[DOCUMENT TITLE]

POE PART ONE

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1 Documentation

Explain The Design Choices

Why I Choice this Database Structure

The choice of structure in the design of a Lecturer Claim Management System database is impacted by several aspects of data management, system specifications, and the type of interactions that occur between users and data entities. The main justifications for selecting a specific database architecture for the system, typically a relational database is listed below:

A Relational Database is excellent at managing intricate relationships and preserving data integrity, it is a perfect choice for Lecturer Claim Management System. It arranges information into tables with clearly defined links, such as assertions made by lecturers and their subsequent classification and assessment. By using integrity constraints like primary keys and foreign keys along with normalization, this structure prevents redundancy and guarantees data consistency.

Relational Database is essential for processing operations such as claim submissions and approvals because it consistently manages transactions with ACID features. To generate report and analyse data, they also provide strong SQL querying capabilities, which aid in the tracking of claim statuses. Relational Database is also well-suited for handling and safeguarding the data included in a Lecturer Claim Management System since it provides a wide range of scalability choices, security features, and strong management capabilities.

Why I Choice this GUI Layout

Windows Presentation Foundation (WPF) is the most feature-rich and flexible option for GUI development. It provides sophisticated user interface (UI) features, such as 2D/3D graphics, animations, and multimedia, enabling the creation of dynamic and aesthetically pleasing apps. For UI design, WPF leverages XAMP, which helps to keep the design and business logic apart and facilitates maintenance. Strong data bidding is another feature it offers, allowing UI elements and data sources to relate to ease.

Additionally, WFP allows for a great deal of flexibility via style templates, and it leverages vector graphics to guarantee crips images at various screen resolutions. Declarative programming is possible with this framework, which also works well with the .NET environment to provide development-enhancing tools and libraries. WPF is appropriate for a variety of applications since it permits the development of custom controls and facilitates localization and internationalization.

Describe The Database Structure

Entities and Relationships

Lecturer: Represents individuals who submit claims

Claim: The primary entity that needs to be managed, containing information about the claim.

ClaimDetail: Provides additional details or line items related to the claim.

ClaimType: Categorize different types of claims.

Approval: Manages the approval process and status for claim.

Admin: Manages the claims and interacts with the system.

Each of these entities has relationships with one another:

Lecturer to Claim: One lecturer can submit multiple claims but only one claim can belong to one lecturer (0ne-to-many).

Claim to ClaimDetail: One claim can have multiple details but each claimDetails belongs to only one claim (one-to-many).

Claim to ClaimType: Each claim has one type, but each type can apply to many claims (many-to-one).

Caim to Approval: Each claim has one approval record, and each Approval can only belong to one claim (one-to-one).

Admin to Approval: One Admin can manage multiple approval, but each approval can only be approved by one Admin (one-to-many).

Lecturer to Admin: A lecturer can only contact one Admin, but one Admin can contact multiple lecturers (one-to-many).

Describe The GUI Layout

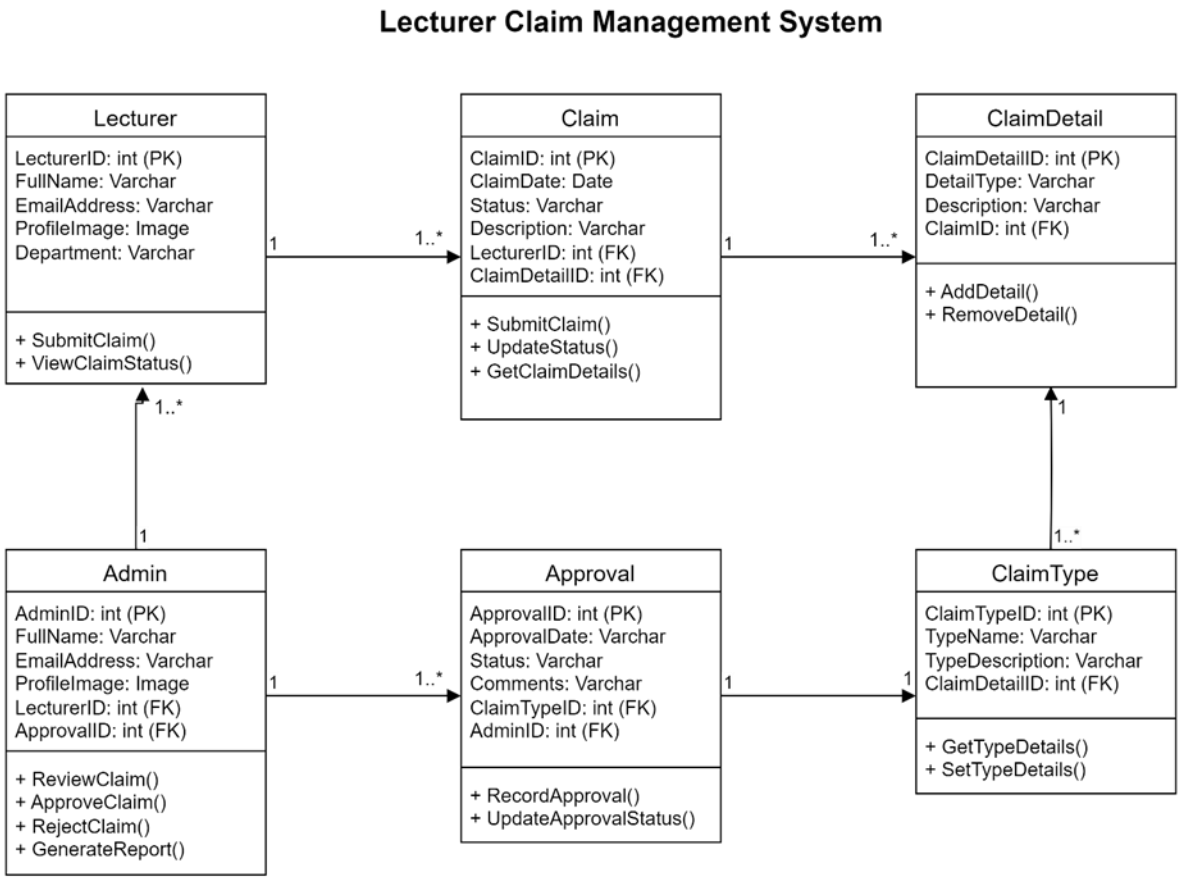
How I organize the Different Sections and Chose Specific UI Elements

Lecturer Claim Management System is a comprehensive tool designed to simplify and enhance the management of claims submission by lecturers. This system allows a lecturer and admin to register first with full name, email address, department, password, confirm password, and profile picture this ensures that only authorized users have access to the system once registered the lecturer or admin can log in securely with email address and password to access their personalized dashboard and functionality based on their role. For registration and login, I choice labels because it provides context and instructions, enhancing user understanding and guiding them in filling out forms correctly, textboxes enable user input, allowing for flexible and varied text entry, checkboxes offer a way to capture binary or multiple selections, making it easy to handle options and preferences, and buttons are essential for initiating actions, such as sign up to the system and have access to the system by clicking the login button.

Secondly after logging in, lecturer is greeted with the dashboard that provides an overview of all the claims by clicking by all claim button to view all the submitted claims, track statuses, and review any comments or update available and a way to submit new claim by clicking add claim button to create new claims by filling out a form that includes details such as ID number, full name, evidence details, and supporting document… for these I choice labels because it provides context and instructions, enhancing user understanding and guiding them in filling out forms correctly, textboxes enable user input, datetimepicker provides a ser-friendly way to select dates form a calendar-style interface.

Lastly after logging in, Administrators have a dedicated dashboard that summarizes key metrics, pending claims, and provides quick access to various management functions, admin can view claims submitted by all lecturers by clicking all claim to filter and search through claims to facilitate efficient processing, and admin can review each claims, add comments, and decide whether to approve or reject the claim based on the information provided by clicking on all lecturer.

2 UML Class Diagram



3 Project Plan

Contract Monthly Claim System

- Project Initiation
  - Define objectives
    - Identify system goals
    - Establish system scope and success criteria
  - Gather requirements
    - Document functional and non-functional requirements

Milestone

Requirement specification approved

- System Design
  - Architecture Design
    - Define system architecture
    - Identify core components
  - Database Design
    - Design database schema (tables and relationships)
    - Create UML class diagram
  - UI Design
    - Create wireframes and mockups for UI
    - Define user workflows and integrations

Milestone

Design specification approved

- Development
  - Setup Development Environment
    - Install and configure visual studio
    - Setup version control
  - Database Development
    - Create database schema
    - Implement data access layer
  - UI Development
    - Develop main application
    - Develop navigation and layout

Milestone

Core functionality developed and integrated

- Deployment

- Prepare Deployment plan
- Deploy Prototype to staging Environment
- Contact Final Review

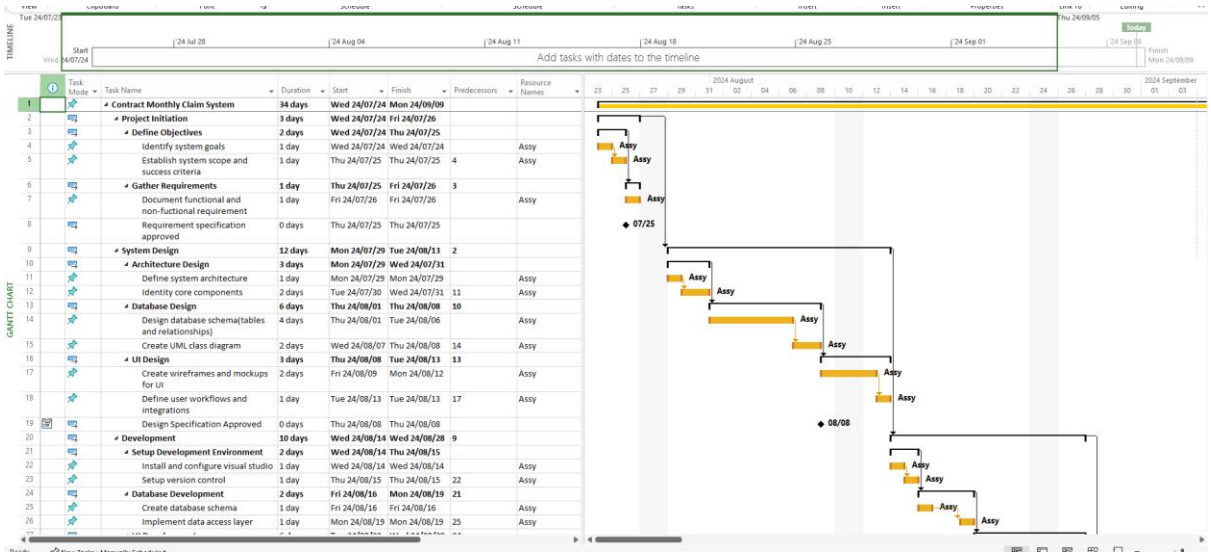
Milestone

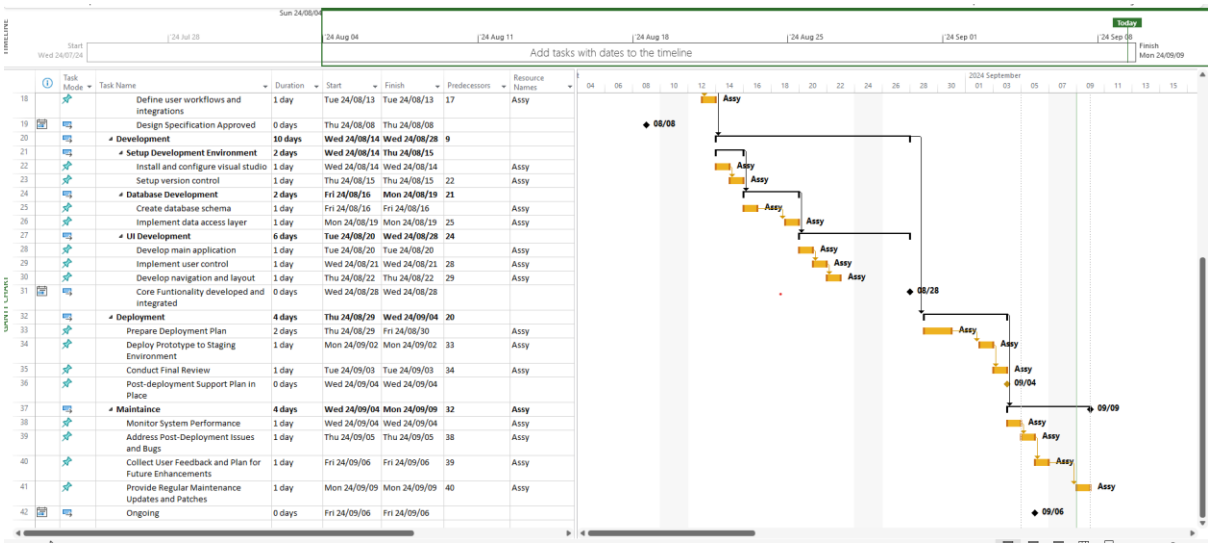
Post-deployment support plan in place

- Maintenance
  - Monitor System Performance
  - Address Post-deployment Issues and Bugs
  - Collect User Feedback and Plan for Future Enhancement
  - Provide Regular Maintenance Updates and Patches

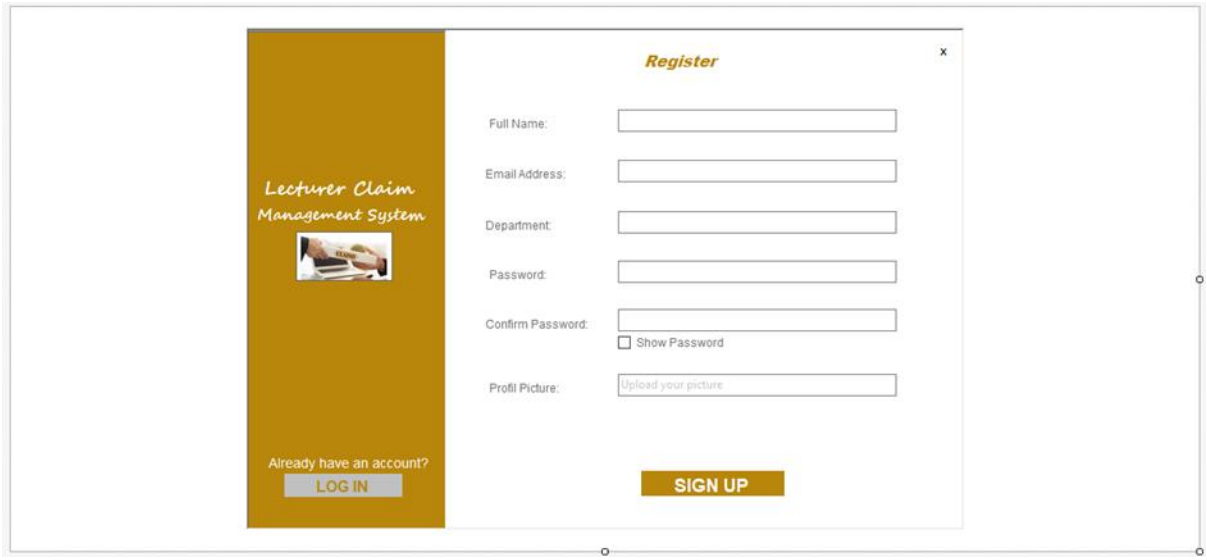
Milestone

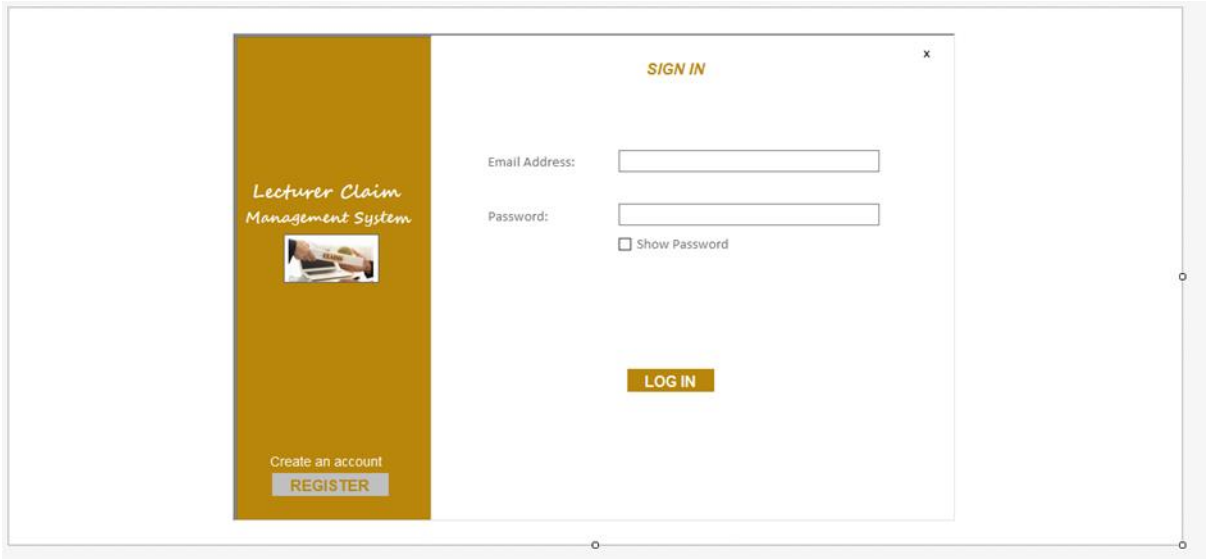
Ongoing

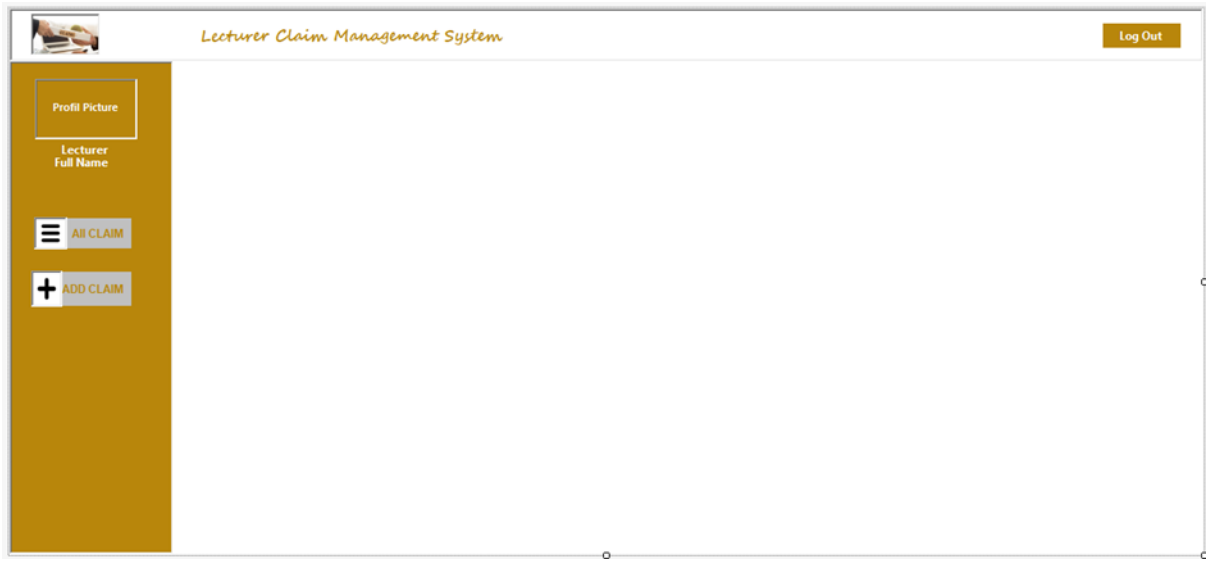


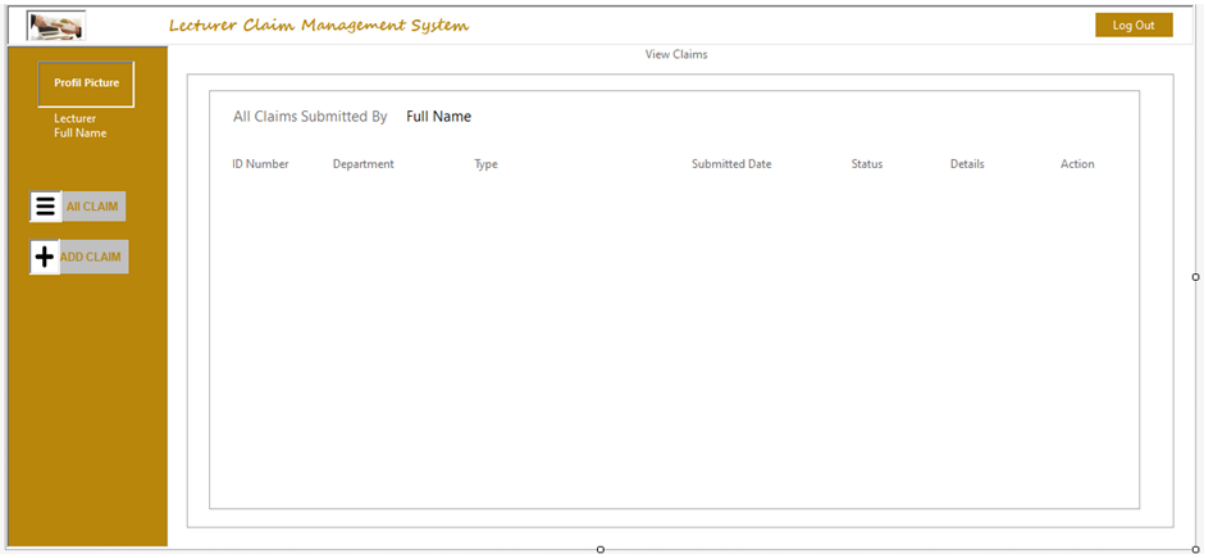


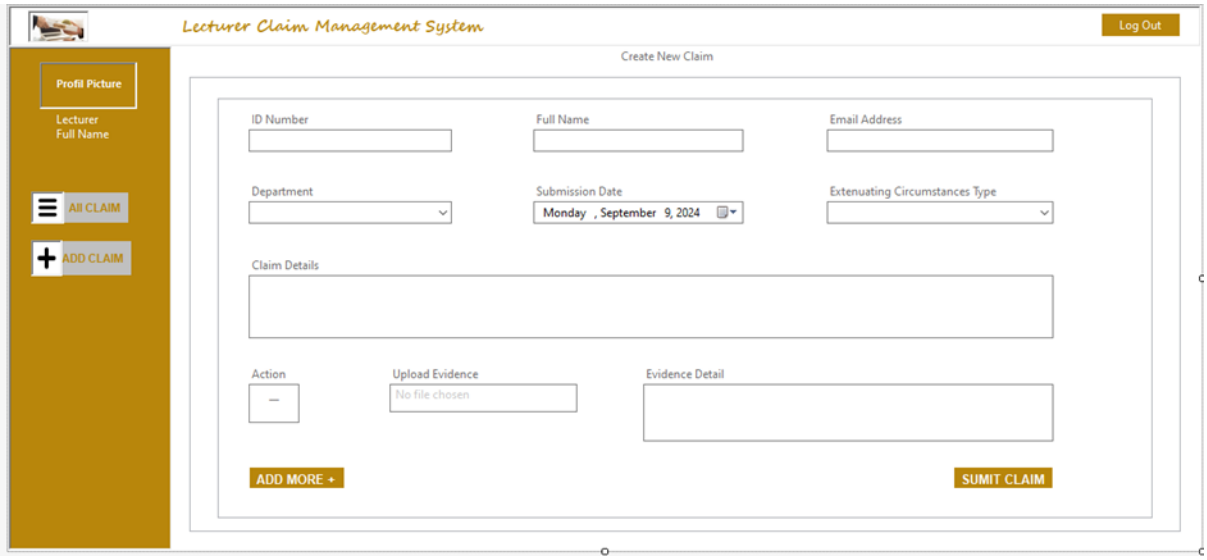
4 GUI UI:


Register
Full Name:
Email Address:
Department:
Password:
Confirm Password:
Show Password
Profil Picture:
Upload your picture
Lecturer Claim
Management System
Already have an account?
LOG IN
SIGN UP

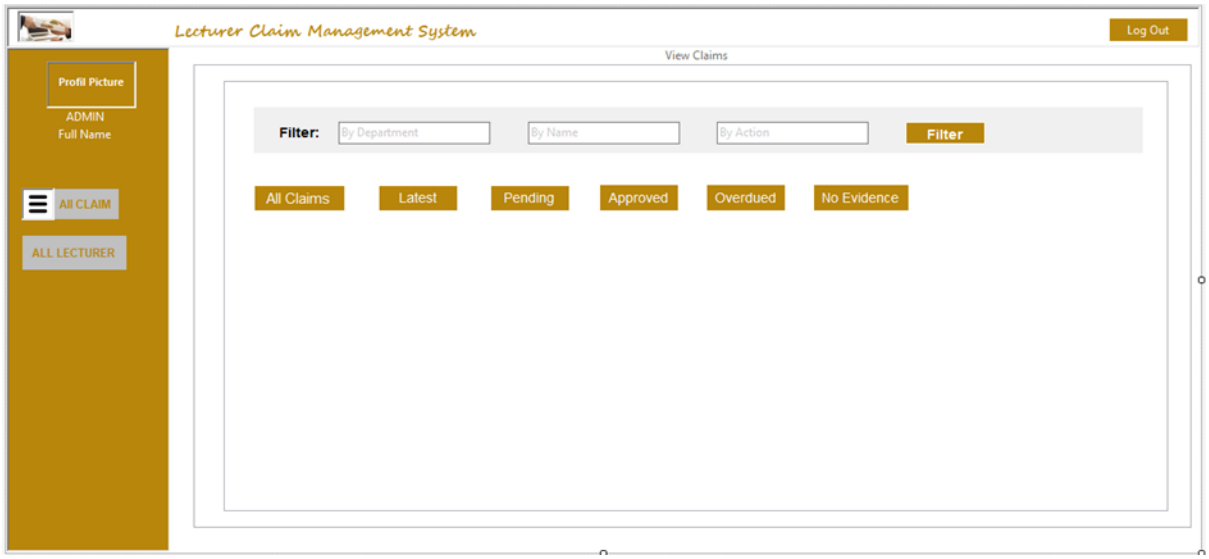

SIGN IN
Email Address:
Password:
Show Password
Lecturer Claim
Management System
LOG IN
Create an account
REGISTER

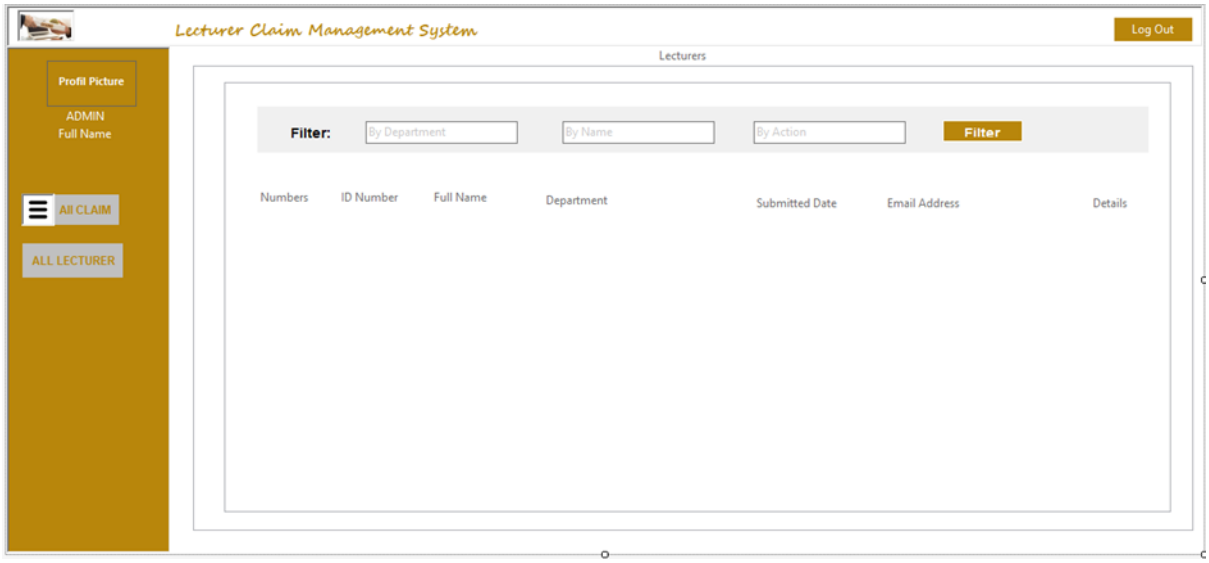

Lecturer Claim Management System
Log Out
Profil Picture
Lecturer
Full Name
All CLAIM
ADD CLAIM


Lecturer Claim Management System
Log Out
View Claims
Profil Picture
Lecturer
Full Name
All CLAIM
ADD CLAIM
All Claims Submitted By
Full Name
ID Number
Department
Type
Submitted Date
Status
Details
Action


Lecturer Claim Management System
Log Out
Create New Claim
Profil Picture
Lecturer
Full Name
All CLAIM
ADD CLAIM
ID Number
Full Name
Email Address
Department
Submission Date
Monday , September 9, 2024
Extenuating Circumstances Type
Claim Details
Action
Upload Evidence
No file chosen
Evidence Detail
ADD MORE +
SUMIT CLAIM


Lecturer Claim Management System
Log Out
Profil Picture
ADMIN
Full Name
All CLAIM
ALL LECTURER


Lecturer Claim Management System
Log Out
View Claims
Profil Picture
ADMIN
Full Name
All CLAIM
ALL LECTURER
Filter:
By Department
By Name
By Action
Filter
All Claims
Latest
Pending
Approved
Overdued
No Evidence


Lecturer Claim Management System
Log Out
Lecturers
Profil Picture
ADMIN
Full Name
All CLAIM
ALL LECTURER
Filter:
By Department
By Name
By Action
Filter
Numbers
ID Number
Full Name
Department
Submitted Date
Email Address
Details