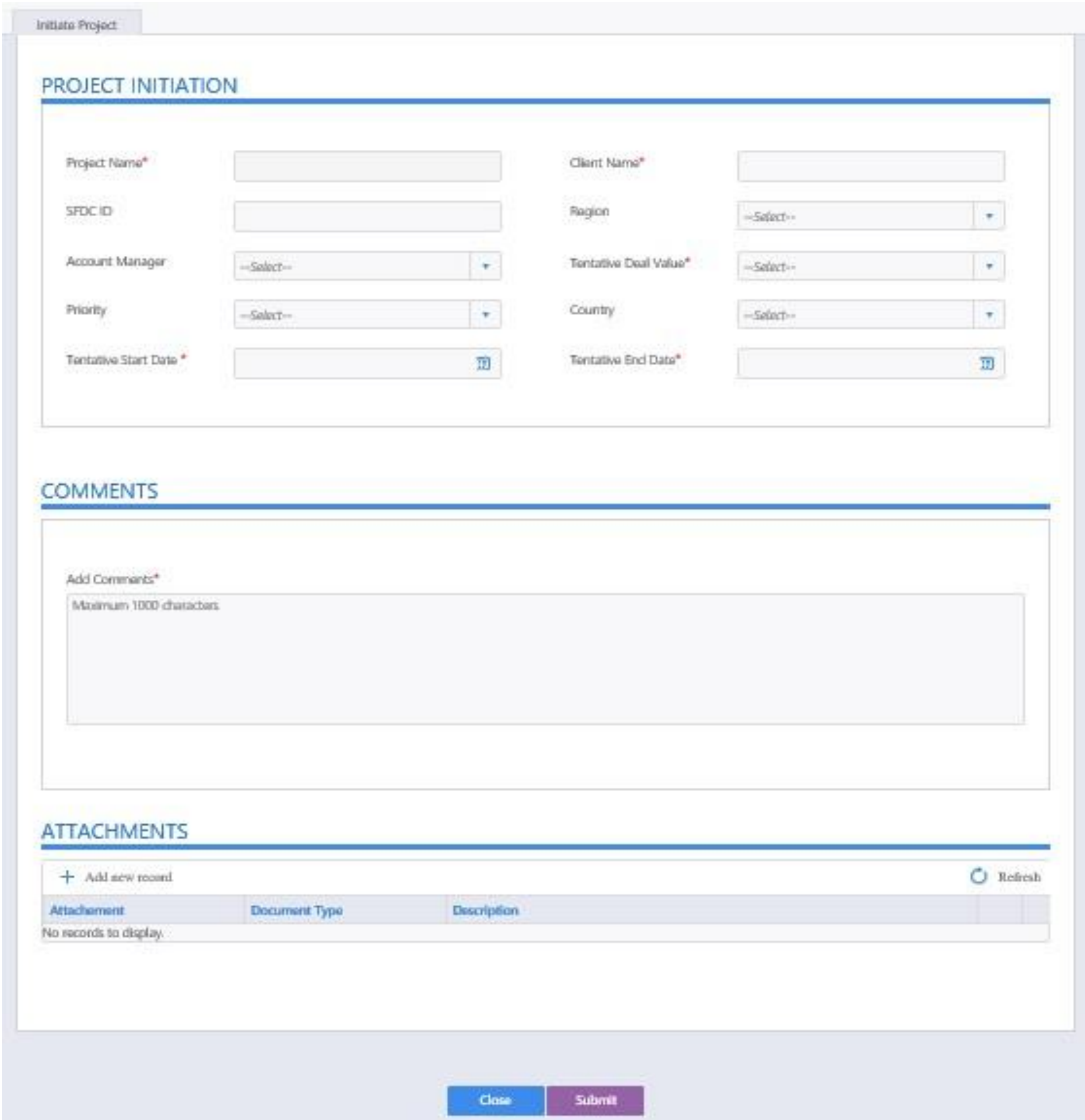


Fig no.-14

PMO user - will login to the portal and My Tasks → Select task assigned to him like "Project X- Assign Project Manager".

It will allow PMO user to select Project Manager for this project.

Field Name	Datatype	Readonly	Editable	Description/Validation
Project Name	String(50)	Y	N	
Client Name	String(50)	Y	N	
SFDC ID	String(10)	Y	N	
Region	Lookup	Y	N	
Account Manager	Lookup	Y	N	
Tentative Deal Value	Lookup	Y	N	
Priority	Lookup	Y	N	
Country	Lookup	Y	N	
Tentative Start Date	Date	Y	N	
Tentative End Date	Date	Y	N	
Assign Project Manager				
Manager	Lookup		Y	
Allocation	Int		Y	Maximum up to 100%
Start Date	Date		Y	
End Date	Date		Y	
Comments				
Add Comment	String(1000)		Y	
Button "Submit"				On Click will save the data in DB

Button "Close"				On Click will cancel and close current tab.

TABLE -5

Business rule Validation

Here, PMO user need to select Project manager and allocate him to project. He require entering start date and end date which tells about which duration project manager efforts required on this particular project. He/she can enter comment or attachment to let the PM know about more details of this project.

On Close, Click will cancel and close current tab.

PM user - will login to the portal and My Tasks → Select task assigned to him like

"Project X- Assign Project Manager".

Field Name	Datatype	Readonly	Editable	Description/Validation
Project Name	String(50)	Y	N	
Client Name	String(50)	Y	N	
SFDC ID	String(10)	Y	N	
Region	Lookup		Y	
Account Manager	Lookup		Y	
Tentative Deal Value	Lookup		Y	
Priority	Lookup		Y	
Country	Lookup		Y	

Tentative Start Date	Date		Y	
Tentative End Date	Date		Y	
Assigned Project Manager Details				
Manager	Lookup	Y	Y	
Allocation	Int	Y	Y	Maximum up to 100%
Add Resource				
Role	Lookup		Y	Role of the User on this project
Count			Y	No of resource required
Preferred Location			Y	Location from where resource required
Start Date			Y	Selected user start date on this project
End Date	Date		Y	Selected user end date on this project
Allocation				Maximum up to 100%
Comments				
Add Comment	String(1000)		Y	
Button "Submit"				On Click will save the data in DB
Button "Request for More Info"				On Click, task will be send to PMO for more clarification.
Button "Cancel"				On Click will cancel and close current tab.

It will allow PMO user to select Project Manager for this project.

Table-6

Business rule Validation

Here, PM user need to enter no of user’s requirement to complete the project in respective timelines. PM user can request from different location like two product specialists from India, One from UK, one QA for Israel and so on. After submission, this task will be send to Resource Allocator of each location. For each user requirement, separate task will be created and assigned
to allocator who belong to particular location.
On Close, Click will cancel and close current tab.
On Request for More Info, Click will send this task back to PMO user to get more clarification on this project requirement. User need to enter comment and click on Request for more info button.

PM User Screen

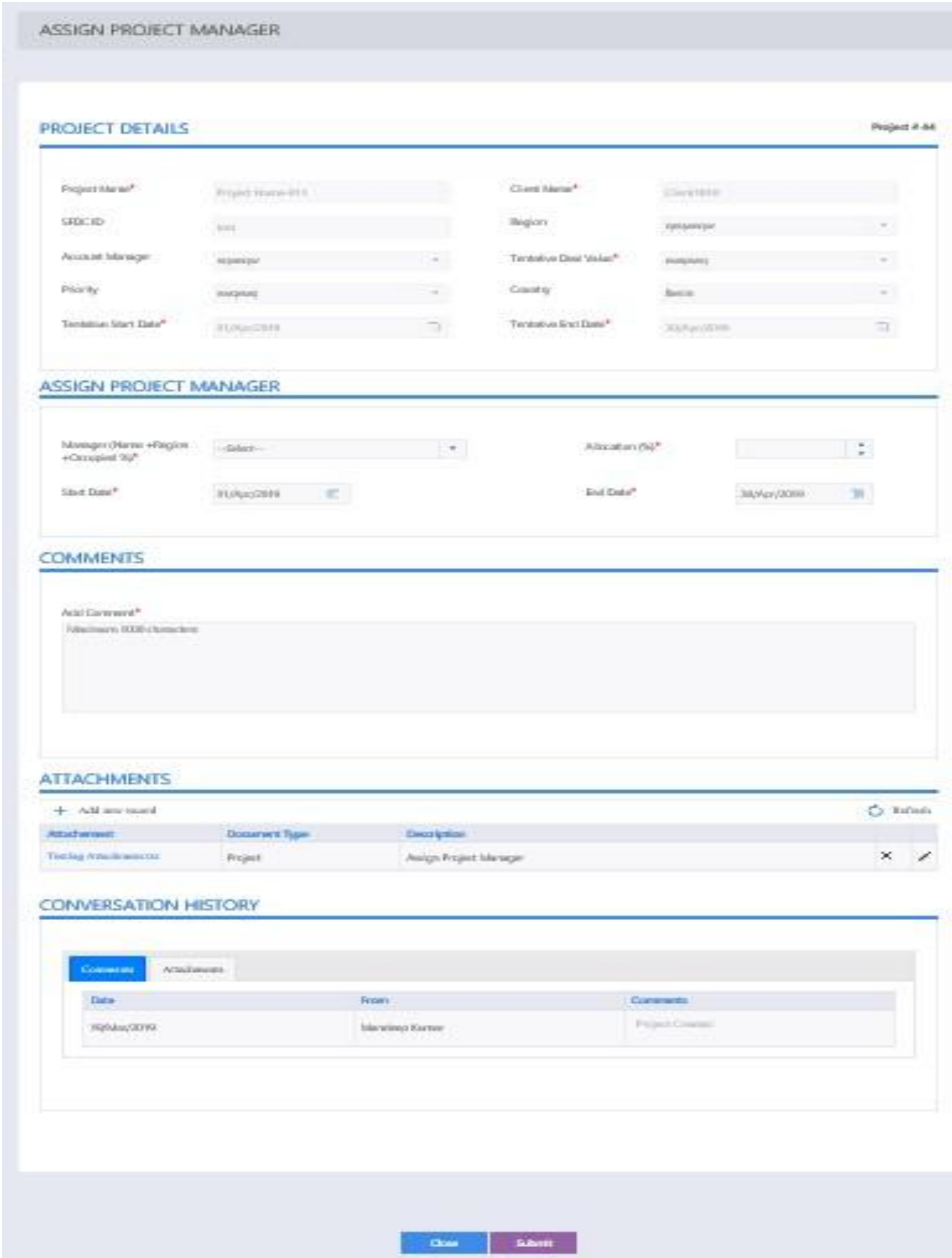


Fig no.-15

Resource Allocator - will login to the portal and My Tasks → Select task assigned to him like "Project X- Assign <User Role>".It will allow PMO user to select Project Manager for this project.

Field Name	Datatype	Readonly	Editable	Description/Validation
Project Name	String(50)	Y	N	
Client Name	String(50)	Y	N	
SFDC ID	String(10)	Y	N	
Region	Lookup	Y	N	
Account Manager	Lookup	Y	N	
Tentative Deal Value	Lookup	Y	N	
Priority	Lookup	Y	N	
Country	Lookup	Y	N	
Tentative Start Date	Date	Y	N	
Tentative End Date	Date	Y	N	
Resource Requirement				
Role	Lookup	Y	N	
Region	Int	Y	N	
Start Date		Y	N	
End Date		Y	N	
# Resource Required		Y	N	
Allocation (%)		Y	N	
Search Resource				
Start Date	Date	N	Y	

End Date	Date	N	Y	
Button Search				Will search the user with specific role
Add Comment	String(1000)		Y	
Button “Allocate”				On Click will save the data in DB, send the notification to selected User
Button “Close”				On Click will cancel and close current tab.

Table -7

Business rule Validation

On Allocate Click, Here Allocator user require to search the best available resources for this project requirement. After selecting the resource, when allocator submits this task then notification will be send to selected user that he has assigned on this project on project dates of this project.

On Close, Click will cancel and close current tab.

Resource Allocator screen

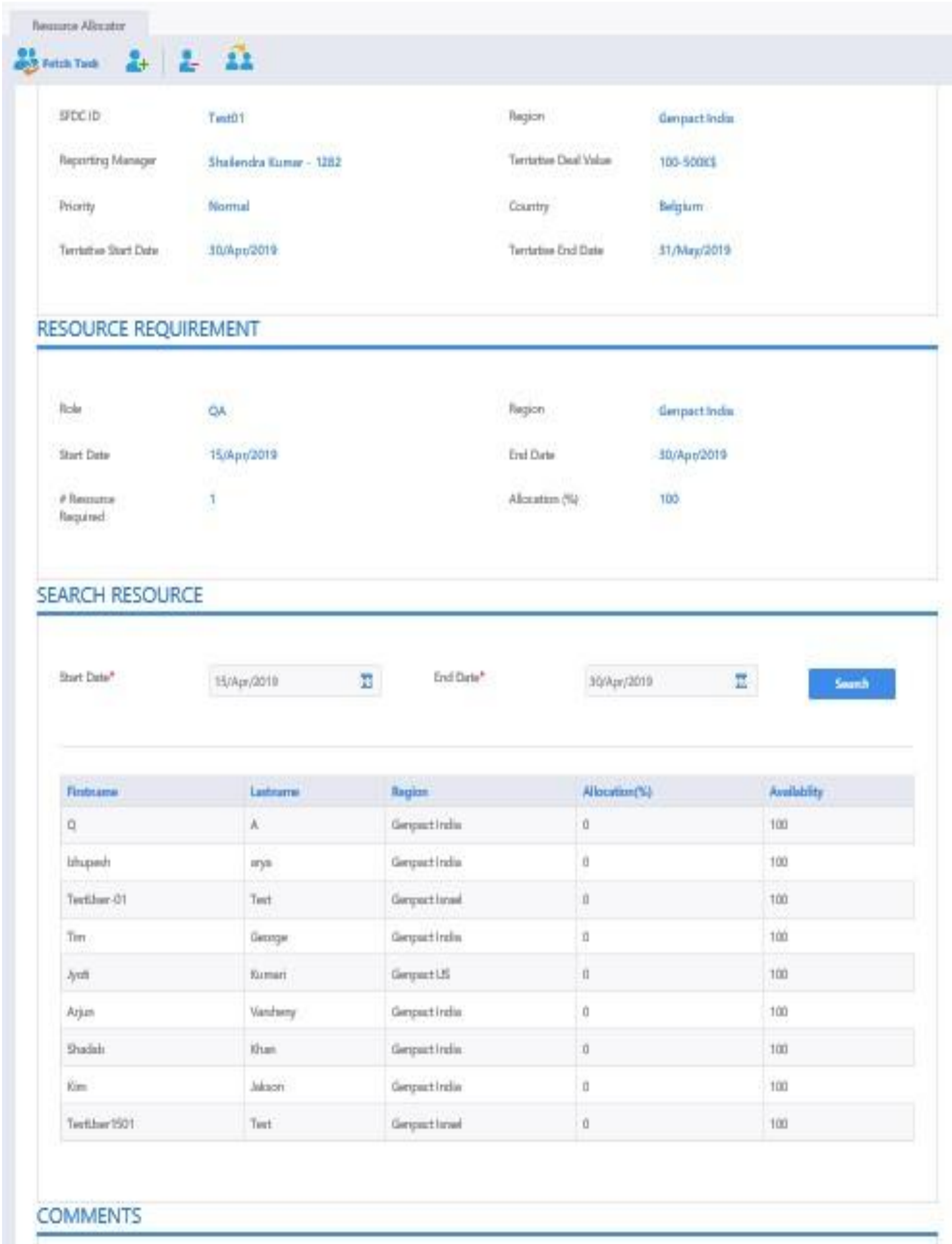

Resource Allocator
Fetch Task
SFDC ID
Test01
Region
Genpact India
Reporting Manager
Shailendra Kumar - 1282
Tentative Deal Value
100-500K$
Priority
Normal
Country
Belgium
Tentative Start Date
30/Apr/2019
Tentative End Date
31/May/2019
RESOURCE REQUIREMENT
Role
QA
Region
Genpact India
Start Date
15/Apr/2019
End Date
30/Apr/2019
Resource Required
1
Allocation (%)
100
SEARCH RESOURCE
Start Date*
15/Apr/2019
End Date*
30/Apr/2019
Search
Firstname
Lastname
Region
Allocation(%)
Availability
Q A Genpact India 0 100
bhupesh arya Genpact India 0 100
TestUser-01 Test Genpact Israel 0 100
Tim George Genpact India 0 100
Jyoti Kumari Genpact US 0 100
Arjun Varshney Genpact India 0 100
Shadab Khan Genpact India 0 100
Kim Jakson Genpact India 0 100
TestUser1501 Test Genpact Israel 0 100
COMMENTS

Fig no.-16

Roles & Responsibilities

Role	Responsibilities
Sales	• Can create project • Can Edit his own profile
Administrator	Can approve newly created user.
PMO	• Can Manage any project • Can Edit his own profile • Can complete tasks assigned • Create/Manage resources • All Above with Resource Approval • Can give Resource Feedback
Project Manager	• Can manage only project he/she is assigned Can edit his own profile. • Can complete tasks assigned • Can give Resource Feedback
Resource Allocator	Can complete tasks assigned Can edit his own profile.

User Feedback

Roles allowed to give feedbacks: PMO , PM

New Process→ Mange Project → Resource Feedback

Feedback section - here PMO and PM can give the feedback of users, it will help in evaluation of resources. Only PMO and PM role user has rights to give feedbacks for the users. No other role have access to this section.

PMO User – Can give resource feedback and Edit project using below screen.

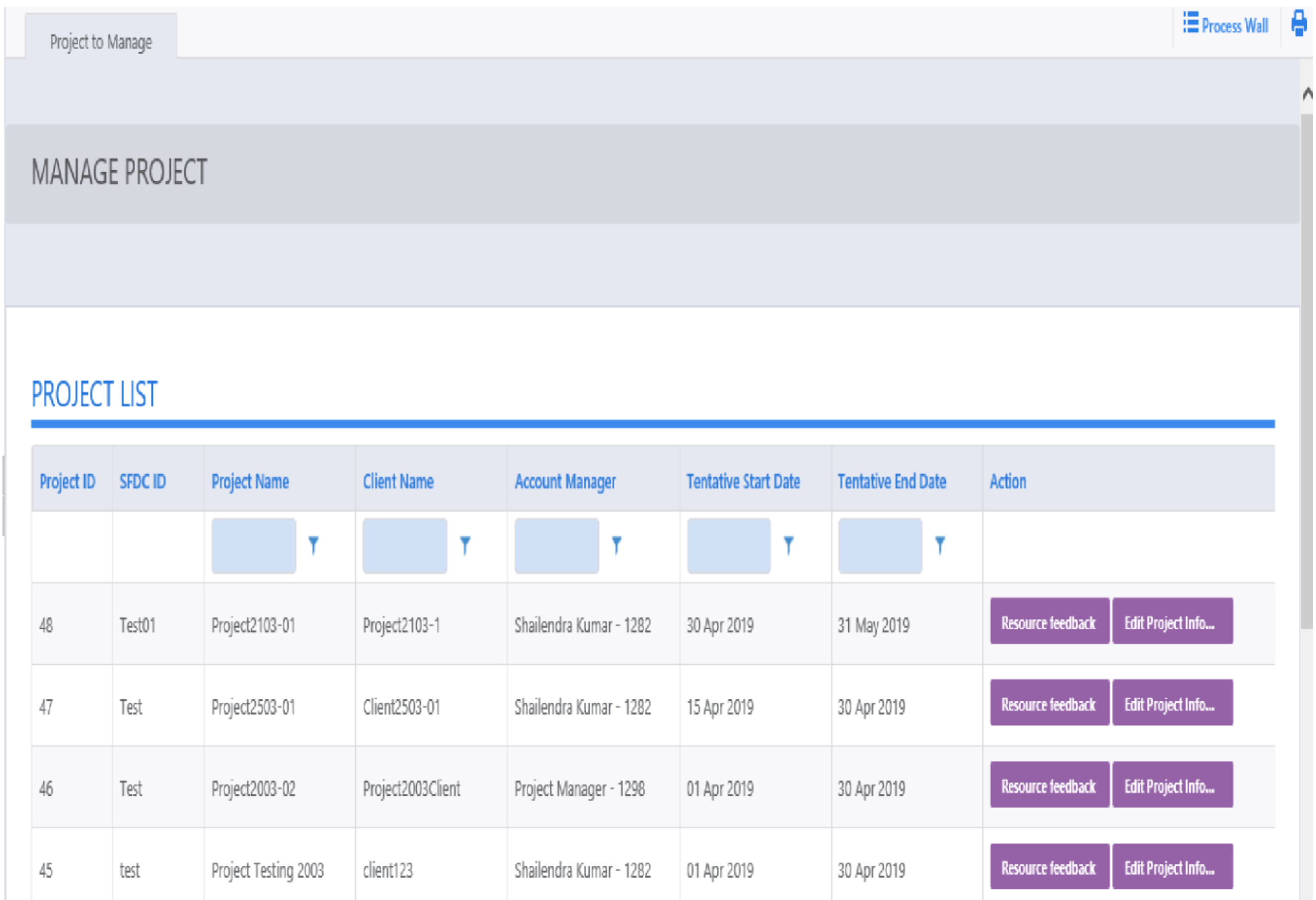


Fig no.-17

After clicking on Resource Feedback for any particular user, below screen appears where PMO can give feedback of selected resource.

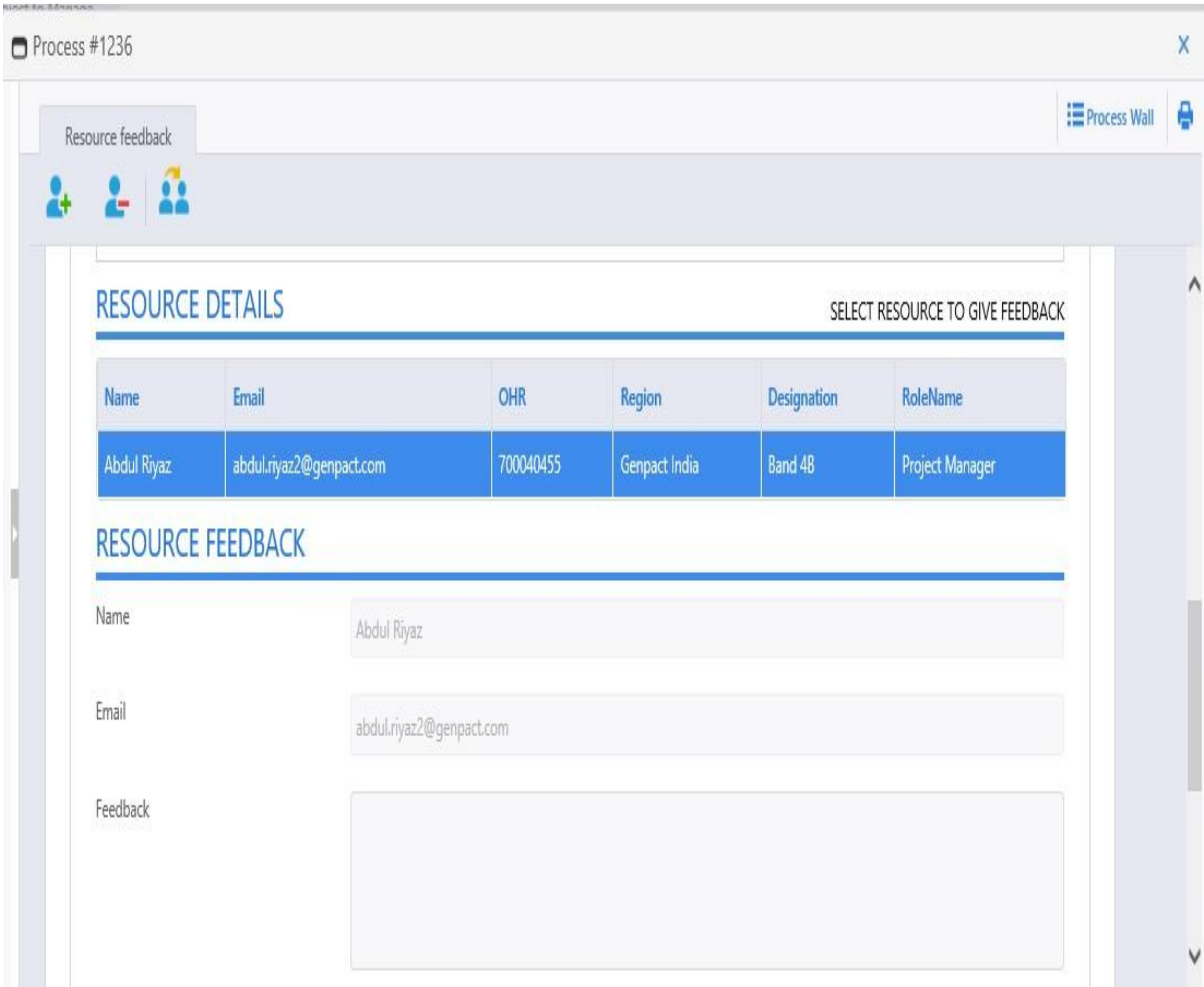


Fig no.-18

Edit Project Details

Roles allowed to edit project info : PMO , PM

PMO user can edit project details using below process.

New Process Mange Project Edit Project Info

PMO can change the project dates and priority using below screen.

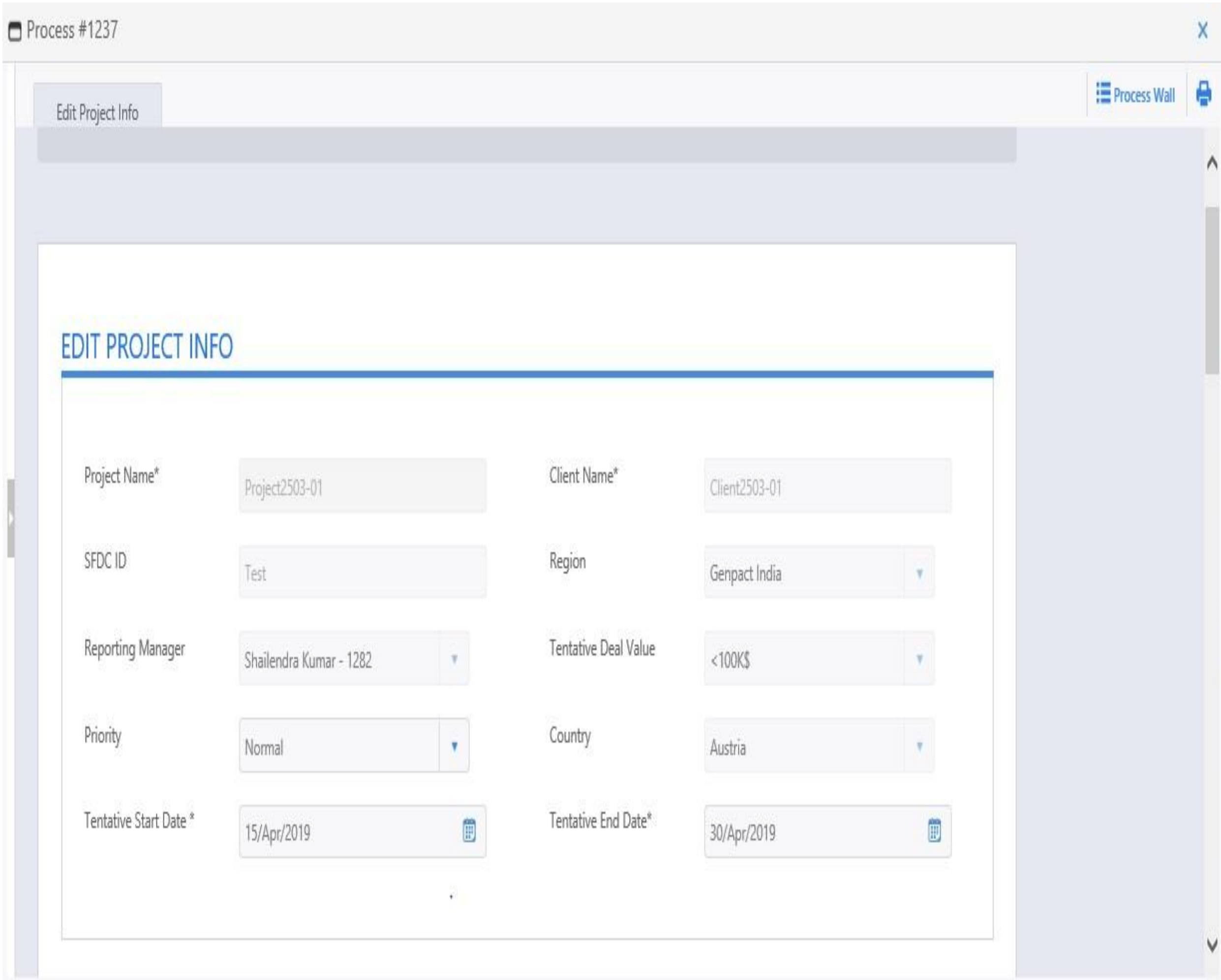


Fig no.-19

Request for more resources

New Process→ Mange Project → Resource Request

PM user can request for more resource using below screen. The purpose of this section is like,for some project is in between and PM analysis that he/she need more resources to work on any particular project. So he/she can raise the request for more resources where same process will be followed, Request goes to resource allocator who will assign the resource for this project. Find the below screens for reference.

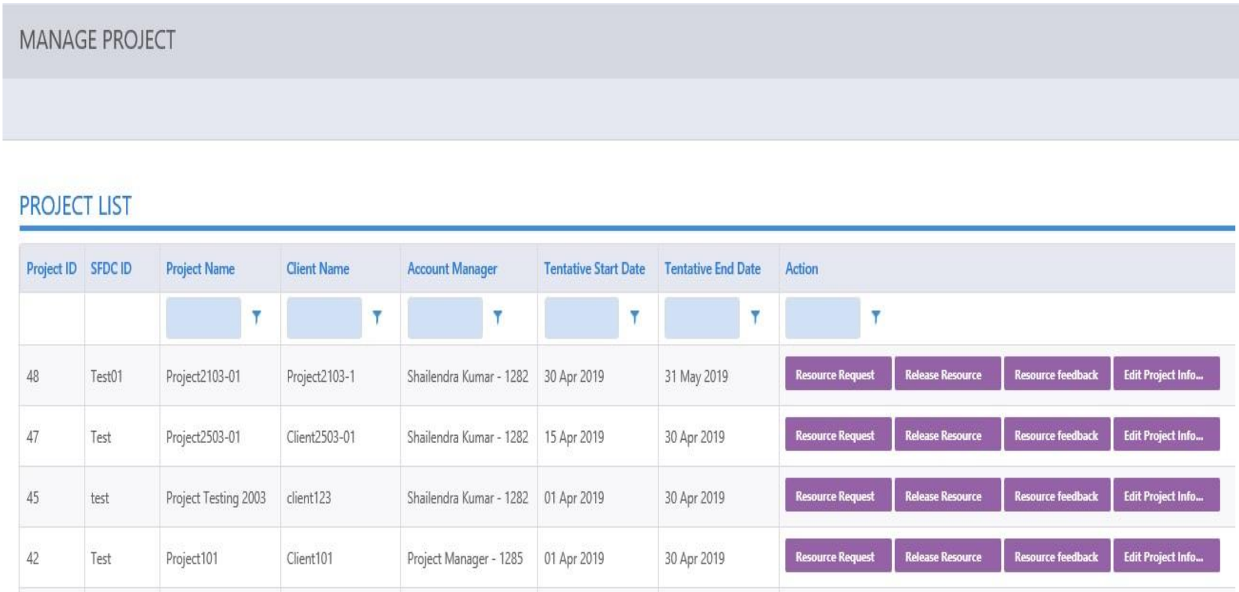


Fig no.-20

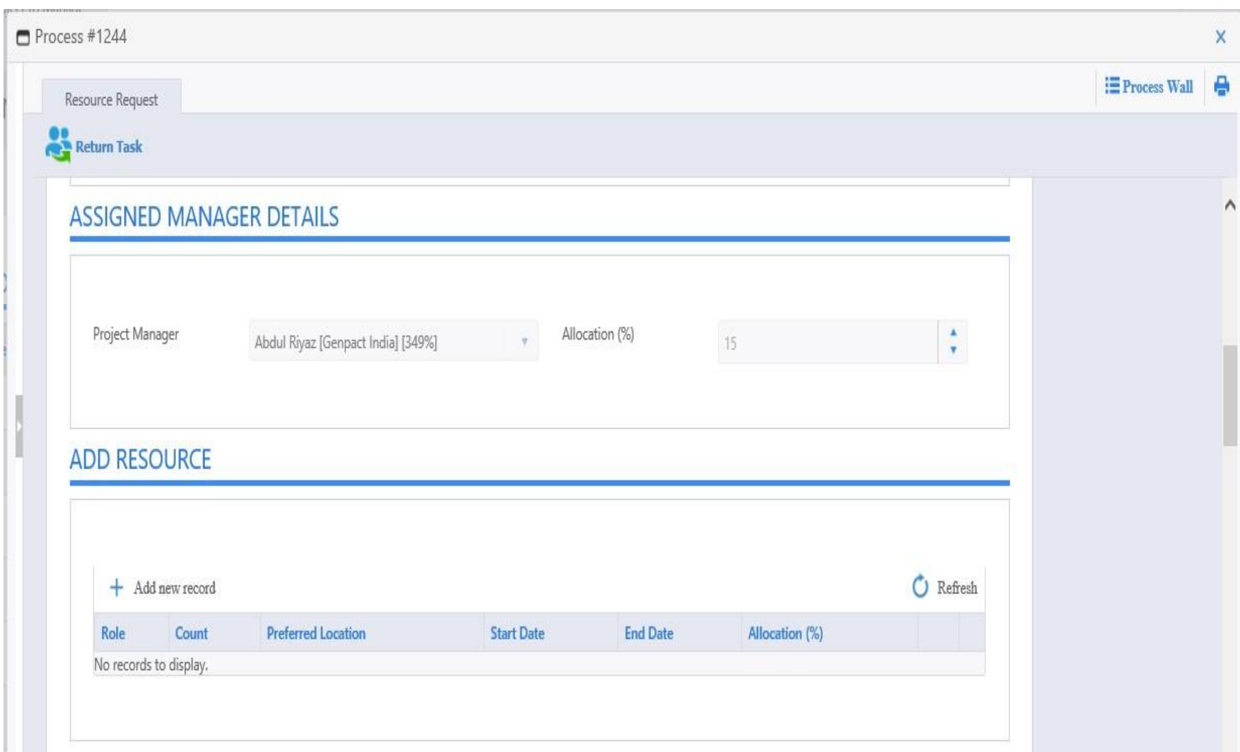


Fig no.-21

Release resources

New Process→ Mange Project → Release Resource

Only PM user can raise this request. Purpose for this section is to release the resources from one project and if required then assign the resource to other project-using request for more resources section. Here project manager cannot release himself. Only the resource(s) other than project manager can be released.

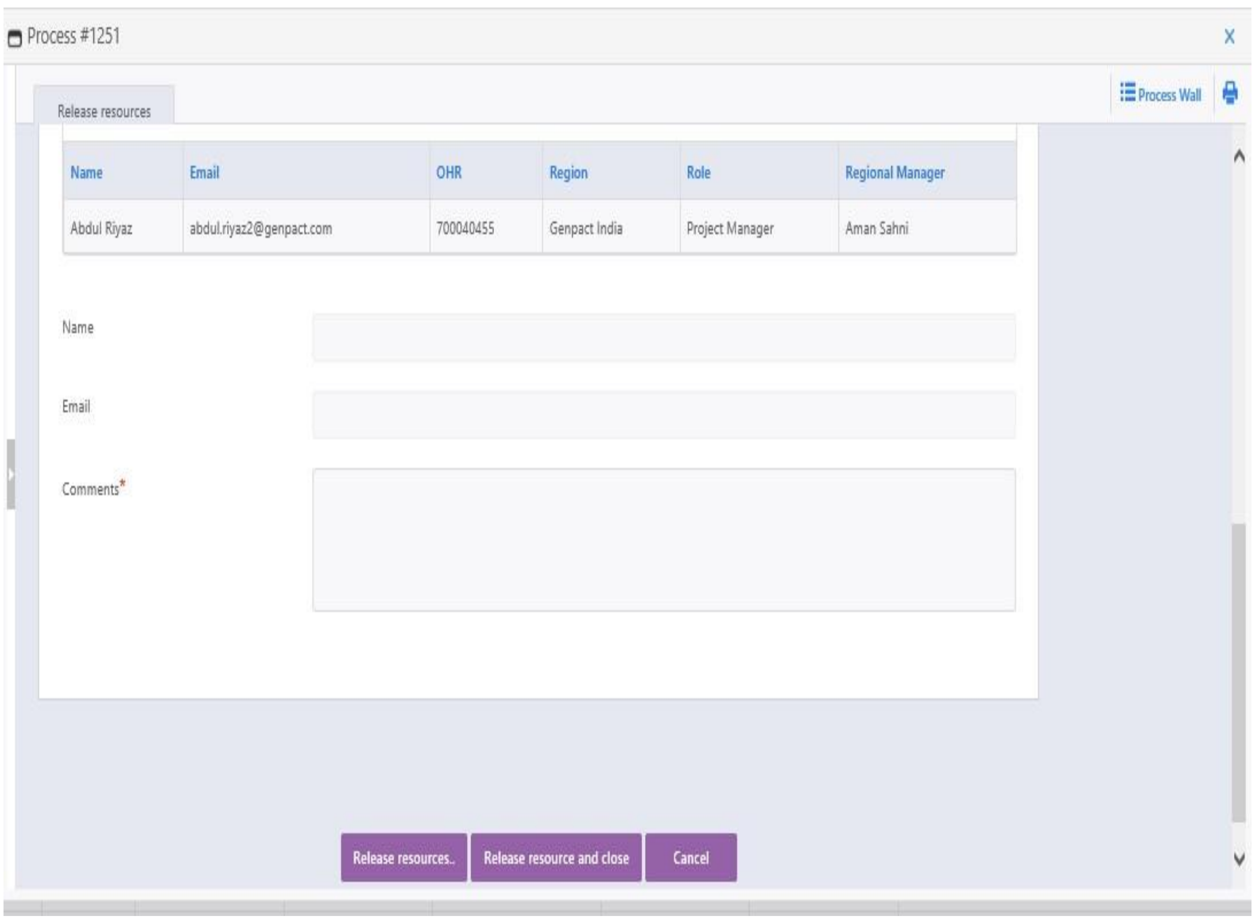


Fig no.-22

Edit Profile – **All the roles are allowed to change their profile.**

New Process→ Mange Project → Release Resource

Field Name	Datatype	Mandatory	Editable	Description/Validation
First Name	String (50)	Y	N	
Last Name	String (50)	Y	N	
User Name	String(30)	Y	N	Should not allow spaces
Phone Number	String(20)		Y	
Date of Birth	Date		N	
DOJ Genpact	Date		N	
DOJ Pnmsoft	Date		N	
Email	String	Y	N	Email Validation
OHR ID	Number		N	
Genpact Designation	Lookup	Y	Y	
Region	Lookup	Y	N	
Reporting Manager	Lookup		Y	
Regional Manager	Lookup	Y	Y	
Department	Lookup		Y	
Pnmsoft Role(s)	Lookup	Y	N	
Skills				
Skill	String(500)	Y	Y	
Version	String(50)	Y		

Experience (Year)	Decimal	Y	Y	
Last Used	String(50)	Y	Y	
Add Comment	String(1000)		Y	
Button "Update"				On Click will save the data in DB
Button "Cancel"				On Click will cancel and close current tab.

Business rule Validation

- Here, User can edit his some fields and he/she can add his skills.
- On Close, Click will cancel and close current tab.

Resource Details Screen

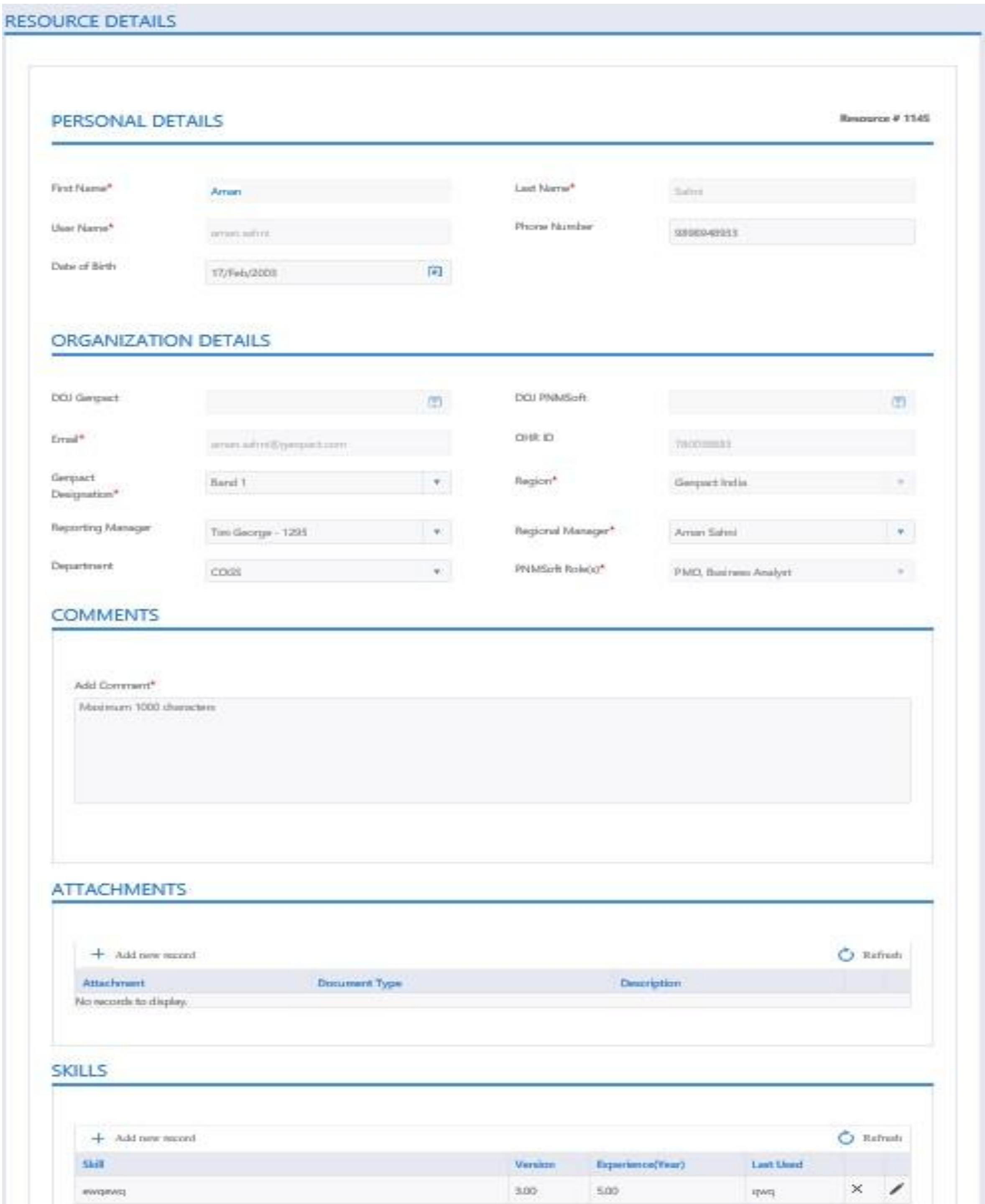


Fig no.-23

Other responsibilities

PMO User Roles –

PMO user can Manage Resource by **New Process → Manage Resource**.

- Here PMO user can see all the users list and view the details of each user.
- Can download the list of all user in excel or pdf format.
- Can edit user's details
- Can search user's details
- Can sort user's details

PMO user can Manage Resource by **New Process → Manage Project.**

- Here PM user can see all the project's list .
- Can edit project details.
- Can give resource feedback.

PM User Roles -

PM user can Manage Resource by **New Process → Manage Project**.

- Here PM user can see the entire project list on which he/she is assigned as Project Manager.
- Can raise request for more resource that he/she need to assign in particular project.

- Can release resource that means select resource will be available for other projects; User's allocation percent will be removed for this project.
- Can edit project details.
- Can give resource feedback.

References

https://www.genpact.com/about-us/company-overview#

http://www.pnmsoft.com

http://www.pnmsoft.com/technology/digital-business-transformation-platform/

http://www.pnmsoft.com/technology/workflow-software/

https://en.wikipedia.org/wiki/Genpact

https://www.softwaretestinghelp.com/agile-scrum-methodology-for-development-and-testing/