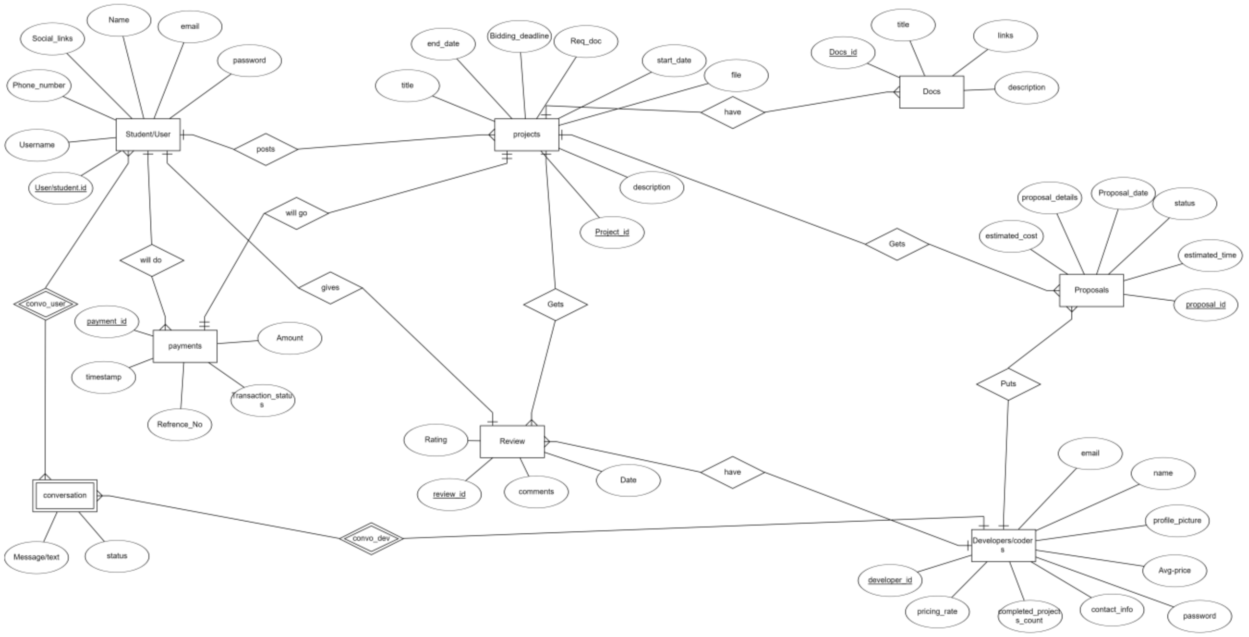
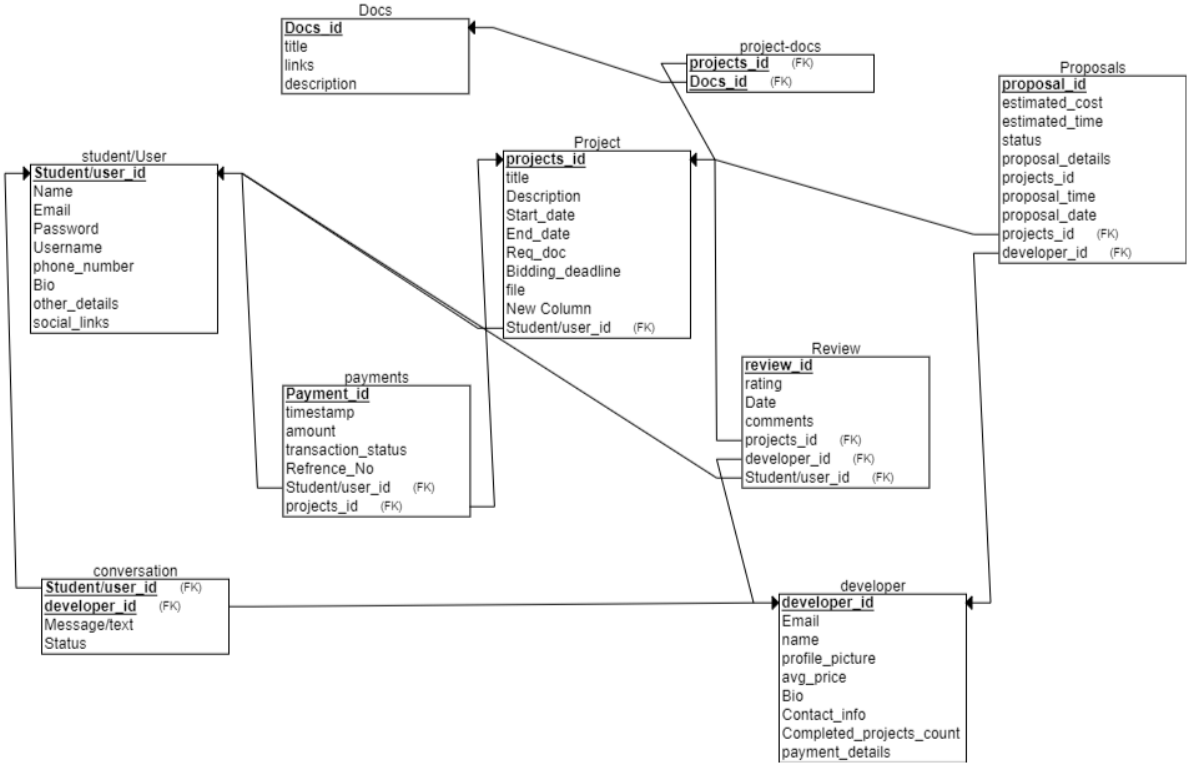
UE21CS351A: Database Management System

MINI PROJECT USER REQUIREMENT SPECIFICATION

ER-diagram



Relational schema



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1. Introduction
   - Purpose of the project

     The primary purpose of this system is to provide a platform where students can request project work and get their projects developed by proficient developers, skilled undergrad students. It bridges the gap between students in need of project assistance and developers/coders looking for freelance opportunities
   - Scope of the project

     The system will allow students to:
     - Post project requests with specific details and requirements.
     - View proposals from developers.
     - Pay developers for their services.

     Developers will be able to:
     - Browse through available project requests.
     - Submit proposals for projects they are interested in.

- Receive payments upon project completion.
- Build good Portfolio
- Increase their reach through our platform

2. Project Description

- Project overview
  The system will be a web-based application providing a straightforward interface for both students and developers. It will have authentication mechanisms, a project board, a payment gateway, and administrative tools.
- Major project functionalities

  • Project Request Posting: Students can post details about the projects they need with requirements.
  Proposal Submission: Developers can view project listings and submit proposals based on their skills and experience level.
  • Payment System: Allows students to pay developers once the project is accepted by the customer and will reach the developer after project student requirements.
  • Review System: Allows students to review developers based on their work quality, previous work etc....

2. System Features and Function Requirements

System Feature 1: user Authentication and Profile Management

• Description of feature: Allow users (both students and developers) to register, log in, logout, and manage their profiles.

• Functional Requirement:

• Entities: students, developers

• Input:

  • Registration: Username, password, email, user type (student or developer), contact information, profile photo.

  • Login: Username/email and password.

- Profile Management: Update personal details, change password, view transaction history.

System Feature 2: Project Request Creation and Management

- Description of feature: Enable students to create, edit, delete, and view their project requests.
- Functional Requirement:
- Entities: Students, Projects
- Input:
  - Creation: Project title, detailed description, technologies required, deadline, budget, special instructions.
  - Management: Update project details, mark as completed, delete requests.

System Feature 3: Developer-Student Communication

- Description of feature: Provide an integrated messaging platform for real-time conversations and notifications.
- Functional Requirement:
- Entities: Developers, Students, Conversations.
- Input:
  - Messaging: Text messages, file attachments (with size limit and format restrictions), emojis, timestamps.
  - Notifications: Project updates, payment reminders, proposal notifications.

System Feature 4: Developer Proposals

- Description of feature: Allow developers to submit project proposals, detailing how they would approach the task, estimated timelines, and their bid amount.
- Functional Requirement:
- Entities: Developers, Proposals
- Input: Proposal text, estimated completion date, bid amount.

System Feature 5: Project Submission, Approval, and Feedback

- Description of feature: Developers can submit completed projects, and students can review, approve, or request revisions.
- Functional Requirement:

- Entities: Developers, Students, Projects, Review
- Input:
  - Submission: Completed project files, comments, submission timestamps.
  - Feedback: Approve, request changes, comments.

System Feature 6: Payment Processing and Invoice Generation

- Description of feature: Handle payments, generate invoices, and provide a transaction history.
- Functional Requirement:
- Entities: Students, Developers, Payments
- Input:
  - Payment: Payment amount, payment method (credit card, PayPal, etc.), transaction date.
  - Invoices: Detailed breakdown of charges, applicable taxes, developer details, payment status.

System Feature 7: Review and Rating System

- Description of feature: Allow students to review and rate developers, and developers to rate students.
- Functional Requirement:
- Entities: Students, Developers, Reviews
- Input: Review text, rating value (e.g., 1 to 5 stars), tags (e.g., "professional", "timely delivery").

System Feature 8: Advanced Search and Matchmaking

- Description of feature: Help students find suitable developers based on skills, ratings, and portfolio. Developers can also find projects that match their skills.
- Functional Requirement:
- Entities: Developers, Projects
- Input: Keywords, skills, budget range, project duration, developer ratings.