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# Sales Management Portal

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## **Abstract**

The project deals with the tracking of the sales made on behalf of the projects that are being handled by the organization. In the current project, there exists three levels of user's such as employee, manager and client. Each user with different levels of access will be having different features enabled to them. Apart from this the users will be having authorized access and each user will be checked for role based access at each page level so that only authorized user will be able to access the feature that are assigned to the user. The web application will be mobile compatible and will be developed using the C#.NET and MS SQL Server.

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## ***1. Feature Description***

The primary aim of the application being developed is to keep a track on sales being made from the projects handled by the organization. The sales data is collected and the reports generated from the sales data give the big picture about the growth of the organization. This application is designed in such a way that it has three levels of users and each user will have functionalities enable per his authority i.e. each user will be having separate menu options and features

### ***1.1. Competitive Information***

As specified earlier though the project seems to be simple, there are many underlying complexities that need to be considered before moving forward. Apart from this there are many other organization that provide the same applications but to achieve this project the design of the application need to be developed in such a way that it must be simple and the all the requirements need to be satisfied. The requirements that must be met have been defined and the application that meets all the requirements will be considered for approval from the client.

### ***1.2. Relationships to other projects***

The application being developed will have much similarities to the other application available at various organizations or sources. The difference in the application lies in the page design, the logic between database objects and other constrains. When it comes to similarity between the projects the top one would be the logic because all the project will be having the same requirements and to achieve them the coding patterns would be similar but, the similarity in the design of the page cannot be expected. Apart from this the relationships between the project or the application and the other applications available in the market cannot be seen.

### ***1.3. Assumptions and Dependencies***

Throughout the phase of development of the application it is entirely based on the assumptions and dependencies and without their presence the completion of the application is impossible.

#### ***1.3.1. Assumptions***

The below are a list of assumptions that are made during the development of the application.

- Completion of the project in time starting from 28<sup>th</sup> September, 2016 to the final presentation on 28<sup>th</sup> November, 2016.
- To complete the project in budget allocated by the client for resources, software procurement, release, maintenance and training.
- After the completion of the project the user will be able to understand all the feature of the application and use them accordingly.
- Minimal bugs would be seen at the final phase of testing and all the functionalities work in the intended way.

### ***1.3.2. Dependencies***

The below is the list of dependencies that are made and incurred during the development of the application.

- The time complexity with respect to the number of requirements.
- Change of requirements at any point of time and achieving all the requirements in the application is a tough task.

### ***1.4. Future Enhancements***

The application communication system is not as good as the communication system provided by the other application available in the market. The design standards, the notifications related to the recipients read status are all not available. In the future, a more user friendly design related to communicator will be implemented.

Additionally, there is no mailing system in the application at present and in future the users will be able to send emails to others by using third-party servers. This creates more robust communication system where all the feature can be seen at one place.

## ***2. Technical description***

The application to be developed is designed using the C# .NET at the front-end logic and while coming to the back-end, it is developed using the MS SQL 2016 Developer Edition. Apart from this the theme that has been used for the application is from bootstrap where the predefined classes give the power for the developer. In here the user need not write or modify much of the CSS classes and their efficient usage lies in creating the best design for the application. The application is mobile friendly where the text and controls of the application would adjust themselves when the application is viewed in the mobile.

### ***2.1. Project Architecture***

In this project two architecture is implemented for the development of the application where it consists of two layers which are defined as follows.

- Presentation Layer

The presentation layer generally consists of code which represent the front-end design and the back-end logic. Most of the code in this layer will be rendered by the browser in which the user is accessing the application.

- Data Layer

In here the database objects, data sets will be seen and the actions being taken place at this layer will be hidden from the end-user.

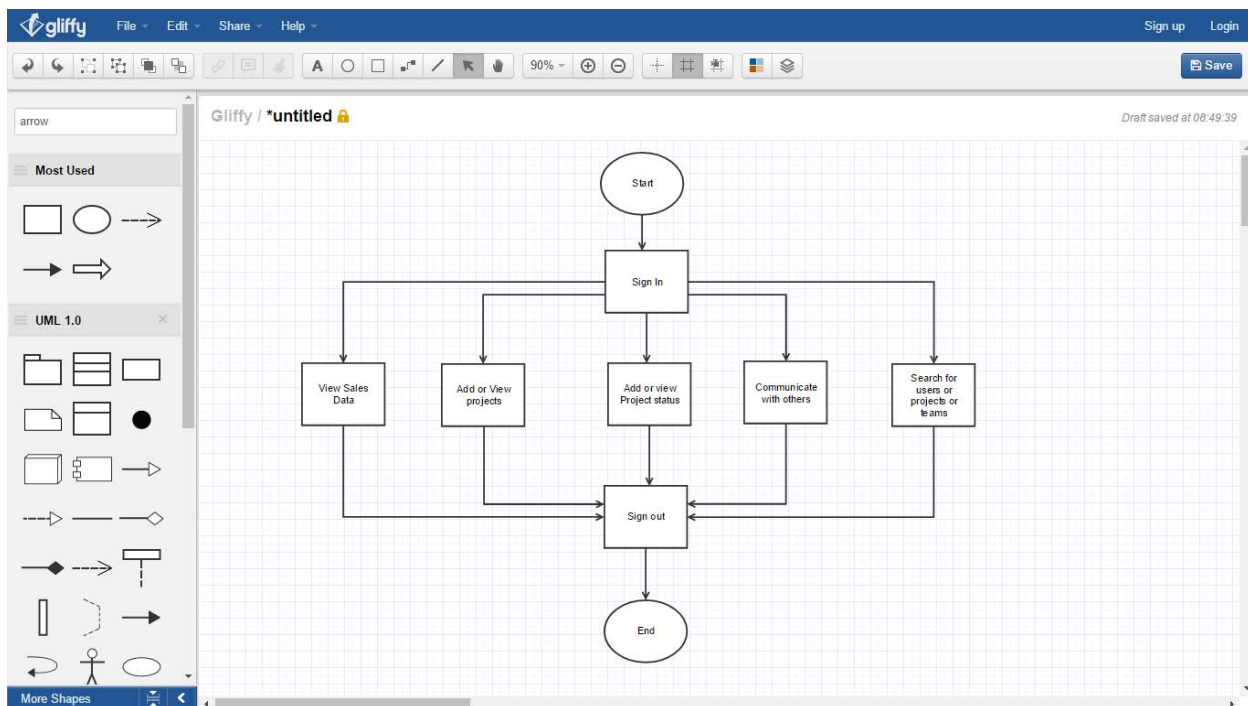
## 2.2. Project Information Flow

In this project the flow of information start when the user has signed into the application. Once the user signs into the application based on the role assigned to the user in the database the menu options to the user will be visible. In the current application, there are three types of users and are as follows.

- Client
- Manager
- Employee

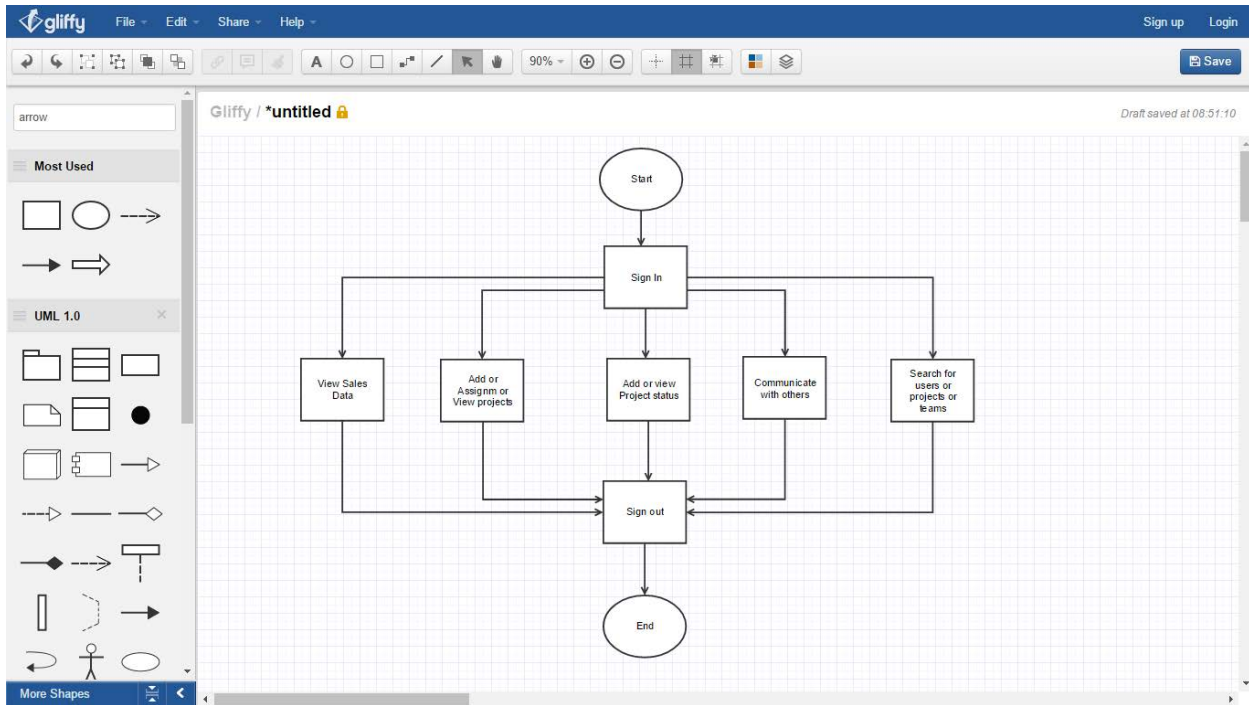
### 2.2.1. Client

The client is responsible for the creation of the projects and all the projects are associated with the client. There would be no project without the presence of the client. The below diagram depicts the actions that can be performed by the client.



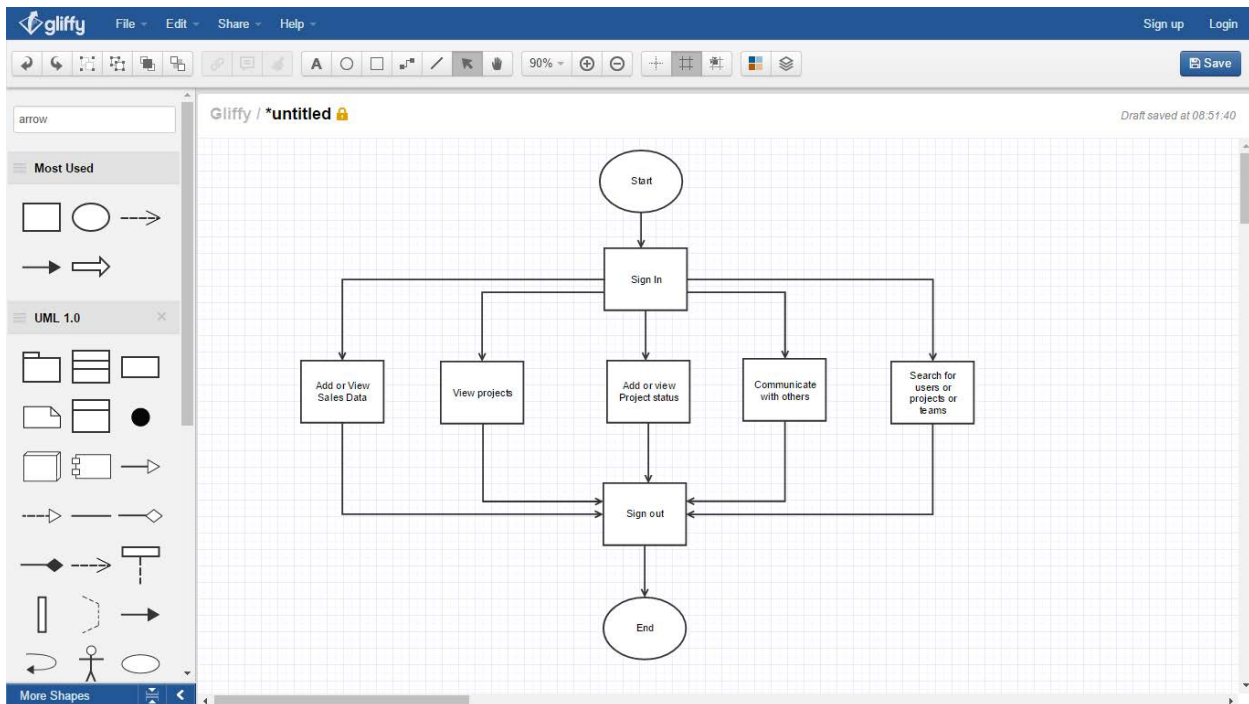
### 2.2.2. Manager

The manager plays a vital role in the application and he has gotten more actions than any other users in the application. The actions include creation of projects, confirming the projects, generating sales reports and others. The below diagram depicts the actions that can be performed by the manger.



### 2.2.3. Employee

The employee is primarily responsible for the creation of the sales data which plays a crucial role in the application. The sales data entered by the employee can be seen by all the other users too and these reports generated by them will help in a lot more ways for both the organization and the other users. The below diagram depicts the list of actions that can be performed by the employee.



### ***2.3. Interaction with other Applications***

At present the application interaction with the third-party applications would be for the email management where the users will be able to send email to others. But, this feature will be developed in the future but rather than depending on the third-party servers for communication it is better to depend on the local servers or trusted servers for communication. The primary reason for not using third-party servers is the security issues that can raise while using the third-party servers.

### ***2.4. Risk Assessment and Management***

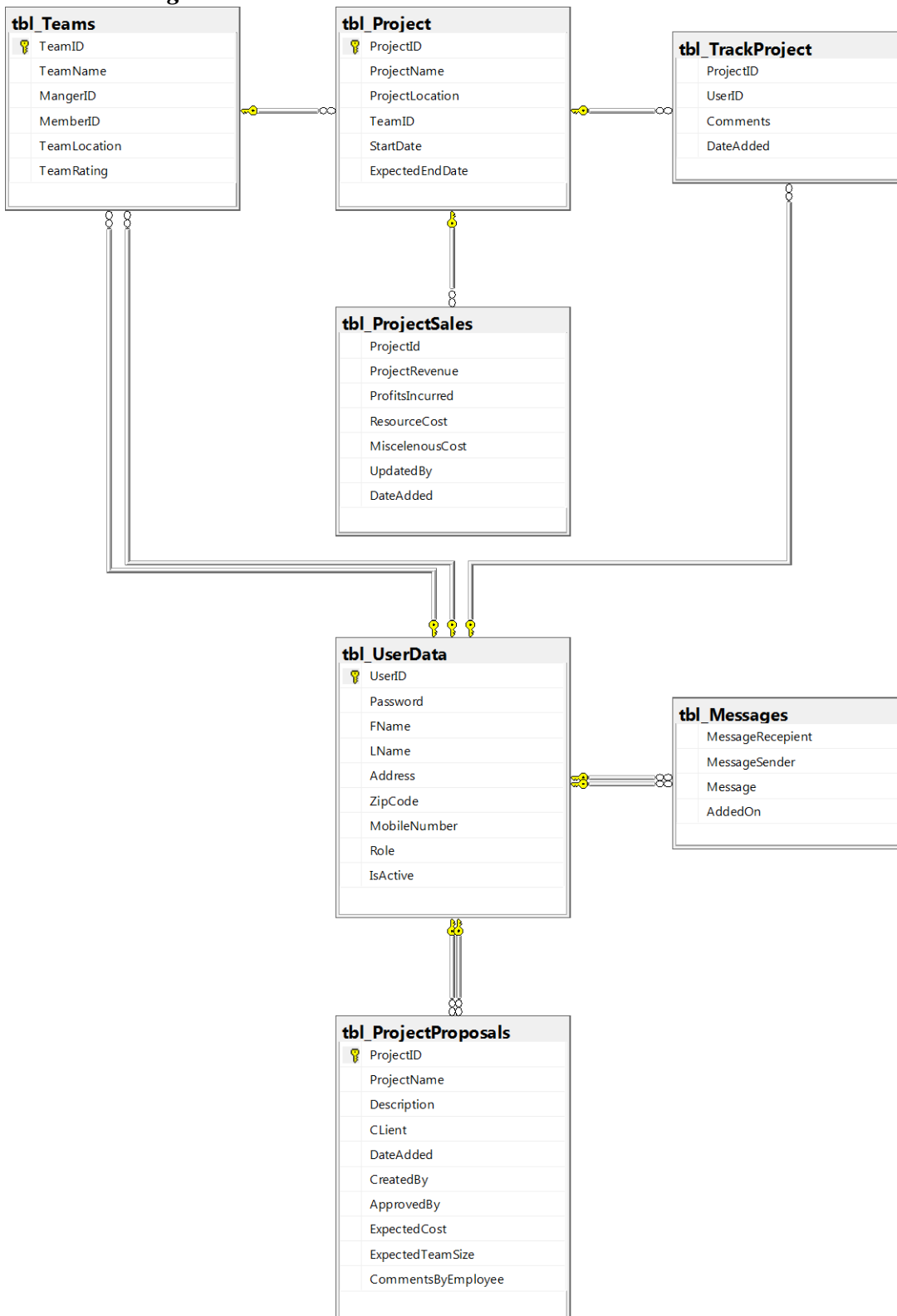
In the phase of development of the application starting to the completion of the project there are multiple risks that can be seen and need to be handled. The primary risk would be the completion of project within the stipulated time frame and efficient management resources is necessary for avoiding its occurrence. Apart from this all the other possible risks can be managed efficiently managed by the working team.

### ***2.5. Capabilities***

The capabilities of the application lie in the requirements that have been identified in the initial phase of development and then implemented. At present the application can gather sales data from the employee, create new projects, generate reports, search for users or projects and act as a medium of communication within the application. Apart from this, in future the application will can send emails and with a better communication system.



## 2.6. Database Design



### ***3. Project Requirements***

The project requirement state the minimum number of features that should be seen by the end user when the application goes live.

#### ***3.1. Identification of Requirements***

The list of requirements that have been identified are stated as follows.

##### ***<Sales\_Management\_Portal-1-Search-001>***

In here the user will be able to search for different things such as users, teams and projects. This creates an easy to use mechanism where the user need not look up all the projects or teams or users to find one project or user or team hence, decreasing the workload of the user.

##### ***<Sales\_Management\_Portal-1-Add\_Sales\_Data-002>***

In here user will be able to add the sales data by selecting a specific project and this data will later be useful to both the organization and the other users.

##### ***<Sales\_Management\_Portal-1-Add\_Projects\_Requests-003>***

In here the clients will be able to add project requests and will be confirmed by the manager. The client can view the list of all projects that have been confirmed and are pending for approval.

##### ***<Sales\_Management\_Portal-1-Confirm\_Project-004>***

In here the manager is responsible for the approving the project added by client. Once done the project will be able get sales data added by the employees.

##### ***<Sales\_Management\_Portal-1-View\_Projects-005>***

In here all the users will be able to view the projects that have been added by the other users. This list can be used to know the number of active project being handled by the users.

##### ***<Sales\_Management\_Portal-1-Project\_Tracking-006>***

In here the users can enter the status of the project day by day. This day to day report will be used on a whole to know the status of the project, expected date of completion and other details.

##### ***<Sales\_Management\_Portal-1-Communication-007>***

In here the users will be able to communicate with the fellow users and to communicate successfully both the users must be using the same application.

##### ***<Sales\_Management\_Portal-1-View\_Sales\_Data-008>***

In here the sales data entered by the employees will be seen by all the users and this generated data will be used by the other users and the organization for making decisions about the organization or the projects.

##### ***<Sales\_Management\_Portal-1-Authorized\_Access-009>***

In here all the users will be able to use the application only if they sign in into the application and this form of authorization makes sure that only authorized users will be able to view the data and make any kind of modifications to it.

### **<Sales\_Management\_Portal-1-Mobile\_Compatibility-010>**

In here the users will be able to view the application or access the application in mobile with great comfortability.

## **3.2. Operations and Administrations**

### **3.2.1. Training**

In here the users will be made aware of the actions that can be performed by them and the way in which they can be performed. These initial training sessions for the users create awareness among the users and can be the primary key in future for protection against security issues.

### **3.2.2. Data backup**

Once the application is made live, routines will be created for the database backup where the entire database consisting of various types of information will be saved on a different server location. This kind of data backup will protect the most valuable information in case of any natural calamities or any other reason by which the entire data is lost located a certain geological location.

### **3.2.3. Server Failure Recovery**

In here a recovery plan will be setup among the database in case of any reason by which the sever has crashed and failed to respond to the user or user's requests. This kind of backup recovery option will create 24/7 operation time for the users.

## **3.3. Maintenance**

The maintenance is a routine schedule run among the database or the servers by which the database administrators can make sure that data integrity is maintained among the server and no future server crashes can be expected from the database.

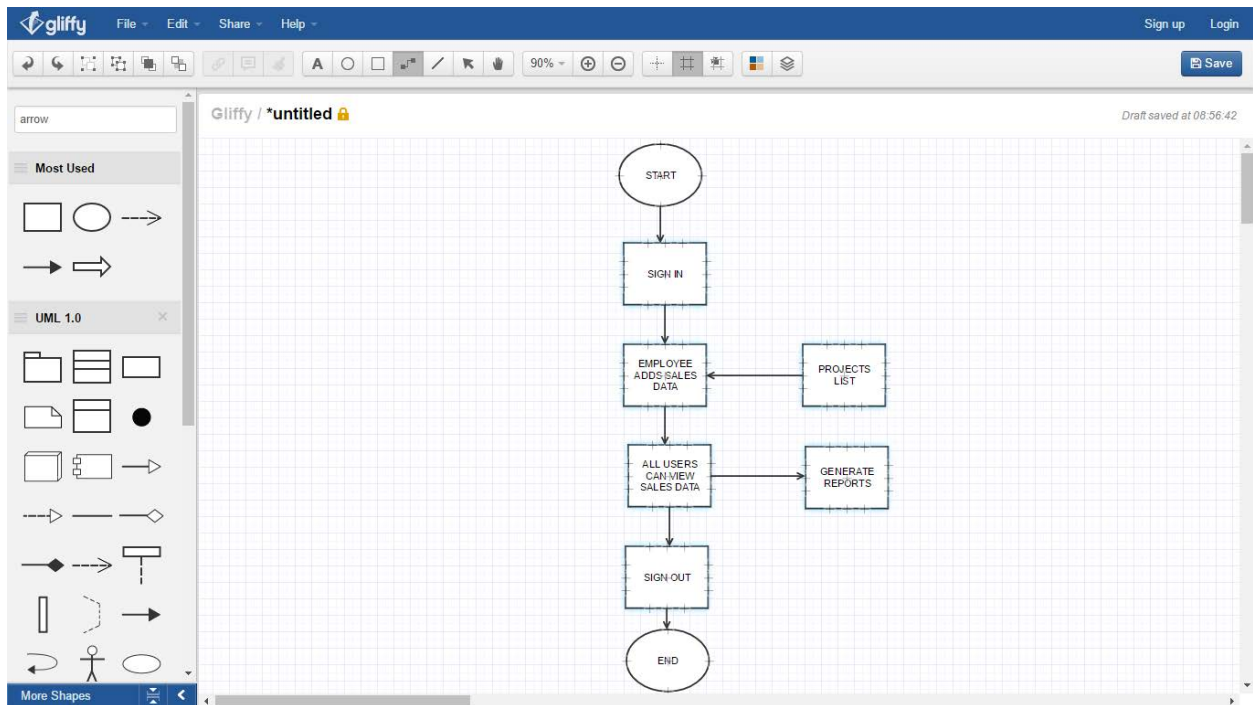
## **3.4. Security and Fraud Prevention**

The security of the application resides in the authorized access of the application where the user must log in each time they want to use the application. This creates a scenario where only the authorized users will be able to access the application. Coming to the fraud prevention as the application authorized access system will make sure no fraudulent activates occur at the application and even such issue occurs for most of the actions such as adding projects, sales data and for other activities a signature of user is left with date and time.

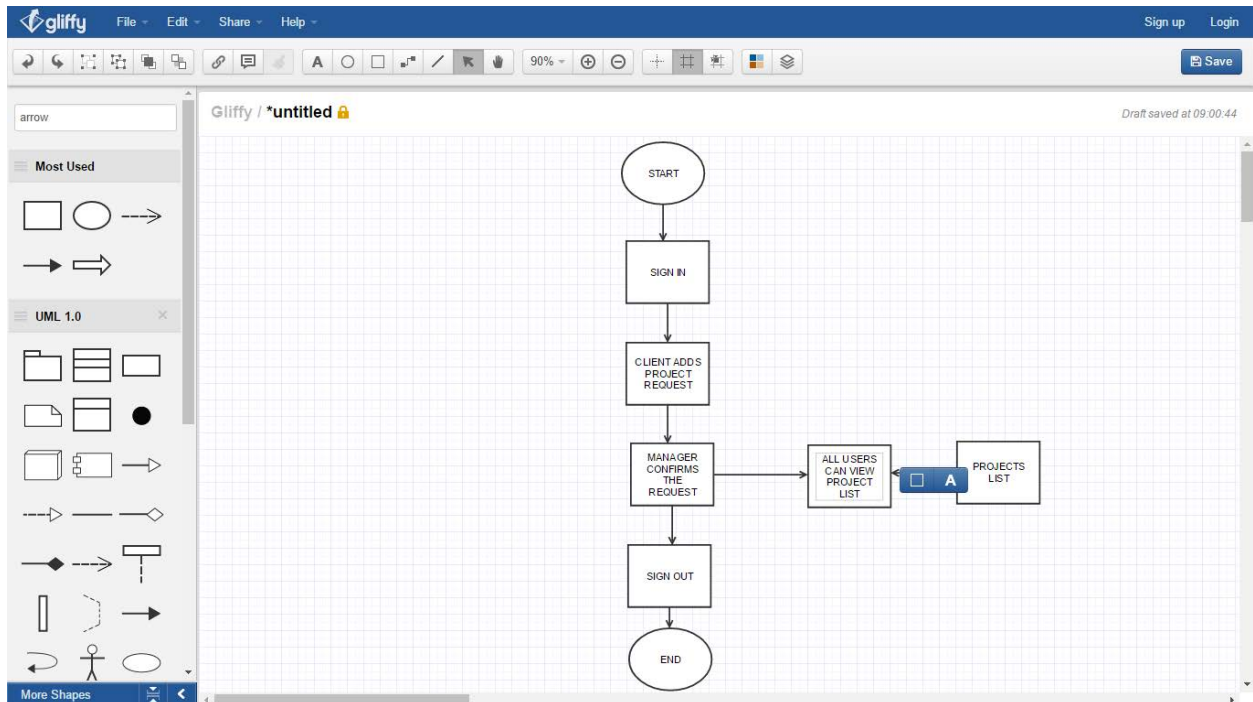
## **4. Project Design Description**

As specified earlier the application mainly deals with the gathering of the sales information apart from this there are many other activities that can be performed by the user. The below is a list of actions that can be performed by the user aggregated under one name depicted with the help of the flow chart.

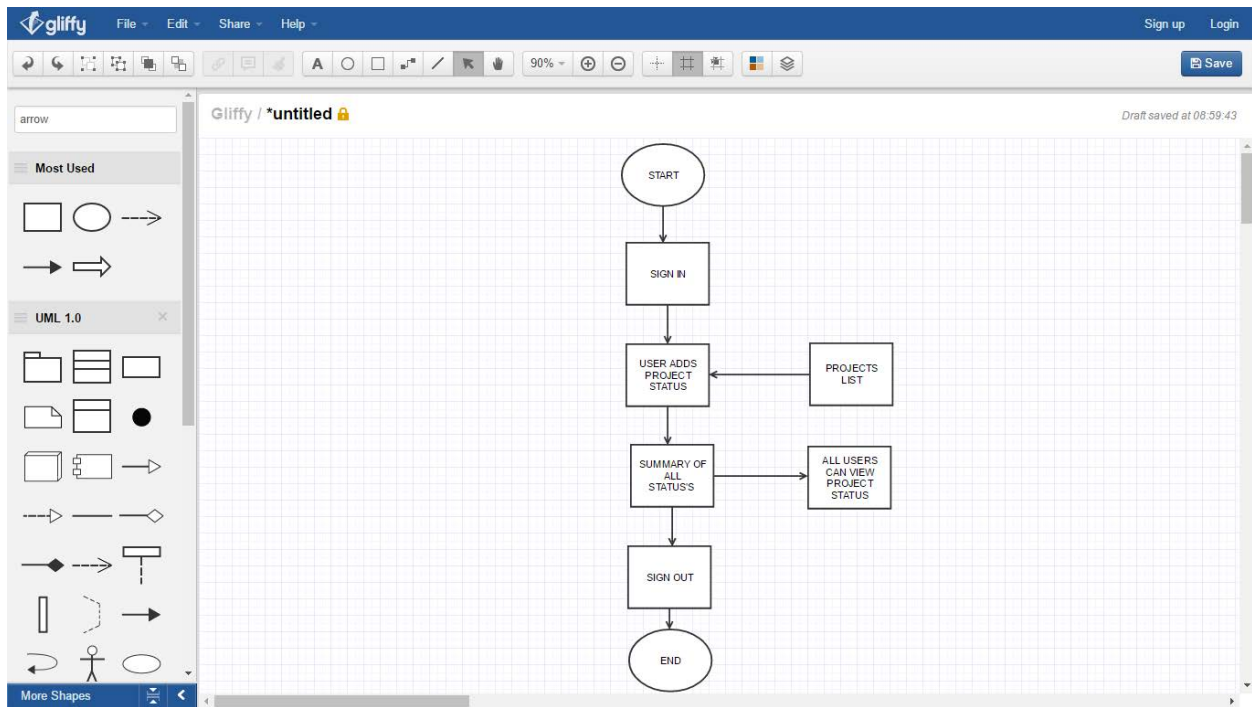
## 4.1. Sales Data



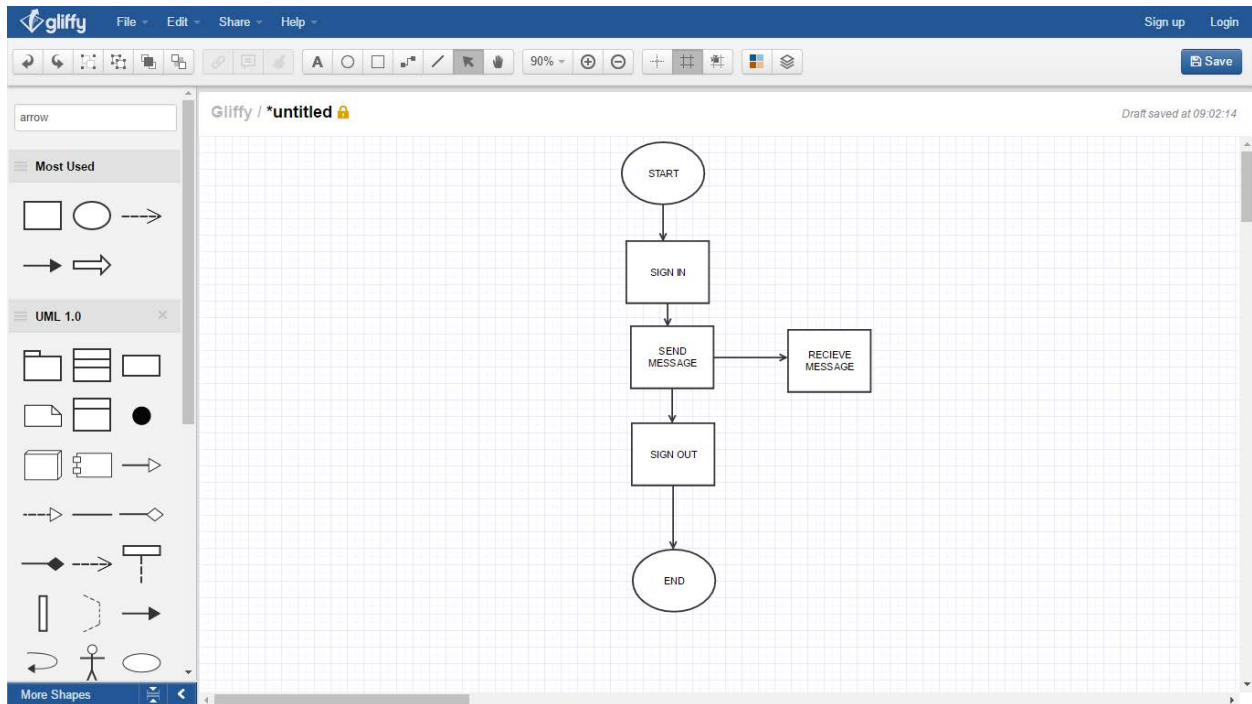
## 4.2. Project Creation



### 4.3. Project Tracking



### 4.4. Communication Plan



#### 4.5. Search

In here the users will be able to search for projects, users and teams present in the database.

#### 5. Project Design Units

The application is having three levels of users and the list of action performed by them can be grouped as follows

- Sales Data
- Create Projects
- Project Status
- Communicate

The below tabular data represents the list of actions that can performed by the users at various levels of authorization.

##### 5.1. Actions

| User Role | Sales Data | Create Projects                    | Project Status | Communication |
|-----------|------------|------------------------------------|----------------|---------------|
| Client    | Can't Add  | Can Add but needs Manager Approval | Can Add        | Can Add       |
|           | Can View   | Can View                           | Can View       | Can View      |
| Manager   | Can't Add  | Can Add                            | Can Add        | Can Add       |
|           | Can View   | Can View                           | Can View       | Can View      |
| Employee  | Can Add    | Can't Add                          | Can Add        | Can Add       |
|           | Can View   | Can View                           | Can View       | Can View      |

## 6. Screenshots

### 6.1. Sales

SALES MANAGEMENT PORTAL

SALES PROJECTS PROJECT STATUS CONTACT SEARCH SIGNOUT

Your Actions

Sort Data

Sort By :  Employee  Project

Sort Filter :

[GET SORTED DATA](#) [GET UNSORTED DATA](#)

Project Sales Data

| ProjectId    | ProjectRevenue | ProfitsIncurred | ResourceCost | MiscelenousCost | UpdatedBy | DateAdded             |
|--------------|----------------|-----------------|--------------|-----------------|-----------|-----------------------|
| 1.11423e+006 | 12222.0000     | 12.0000         | 111.0000     | 111.0000        |           | 11/20/2016 9:46:21 AM |
| 1.11423e+006 | 12222.0000     | 12.0000         | 111.0000     | 111.0000        |           | 11/20/2016 9:51:54 AM |

### 6.2. Projects

SALES MANAGEMENT PORTAL

SALES PROJECTS PROJECT STATUS CONTACT SEARCH SIGNOUT

Your Actions

[ADD PROJECT](#)

Sort Projects

Project Name :

[SORT DATA](#) [ALL PROJECTS](#) [FEEDBACK](#)

Projects Details

| ProjectID    | ProjectName | Description | Client           | DateAdded             | CreatedBy        | ApprovedBy       | ExpectedCost | ExpectedTeamSize |
|--------------|-------------|-------------|------------------|-----------------------|------------------|------------------|--------------|------------------|
| 1.11423e+006 | Sample1     | Sample      | ranjit@gmail.com | 11/19/2016 9:12:23 PM | ashwin@gmail.com | ashwin@gmail.com | 1200.0000    | 4                |
| 165          | Sample1     | sasmp1e     | ranjit@gmail.com | 11/19/2016 9:22:02 PM | ashwin@gmail.com | ashwin@gmail.com | 12222.0000   | 11               |
| 3407         | Sample1     | sdsa        | ranjit@gmail.com | 11/19/2016 9:30:28 PM | ashwin@gmail.com | ashwin@gmail.com | 1200.0000    | 4                |
| 5.88606e+006 | Sample1     | Sample      | ranjit@gmail.com | 11/19/2016            | ashwin@gmail.com | ashwin@gmail.com | 1200.0000    | 4                |

### 6.3. Project Status

SALES MANAGEMENT PORTAL SALES PROJECTS PROJECT STATUS CONTACT SEARCH SIGNOUT

Your Actions

Add Status

Project :  Comments :

[ADD STATUS](#) [GET SELECTED PROJECT STATUS](#) [GET ALL PROJECT STATUS](#)

Project Sales Data

| ProjectID    | UserID           | Comments | DateAdded              |
|--------------|------------------|----------|------------------------|
| 1.11423e+006 | ashwin@gmail.com | sdfdfsf  | 11/20/2016 10:34:47 AM |
| 1.11423e+006 | ashwin@gmail.com | dffd     | 11/20/2016 10:36:40 AM |

### 6.4. Contact

SALES MANAGEMENT PORTAL SALES PROJECTS PROJECT STATUS CONTACT SEARCH SIGNOUT

Your Actions

Add Status

Recipient :  Message :

[SEND MESSAGE](#) [GET SELLECTED MESSAGES](#) [GET ALL MESSAGES](#)

Project Sales Data

| MessageReceipient | MessageSender    | Message               | AddedOn                |
|-------------------|------------------|-----------------------|------------------------|
| nikitha@gmail.com | ashwin@gmail.com | good to hear from you | 11/20/2016 10:47:24 AM |



## 6.5. Search

SALES MANAGEMENT PORTAL SALES PROJECTS PROJECT STATUS CONTACT SEARCH SIGNOUT

Your Actions

Search

Filter :  Sample text :

Projects Details

| UserID            | Password | FName   | LName | Address | ZipCode | MobileNumber | Role     | IsActive                            |
|-------------------|----------|---------|-------|---------|---------|--------------|----------|-------------------------------------|
| nikitha@gmail.com | 12345    | Nikitha | A     | na      | 60484   | 7085738178   | Employee | <input checked="" type="checkbox"/> |

## 6.6. Sign In

SALES MANAGEMENT PORTAL SIGNIN

SignIn

UserID :

Password :

## 7. Open Issues

At present the open issues is related to the design of the communicator where the design is not user friendly and making it more user friendly is the primary task

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