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I confirm that I understand my coursework needs to be submitted online via My Second Teacher under the relevant module page before the deadline for my assignment to be accepted and marked. I am fully aware that late submissions will be treated as non-submission and a mark of zero will be awarded

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1. Normalization:

Normalization is the method of structuring a database to minimize redundancy and enhance data integrity. This process includes breaking down data into smaller, interconnected tables and establishing clear relationships among them. By doing so, each piece of information is stored only once which makes the database more efficient and simpler to manage. The primary aim is to prevent duplicate data and maintain consistency.

1.1 UNF (Unnormalized Form)

In unnormalized form, we list every attribute of the provided table and assign it a suitable name. We also select the appropriate unique identifier for the table and display repeated groupings inside {}.

Users (user_id, user_name, user_email, user_address, user_contact {project_id, project_name, project_start_date, project_due_date, project_status, milestone_id, milestone_name, start_date, end_date, {task_id, task_name, task_start_date, task_due_date, task_status}})

1.2 1NF (First Normal Form):

To convert the table to 1NF, we removed repeating groups and ensured that each column contains atomic values (indivisible data). This process involved splitting the data into two tables:

table1 (user_id, user_name, user_email, user_address, user_contact)

Table 1: Stores user-specific information.

table2 (user_id, project_id, project_name, project_start_date, project_due_date, project_status, {task_id, task_name, task_start_date, task_due_date, task_status})

Table 2 : Contains project-specific information, including included task data.

A new shift and role_in_task attribute are added to Table 2 to provide more detailed task management.

project_id determines project attributes.

project_id-> project_name, project_start_date, project_due_date, project_status

task_id determines task attributes.

task_id-> task_name, task_start_date, task_due_date, task_status

project_id and task_id determine shift and role_in_task.

project_id, task_id-> shift_id, role_in_task

This separation prepares the data for further normalization.

1.3 2NF (Second Normal Form):

To achieve **2NF**, we removed partial dependencies by creating separate tables for projects and tasks. Each table now represents a single entity, and every non-key attribute depends entirely on the primary key.

Table1 (user_id, user_name, user_email, user_address, user_contact)

Table2 (project_id, project_name, project_start_date, project_due_date, project_status)

Table3 (task_id, task_name, task_start_date, task_due_date, task_status)

Table4 (user_id, project_id, task_id, shift, role_in_task)

This step eliminates redundancy caused by partial dependencies and ensures that all attributes are fully dependent on the entire primary key.

1.4 3NF (Third Normal Form):

To achieve **3NF**, transitive dependencies are removed. Transitive dependencies occur when non-key attributes depend indirectly on the primary key through other non-key attributes.

In the Users table: 1

user_id → grade_id → role, salary

Here, role and salary indirectly depend on user_id via grade_id.

To fix this Created a Grade table:

Grade (grade_id, salary, role)

Update the Users table to:

Users (user_id, user_name, user_email, grade_id)

Similarly, for Tasks:

task_id → sub_task_id → sub_task_name

sub_task_name depends on task_id through sub_task_id.

To resolve this: Created a Sub_Task table:

Sub_Task (sub_task_id, sub_task_name,).

Update the Task table to:

Task (task_id, task_name, task_start_date, task_due_date, sub_task_id).

Task_subtask(task_id,subtask_id)

Final 3NF**Table grade** (grade_id, salary, role)**Table user** (user_id, user_name, user_email, user_contact, grade_id)**Table project** (project_id, project_name, project_start_date, project_due_date, project_status)**Table sub_task** (sub_task_id, sub_task_name)**Table task** (task_id, task_name, task_start_date, task_due_date, task_status, sub_task_id)**Table user_project**(user_project_id, user_id, project_id)**Final Normalization for system****Table grade** (grade_id, salary, role)**Table user** (user_id, user_name, user_email, user_contact, grade_id)**Table project** (project_id, project_name, project_start_date, project_due_date, project_status)**Table sub_task** (sub_task_id, sub_task_name)**Table task** (task_id, task_name, task_start_date, task_due_date, task_status, sub_task_id)**Table user_project**(user_project_id, user_id, project_id)**Table milestone** (project_id, milestone_id, milestone_name, start_date, end_date,)

2. ERD

2.1 Initial ERD

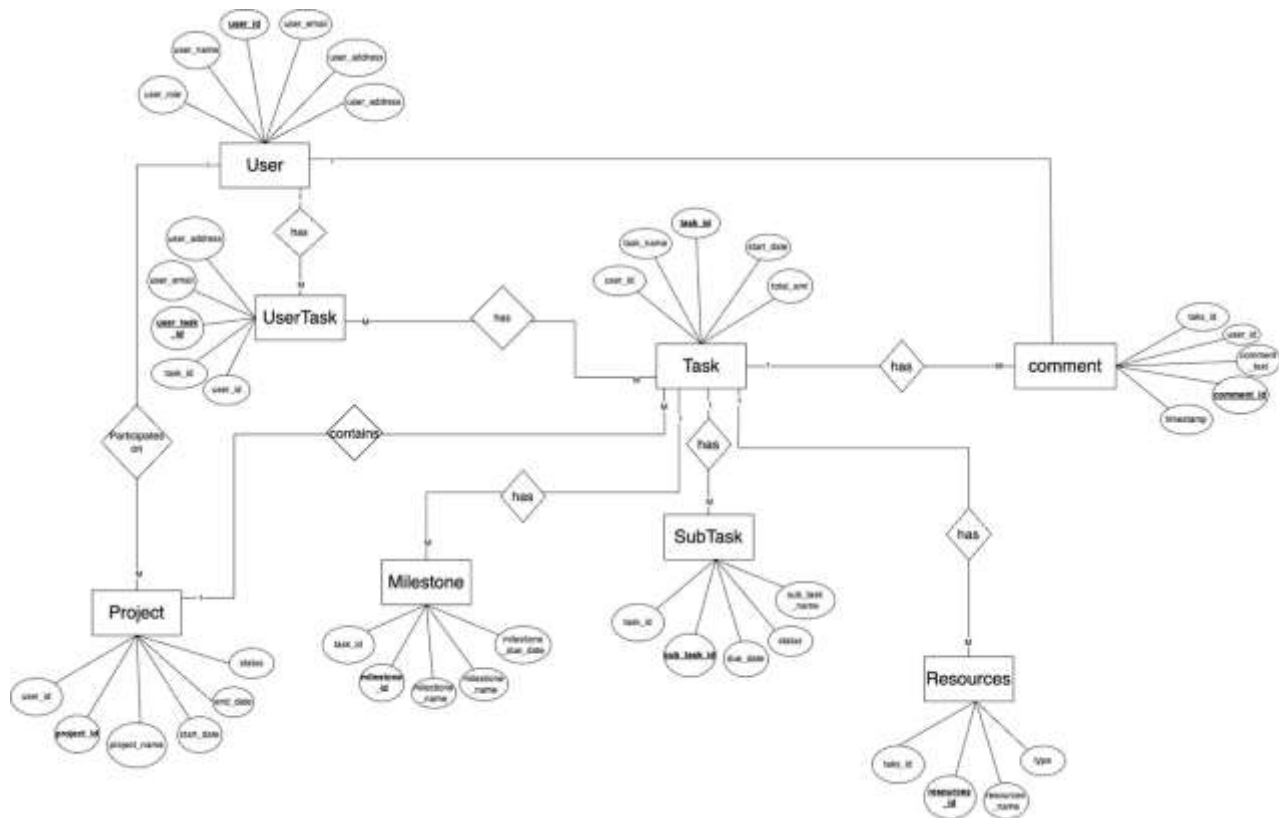


Figure 1: Initial ERD

I need to update erd, usertask is replaced with user_project which I will update at final assignment and also I need to remove resources and comment table also.

2.2 Final ERD

Final ERD for normalization

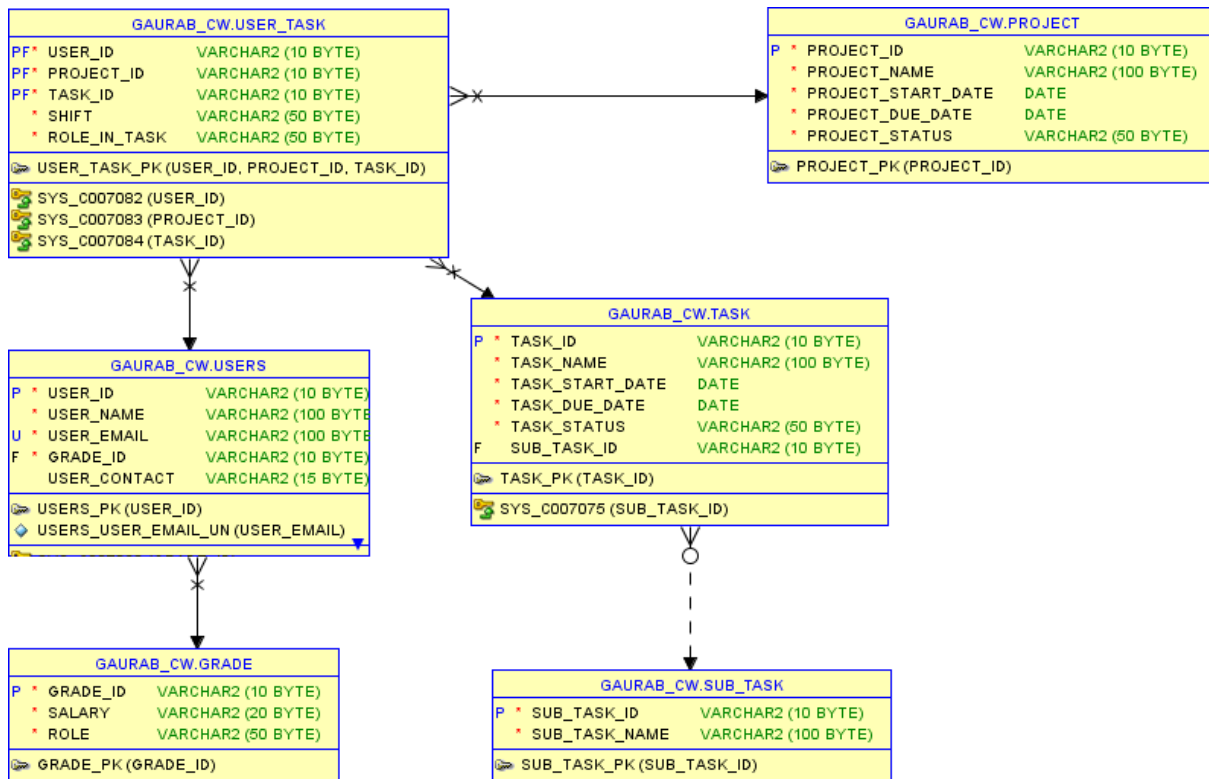


Figure 2: Final ERD of normalization

I had replaced user_task to user_project so I had added into final ERD for System

Final ERD for system

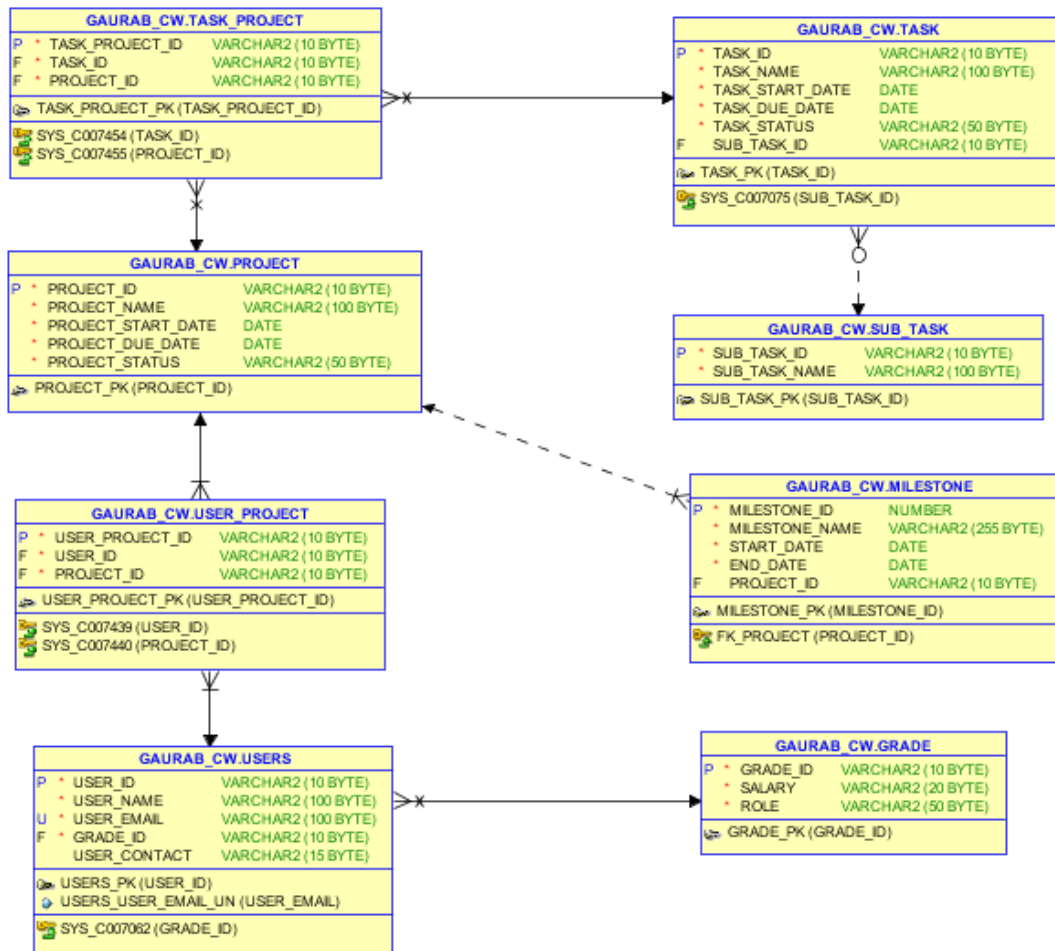


Figure 3 : Final ERD from System

Create new table as a project and task and connect id !!!!

Creating user as gaurab_cw identified by lamichhane

Granting all privileges to gaurab_cw

3. Data dictionary

```
SQL> conn sys as sysdba
Enter password:
Connected.
SQL> create user gaurab_cw identified by lamichhane;

User created.

SQL> grant all privileges to gaurab_cw;

Grant succeeded.

SQL> conn gaurab_cw
Enter password:
Connected.
```

Figure 4: Connecting sys and user creation

3.1 Creating tables

```
SQL> CREATE TABLE Grade (
2     grade_id VARCHAR(10) PRIMARY KEY,
3     salary VARCHAR(20) NOT NULL,
4     role VARCHAR(50) NOT NULL
5 );

Table created.
```

Figure 5 : Creating grade table

```
SQL> CREATE TABLE Users (  
2     user_id VARCHAR(10) PRIMARY KEY,  
3     user_name VARCHAR(100) NOT NULL,  
4     user_email VARCHAR(100) UNIQUE NOT NULL,  
5     grade_id VARCHAR(10) NOT NULL,  
6     FOREIGN KEY (grade_id) REFERENCES Grade(grade_id) ON DELETE CASCADE  
7 );
```

Figure 6 : Creating Users table

In the users table I forgot to add user_contact to it so I added after using alter

```
SQL> ALTER TABLE Users  
2 ADD user_contact VARCHAR(15);
```

Figure 7 : Alter Users table

```
SQL> CREATE TABLE Sub_Task (  
2     sub_task_id VARCHAR(10) PRIMARY KEY,  
3     sub_task_name VARCHAR(100) NOT NULL  
4 );  
  
Table created.
```

Figure 8 : Creating Sub_Task table

```
SQL> CREATE TABLE Project (  
2     project_id VARCHAR(10) PRIMARY KEY,  
3     project_name VARCHAR(100) NOT NULL,  
4     project_start_date DATE NOT NULL,  
5     project_due_date DATE NOT NULL,  
6     project_status VARCHAR(50) NOT NULL  
7 );
```

Figure 9 : Creating Project table

```
SQL> CREATE TABLE Task (  
2     task_id VARCHAR(10) PRIMARY KEY,  
3     task_name VARCHAR(100) NOT NULL,  
4     task_start_date DATE NOT NULL,  
5     task_due_date DATE NOT NULL,  
6     task_status VARCHAR(50) NOT NULL,  
7     sub_task_id VARCHAR(10),  
8     FOREIGN KEY (sub_task_id) REFERENCES Sub_Task(sub_task_id) ON DELETE SET NULL  
9 );
```

Table created.

Figure 10 : Creating Task table


```
SQL> CREATE TABLE user_project (  
2     user_project_id VARCHAR2(10) PRIMARY KEY,  
3     user_id VARCHAR2(10) NOT NULL,  
4     project_id VARCHAR2(10) NOT NULL,  
5     FOREIGN KEY (user_id) REFERENCES users(USER_ID),  
6     FOREIGN KEY (project_id) REFERENCES project(PROJECT_ID)  
7 );
```

Table created.

Figure 11 :Creating user_project table

```
SQL> CREATE TABLE Milestone (  
2     milestone_id NUMBER PRIMARY KEY,  
3     milestone_name VARCHAR2(255) NOT NULL,  
4     start_date DATE NOT NULL,  
5     end_date DATE NOT NULL,  
6     project_id VARCHAR2(10),  
7     CONSTRAINT fk_project FOREIGN KEY (project_id) REFERENCES project(project_id)  
8 );
```

Table created.

Figure 12 : Creating Milestone

```
SQL> CREATE TABLE task_project (  
2     task_project_id VARCHAR(10) PRIMARY KEY,  
3     task_id VARCHAR(10) NOT NULL,  
4     project_id VARCHAR(10) NOT NULL,  
5     FOREIGN KEY (task_id) REFERENCES task(task_id) ON DELETE CASCADE,  
6     FOREIGN KEY (project_id) REFERENCES project(project_id) ON DELETE CASCADE  
7 );
```

Table created.

Figure 13: Created table as task_project

This table is created to connect the task and project

3.2 Inserting values into table

```
SQL> INSERT INTO Users (user_id, user_name, user_email, grade_id) VALUES ('U-01', 'Sam Smith', 'Smith@gmail.com', 'G-01');
1 row created.

SQL> INSERT INTO Users (user_id, user_name, user_email, grade_id) VALUES ('U-02', 'John Doe', 'John@gmail.com', 'G-02');
1 row created.

SQL> INSERT INTO Users (user_id, user_name, user_email, grade_id) VALUES ('U-03', 'Jane Doe', 'Jane@gmail.com', 'G-03');
1 row created.

SQL> INSERT INTO Users (user_id, user_name, user_email, grade_id) VALUES ('U-04', 'Alice Brown', 'Alice@gmail.com', 'G-04');
1 row created.

SQL> INSERT INTO Users (user_id, user_name, user_email, grade_id) VALUES ('U-05', 'Bob White', 'Bob@gmail.com', 'G-05');
1 row created.
```

Figure 14 : Inserting Values to Users table

```
SQL> INSERT INTO Grade (grade_id, salary, role) VALUES ('G-01', '50000', 'Admin');
1 row created.

SQL> INSERT INTO Grade (grade_id, salary, role) VALUES ('G-02', '60000', 'Developer');
1 row created.

SQL> INSERT INTO Grade (grade_id, salary, role) VALUES ('G-03', '70000', 'Manager');
1 row created.

SQL> INSERT INTO Grade (grade_id, salary, role) VALUES ('G-04', '55000', 'Designer');
1 row created.

SQL> INSERT INTO Grade (grade_id, salary, role) VALUES ('G-05', '65000', 'Tester');
1 row created.
```

Figure 15 : Inserting Values to Grade table

In the users table I added user_contact so I had updated the values

```
SQL> UPDATE Users
  2 SET user_contact = '+9779859697989'
  3 WHERE user_id = 'U-01';

1 row updated.

SQL>
SQL> UPDATE Users
  2 SET user_contact = '+9779859697990'
  3 WHERE user_id = 'U-02';

1 row updated.

SQL>
SQL> UPDATE Users
  2 SET user_contact = '+9779859697991'
  3 WHERE user_id = 'U-03';

1 row updated.

SQL>
SQL> UPDATE Users
  2 SET user_contact = '+9779859697992'
  3 WHERE user_id = 'U-04';

1 row updated.

SQL>
SQL> UPDATE Users
  2 SET user_contact = '+9779859697993'
  3 WHERE user_id = 'U-05';

1 row updated.
```

Figure 16 :Updated Users table to add User_contact

```
SQL> INSERT INTO Project (project_id, project_name, project_start_date, project_due_date, project_status)
  2  VALUES ('P-01', 'Enrolment System', TO_DATE('2024-01-01', 'YYYY-MM-DD'), TO_DATE('2024-10-23', 'YYYY-MM-DD'), 'On going');
1 row created.

SQL> INSERT INTO Project (project_id, project_name, project_start_date, project_due_date, project_status)
  2  VALUES ('P-02', 'Attendance System', TO_DATE('2024-03-01', 'YYYY-MM-DD'), TO_DATE('2024-12-12', 'YYYY-MM-DD'), 'On going');
1 row created.

SQL> INSERT INTO Project (project_id, project_name, project_start_date, project_due_date, project_status)
  2  VALUES ('P-03', 'Examination System', TO_DATE('2024-05-01', 'YYYY-MM-DD'), TO_DATE('2024-12-31', 'YYYY-MM-DD'), 'Not started');
1 row created.

SQL> INSERT INTO Project (project_id, project_name, project_start_date, project_due_date, project_status)
  2  VALUES ('P-04', 'HR Management System', TO_DATE('2024-02-01', 'YYYY-MM-DD'), TO_DATE('2024-08-15', 'YYYY-MM-DD'), 'On going');
1 row created.

SQL> INSERT INTO Project (project_id, project_name, project_start_date, project_due_date, project_status)
  2  VALUES ('P-05', 'Inventory System', TO_DATE('2024-04-01', 'YYYY-MM-DD'), TO_DATE('2024-10-30', 'YYYY-MM-DD'), 'On going');
1 row created.
```

Figure 17 : Inserting Values to Project table

```
SQL> INSERT INTO user_project (user_project_id, user_id, project_id) VALUES ('UP-01', 'U-01', 'P-01');
1 row created.

SQL> INSERT INTO user_project (user_project_id, user_id, project_id) VALUES ('UP-02', 'U-02', 'P-02');
1 row created.

SQL> INSERT INTO user_project (user_project_id, user_id, project_id) VALUES ('UP-03', 'U-03', 'P-03');
1 row created.

SQL> INSERT INTO user_project (user_project_id, user_id, project_id) VALUES ('UP-04', 'U-04', 'P-04');
1 row created.

SQL> INSERT INTO user_project (user_project_id, user_id, project_id) VALUES ('UP-05', 'U-01', 'P-05');
1 row created.
```

Figure 18 : Inserting Values to Sub_Task table

```
SQL> INSERT INTO Task (task_id, task_name, task_start_date, task_due_date, task_status, sub_task_id)
  2 VALUES ('T-01', 'Student Registration', TO_DATE('2024-01-01', 'YYYY-MM-DD'), TO_DATE('2024-02-20', 'YYYY-MM-DD'), 'Completed', 'ST-01');
1 row created.

SQL> INSERT INTO Task (task_id, task_name, task_start_date, task_due_date, task_status, sub_task_id)
  2 VALUES ('T-02', 'Student Counselling Form', TO_DATE('2024-01-05', 'YYYY-MM-DD'), TO_DATE('2024-06-15', 'YYYY-MM-DD'), 'On going', 'ST-02');
1 row created.

SQL> INSERT INTO Task (task_id, task_name, task_start_date, task_due_date, task_status, sub_task_id)
  2 VALUES ('T-03', 'Biometric Registration', TO_DATE('2024-03-10', 'YYYY-MM-DD'), TO_DATE('2024-03-20', 'YYYY-MM-DD'), 'Completed', 'ST-03');
1 row created.

SQL> INSERT INTO Task (task_id, task_name, task_start_date, task_due_date, task_status, sub_task_id)
  2 VALUES ('T-04', 'Faculty Registration', TO_DATE('2024-02-01', 'YYYY-MM-DD'), TO_DATE('2024-04-10', 'YYYY-MM-DD'), 'Not started', 'ST-04');
1 row created.

SQL> INSERT INTO Task (task_id, task_name, task_start_date, task_due_date, task_status, sub_task_id)
  2 VALUES ('T-05', 'Attendance Marking', TO_DATE('2024-04-01', 'YYYY-MM-DD'), TO_DATE('2024-06-30', 'YYYY-MM-DD'), 'On going', 'ST-05');
1 row created.
```

Figure 19 : Inserting Values to Task table

```
SQL> INSERT INTO User_Task (user_id, project_id, task_id, shift, role_in_task)
  2 VALUES ('U-01', 'P-01', 'T-01', 'Morning', 'Developer');
1 row created.

SQL> INSERT INTO User_Task (user_id, project_id, task_id, shift, role_in_task)
  2 VALUES ('U-01', 'P-01', 'T-02', 'Afternoon', 'Manager');
1 row created.

SQL> INSERT INTO User_Task (user_id, project_id, task_id, shift, role_in_task)
  2 VALUES ('U-02', 'P-01', 'T-02', 'Morning', 'Developer');
1 row created.

SQL> INSERT INTO User_Task (user_id, project_id, task_id, shift, role_in_task)
  2 VALUES ('U-03', 'P-02', 'T-03', 'Morning', 'Tester');
1 row created.

SQL> INSERT INTO User_Task (user_id, project_id, task_id, shift, role_in_task)
  2 VALUES ('U-04', 'P-01', 'T-01', 'Night', 'Admin');
1 row created.
```

Figure 20 : Inserting Values to User_Task table

```

SQL> INSERT INTO Milestone (milestone_id, milestone_name, start_date, end_date, project_id)
2 VALUES (1, 'Milestone 1', TO_DATE('2025-03-15', 'YYYY-MM-DD'), TO_DATE('2025-03-30', 'YYYY-MM-DD'), 'P-01');

1 row created.

SQL>
SQL> INSERT INTO Milestone (milestone_id, milestone_name, start_date, end_date, project_id)
2 VALUES (2, 'Milestone 2', TO_DATE('2025-04-01', 'YYYY-MM-DD'), TO_DATE('2025-04-15', 'YYYY-MM-DD'), 'P-02');

1 row created.

SQL>
SQL> INSERT INTO Milestone (milestone_id, milestone_name, start_date, end_date, project_id)
2 VALUES (3, 'Milestone 3', TO_DATE('2025-04-10', 'YYYY-MM-DD'), TO_DATE('2025-04-25', 'YYYY-MM-DD'), 'P-03');

1 row created.

SQL>
SQL> INSERT INTO Milestone (milestone_id, milestone_name, start_date, end_date, project_id)
2 VALUES (4, 'Milestone 4', TO_DATE('2025-05-01', 'YYYY-MM-DD'), TO_DATE('2025-05-15', 'YYYY-MM-DD'), 'P-04');

1 row created.

SQL>
SQL> INSERT INTO Milestone (milestone_id, milestone_name, start_date, end_date, project_id)
2 VALUES (5, 'Milestone 5', TO_DATE('2025-05-05', 'YYYY-MM-DD'), TO_DATE('2025-05-20', 'YYYY-MM-DD'), 'P-05');

1 row created.

```

Figure 21 : Inserting values to milestone table

```

SQL> COMMIT;

Commit complete.

```

Figure 22 : Commit

3.3 Describing tables

Describing tables which are created and inserted the vale

a. Grade table

	COLUMN_...	DATA_TYPE	NULLABLE	DATA_DEFAULT	COLUMN_ID	COMMENTS
1	GRADE_ID	VARCHAR2(10 BYTE)	No	(null)	1 (null)	
2	SALARY	VARCHAR2(20 BYTE)	No	(null)	2 (null)	
3	ROLE	VARCHAR2(50 BYTE)	No	(null)	3 (null)	

Figure 23 : Data dictionary of Grade table

b. Project Table

	❖ COLUMN_NAME	❖ DATA_TYPE	❖ NULLABLE	DATA_DEFAULT	❖ COLUMN_ID	❖ COMMENTS
1	PROJECT_ID	VARCHAR2(10 BYTE)	No	(null)	1 (null)	
2	PROJECT_NAME	VARCHAR2(100 BYTE)	No	(null)	2 (null)	
3	PROJECT_START_DATE	DATE	No	(null)	3 (null)	
4	PROJECT_DUE_DATE	DATE	No	(null)	4 (null)	
5	PROJECT_STATUS	VARCHAR2(50 BYTE)	No	(null)	5 (null)	

Figure 24 : Data dictionary of Project table

c. Sub_task Table

	❖ COLUMN_NAME	❖ DATA_TYPE	❖ NULLABLE	DATA_DEFAULT	❖ COLUMN_ID	❖ COMMENTS
1	SUB_TASK_ID	VARCHAR2(10 BYTE)	No	(null)	1 (null)	
2	SUB_TASK_NAME	VARCHAR2(100 BYTE)	No	(null)	2 (null)	

Figure 25 : Data dictionary of sub_task table

d. Task table

	❖ COLUMN_NAME	❖ DATA_TYPE	❖ NULLABLE	DATA_DEFAULT	❖ COLUMN_ID	❖ COMMENTS
1	TASK_ID	VARCHAR2(10 BYTE)	No	(null)	1 (null)	
2	TASK_NAME	VARCHAR2(100 BYTE)	No	(null)	2 (null)	
3	TASK_START_DATE	DATE	No	(null)	3 (null)	
4	TASK_DUE_DATE	DATE	No	(null)	4 (null)	
5	TASK_STATUS	VARCHAR2(50 BYTE)	No	(null)	5 (null)	
6	SUB_TASK_ID	VARCHAR2(10 BYTE)	Yes	(null)	6 (null)	

Figure 26 : Data dictionary of Task table

e. User_project table


```
SQL> desc user_project
Name                               Null?    Type
-----
USER_PROJECT_ID                   NOT NULL VARCHAR2(10)
USER_ID                           NOT NULL VARCHAR2(10)
PROJECT_ID                        NOT NULL VARCHAR2(10)

SQL> |
```

Figure 27 : Data dictionary of User_project table

f. User Table

	↕ COLUMN_NAME	↕ DATA_TYPE	↕ NULLABLE	DATA_DEFAULT	↕ COLUMN_ID	↕ COMMENTS
1	USER_ID	VARCHAR2(10 BYTE)	No	(null)	1	(null)
2	USER_NAME	VARCHAR2(100 BYTE)	No	(null)	2	(null)
3	USER_EMAIL	VARCHAR2(100 BYTE)	No	(null)	3	(null)
4	GRADE_ID	VARCHAR2(10 BYTE)	No	(null)	4	(null)
5	USER_CONTACT	VARCHAR2(15 BYTE)	Yes	(null)	5	(null)

Figure 28 : Data dictionary of User table

g. Milestone table

```
SQL> desc milestone
Name                                Null?      Type
-----
MILESTONE_ID                       NOT NULL  NUMBER
MILESTONE_NAME                     NOT NULL  VARCHAR2(255)
START_DATE                         NOT NULL  DATE
END_DATE                           NOT NULL  DATE
PROJECT_ID                         NOT NULL  VARCHAR2(10)

SQL>
```

Figure 29 : Data dictionary of Milestone table

4. Implementation

4.1 Basic Webforms

a. Side bar

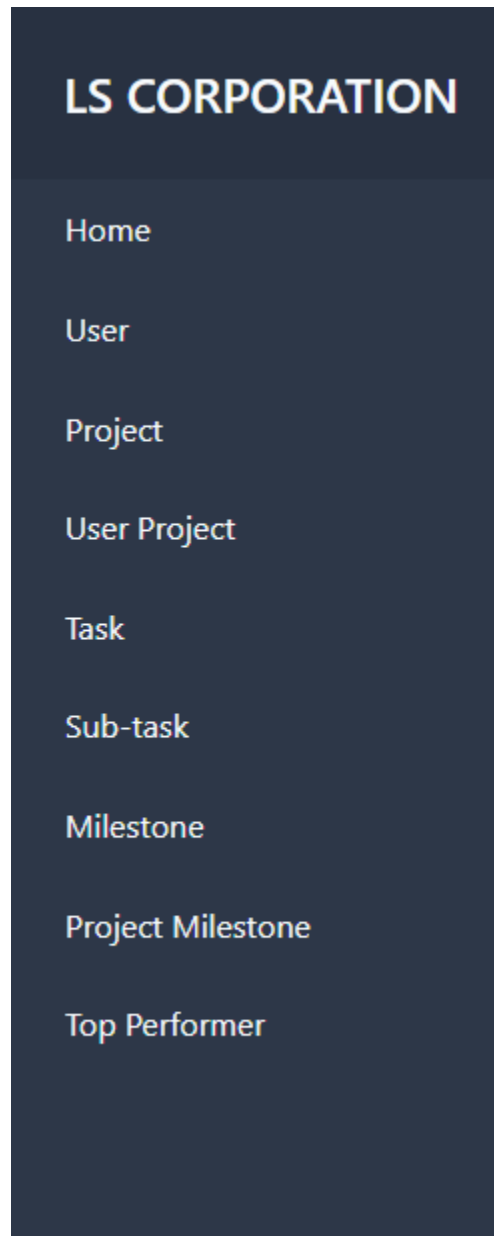


Figure 30 : Side bar

b. User webform

User Details

Your user details page.

Enter User ID:

User Name:

User Email:

User Contact:

Grade ID:

Insert

	USER ID	USER NAME	USER EMAIL	GRADE ID	USER CONTACT
Edit Delete	U-01	Sam Smith	Smith@gmail.com	G-01	+9779859697989
Edit Delete	U-02	John Doe	John@gmail.com	G-02	+9779859697990
Edit Delete	U-03	Jane Doe	Jane@gmail.com	G-03	+9779859697991
Edit Delete	U-04	Alice Brown	Alice@gmail.com	G-04	+9779859697992
Edit Delete	U-05	Bob White	Bob@gmail.com	G-05	+9779859697993

Figure 31 : User Web form


c. Project web form


About Projects

Detail of the project with all the milestone of the project.

Enter Project ID:

Project Name:

Start Date:
 

Due Date:
 

Project Status:

[Insert](#)

	PROJECT ID	PROJECT NAME	PROJECT START DATE	PROJECT DUE DATE	PROJECT STATUS
Edit Delete	P-01	Enrolment System	1/1/2024 12:00:00 AM	10/23/2024 12:00:00 AM	On going
Edit Delete	P-02	Attendance System	3/1/2024 12:00:00 AM	12/12/2024 12:00:00 AM	On going
Edit Delete	P-03	Examination System	5/1/2024 12:00:00 AM	12/31/2024 12:00:00 AM	Not started
Edit Delete	P-04	HR Management System	2/1/2024 12:00:00 AM	8/15/2024 12:00:00 AM	On going
Edit Delete	P-05	Inventory System	4/1/2024 12:00:00 AM	10/30/2024 12:00:00 AM	On going

Figure 32 : Project Web form

d. Task Web from

Task Details**Manage tasks efficiently.**

Enter Task ID:

Task Name:

Start Date:

Due Date:

Task Status:

Sub Task ID:

Insert

	TASK ID	TASK NAME	TASK START DATE	TASK DUE DATE	TASK STATUS	SUB TASK ID
Edit Delete	T-01	Student Registration	1/1/2024 12:00:00 AM	2/20/2024 12:00:00 AM	Completed	ST-01
Edit Delete	T-02	Student Counselling Form	1/5/2024 12:00:00 AM	6/15/2024 12:00:00 AM	On going	ST-02
Edit Delete	T-03	Biometric Registration	3/10/2024 12:00:00 AM	3/20/2024 12:00:00 AM	Completed	ST-03
Edit Delete	T-04	Faculty Registration	2/1/2024 12:00:00 AM	4/10/2024 12:00:00 AM	Not started	ST-04
Edit Delete	T-05	Attendance Marking	4/1/2024 12:00:00 AM	6/30/2024 12:00:00 AM	On going	

Figure 33 : Task Web form

e. Sub-Task

Sub-Task Details

Your sub-task details page.

Enter Sub-Task ID:

Sub-Task Name:

Insert

	SUB_TASK_ID	SUB_TASK_NAME
Edit Delete	ST-01	Student Registrationn
Edit Delete	ST-02	Student Counselling Form
Edit Delete	ST-03	Biometric Registration
Edit Delete	ST-04	Faculty Registration
Edit Delete	ST-05	Design UI and UX

Figure 34 : Sub-Task Web form

f. Milestone

Milestone Details

Your milestone details page.

Enter Milestone ID:

Enter Project ID:

Milestone Name:

Start Date:

End Date:

	MILESTONE ID	MILESTONE NAME	START DATE	END DATE	PROJECT ID
Edit Delete	1	Milestone 1st	3/15/2025 12:00:00 AM	3/30/2025 12:00:00 AM	P-01
Edit Delete	2	Milestone 2	4/1/2025 12:00:00 AM	4/15/2025 12:00:00 AM	P-02
Edit Delete	3	Milestone 3	4/10/2025 12:00:00 AM	4/25/2025 12:00:00 AM	P-03
Edit Delete	4	Milestone 4	5/1/2025 12:00:00 AM	5/15/2025 12:00:00 AM	P-04
Edit Delete	5	Milestone 5	5/5/2025 12:00:00 AM	5/20/2025 12:00:00 AM	P-05

Figure 35 : Milestone Web form

4.2 Complex web forms

a. User_project

Select Username:

User Project Details
 Details of the user and their projects

USER ID	USER NAME	USER EMAIL	GRADE ID	USER CONTACT	PROJECT ID	PROJECT NAME	PROJECT START DATE	PROJECT DUE DATE	PROJECT STATUS
U-01	Sam Smith	Smith@gmail.com	G-01	+9779859697989	P-01	Enrolment System	1/1/2024 12:00:00 AM	10/23/2024 12:00:00 AM	On going
U-01	Sam Smith	Smith@gmail.com	G-01	+9779859697989	P-05	Inventory System	4/1/2024 12:00:00 AM	10/30/2024 12:00:00 AM	On going

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b. Project_milestone

Project Milestone

View the details of the project and its milestones

Select Project:

Project Details:
Project details will be displayed here.

PROJECT_ID	PROJECT_NAME	PROJECT_START_DATE	PROJECT_DUE_DATE	PROJECT_STATUS
P-01	Enrolment System	1/1/2024 12:00:00 AM	10/23/2024 12:00:00 AM	On going

Milestones:

MILESTONE_ID	MILESTONE_NAME	START_DATE	END_DATE	PROJECT_ID
1	one	3/15/2025 12:00:00 AM	3/30/2025 12:00:00 AM	P-01
6	six	3/15/2025 12:00:00 AM	4/1/2025 12:00:00 AM	P-01

Figure 36 : Project Milestone web complex

c. Top performer

Top Performer

Details of top 3 users who have completed the most tasks for the selected project.

Select Project:

Top Performers:
Top 3 Performers will appear here

Project and User Information

USER_NAME	PROJECT_NAME	NUMBER_OF_PROJECTS
Sam Smith	Enrolment System	1

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Figure 37 : Top Perform complex web form

5. Testing

a. User table

Users table before adding data into it

	USER_ID	USER_NAME	USER_EMAIL	GRADE_ID	USER_CONTACT
Edit Delete	U-01	Sam Smith	Smith@gmail.com	G-01	+9779859697989
Edit Delete	U-02	John Doe	John@gmail.com	G-02	+9779859697990
Edit Delete	U-03	Jane Doe	Jane@gmail.com	G-03	+9779859697991
Edit Delete	U-04	Alice Brown	Alice@gmail.com	G-04	+9779859697992
Edit Delete	U-05	Bob White	Bob@gmail.com	G-05	+9779859697993

Figure 38 : Before adding on users

User Details

Your user details page.

Enter User ID:

User Name:

User Email:

User Contact:

Grade ID:

Figure 39 : Adding data on user's table

After adding users table data is seen on table.

	USER ID	USER NAME	USER EMAIL	GRADE ID	USER CONTACT
Edit Delete	U-01	Sam Smith	Smith@gmail.com	G-01	+9779859697989
Edit Delete	U-02	John Doe	John@gmail.com	G-02	+9779859697990
Edit Delete	U-03	Jane Doe	Jane@gmail.com	G-03	+9779859697991
Edit Delete	U-04	Alice Brown	Alice@gmail.com	G-04	+9779859697992
Edit Delete	U-05	Bob White	Bob@gmail.com	G-05	+9779859697993
Edit Delete	U-06	Gaurab Lamichhane	gaurab@gmail.com	G-05	+9779859697989

Figure 40 : After adding user table data

Editing user email of user

	USER ID	USER NAME	USER EMAIL	GRADE ID	USER CONTACT
Edit Delete	U-01	Sam Smith	Smith@gmail.com	G-01	+9779859697989
Edit Delete	U-02	John Doe	John@gmail.com	G-02	+9779859697990
Edit Delete	U-03	Jane Doe	Jane@gmail.com	G-03	+9779859697991
Edit Delete	U-04	Alice Brown	Alice@gmail.com	G-04	+9779859697992
Edit Delete	U-05	Bob White	Bob@gmail.com	G-05	+9779859697993
Update Cancel	U-06	<input type="text" value="Gaurab Lamichhane"/>	<input type="text" value="gaurab1234@gmail.com"/>	<input type="text" value="G-05"/>	<input type="text" value="+9779859697989"/>

Figure 41 : Editing user email of user

After updated email shown

	USER ID	USER NAME	USER EMAIL	GRADE ID	USER CONTACT
Edit Delete	U-01	Sam Smith	Smith@gmail.com	G-01	+9779859697989
Edit Delete	U-02	John Doe	John@gmail.com	G-02	+9779859697990
Edit Delete	U-03	Jane Doe	Jane@gmail.com	G-03	+9779859697991
Edit Delete	U-04	Alice Brown	Alice@gmail.com	G-04	+9779859697992
Edit Delete	U-05	Bob White	Bob@gmail.com	G-05	+9779859697993
Edit Delete	U-06	Gaurab Lamichhane	gaurab1234@gmail.com	G-05	+9779859697989

Figure 42 : After update

Before deleting that recently added value into user's table

	USER ID	USER NAME	USER EMAIL	GRADE ID	USER CONTACT
Edit Delete	U-01	Sam Smith	Smith@gmail.com	G-01	+9779859697989
Edit Delete	U-02	John Doe	John@gmail.com	G-02	+9779859697990
Edit Delete	U-03	Jane Doe	Jane@gmail.com	G-03	+9779859697991
Edit Delete	U-04	Alice Brown	Alice@gmail.com	G-04	+9779859697992
Edit Delete	U-05	Bob White	Bob@gmail.com	G-05	+9779859697993
Edit Delete	U-06	Gaurab Lamichhane	gaurab1234@gmail.com	G-05	+9779859697989

Figure 43: Before deleting user

After deleting added user value got removed from user table

	USER ID	USER NAME	USER EMAIL	GRADE ID	USER CONTACT
Edit Delete	U-01	Sam Smith	Smith@gmail.com	G-01	+9779859697989
Edit Delete	U-02	John Doe	John@gmail.com	G-02	+9779859697990
Edit Delete	U-03	Jane Doe	Jane@gmail.com	G-03	+9779859697991
Edit Delete	U-04	Alice Brown	Alice@gmail.com	G-04	+9779859697992
Edit Delete	U-05	Bob White	Bob@gmail.com	G-05	+9779859697993
Edit Delete	U-06	Gaurab Lamichhane	gaurab@gmail.com	G-05	+9779859697989

Figure 44: After deleting user

b. Project Table

Before adding data into the project table

	PROJECT ID	PROJECT NAME	PROJECT START DATE	PROJECT DUE DATE	PROJECT STATUS
Edit Delete	P-01	Enrolment Systemm	1/1/2024 12:00:00 AM	10/23/2024 12:00:00 AM	On going
Edit Delete	P-02	Attendance System	3/1/2024 12:00:00 AM	12/12/2024 12:00:00 AM	On going
Edit Delete	P-03	Examination System	5/1/2024 12:00:00 AM	12/31/2024 12:00:00 AM	Not started
Edit Delete	P-04	HR Management System	2/1/2024 12:00:00 AM	8/15/2024 12:00:00 AM	On going
Edit Delete	P-05	Inventory System	4/1/2024 12:00:00 AM	10/30/2024 12:00:00 AM	On going

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Figure 45 : Before adding data into project table

Adding data into the project table

About Projects

Detail of the project with all the milestone of the project.

Enter Project ID:

Project Name:

Start Date:



Due Date:



Project Status:

Figure 46 : Adding project

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After Adding data new value added into project table

	PROJECT ID	PROJECT NAME	PROJECT START DATE	PROJECT DUE DATE	PROJECT STATUS
Edit Delete	P-01	Enrolment System	1/1/2024 12:00:00 AM	10/23/2024 12:00:00 AM	On going
Edit Delete	P-02	Attendance System	3/1/2024 12:00:00 AM	12/12/2024 12:00:00 AM	On going
Edit Delete	P-03	Examination System	5/1/2024 12:00:00 AM	12/31/2024 12:00:00 AM	Not started
Edit Delete	P-04	HR Management System	2/1/2024 12:00:00 AM	8/15/2024 12:00:00 AM	On going
Edit Delete	P-05	Inventory System	4/1/2024 12:00:00 AM	10/30/2024 12:00:00 AM	On going
Edit Delete	P-06	Enrolment System	3/15/2025 12:00:00 AM	6/15/2025 12:00:00 AM	In Progress

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Figure 47 : After added value

Editing the value of project name

	PROJECT ID	PROJECT NAME	PROJECT START DATE	PROJECT DUE DATE	PROJECT STATUS
Edit Delete	P-01	Enrolment System	1/1/2024 12:00:00 AM	10/23/2024 12:00:00 AM	On going
Edit Delete	P-02	Attendance System	3/1/2024 12:00:00 AM	12/12/2024 12:00:00 AM	On going
Edit Delete	P-03	Examination System	5/1/2024 12:00:00 AM	12/31/2024 12:00:00 AM	Not started
Edit Delete	P-04	HR Management System	2/1/2024 12:00:00 AM	8/15/2024 12:00:00 AM	On going
Edit Delete	P-05	Inventory System	4/1/2024 12:00:00 AM	10/30/2024 12:00:00 AM	On going
Update Cancel	P-06	<input type="text" value="Boking System"/>	<input type="text" value="3/15/2025 12:00:00 AM"/>	<input type="text" value="6/15/2025 12:00:00 AM"/>	<input type="text" value="In Progress"/>

Figure 48 : Editing value of project

Updated value after editing the name of project

	PROJECT ID	PROJECT NAME	PROJECT START DATE	PROJECT DUE DATE	PROJECT STATUS
Edit Delete	P-01	Enrolment System	1/1/2024 12:00:00 AM	10/23/2024 12:00:00 AM	On going
Edit Delete	P-02	Attendance System	3/1/2024 12:00:00 AM	12/12/2024 12:00:00 AM	On going
Edit Delete	P-03	Examination System	5/1/2024 12:00:00 AM	12/31/2024 12:00:00 AM	Not started
Edit Delete	P-04	HR Management System	2/1/2024 12:00:00 AM	8/15/2024 12:00:00 AM	On going
Edit Delete	P-05	Inventory System	4/1/2024 12:00:00 AM	10/30/2024 12:00:00 AM	On going
Edit Delete	P-06	Boking System	3/15/2025 12:00:00 AM	6/15/2025 12:00:00 AM	In Progress

Figure 49 : After editing of project

Before deleting the newly added project

	PROJECT ID	PROJECT NAME	PROJECT START DATE	PROJECT DUE DATE	PROJECT STATUS
Edit Delete	P-01	Enrolment System	1/1/2024 12:00:00 AM	10/23/2024 12:00:00 AM	On going
Edit Delete	P-02	Attendance System	3/1/2024 12:00:00 AM	12/12/2024 12:00:00 AM	On going
Edit Delete	P-03	Examination System	5/1/2024 12:00:00 AM	12/31/2024 12:00:00 AM	Not started
Edit Delete	P-04	HR Management System	2/1/2024 12:00:00 AM	8/15/2024 12:00:00 AM	On going
Edit Delete	P-05	Inventory System	4/1/2024 12:00:00 AM	10/30/2024 12:00:00 AM	On going
Edit Delete	P-06	Boking System	3/15/2025 12:00:00 AM	6/15/2025 12:00:00 AM	In Progress

Figure 50: Before deleting the value of project table

After deleting the newly added project

	PROJECT ID	PROJECT NAME	PROJECT START DATE	PROJECT DUE DATE	PROJECT STATUS
Edit Delete	P-01	Enrolment Systemm	1/1/2024 12:00:00 AM	10/23/2024 12:00:00 AM	On going
Edit Delete	P-02	Attendance System	3/1/2024 12:00:00 AM	12/12/2024 12:00:00 AM	On going
Edit Delete	P-03	Examination System	5/1/2024 12:00:00 AM	12/31/2024 12:00:00 AM	Not started
Edit Delete	P-04	HR Management System	2/1/2024 12:00:00 AM	8/15/2024 12:00:00 AM	On going
Edit Delete	P-05	Inventory System	4/1/2024 12:00:00 AM	10/30/2024 12:00:00 AM	On going

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Figure 51 : After deleting the newly added project

c. Taks table

Before adding value to the table

	TASK ID	TASK NAME	TASK START DATE	TASK DUE DATE	TASK STATUS	SUB_TASK ID
Edit Delete	T-01	Student Registration	1/1/2024 12:00:00 AM	2/20/2024 12:00:00 AM	Completed	ST-01
Edit Delete	T-02	Student Counselling Form	1/5/2024 12:00:00 AM	6/15/2024 12:00:00 AM	On going	ST-02
Edit Delete	T-03	Biometric Registration	3/10/2024 12:00:00 AM	3/20/2024 12:00:00 AM	Completed	ST-03
Edit Delete	T-04	Faculty Registration	2/1/2024 12:00:00 AM	4/10/2024 12:00:00 AM	Not started	ST-04
Edit Delete	T-05	Attendance Marking	4/1/2024 12:00:00 AM	6/30/2024 12:00:00 AM	On going	

Figure 52 : Before adding value

Adding value to add task as per the fields

Task Details

Manage tasks efficiently.

Enter User ID:

Task Name:

Start Date:



Due Date:



Task Status:

Sub Task ID:

Figure 53 : Adding value of task

After adding values into task table, values are displayed into the table

	TASK ID	TASK NAME	TASK START DATE	TASK DUE DATE	TASK STATUS	SUB TASK ID
Edit Delete	T-01	Student Registration	1/1/2024 12:00:00 AM	2/20/2024 12:00:00 AM	Completed	ST-01
Edit Delete	T-02	Student Counselling Form	1/5/2024 12:00:00 AM	6/15/2024 12:00:00 AM	On going	ST-02
Edit Delete	T-03	Biometric Registration	3/10/2024 12:00:00 AM	3/20/2024 12:00:00 AM	Completed	ST-03
Edit Delete	T-04	Faculty Registration	2/1/2024 12:00:00 AM	4/10/2024 12:00:00 AM	Not started	ST-04
Edit Delete	T-05	Attendance Marking	4/1/2024 12:00:00 AM	6/30/2024 12:00:00 AM	On going	
Edit Delete	T-06	Develop Login Module	3/15/2025 12:00:00 AM	3/20/2025 12:00:00 AM	In Progress	ST-01

Figure 54 : After added values

Editing Task status of added task

	TASK ID	TASK NAME	TASK START DATE	TASK DUE DATE	TASK STATUS	SUB TASK ID
Edit Delete	T-01	Student Registration	1/1/2024 12:00:00 AM	2/20/2024 12:00:00 AM	Completed	ST-01
Edit Delete	T-02	Student Counselling Form	1/5/2024 12:00:00 AM	6/15/2024 12:00:00 AM	On going	ST-02
Edit Delete	T-03	Biometric Registration	3/10/2024 12:00:00 AM	3/20/2024 12:00:00 AM	Completed	ST-03
Edit Delete	T-04	Faculty Registration	2/1/2024 12:00:00 AM	4/10/2024 12:00:00 AM	Not started	ST-04
Edit Delete	T-05	Attendance Marking	4/1/2024 12:00:00 AM	6/30/2024 12:00:00 AM	On going	
Update Cancel	T-06	<input type="text" value="Develop Login Module"/>	<input type="text" value="3/15/2025 12:00:00 AM"/>	<input type="text" value="3/20/2025 12:00:00 AM"/>	<input type="text" value="Completed"/>	<input type="text" value="ST-01"/>

Figure 55 : Editing status of task table

After updated the task status to complete

	TASK ID	TASK NAME	TASK START DATE	TASK DUE DATE	TASK STATUS	SUB TASK ID
Edit Delete	T-01	Student Registration	1/1/2024 12:00:00 AM	2/20/2024 12:00:00 AM	Completed	ST-01
Edit Delete	T-02	Student Counselling Form	1/5/2024 12:00:00 AM	6/15/2024 12:00:00 AM	On going	ST-02
Edit Delete	T-03	Biometric Registration	3/10/2024 12:00:00 AM	3/20/2024 12:00:00 AM	Completed	ST-03
Edit Delete	T-04	Faculty Registration	2/1/2024 12:00:00 AM	4/10/2024 12:00:00 AM	Not started	ST-04
Edit Delete	T-05	Attendance Marking	4/1/2024 12:00:00 AM	6/30/2024 12:00:00 AM	On going	
Edit Delete	T-06	Develop Login Module	3/15/2025 12:00:00 AM	3/20/2025 12:00:00 AM	Completed	ST-01

Figure 56 : After updating to task status to complete

Before Deleting the newly added task

	TASK ID	TASK NAME	TASK START DATE	TASK DUE DATE	TASK STATUS	SUB TASK ID
Edit Delete	T-01	Student Registration	1/1/2024 12:00:00 AM	2/20/2024 12:00:00 AM	Completed	ST-01
Edit Delete	T-02	Student Counselling Form	1/5/2024 12:00:00 AM	6/15/2024 12:00:00 AM	On going	ST-02
Edit Delete	T-03	Biometric Registration	3/10/2024 12:00:00 AM	3/20/2024 12:00:00 AM	Completed	ST-03
Edit Delete	T-04	Faculty Registration	2/1/2024 12:00:00 AM	4/10/2024 12:00:00 AM	Not started	ST-04
Edit Delete	T-05	Attendance Marking	4/1/2024 12:00:00 AM	6/30/2024 12:00:00 AM	On going	
Edit Delete	T-06	Develop Login Module	3/15/2025 12:00:00 AM	3/20/2025 12:00:00 AM	Completed	ST-01

Figure 57: Before deleting values

After deleting added tasks

	TASK ID	TASK NAME	TASK START DATE	TASK DUE DATE	TASK STATUS	SUB TASK ID
Edit Delete	T-01	Student Registration	1/1/2024 12:00:00 AM	2/20/2024 12:00:00 AM	Completed	ST-01
Edit Delete	T-02	Student Counselling Form	1/5/2024 12:00:00 AM	6/15/2024 12:00:00 AM	On going	ST-02
Edit Delete	T-03	Biometric Registration	3/10/2024 12:00:00 AM	3/20/2024 12:00:00 AM	Completed	ST-03
Edit Delete	T-04	Faculty Registration	2/1/2024 12:00:00 AM	4/10/2024 12:00:00 AM	Not started	ST-04
Edit Delete	T-05	Attendance Marking	4/1/2024 12:00:00 AM	6/30/2024 12:00:00 AM	On going	

Figure 58 : After deleted added task

d. Sub task table

Before adding values into sub task table

	SUB_TASK_ID	SUB_TASK_NAME
Edit Delete	ST-01	Student Registrationn
Edit Delete	ST-02	Student Counselling Form
Edit Delete	ST-03	Biometric Registration
Edit Delete	ST-04	Faculty Registration

Figure 59: Before adding Values into table

Adding values into subtask table

Sub-Task Details

Your sub-task details page.

Enter Sub-Task ID:

Sub-Task Name:

Figure 60 : Adding sub task

After adding the subtask values into table

	SUB_TASK_ID	SUB_TASK_NAME
Edit Delete	ST-01	Student Registrationn
Edit Delete	ST-02	Student Counselling Form
Edit Delete	ST-03	Biometric Registration
Edit Delete	ST-04	Faculty Registration
Edit Delete	ST-05	Design UI

Figure 61 : After added value

Editing the value sub_task_name of subtask table

	SUB_TASK_ID	SUB_TASK_NAME
Edit Delete	ST-01	Student Registrationn
Edit Delete	ST-02	Student Counselling Form
Edit Delete	ST-03	Biometric Registration
Edit Delete	ST-04	Faculty Registration
Update Cancel	ST-05	<input type="text" value="Design UI and UX"/>

Figure 62 : Editing Sub task name

After editing sub_task_name column

	SUB_TASK_ID	SUB_TASK_NAME
Edit Delete	ST-01	Student Registrationn
Edit Delete	ST-02	Student Counselling Form
Edit Delete	ST-03	Biometric Registration
Edit Delete	ST-04	Faculty Registration
Edit Delete	ST-05	Design UI and UX

Figure 63 : After edited value

Before deleting newly added Subtask values

	SUB_TASK_ID	SUB_TASK_NAME
Edit Delete	ST-01	Student Registrationn
Edit Delete	ST-02	Student Counselling Form
Edit Delete	ST-03	Biometric Registration
Edit Delete	ST-04	Faculty Registration
Edit Delete	ST-05	Design UI and UX

Figure 64: Before deleting value

After deleting the newly added value

	SUB_TASK_ID	SUB_TASK_NAME
Edit Delete	ST-01	Student Registrationn
Edit Delete	ST-02	Student Counselling Form
Edit Delete	ST-03	Biometric Registration
Edit Delete	ST-04	Faculty Registration

Figure 65 : After deleted values

e. Milestone table

Before adding values into the milestone table

	MILESTONE_ID	MILESTONE_NAME	START_DATE	END_DATE	PROJECT_ID
Edit Delete	1	Milestone 1st	3/15/2025 12:00:00 AM	3/30/2025 12:00:00 AM	P-01
Edit Delete	2	Milestone 2	4/1/2025 12:00:00 AM	4/15/2025 12:00:00 AM	P-02
Edit Delete	3	Milestone 3	4/10/2025 12:00:00 AM	4/25/2025 12:00:00 AM	P-03
Edit Delete	4	Milestone 4	5/1/2025 12:00:00 AM	5/15/2025 12:00:00 AM	P-04
Edit Delete	5	Milestone 5	5/5/2025 12:00:00 AM	5/20/2025 12:00:00 AM	P-05

Adding values into milestone table as per the input fields

Milestone Details

Your milestone details page.

Enter Milestone ID:

Enter Project ID:

Milestone Name:

Start Date:



End Date:



Figure 66 : Adding milestone values

	MILESTONE ID	MILESTONE NAME	START DATE	END DATE	PROJECT ID
Edit Delete	1	Milestone 1st	3/15/2025 12:00:00 AM	3/30/2025 12:00:00 AM	P-01
Edit Delete	2	Milestone 2	4/1/2025 12:00:00 AM	4/15/2025 12:00:00 AM	P-02
Edit Delete	3	Milestone 3	4/10/2025 12:00:00 AM	4/25/2025 12:00:00 AM	P-03
Edit Delete	4	Milestone 4	5/1/2025 12:00:00 AM	5/15/2025 12:00:00 AM	P-04
Edit Delete	5	Milestone 5	5/5/2025 12:00:00 AM	5/20/2025 12:00:00 AM	P-05
Edit Delete	6	Milestone 6	3/15/2025 12:00:00 AM	4/1/2025 12:00:00 AM	P-01

Figure 67 : After added values

Before editing the value

	MILESTONE_ID	MILESTONE_NAME	START_DATE	END_DATE	PROJECT_ID
Edit Delete	1	Milestone 1st	3/15/2025 12:00:00 AM	3/30/2025 12:00:00 AM	P-01
Edit Delete	2	Milestone 2	4/1/2025 12:00:00 AM	4/15/2025 12:00:00 AM	P-02
Edit Delete	3	Milestone 3	4/10/2025 12:00:00 AM	4/25/2025 12:00:00 AM	P-03
Edit Delete	4	Milestone 4	5/1/2025 12:00:00 AM	5/15/2025 12:00:00 AM	P-04
Edit Delete	5	Milestone 5	5/5/2025 12:00:00 AM	5/20/2025 12:00:00 AM	P-05
Edit Delete	6	Milestone 6	3/15/2025 12:00:00 AM	4/1/2025 12:00:00 AM	P-01

Figure 68: Before editing value

After editing milestone value

	MILESTONE_ID	MILESTONE_NAME	START_DATE	END_DATE	PROJECT_ID
Edit Delete	1	one	3/15/2025 12:00:00 AM	3/30/2025 12:00:00 AM	P-01

Figure 69 : Editing values

Before deleting the newly added value at Milestone table

	MILESTONE_ID	MILESTONE_NAME	START_DATE	END_DATE	PROJECT_ID
Edit Delete	1	Milestone 1st	3/15/2025 12:00:00 AM	3/30/2025 12:00:00 AM	P-01
Edit Delete	2	Milestone 2	4/1/2025 12:00:00 AM	4/15/2025 12:00:00 AM	P-02
Edit Delete	3	Milestone 3	4/10/2025 12:00:00 AM	4/25/2025 12:00:00 AM	P-03
Edit Delete	4	Milestone 4	5/1/2025 12:00:00 AM	5/15/2025 12:00:00 AM	P-04
Edit Delete	5	Milestone 5	5/5/2025 12:00:00 AM	5/20/2025 12:00:00 AM	P-05
Edit Delete	6	Milestone 6	3/15/2025 12:00:00 AM	4/1/2025 12:00:00 AM	P-01

Figure 70: Before deleting the value

After deleting the newly added value in the milestone table

	MILESTONE_ID	MILESTONE_NAME	START_DATE	END_DATE	PROJECT_ID
Edit Delete	1	Milestone 1st	3/15/2025 12:00:00 AM	3/30/2025 12:00:00 AM	P-01
Edit Delete	2	Milestone 2	4/1/2025 12:00:00 AM	4/15/2025 12:00:00 AM	P-02
Edit Delete	3	Milestone 3	4/10/2025 12:00:00 AM	4/25/2025 12:00:00 AM	P-03
Edit Delete	4	Milestone 4	5/1/2025 12:00:00 AM	5/15/2025 12:00:00 AM	P-04
Edit Delete	5	Milestone 5	5/5/2025 12:00:00 AM	5/20/2025 12:00:00 AM	P-05

Figure 71: After deleting the newly added value

f. Project Milestone

Displaying the details according to name of project from Enrolment system

Project Milestone

View the details of the project and its milestones

Select Project:

Project Details:

Project details will be displayed here.

PROJECT_ID	PROJECT_NAME	PROJECT_START_DATE	PROJECT_DUE_DATE	PROJECT_STATUS
P-01	Enrolment System	1/1/2024 12:00:00 AM	10/23/2024 12:00:00 AM	On going

Milestones:

MILESTONE_ID	MILESTONE_NAME	START_DATE	END_DATE	PROJECT_ID
1	one	3/15/2025 12:00:00 AM	3/30/2025 12:00:00 AM	P-01
6	six	3/15/2025 12:00:00 AM	4/1/2025 12:00:00 AM	P-01

Figure 72: Displaying values as name Enrolment System

After changing the project as Attendance System and as we can see the tables have been updated accordingly to the name of project

Project Milestone

View the details of the project and its milestones

Select Project: Attendance System ▼

Project Details:

Project details will be displayed here.

PROJECT_ID	PROJECT_NAME	PROJECT_START_DATE	PROJECT_DUE_DATE	PROJECT_STATUS
P-02	Attendance System	3/1/2024 12:00:00 AM	12/12/2024 12:00:00 AM	On going

Milestones:

MILESTONE_ID	MILESTONE_NAME	START_DATE	END_DATE	PROJECT_ID
2	Milestone 2	4/1/2025 12:00:00 AM	4/15/2025 12:00:00 AM	P-02

Figure 73: After changing the value tables data got changed

g. Top performer

Before changing project name

Top Performer

Details of top 3 users who have completed the most tasks for the selected project.

Select Project: Enrolment System ▼

Top Performers:

Top 3 Performers will appear here

Project and User Information

USER_NAME	PROJECT_NAME	NUMBER_OF_PROJECTS
Sam Smith	Enrolment System	1

Figure 74: Before changing the name of project

After changing the name of the project, the top performer is displayed

Top Performer

Details of top 3 users who have completed the most tasks for the selected project.

Select Project:

Top Performers:

Top 3 Performers will appear here

Project and User Information

USER_NAME	PROJECT_NAME	NUMBER_OF_PROJECTS
Alice Brown	HR Management System	1

Figure 75: After changing the name of project

h. User project table

Before changing username so that users project details will be displayed

Select Username:

User Project Details

Details of the user and their projects

USER_ID	USER_NAME	USER_EMAIL	GRADE_ID	USER_CONTACT	PROJECT_ID	PROJECT_NAME	PROJECT_START_DATE	PROJECT_DUE_DATE	PROJECT_STATUS
U-02	Jhon Doe	Jhon@gmail.com	G-02	+9779859697990	P-02	Attendance System	3/1/2024 12:00:00 AM	12/12/2024 12:00:00 AM	On going

Figure 76: Before changing the username to see changes in table

After changing the username to see changes in the table accordingly

Select Username: Sam Smith ▾

User Project Details

Details of the user and their projects

USER ID	USER NAME	USER EMAIL	GRADE ID	USER CONTACT	PROJECT ID	PROJECT NAME	PROJECT START DATE	PROJECT DUE DATE	PROJECT
U-01	Sam Smith	Smith@gmail.com	G-01	+9779859697989	P-01	Enrolment System	1/1/2024 12:00:00 AM	10/23/2024 12:00:00 AM	On going
U-01	Sam Smith	Smith@gmail.com	G-01	+9779859697989	P-05	Inventory System	4/1/2024 12:00:00 AM	10/30/2024 12:00:00 AM	On going

Figure 77: After changing the name of user table got changed

6. Failure cases

- a. 32-bit oracle and 64-bit Visual Studio 2022

Solution: Installing 64-bit oracle and 64 Visual Studio 2022

- b. Fail to connect database, incorrect username or password

Solution: Connecting to correct database, correct username and password

Server = XE

Username: gaurab_cw

Password: Lamichhane

c. Fk violation

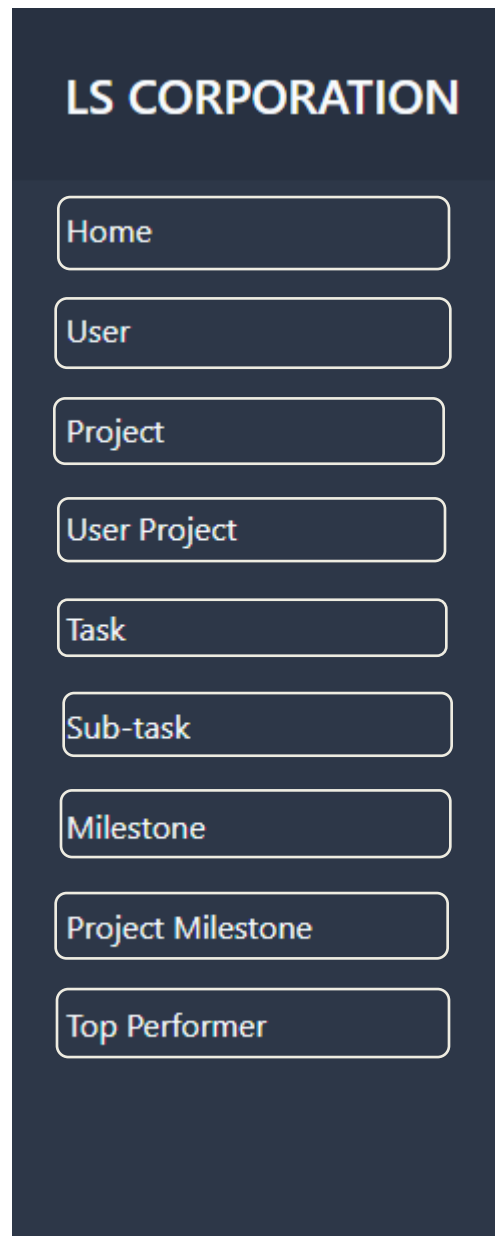
Solution: we should first remove data from others table being referenced and then from the base table or we can use delete cascade

d. Pk violation or unique key violation

Solution: we need to insert correct data

7. User Manual

My website navigation bar looks like this

**Step:1**

Click on the rectangle to open webforms, for example we are clicking user.

User webform looks like this

User Details

Your user details page.

Enter User ID:

User Name:

User Email:

User Contact:

Grade ID:

Insert

Follow this method to open webforms

Step 2: To add data on it, add data on the required field and click insert.

User Details

Your user details page.

Enter User ID:

User Name:

User Email:

User Contact:

Grade ID:

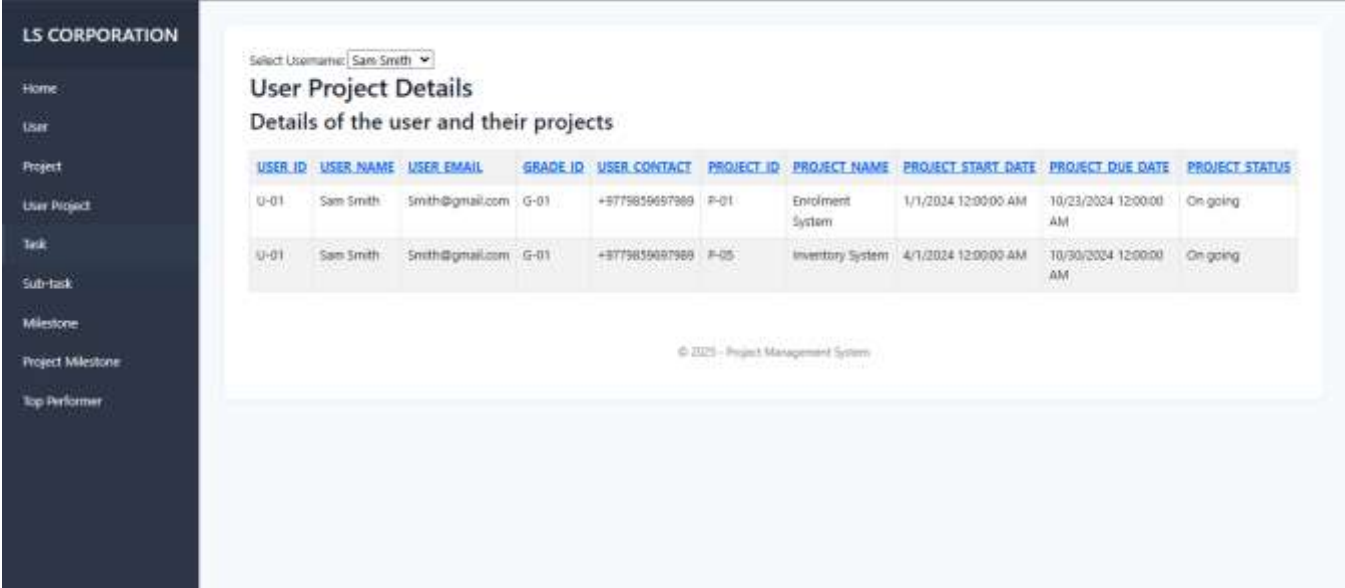
Step 3: to edit data click on edit, click on edit button and make changes on required fields.

	USER ID	USER NAME	USER EMAIL	GRADE ID	USER CONTACT
Edit Delete	U-01	Sam Smith	Smith@gmail.com	G-01	+9779859697989
Edit Delete	U-02	John Doe	John@gmail.com	G-02	+9779859697990
Edit Delete	U-03	Jane Doe	Jane@gmail.com	G-03	+9779859697991
Edit Delete	U-04	Alice Brown	Alice@gmail.com	G-04	+9779859697992
Edit Delete	U-05	Bob White	Bob@gmail.com	G-05	+9779859697993
Edit Delete	U-06	Gaurab Lamichhane	gaurab@gmail.com	G-05	+9779859697989

Step 4: To delete data, click on delete button

Follow step 2,3,4 for project task milestone subtask webforms

For complex webforms, click on user project



The screenshot displays the 'User Project Details' webform for LS CORPORATION. The sidebar on the left contains navigation links: Home, User, Project, User Project, Task, Sub-task, Milestone, Project Milestone, and Top Performer. The main content area features a dropdown menu for 'Select User name' with 'Sam Smith' selected. Below this, the title 'User Project Details' is followed by the subtitle 'Details of the user and their projects'. A table lists the user's projects with columns for USER ID, USER NAME, USER EMAIL, GRADE ID, USER CONTACT, PROJECT ID, PROJECT NAME, PROJECT START DATE, PROJECT DUE DATE, and PROJECT STATUS. The table contains two rows of data for Sam Smith, both with a status of 'On going'. A copyright notice '© 2025 - Project Management System' is visible at the bottom of the main content area.

USER ID	USER NAME	USER EMAIL	GRADE ID	USER CONTACT	PROJECT ID	PROJECT NAME	PROJECT START DATE	PROJECT DUE DATE	PROJECT STATUS
U-01	Sam Smith	Smith@gmail.com	G-01	+9779859697989	P-01	Enrolment System	1/1/2024 12:00:00 AM	10/23/2024 12:00:00 AM	On going
U-01	Sam Smith	Smith@gmail.com	G-01	+9779859697989	P-05	Inventory System	4/1/2024 12:00:00 AM	10/30/2024 12:00:00 AM	On going

Follow same for project_milestone and top performer