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The Contract Monthly Claim System (CMCS) features a thoughtfully designed database and GUI to streamline the claims process for Independent Contractor lecturers. The database is structured with key entities including Lecturers, Claims, Program Coordinators, Academic Managers, and Approval History. Lecturers are defined by columns such as LecturerID, FirstName, LastName, Email, HourlyRate, and PhoneNumber, while Claims capture details about each claim with columns like ClaimID, LecturerID, ClaimDate, TotalHoursWorked, TotalAmount, Status, and SupportingDocuments. Program Coordinators and Academic Managers are tracked with their respective IDs, names, emails, and phone numbers, facilitating their roles in reviewing and approving claims. Approval History records track each claim’s approval journey, including details on approvers, roles, approval dates, statuses, and comments. The relationships in the database ensure that each lecturer can submit multiple claims, each claim can undergo multiple approval stages, and both coordinators and managers can approve several claims. Data integrity is maintained through foreign key constraints, while normalization to the third normal form (3NF) minimizes redundancy. Security measures like encryption are employed to protect sensitive information, and the database is designed to scale with increasing data. The GUI includes a Main Dashboard with a navigation menu and overview panel for easy access to claims, lecturers, coordinators, managers, and reports. The Claims Management section features a list view with search and filter options, detailed claim views, and a form for submitting new claims. Lecturers, Program Coordinators, and Academic Managers each have management sections with lists and detailed views for adding, editing, and updating information. The Approval History section provides a record of all approval actions, and the Reports Section offers summary and performance reports. Assumptions include distinct user roles with specific permissions, a user-friendly design optimized for various devices, and compliance with data protection regulations to ensure privacy and security.

Reference “ [Mastering Database Design: An Ultimate Guide - GeeksforGeeks](https://www.geeksforgeeks.org/database-design-ultimate-guide/)”

“ [From Concept to Structure: Database Design Guide for Beginners | by Aliona Matveeva | Hyperskill | Medium](https://medium.com/hyperskill/database-design-101-b8d37ff148c6)”