

Use Case Diagram

The Use Case Diagram shows the interactions between users and the system's functionalities.

Actors:

- Admin
- Employee

Use Cases:

- Create Account
- Log In
- Log Out
- Create Task
- Update Task Status
- Edit Task Description
- Assign Task
- Delete Task

Textual Representation:

Admin

- ├─ Create Account
- ├─ Log In
- ├─ Log Out
- ├─ Create Task
- ├─ Update Task Status
- ├─ Edit Task Description
- ├─ Assign Task
- └─ Delete Task

Employee

- ├─ Create Account
- ├─ Log In
- ├─ Log Out
- ├─ Create Task
- ├─ Update Task Status
- └─ Edit Task Description

Sequence Diagram

The Sequence Diagram shows the interaction between the user and the system for various operations.

Example: Create Task (Admin)

```
Admin -> main.py: Choose "Create Task"
main.py -> login.py: Check if Admin is logged in
login.py -> main.py: Return authentication status
main.py -> tasks_logic.py: Call create_task()
tasks_logic.py -> objects.py: Instantiate Task object
objects.py -> tasks_logic.py: Return Task object
tasks_logic.py -> database: Save Task
tasks_logic.py -> main.py: Return success message
main.py -> Admin: Display success message
```

Class Diagram

The Class Diagram shows the structure of the system in terms of classes and relationships.

Classes:

- User

- Attributes: username, password, role
- Methods: create_account(), log_in(), log_out()

- Task

- Attributes: title, description, status, assigned_to
- Methods: create_task(), update_status(), edit_description()

Textual Representation:

```

Class User
- username: str
- password: str
- role: str
+ create_account()
+ log_in()
+ log_out()

Class Task
- title: str
- description: str
- status: str
- assigned_to: User
+ create_task()
+ update_status()
+ edit_description()

User "1" <-- "0..*" Task

```

User Access Table Diagram

The User Access Table Diagram shows the access control for different functionalities based on user roles.

Textual Representation:

Functionality	Admin Access	Employee Access
Create Account	Yes	Yes
Log In	Yes	Yes
Log Out	Yes	Yes
Create Task	Yes	Yes
Update Task Status	Yes	Yes
Edit Task Description	Yes	Yes
Assign Task	Yes	No
Delete Task	Yes	No

These textual representations should give a clear overview of the system's structure and functionalities.