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## **Hackathon AFourathon 2.0 - 2023**

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# AFOUR DIGITAL ASSET DESIGN, ENGINEERING AND SUPPORT GUIDE

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## Solution

### **Solution Purpose**

This project aims to reduce customers manual efforts for generating status reports by providing a web application.

### **Objectives**

The solution solves the following problem statements and it's sub systems.

1. Daily status reporting problem.
2. Weekly status reporting problem
3. Skills database problem

### **Scope and No Scope**

The project scope is a outline that includes functionalities, resources and deliverables of our project.  
This project scope is extensive.

In Scope



- Project management application.
- Teams management application.
- Status management application.
- Email reporting application
- Employee management application
- Role based access control.
- Logging and Monitoring application.
- Docker Containerization
- Cloud Deployment

#### Out of Scope

- Token based authentication (extensive)
- Automation Testing (extensive)



## Design

### UX Design

Following are the wire-frames of our UI.

Project Daily status report /project

Project

Teams

Status

Add New project

Projects

Project 1

Project 2

Project 3

After clicking Add New Project /create-new-project

Fill The Project Details

Project Name

Start Date

End Date

Manager Name

Manager Email

Daily status report Mailing list

Email 1

Email 2

Email 3

Create

On Teams /teams

Project

Teams

Status

Select Project

Create A team

Team Details

Project

Teams

Status

Project 2

Create A team

edit team

Team Members

Member 1

Member 2

Member 3

On Clicking create new Team

Project

Teams

Status

Create New Team

Team Name

Start Date

End Date

Team Lead Name

Team Lead Email

Choose Team member

Paige Turner

Paige Turner

Sam Samuels

Create

Status Details

Project

Teams

Status

Select User

Ticker Id

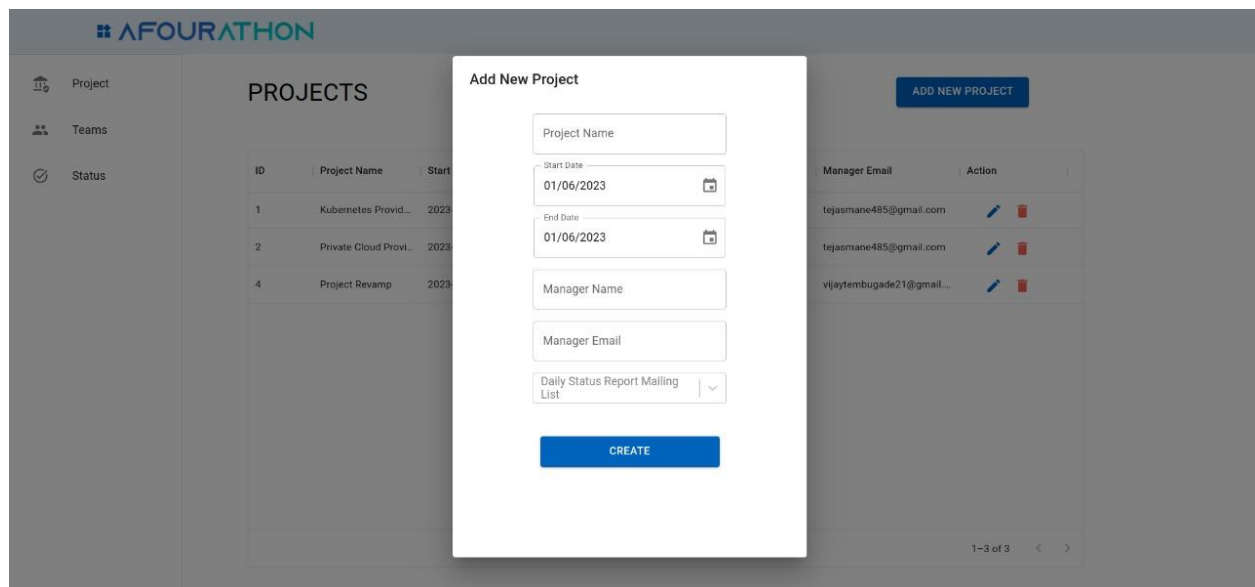
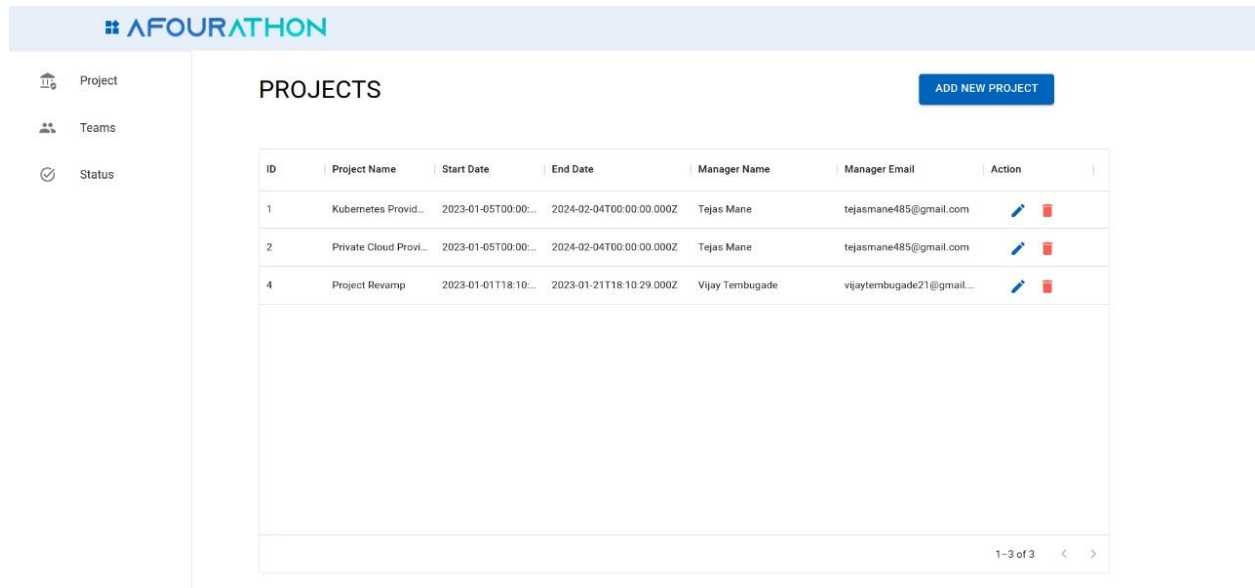
Hours Spent

Status ( In Progress/Blocked/Completed/PTO/In Review )

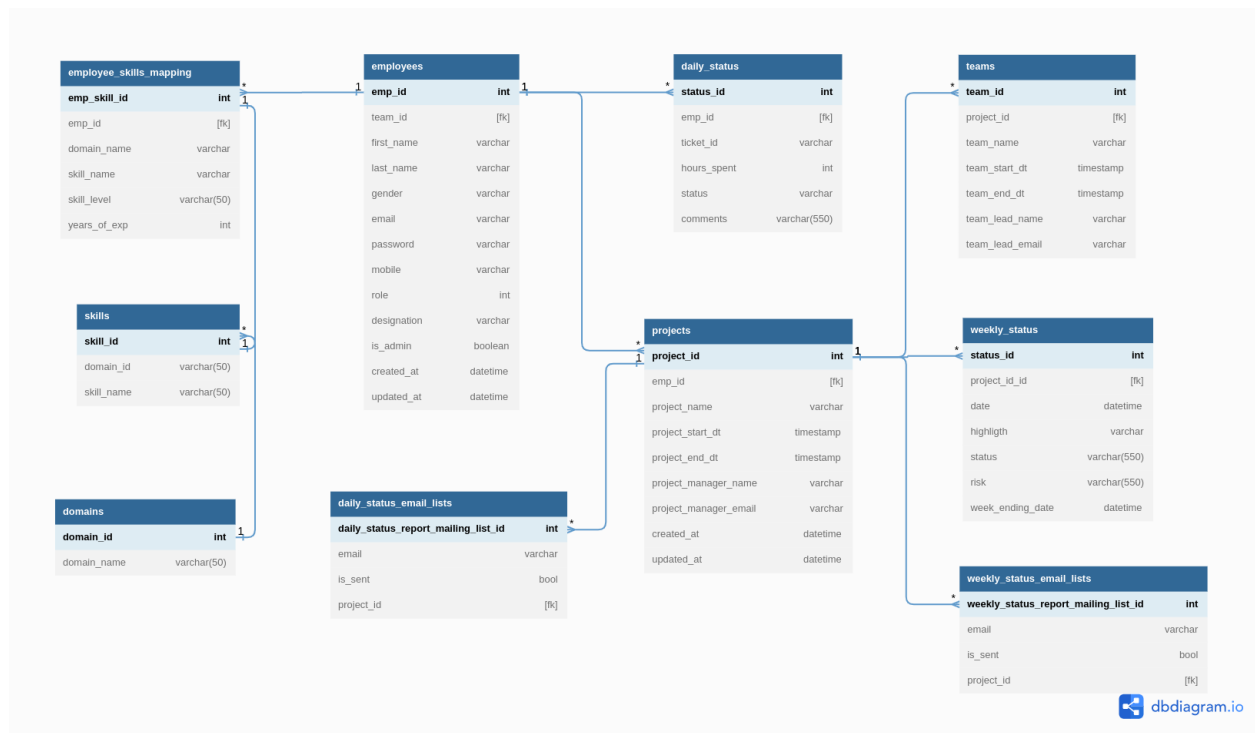
Comment

Update Status

## UI Design Samples



## Database Design



## API Collection.

API Client: Thunder Client

API collections is attached to the link and

**Github link:** <https://github.com/iamtejasmene/afourathon-2023>

## Database ORM

We have used the Sequelize ORM for the database. We have also provided the instance creation code for connection multiple database instances and read replication.



## Development

### Source Code/Git

GitHub URL - <https://github.com/iamtejasmane/afourathon-2023>

### Branching strategy

Feature branch should be created from master and after completion of a feature, branch should be merged into master branch.

### Setting up Developer Machine

- Clone the repository
- Go to the each project directories and installed the packages using `npm install`
- Run `npm start`
- The front end will up on port number 3000

## Testing

### Test Scope

#### Scope

- Manual API testing
- Manual UI testing

#### Out of Scope

- Automation testing (extensive)



## Backup and Recovery

### Database backup and recovery

Run the following command to take backup:

```
`docker exec [container-name] sh -c 'exec mysqldump --all-databases -uroot -p "$MYSQL_ROOT_PASSWORD" > /some-folder/db_backup.sql`
```

To restore the data use:

```
`docker exec [container-name] sh -c 'exec mysql -uroot -p "$MYSQL_ROOT_PASSWORD" < /some-folder/db_backup.sql`
```

## Monitoring

We have provided monitoring application which is performing a cron job after every 5 mins to check all the services are up and running.

If any services is down and unreachable, then it sends the email to the respective admin users.

## Routine Maintenance

**Provide areas for routine maintenance on the following areas:**

- Service/Size Limit Evaluation
- Third party libraries renewal
- Other dependencies renewal (e.g. NPM packages)



## Emergency Maintenance

### **Point of Deployment Contacts**

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