NucleusTeq

Reimbursement Portal

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Introduction

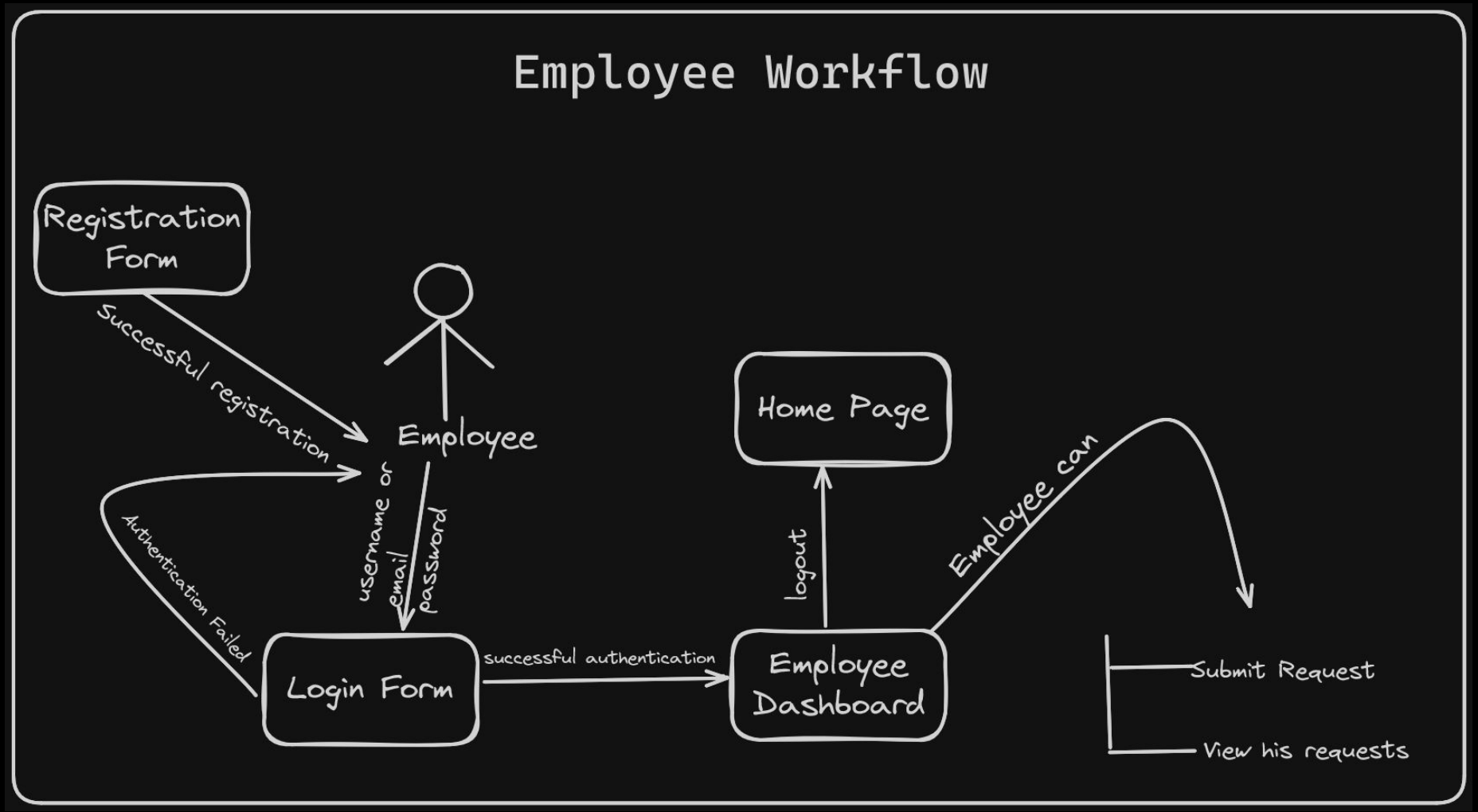
- Reimbursement Portal is an online portal where an employee can submit reimbursement claims related to relocation, medical, and office supplies and the assigned manager can approve/reject the claims.

- If you're an employee, you can submit reimbursement requests and if you are Managers, log in to review and manage reimbursement requests from your team.

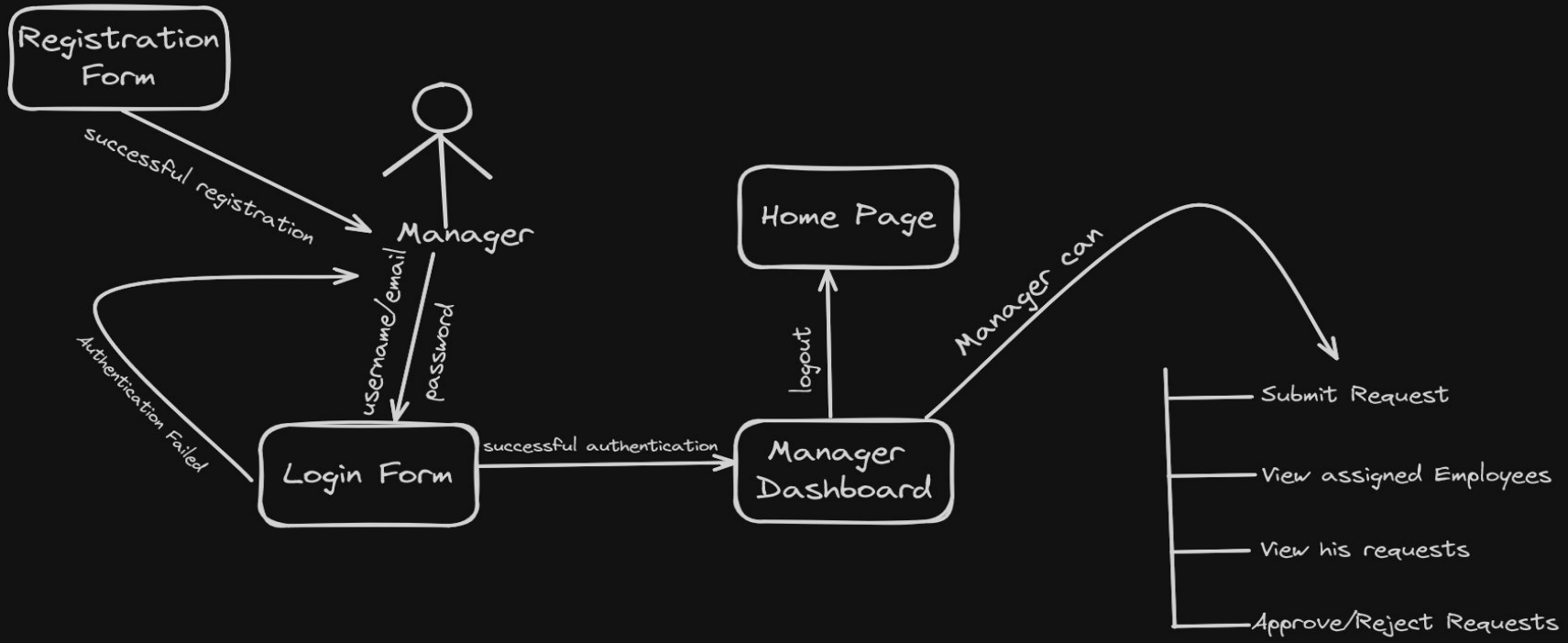
Functional Requirements

- Three user types: Admin, Manager, Employee.
- Managers and Employees register and login before any operations.
- Only company emails are valid for registration.
- Users must sign in before any operations.
- Employees submit reimbursement requests.
- Requests include expense type, amount, date, and one image receipt.
- Managers approve/reject requests with comments.
- Policy categories: Traveling (15k), Relocation (20k), Tech assets (5k).
- Admin assigns managers to employees.

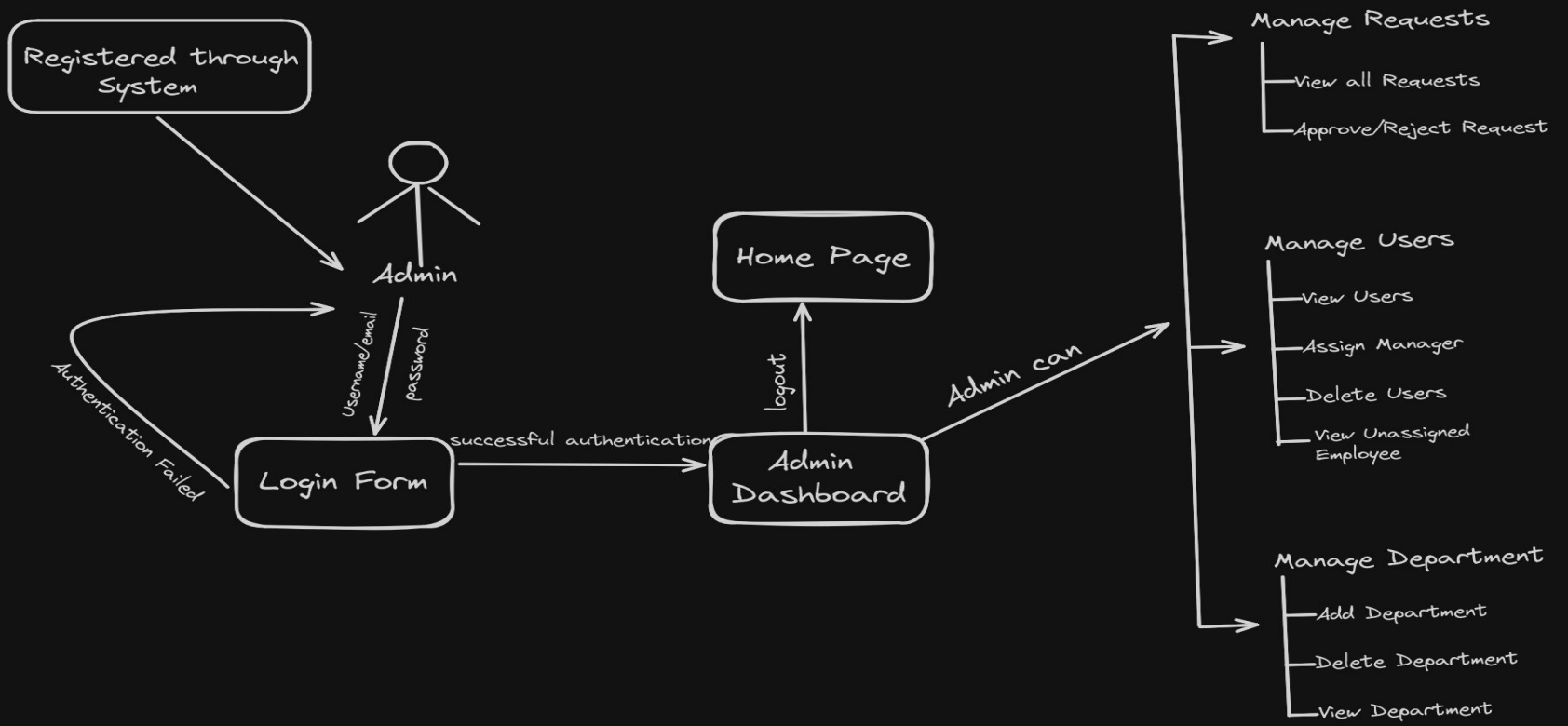
- Admin is the default manager until reassigned.
- Admin can delete employees and managers no longer in the organization.
- Admin can add or delete departments.
- New departments appear in the registration dropdown.
- One or more managers per department.
- Multiple employees under one manager.
- Requests directed to managers based on employee's department.
- Employees can view their requests, statuses, comments, and history.
- Comprehensive audit trail for each request.
- Users can upload jpg documents as supporting evidence.


Employee Workflow
Registration Form
Successful registration
Employee
username or email
password
Authentication Failed
Login Form
successful authentication
Home Page
logout
Employee Dashboard
Employee can
Submit Request
View his requests

Manager Workflow



Admin Workflow



User Model

USER			
int	id	PK	Primary Key
string	username		Unique, Not Null
string	email		Unique, Not Null
enum	role		Admin, Manager, Employee
string	password_hash		
int	department_id	FK	Foreign Key
int	manager_id	FK	Foreign Key, Self-referential
string	first_name		
string	last_name		
bool	is_active		Default True

Reimbursement_request Model

REIMBURSEMENTREQUEST			
int	id	PK	Primary Key
float	amount		
datetime	date		
string	description		
enum	category		Travelling, Relocation, TechAssets
enum	status		Pending, Approved, Rejected, Default Pending
int	employee_id	FK	Foreign Key
int	manager_id		
string	manager_comment		
string	receipt_path		
bool	is_active		Default True

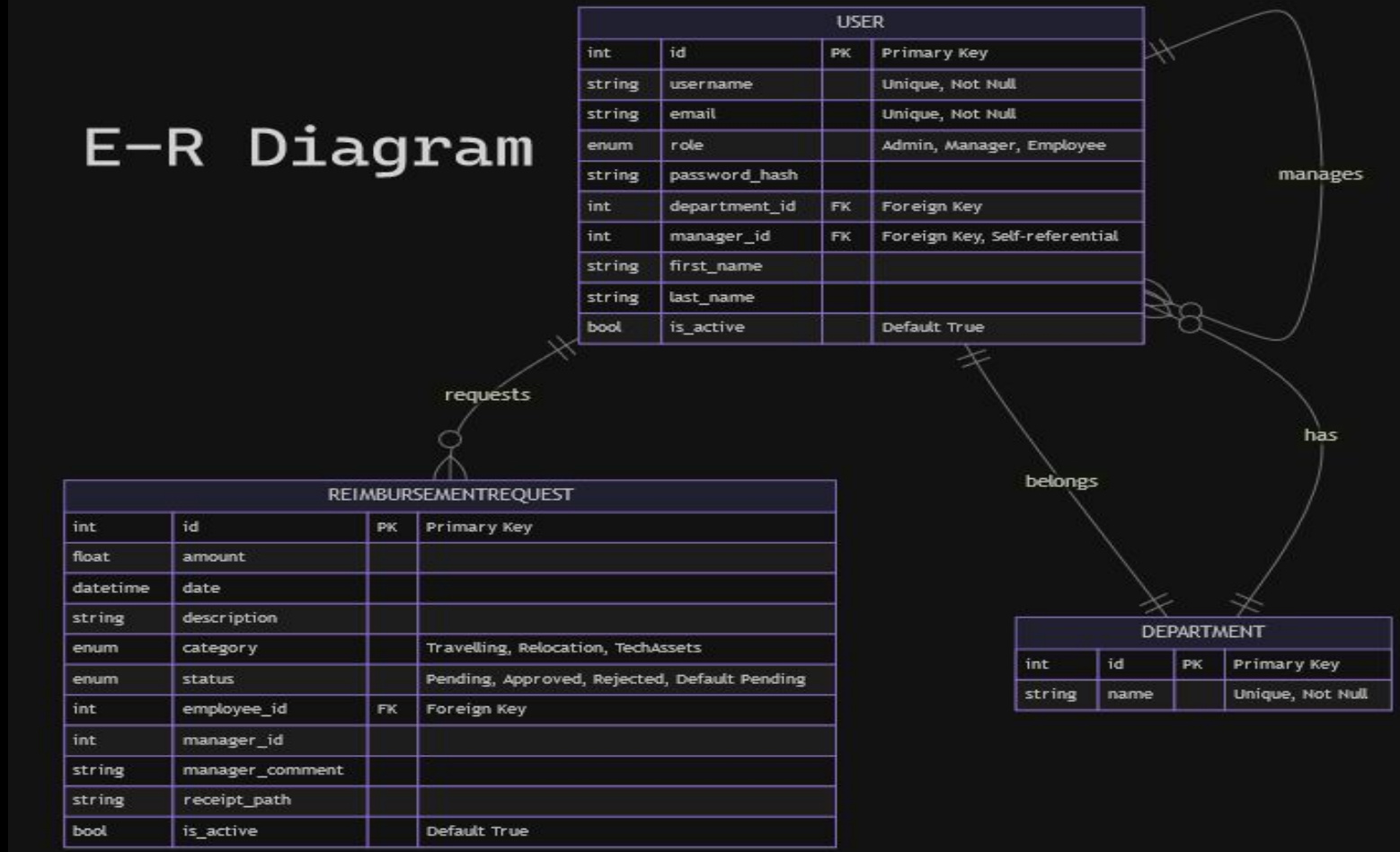
Department Model

DEPARTMENT			
int	id	PK	Primary Key
string	name		Unique, Not Null

Relationships

- **User to Department**: One-to-Many
  - A department can have many users, but a user belongs to only one department.
- **User to User (Manager)**: One-to-Many (Self-referential)
  - A user (Manager) can manage many users (Employees), but an employee has only one manager.
- **User to ReimbursementRequest**: One-to-Many
  - A user (Employee) can have many reimbursement requests, but a reimbursement request is linked to only one user.

E-R Diagram


USER
int id PK Primary Key
string username Unique, Not Null
string email Unique, Not Null
enum role Admin, Manager, Employee
string password_hash
int department_id FK Foreign Key
int manager_id FK Foreign Key, Self-referential
string first_name
string last_name
bool is_active Default True
manages
requests
has
belongs
REIMBURSEMENTREQUEST
int id PK Primary Key
float amount
datetime date
string description
enum category Travelling, Relocation, TechAssets
enum status Pending, Approved, Rejected, Default Pending
int employee_id FK Foreign Key
int manager_id
string manager_comment
string receipt_path
bool is_active Default True
DEPARTMENT
int id PK Primary Key
string name Unique, Not Null

Technical Specification

Technologies Used:

- Backend: Flask, SQLAlchemy, MySQL
- Frontend: HTML, CSS, JavaScript
- Tools: VSCode, UnitTest for testing
- Logging module for generating application logs
- UnitTest framework for testing.

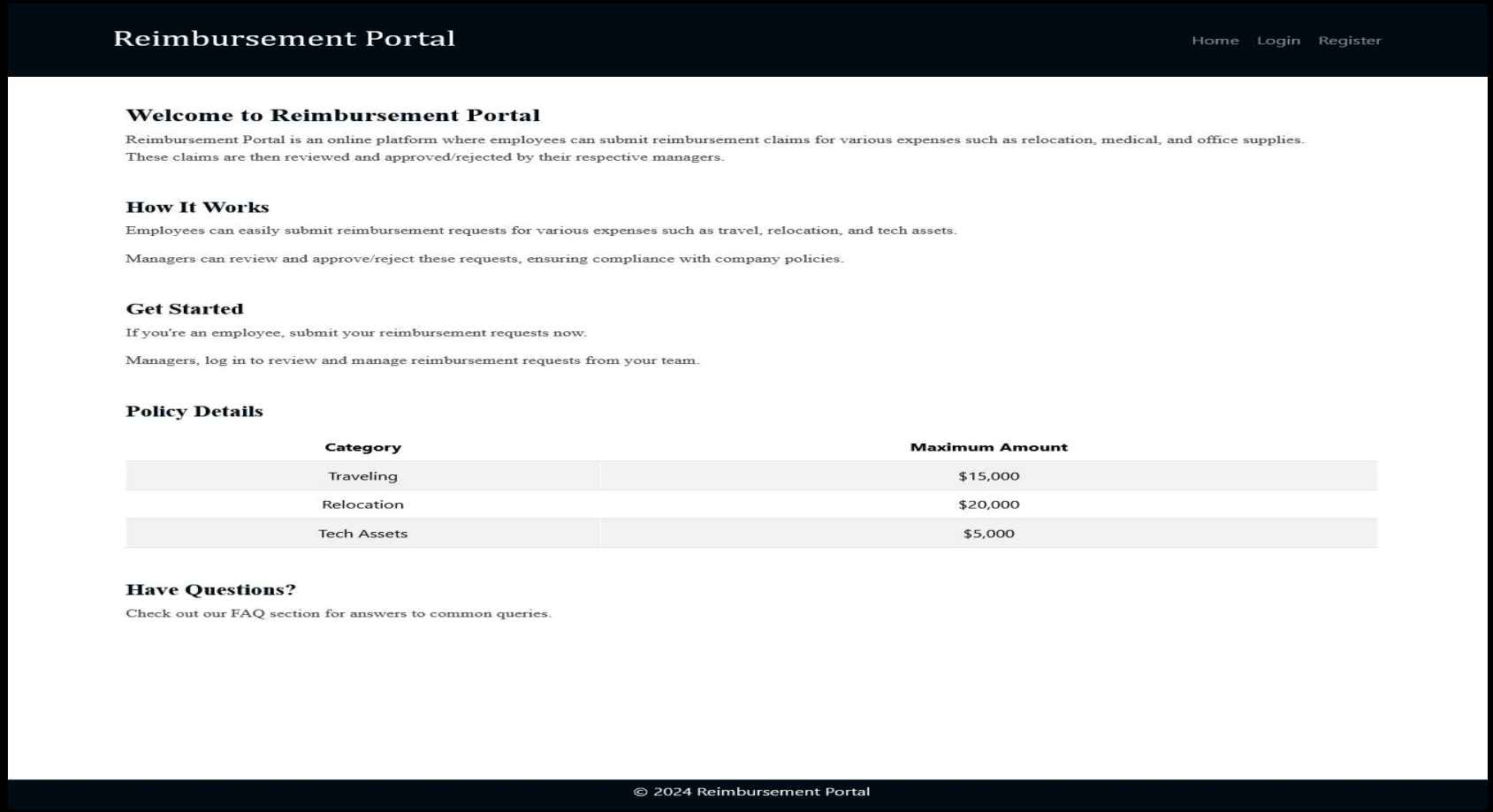
Architecture:

- REST API developed in Python
- Database: MySQL

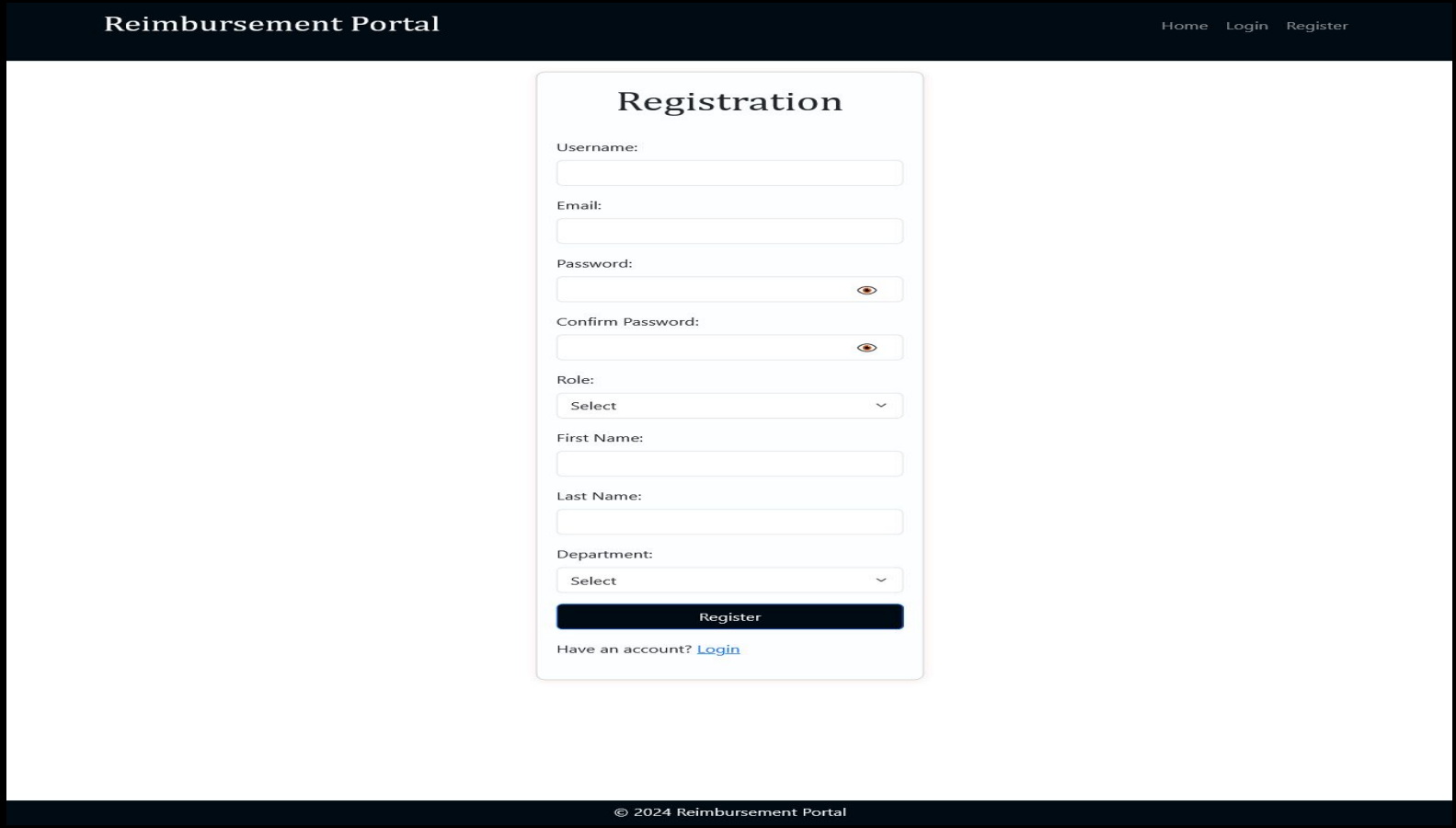
Future Enhancements

- Store images in the cloud instead of the local file system.
- Deployment of the project.
- Make UI more attractive.

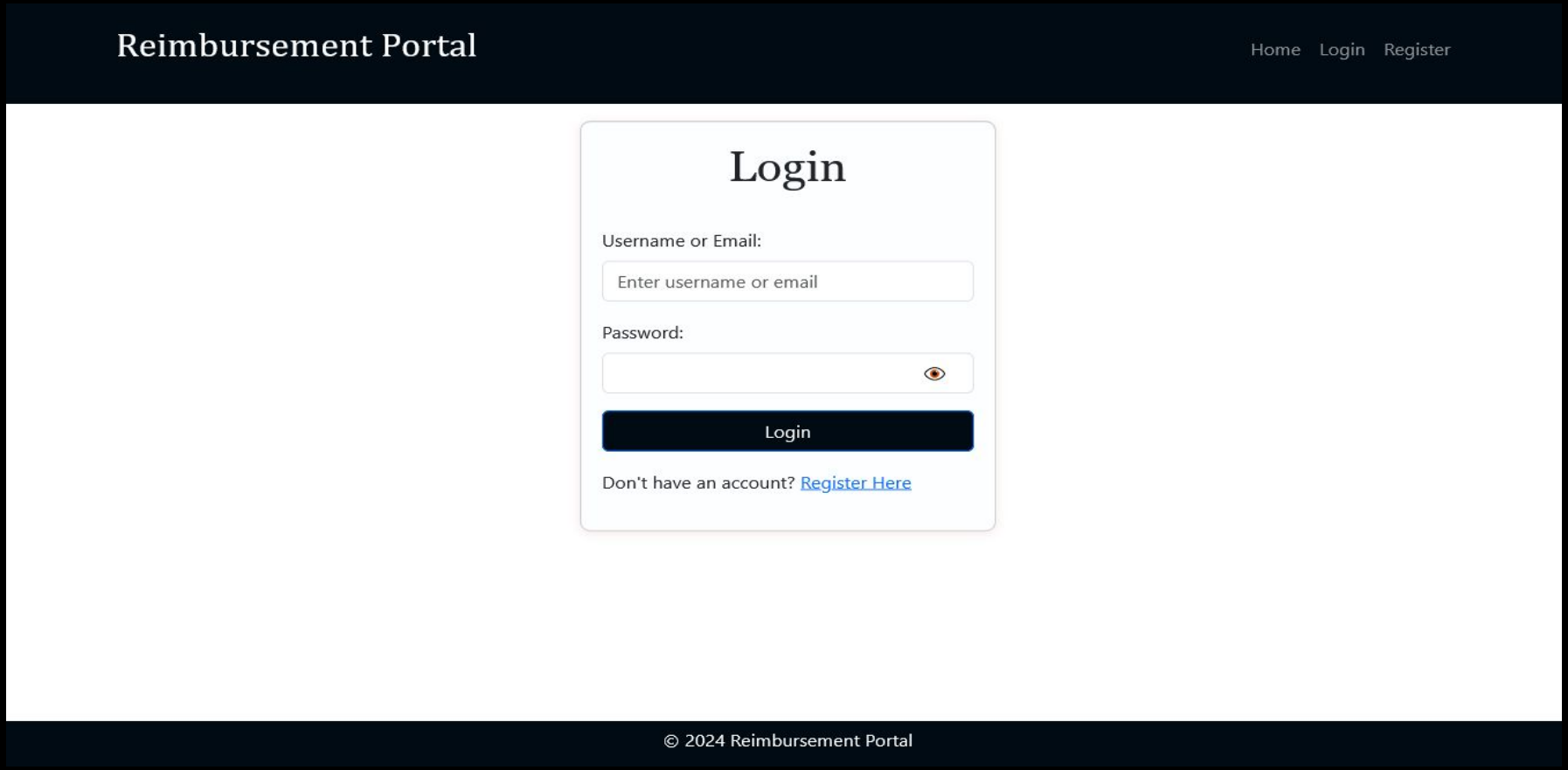
Snapshot of Home Page



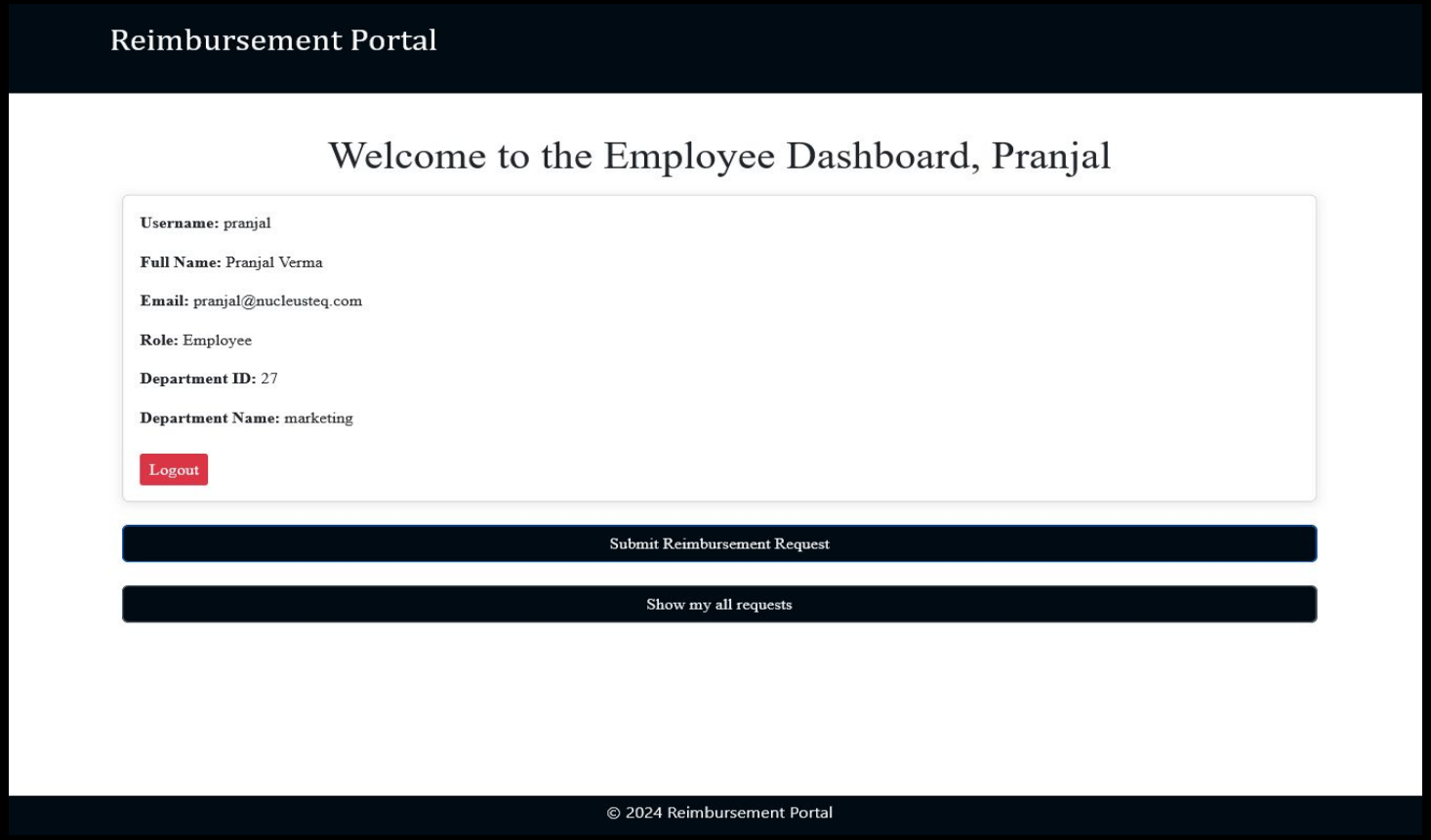
Snapshot of Registration Page



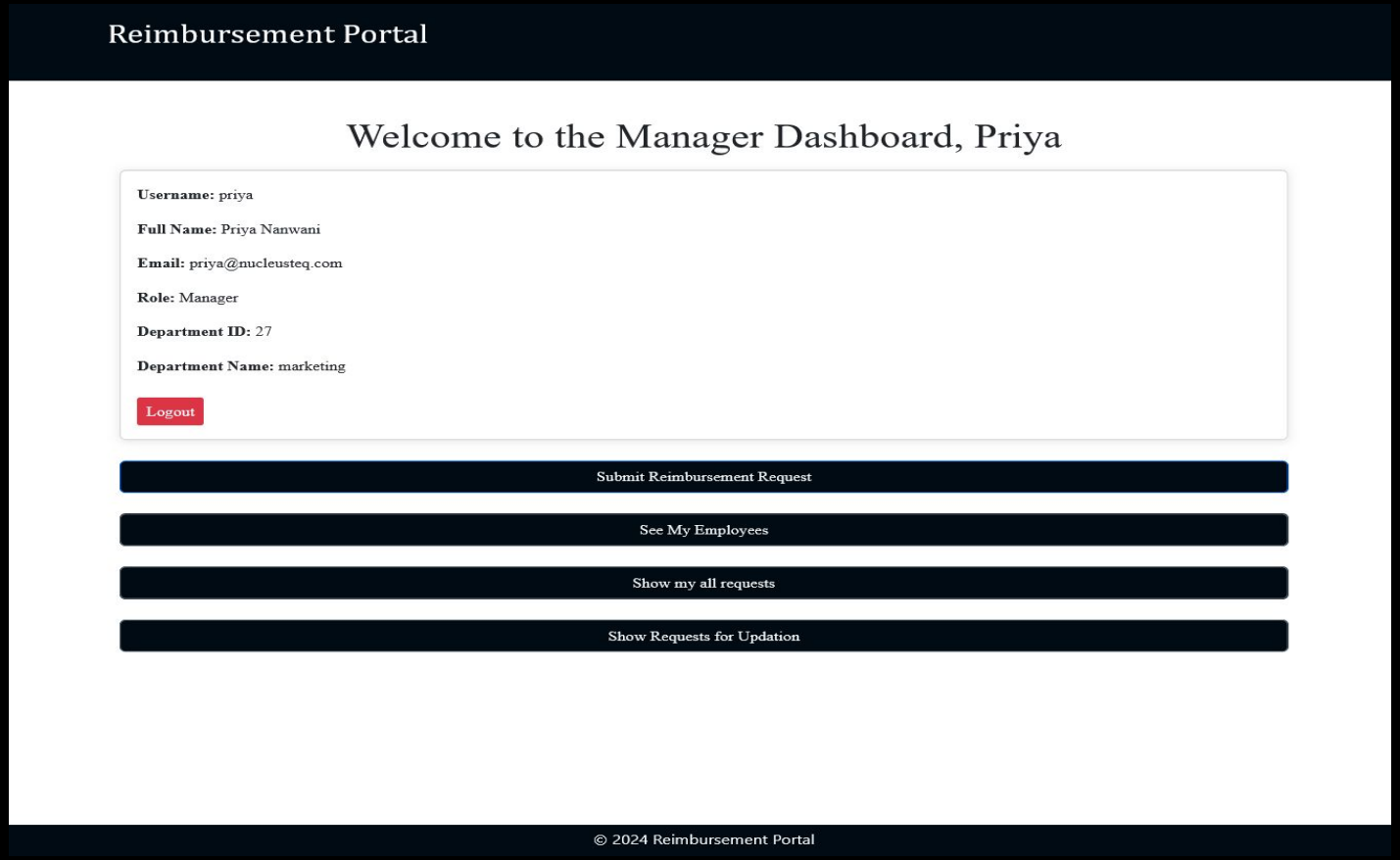
Snapshot of Login Page



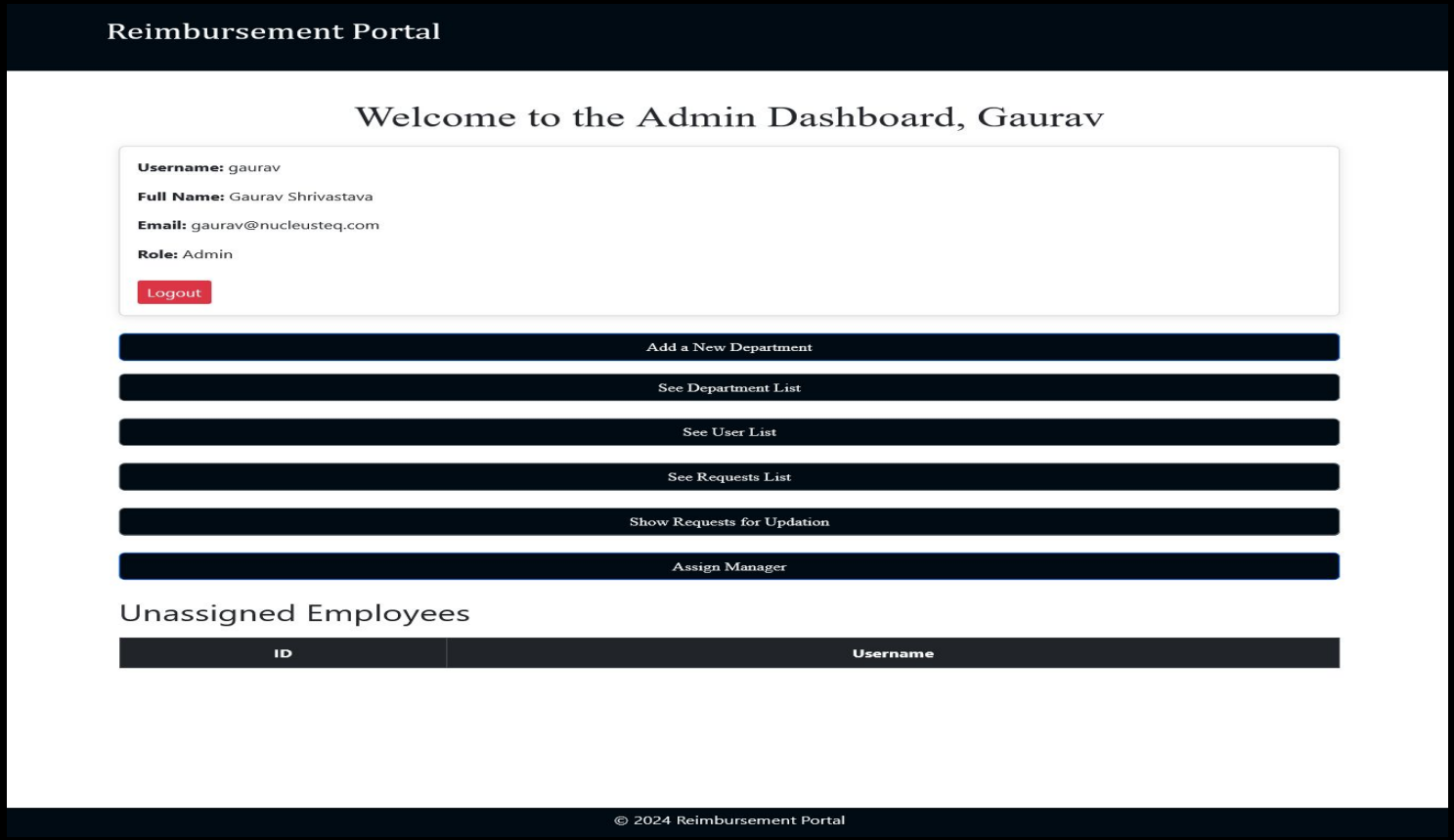
Snapshot of Employee Dashboard



Snapshot of Manager Dashboard



Snapshot of Admin Dashboard



Thank You