**PROJECT PHASE - II**

**OVERVIEW:**

We used our ER Diagram to establish entities necessary to capture and maintain the information at various stages of the *Enhancement Process*. Throughout the design and creation process we focused to: -

* Improve the visibility associated with the whole process
* Develop an efficient reporting facility
* Reduce the efforts required to manage data corresponding to enhancement requests
* Automate repetitive tasks for effective utilization of project resources

**ENTITIES:**

* **CLIENT:** CLIENT entity has six attributes which are as follows: -

Client ID: Unique Identifier associated with the person submitting the requirement

Client Name: Name of the client

Client Contact Information: Client’s Email ID/Contact Number

Client Approval Status: True or False depending upon the request being approved from the client or not

Client’s Manager Name: Name of the manager of the client submitting the request

Client’s Manager Contact Information: Manager’s Email ID/Contact Number

* **REQUIREMENT:** REQUIREMENT entity has four attributes which are as follows: - Requirement ID: System generated unique identifier associated with the requirement

Required Completion Date: Date on which requirement is due

Requirement Stakeholders: Stakeholders associated with the requirement

Requirement Description: Description of the requirement as mentioned by the client

* **TASK:** TASK entity has seven attributes which are as follows: -

Task ID: Unique identifier associated with the task created corresponding to the requirement

Status: This field represents the different status associated with the requirement during various phases

Description: Description corresponding to the status of the task

Start date: Task Start Date entered by the people working on the task

Estimated Completion Date: Estimated Completion Date entered by the people working on the task

Notification Flag: True or False depending upon the status of notification i.e. False – Not Sent, True - Sent

Owner: Owner(s) of the task

* **TEAM MEMBER:** TEAM MEMBER entity has four attributes which are as follows: - Member ID: Unique Employee ID associated with each employee

Supervisor ID: Employee ID of the employee’s manager

Member Name: Name of the Team member

Member Contact Information: Email/Contact Number of the Team member

* **TEAM:** TEAM entity has four attributes which are as follows: -

Team ID: Unique identifier associated with each team of the project

Team Name: Name of the team

Technical Competency: Technical Area in which the team works

Team Approval Status: False or True depending upon the request being approved from the team or not

* **PMO:** PMO has three attributes which are as follows: -

Project Management Officer ID: Unique ID associated with each member of the Project Management Office

PMO Approval Status: False or True depending upon the request being approved from the Project Management Officer or not

Officer Name: Name of the Project Management Office team member assigned to the requirement

* **ASSIGNMENT:** ASSIGNMENT is an associated entity. An assignment is uniquely identified by the combination of progress ID and member ID.

**RELATIONS:**

* *Submits*: The client must have at least one and possibly many requirements. But a requirement has exactly one client.
* *Involves*: The requirement could involve in at least one and possibly many tasks. But a task has exactly one requirement.
* *Approves*: The PMO could approve at least one or possibly may requirements. But one requirement must be approved by exactly one project management officer.
* *Supervises*: A team member could supervise many team members or could be zero. A team member is exactly supervised by one team member.
* *Belongs*: A team member should belong to exactly one team. And a team should have at least one team member and possibly many team members.
* A task must involve at least one or possibly many team members. Also, a team member may or may not work on any task or possibly can work on many tasks.

**ENTITY RELATIONSHIP DIAGRAM:**



**Visio File:**

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**Tables (Representation in form of Related Tables):**



**LIST OF TABLES:**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **CLIENT** | |  |
| **ATTRIBUTES** | **ATTRIBUTE FULL NAME** | **CONSTRAINTS** | **DATA TYPE** |
| Cl\_ID | Client ID | Primary Key | number |
| Cl\_Name | Client Name | Not Null | varchar(30) |
| Cl\_Co\_Info | Client Contact Information | Not Null | varchar(50) |
| Cl\_Manager | Client’s Manager Name |  | varchar(30) |
| Cl\_Man\_Con | Client’s Manager Contact Information |  | varchar(50) |
| Cl\_App\_Status | Client Approval Status | Not Null | boolean |

|  |  |  |  |
| --- | --- | --- | --- |
|  | **REQUIREMENT** | |  |
| **ATTRIBUTES** | **ATTRIBUTE FULL NAME** | **CONSTRAINTS** | **DATA TYPE** |
| Req\_ID | Requirement ID | Primary Key | number |
| Req\_Com\_Date | Required Completion Date | Not Null | date |
| Req\_Desc | Requirement Description | Not Null | varchar(50) |
| Req\_Stkh | Requirement Stakeholders | Not Null | varchar(50) |
| Cl\_ID | Client ID | Foreign Key | number |
| PMO\_ID | Project Management Officer ID | Foreign Key | number |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | | **TASK** | |  |
| **ATTRIBUTES** | **ATTRIBUTE FULL NAME** | | **CONSTRAINTS** | **DATA TYPE** |
| Task\_ID | Task ID | | Primary Key | number |
| Status | Status | | Not Null | varchar(30) |
| Description | Description | |  | varchar(50) |
| Start\_Date | Start date | |  | date |
| Est\_Com\_Date | Estimated Completion Date | | Not Null | date |
| Owner | Owner | | Not Null | varchar(30) |
| Req\_ID | Requirement ID | | Foreign Key | number |
| Not\_Flg | Notification Flag | | Not Null | boolean |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | | **ASSIGNMENT** | |  |
| **ATTRIBUTES** | **ATTRIBUTE FULL NAME** | | **CONSTRAINTS** | **DATA TYPE** |
| Task\_ID | Task ID | | Primary Key and Foreign Key | number |
| Mem\_ID | Member ID | | Primary Key and Foreign Key | number |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | | **TEAM MEMBER** | |  |
| **ATTRIBUTES** | **ATTRIBUTE FULL NAME** | | **CONSTRAINTS** | **DATA TYPE** |
| Mem\_ID | Member ID | | Primary Key | number |
| Mem\_Name | Member Name | |  | varchar(30) |
| Mem\_Con\_Info | Member Contact Information | |  | varchar(50) |
| Team\_ID | Team ID | | Foreign Key | number |
| Super\_ID | Supervisor ID | | Foreign Key | number |

|  |  |  |  |
| --- | --- | --- | --- |
|  | **TEAM** | |  |
| **ATTRIBUTES** | **ATTRIBUTE FULL NAME** | **CONSTRAINTS** | **DATA TYPE** |
| Team\_ID | Team ID | Primary Key | number |
| Team\_Name | Team Name | Not Null | varchar(30) |
| Tech\_Comp | Technical Competency |  | varchar(30) |
| Team\_App\_Status | Team Approval Status | Not Null | boolean |

|  |  |  |  |
| --- | --- | --- | --- |
|  | **PMO** | |  |
| **ATTRIBUTES** | **ATTRIBUTE FULL NAME** | **CONSTRAINTS** | **DATA TYPE** |
| PMO\_ID | Project Management Officer ID | Primary Key | number |
| PMO\_App\_Status | PMO Approval Status | Not Null | boolean |
| PMO\_Off\_Name | Officer Name |  | varchar(30) |