**Problem Statement** In many educational settings, students face financial difficulties, making it challenging to cover university-related expenses such as transportation and study materials. Additionally, some students struggle with difficult subjects but cannot afford personalized tutoring services. Traditional tutoring options are often expensive, and finding qualified tutors can be inefficient. These financial and educational barriers hinder academic success for many students.

**Project Objectives**

**The main Goals of this project:**

* **Financial Alleviation:** Enable students to earn income by tutoring their peers, helping them manage university expenses.
* **Access to Quality Education:** Provide affordable and accessible tutoring services for all students.
* **Efficient Tutor Matching:** Develop a streamlined system for connecting students with suitable tutors efficiently.

**Project Scope:** The UniVerse platform is designed to connect university students who excel in certain subjects with those in need of academic support. It aims to provide a seamless, user friendly environment for peer-to-peer tutoring, offering features like lesson scheduling, payment systems, and communication tools.

**Project Characteristics and Requirements:**

* User Registration and Profile Management: Allows students and tutors to register, customize profiles, and specify academic details.
* Tutor-Student Matching: Implements search and filtering tools to help students f ind suitable tutors.
* Lesson Scheduling and Payment Systems: Includes flexible scheduling and secure payment methods.
* Communication Tools: Supports chat and voice calls for effective tutor-student interaction.
* Security and Data Privacy: Ensures secure data handling and compliance with privacy regulations.

**Project Management-Related Deliverables:**

* Use Case Diagrams
* Project Plan and Gantt Chart
* User interfaces
* Class-Diagrams
* ER Diagrams
* Documentation: Comprehensive project documentation, including requirements, design, and testing plans.

**Product-Related Deliverables:**

* Functional Platform: Fully developed and tested UniVerse platform with all specified features.

**Software Development Life Cycle (SDLC) Model** The **Waterfall Model** has been chosen for the development of **UniVerse**. This model ensures that each phase is completed before moving to the next, promoting a structured and well-documented development process. The main phases include:

1. **Requirement Analysis** – Gathering and defining functional and non-functional requirements.
2. **System Design** – Creating system architecture and design specifications.
3. **Implementation** – Writing and integrating code based on the design.
4. **Testing** – Verifying and validating the system’s functionality.
5. **Deployment** – Launching the fully developed system.
6. **Maintenance** – Providing ongoing support and updates.

**Functional requirements** describe the specific behaviors, functions, and interactions of the UniVerse platform.

* **User Registration and Authentication –** Includes sign-up, login, password recovery, and user profile management.
* **Tutor Search and Matching –** Functionality for searching tutors by subject, availability, and rating; includes advanced filters and sorting options.
* **Lesson Scheduling –** Calendar integration for scheduling sessions, notifications for both students and tutors, and rescheduling options.
* **Payment Processing –** Integration with payment gateways (e.g., Stripe, PayPal) for secure transactions, including handling payments and refunds.
* **Rating and Review System –** Feature for students to rate and review tutors, including displaying ratings on tutor profiles.
* **Communication Tools –** In-platform messaging system for students and tutors, including video, voice call, and chat.
* **Admin Dashboard –** Admin tools for managing users, monitoring activity, and generating reports.
* **User Support System –** Helpdesk or support ticket system for resolving user issues and providing assistance.
* **Integration with External Services –** Integration with third-party services like email notifications, calendar synchronization, and additional tools as needed.