# Software Requirement Specification for TAC Portal

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|---|---|
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| **Seat no** | 18 |
| **Project ID** | 18 |
| **Problem Statement** | Campus Maintenance |

## 1. Introduction

### 1.1. Purpose:

The campus maintenance portal aims to provide real-time visibility into the work status of workers responsible for upkeep across the campus. Users can access a comprehensive dashboard displaying task details such as date, task ID, nature of the work(e.g., plumbing, electrical, landscaping) and location of work, duration (start time and end time), current status(e.g., pending, ongoing, completed), and remarks. With search, filter, and feedback functionalities, the portal ensures efficient monitoring, accountability, and continuous improvement in campus maintenance efforts.

### 1.2.Scope:

The scope of the campus maintenance portal project encompasses the development of a web-based application that facilitates the tracking and management of essential workers work status involved in

maintaining campus facilities. This includes designing and implementing features such as task scheduling, staff assignment, task status tracking, reporting, and feedback mechanisms. The project will also involve user authentication and permissions to ensure secure access, as well as search and filter functionalities for efficient data retrieval. Additionally, the scope may extend to integrating analytics for performance evaluation and continuous improvement. Throughout the project, emphasis will be placed on user experience, scalability, and robustness to meet the diverse needs of campus maintenance operations.

## 3. System Requirements Specification:

### 3.1 Functional Requirements:

- ☐ **User Authentication:** Implement a secure user authentication system to ensure that only authorized personnel can access the portal.

- ☐ **Task Management:** Allow authorized users to create, update, and delete tasks. Tasks should include details such as date, session, task ID, nature of work, location, number of essential staff assigned, staff names, duration, status, and remarks.

- ☐ **Task Status Tracking:** Enable users to track the status of tasks in real-time, including whether they are pending, ongoing, or completed.

- ☐ **Search and Filter Functionality:** Implement search and filter options to enable users to quickly find specific tasks based on criteria such as date, location, staff name, or task status.

- **Reporting and Analytics:**Provide reporting and analytics features to track trends in work completion, identify areas for improvement, and assess overall performance.

- **Feedback Mechanism:** Include a feedback mechanism for users to leave comments or evaluations on the quality of work performed by essential staff.

- **User Permissions:** Assign different levels of permissions based on user roles (e.g., administrators, maintenance supervisors, general staff) to control access to portal functionalities.

## 3.2. Non-Functional Requirements:

- **Security:** Ensure the system is secure against unauthorized access and data breaches by implementing encryption, secure authentication mechanisms, and access controls.

- **Performance:** The system should be able to handle multiple concurrent users and tasks efficiently without significant slowdowns.

- **Scalability:** Design the system to be scalable to accommodate future growth in the number of users, tasks, and data volume.

- **Reliability:** The system should be reliable, with minimal downtime and robust error handling mechanisms in place.

- **Usability:** Design an intuitive and user-friendly

interface to facilitate easy navigation and usage for all types of users.

- ☐ **Compatibility:** Ensure compatibility with modern web browsers and devices to enable access from various platforms.

- ☐ **Documentation:** Provide comprehensive documentation including user manuals, system architecture diagrams, and technical specifications for easy maintenance and future enhancements.

### 3.3.Constraints:

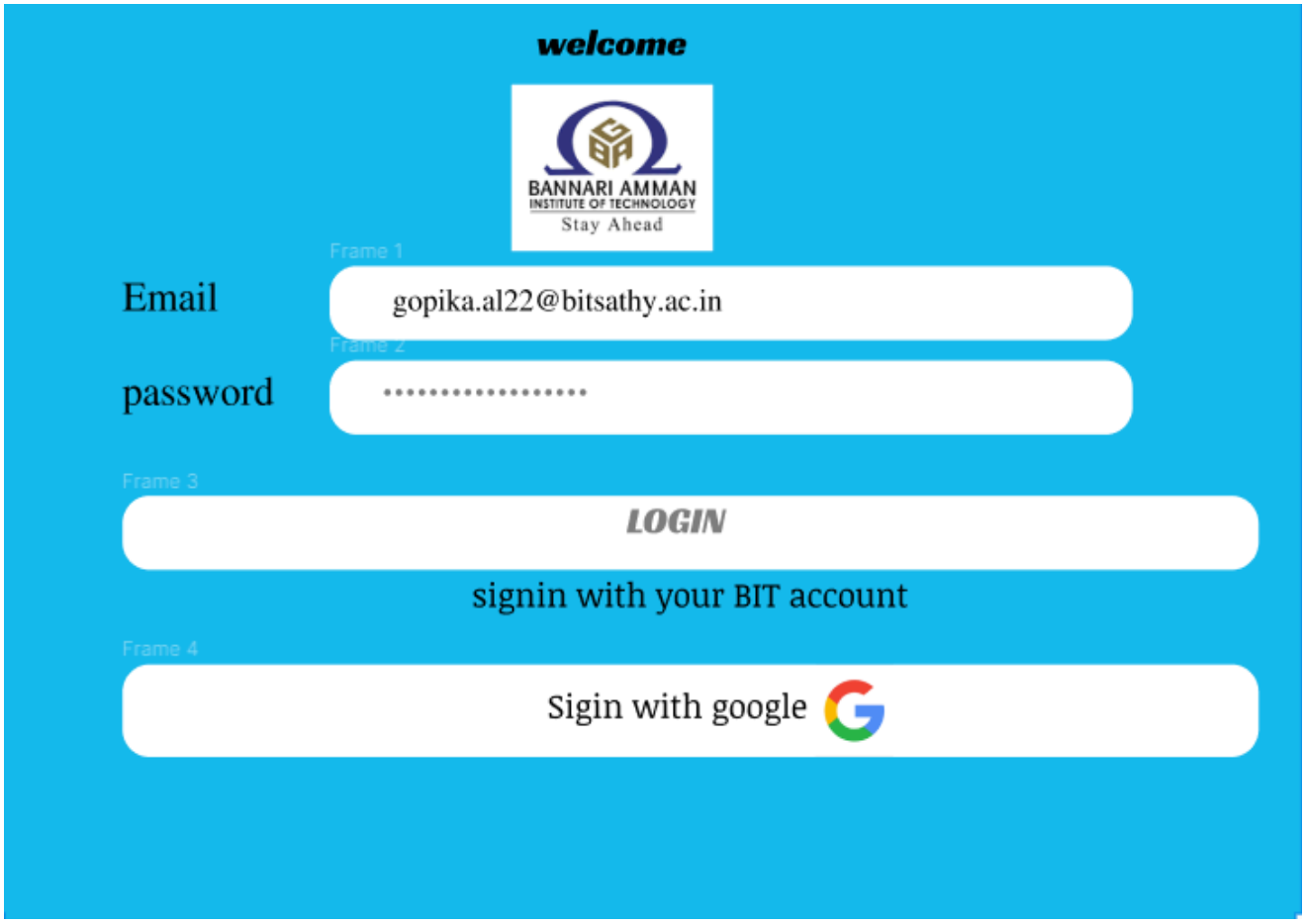
- ☐ **Time:** The project timeline should adhere to agreed-upon deadlines for each phase of development.

- ☐ **Technology Stack:** The system should be developed using appropriate technologies that meet the requirements and constraints of the project.

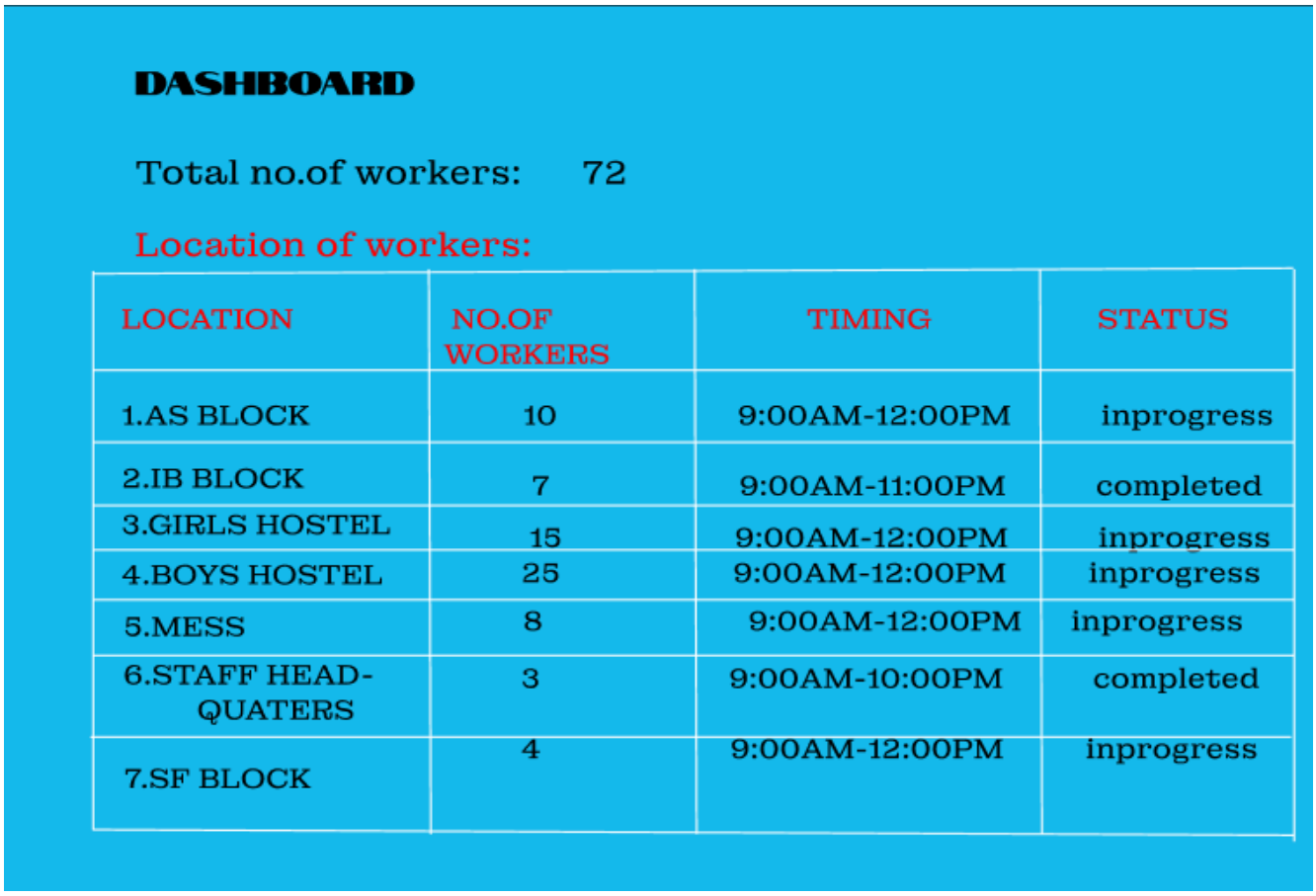
- ☐ **Regulatory Compliance:** Ensure compliance with relevant laws, regulations, and policies governing data privacy and security.

**Prototype of the project:**

**1.login form:**



**2.dashboard:**



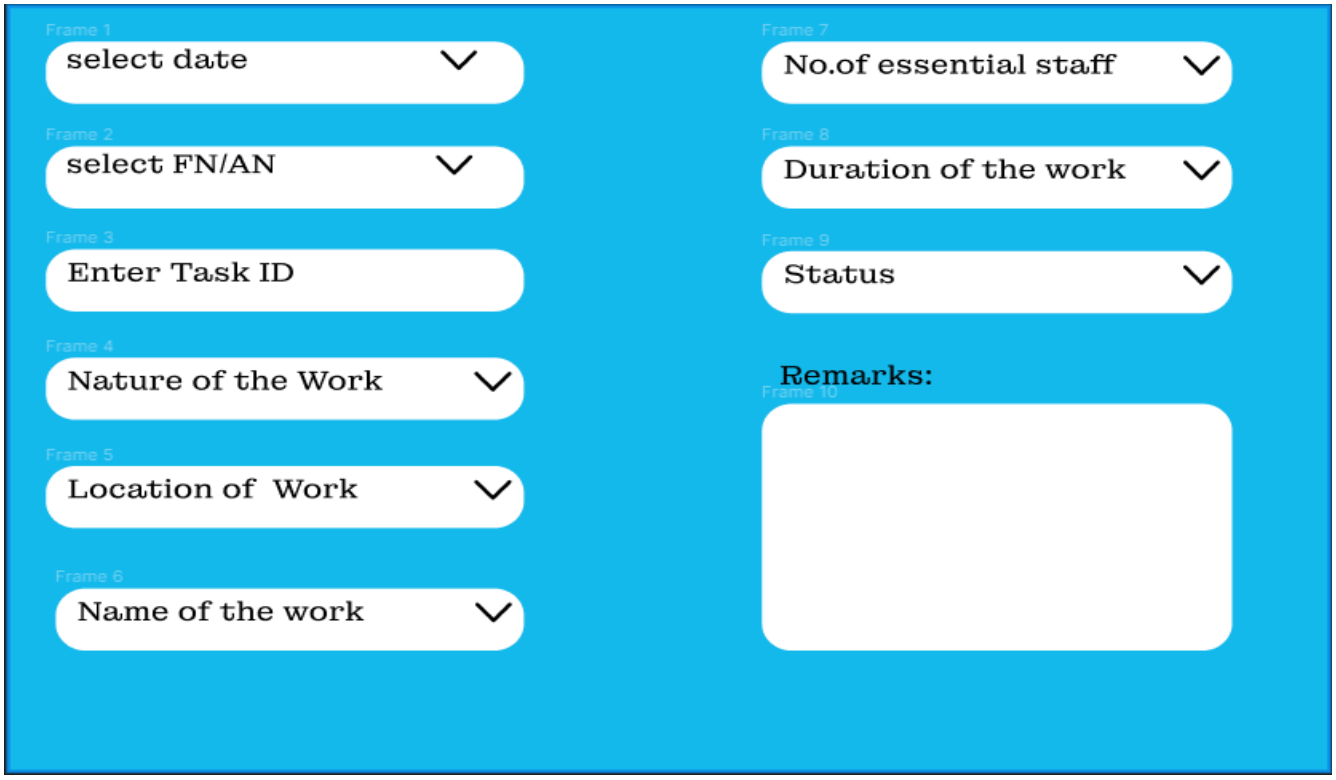
**DASHBOARD**

Total no.of workers: 72

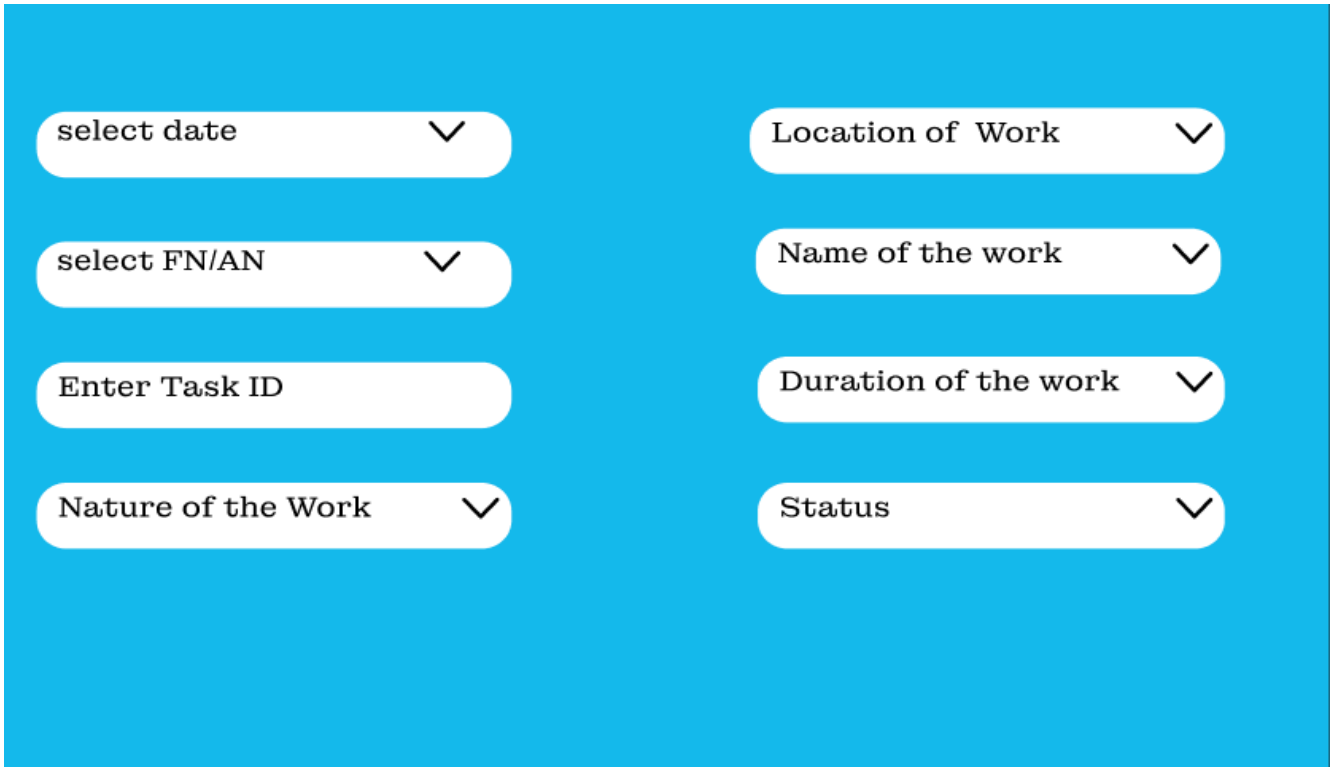
Location of workers:

| LOCATION | NO.OF WORKERS | TIMING | STATUS |
|---|---|---|---|
| 1.AS BLOCK | 10 | 9:00AM-12:00PM | inprogress |
| 2.IB BLOCK | 7 | 9:00AM-11:00PM | completed |
| 3.GIRLS HOSTEL | 15 | 9:00AM-12:00PM | inprogress |
| 4.BOYS HOSTEL | 25 | 9:00AM-12:00PM | inprogress |
| 5.MESS | 8 | 9:00AM-12:00PM | inprogress |
| 6.STAFF HEAD-QUATERS | 3 | 9:00AM-10:00PM | completed |
| 7.SF BLOCK | 4 | 9:00AM-12:00PM | inprogress |

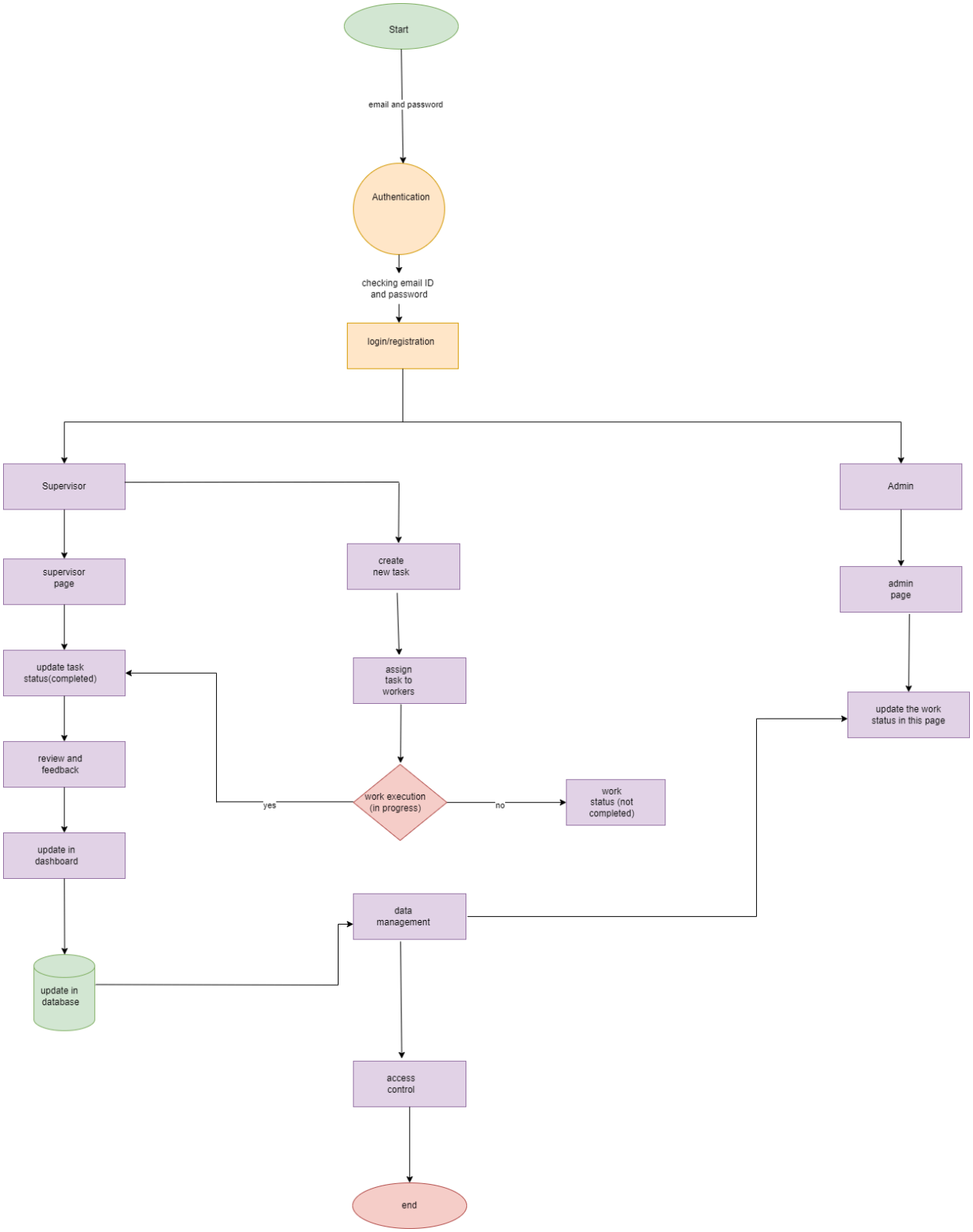
## 3.supervisor page:



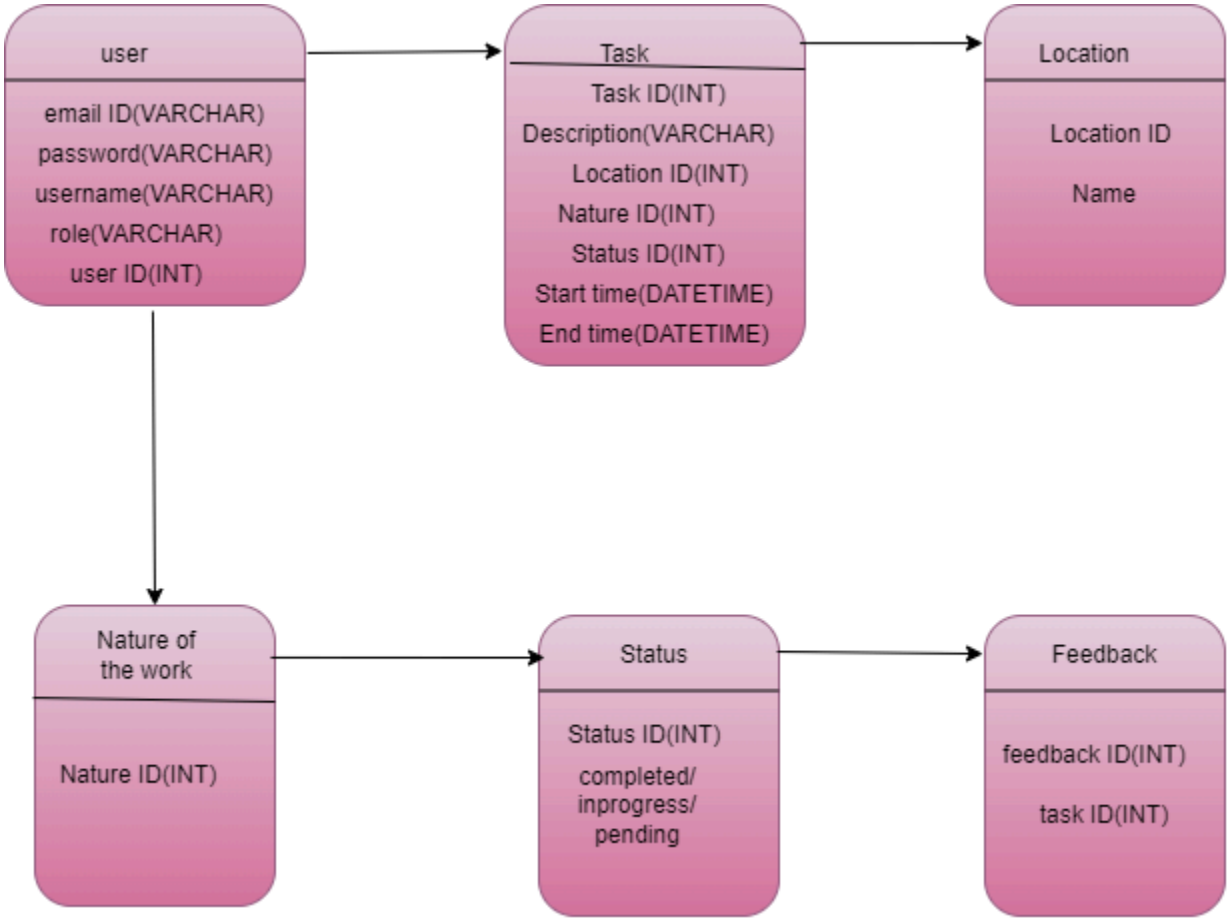

## 4.admin page:



# FLOWCHART:


Start
email and password
Authentication
checking email ID and password
login/registration
Supervisor
Admin
supervisor page
create new task
admin page
update task status(completed)
assign task to workers
update the work status in this page
review and feedback
work execution (in progress)
yes
no
work status (not completed)
update in dashboard
data management
update in database
access control
end

## ER DIAGRAM:


user
email ID(VARCHAR)
password(VARCHAR)
username(VARCHAR)
role(VARCHAR)
user ID(INT)
Task
Task ID(INT)
Description(VARCHAR)
Location ID(INT)
Nature ID(INT)
Status ID(INT)
Start time(DATETIME)
End time(DATETIME)
Location
Location ID
Name
Nature of the work
Nature ID(INT)
Status
Status ID(INT)
completed/ inprogress/ pending
Feedback
feedback ID(INT)
task ID(INT)