

# Project Title: Learnyt

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# Contents

- Introduction of Project
- Literature Review / Similar Projects
- Problem Identification/ Statement
- Aim and Objectives
- Scope of Project
- Tools & Technologies
- Design & Development Methodologies
- Implementation
- Conclusion and Result
- References

# Introduction to Project

- In Sindh, Pakistan, there is a growing need for a localized e-learning platform aligned with the Sindh Board curriculum. While international platforms like Khan Academy and Coursera, and local platforms in Pakistan, support online learning, they are mostly designed for international audiences, O-Level students, or higher education. As a result, students from grades 1 to 12 following the Sindh Board lack a dedicated digital learning solution.
- This project addresses this gap by providing a structured, curriculum-based tutoring website that connects teachers and students from both urban and rural areas. The platform offers guided and well-organized online learning, enabling teachers to share their expertise effectively while helping students continue their education with proper support and clear academic direction.

# Project Overview

- **Learny** is a web-based e-learning platform tailored for Sindh Board students (Grades 1–12)
- Designed to bridge the gap between traditional education and modern digital learning
- Provides a structured, localized, and curriculum-aligned online learning environment
- Offers centralized access to course materials, video lectures, and academic resources
- Supports teacher–student interaction and collaboration through organized digital tools

# Project Overview Continued...

- Students can search courses, and rate tutors by subject and grade.
- Study groups enable chat, video calls, and resource sharing via chat rooms.
- Gamification system rewards users with xp points and badges.
- Admin approval ensures only qualified tutors join the platform.
- Learnity bridges education gaps in Pakistan affordable, accessible, localized learning.
- Aims to improve educational reach and consistency across the Sindh province.

# Literature View

- Several e-learning platforms such as Khan Academy, Coursera, and Preply provide online tutoring and educational resources. However, these platforms often focus on international curricula and are too costly for students in Pakistan.
  
- Research by Memon et al. (2021) highlights that tools like WhatsApp were used for learning during COVID-19, but they lack structure, teacher verification, and progress tracking. Studies on gamification in education (Hamari, 2023) show that reward-based learning improves student motivation and consistency.

# Literature View Continued...

- Learnity builds upon these findings by offering a localized, affordable, and unified platform that integrates verified tutoring, study groups, and gamified progress tracking for Pakistani students. .

# Similar Projects

- **Khan Academy** – Offers free lessons but not 1-on-1 tutoring or Pakistan's syllabus.
- **Coursera** – High-quality but costly; targets higher education.
- **Preply** – Private tutoring but expensive and not fit for local market.
- **IlmKiDunya** – Covers local syllabus but lacks live tutoring and gamification.

# Problem Identification/Statement

## □ Problems:

- Students struggle to find qualified tutors, especially in remote areas.
- International platforms charge \$15-25/hour, unaffordable for most students.
- Study resources scattered across WhatsApp, YouTube, and PDFs with no proper organized way.
- WhatsApp groups lack structure, verification, and progress tracking.
- Most platforms don't support Pakistani curriculum.

# Problem Identification/Statement

## □ Solution (Learnity):

- Verified tutor marketplace with affordable and accessible pricing.
- Structured study groups with chat & video features.
- Curriculum-specific content aligned with Matric/FSc boards.
- One to one video lectures with teacher and student
- Notes and books provided and kept in a structured way
- Study material focused on Sindh Board Curriculum

# Scope of Project

- **Platform for Web(Next.js)**
- **Targeted Audience:** Students and Teachers
- **Features include:**
  - Student: Search tutors, book online sessions with teacher, browse courses, buy courses,
  - Tutor: Create profile, set pricing, conduct video sessions, create courses
  - Admin: Approve tutors, manage users (can ban/unban users), manage system configurations, monitor audit logs, can access other roles.

# Aim & Objectives

## □ Aim:

- Build an accessible platform connecting Pakistani students with verified tutors and study groups, aligned with local curriculum.

## □ Objectives:

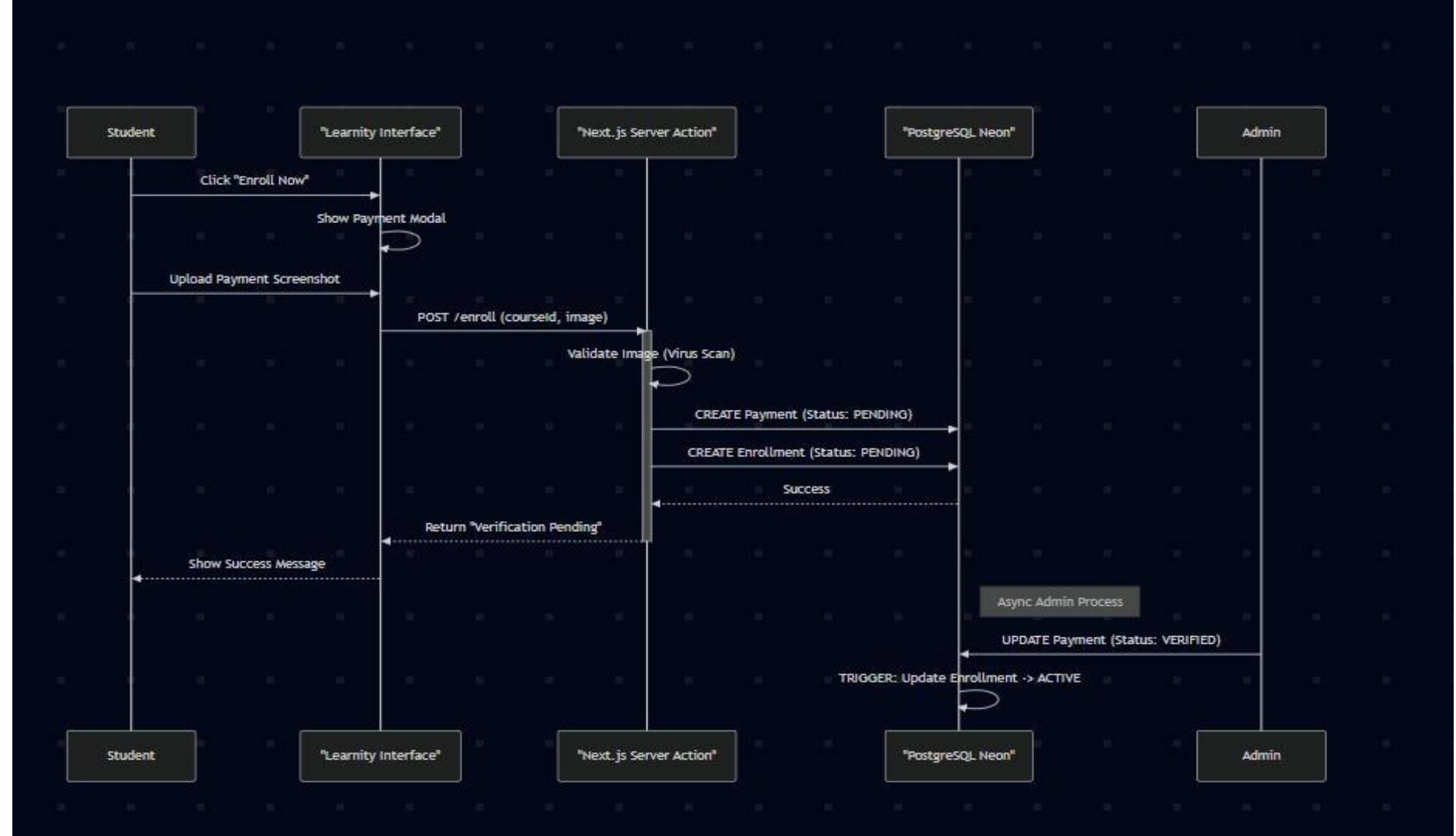
- Develop tutor-student matching and booking system.
- Create study group features.
- Build curriculum-aligned resource library.
- Implement bilingual interface (Urdu + English).
- Integrate video calling for sessions.

# Tools & Technologies

- **Frontend:** Nextjs 16, Zustan, framer-motion & Tailwind with Shadcn
- **Backend:** Nextjs api routes, Firebase, Prisma(ORM)
- **DataBase:** Neon DB (PostgreSQL)
- **Communication:** GetStream, 100ms video SDK
- **Design Tools:** Figma + Stitch
- **Version Control:** Git + Github, Github actions (CI/CD)
- **Deployment:** Vercel (Hosting and deployment)
- **Other tools:** Antigravity (IDE), Postman, github desktop, gemini cli.

# Design & Development Methodologies

Activity diagram:



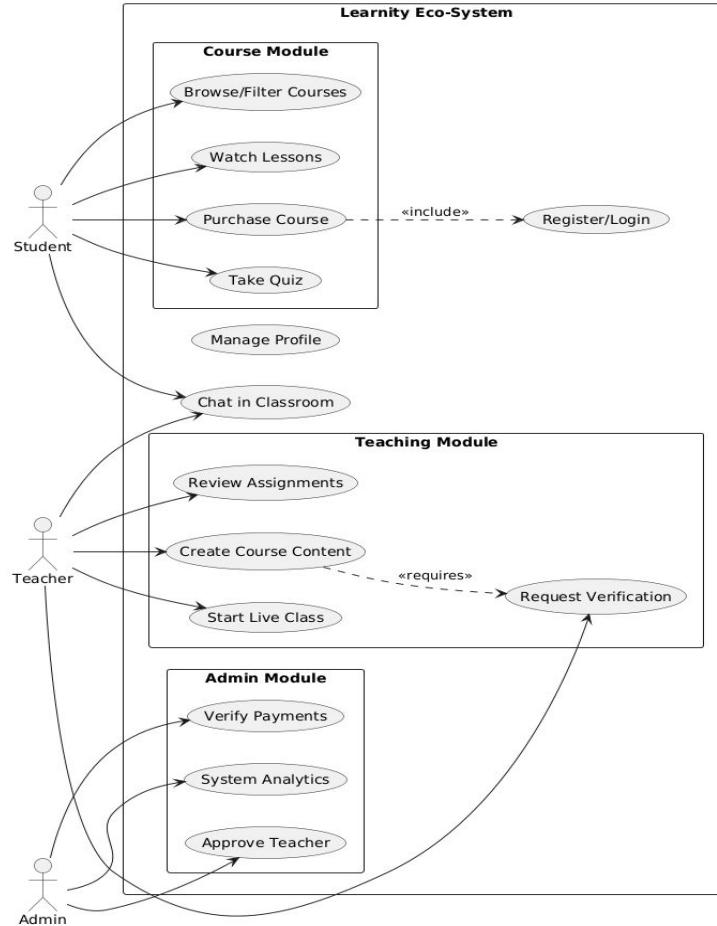
# Design & Development Methodology

## □ Agile Development Model:

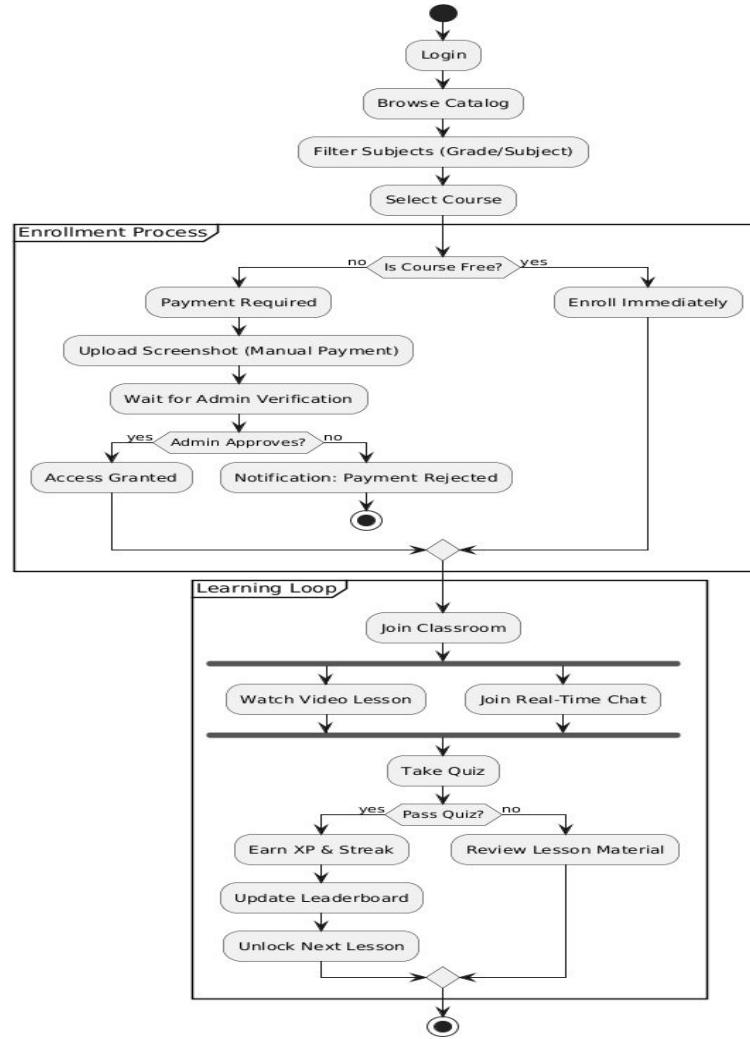
- Short sprints: plan, code and test.
- Continuous feedbacks & improvements.
- Flexible, user-focused, quick updates



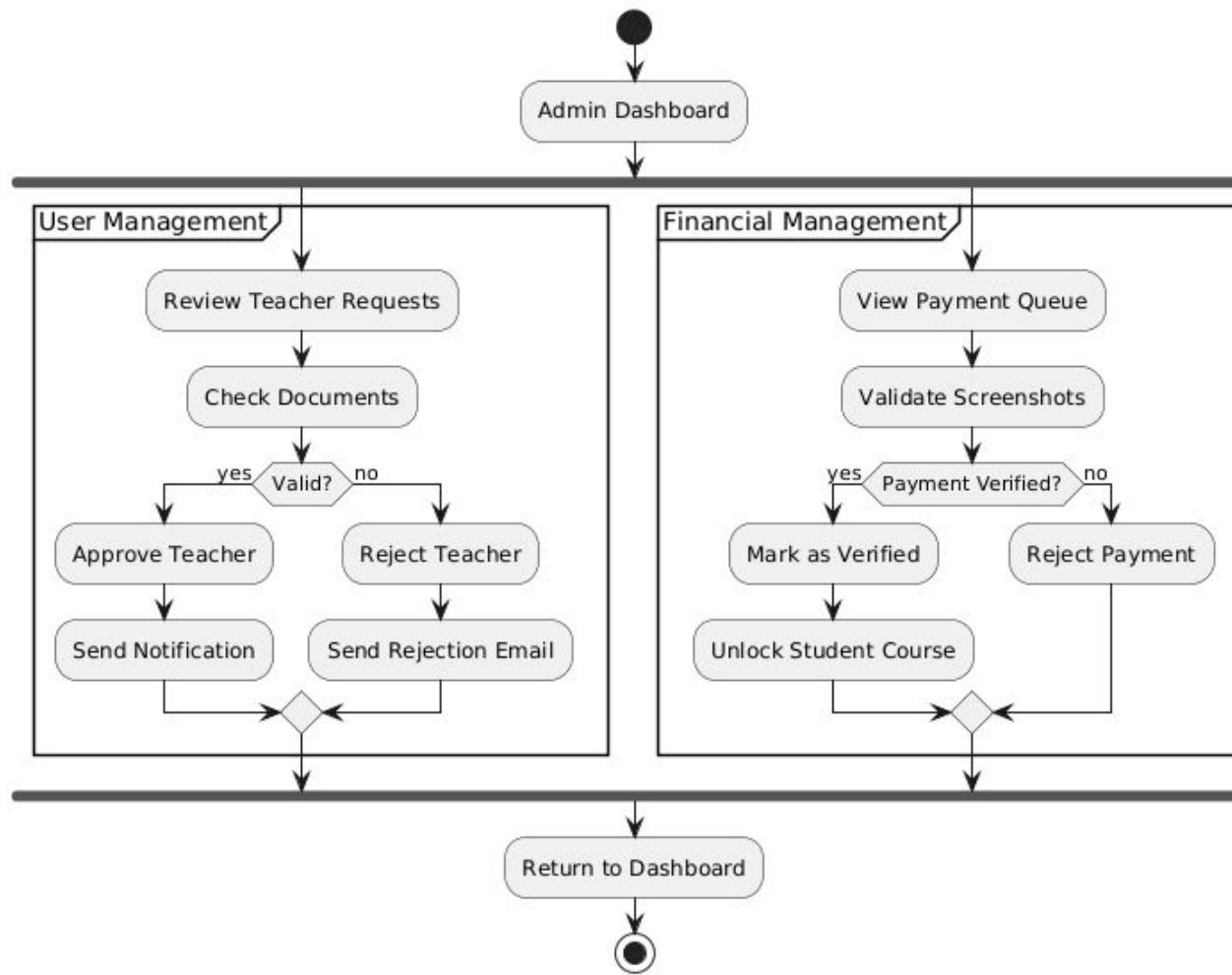
# User case Diagram across software



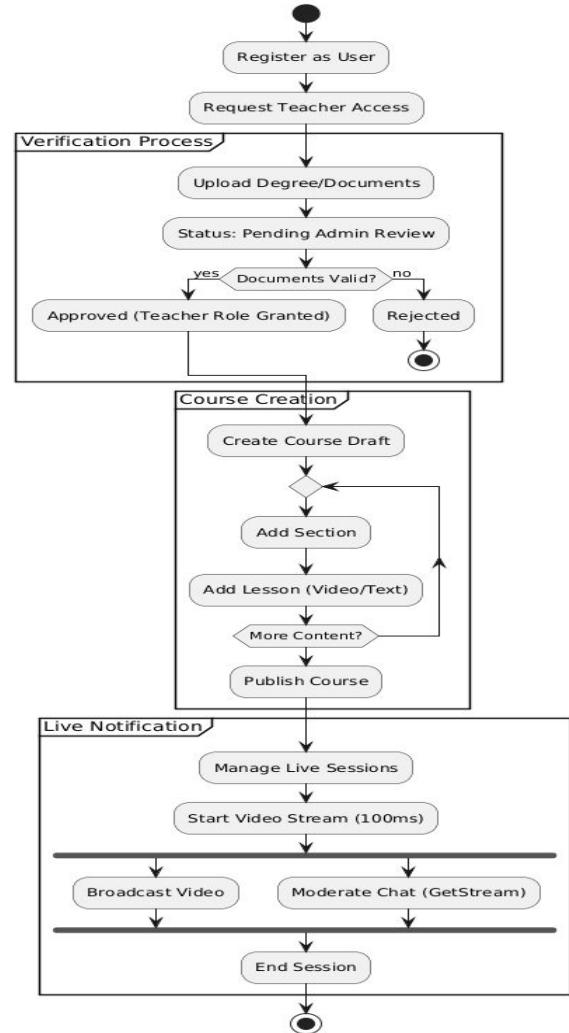
# Student's Activity Diagram



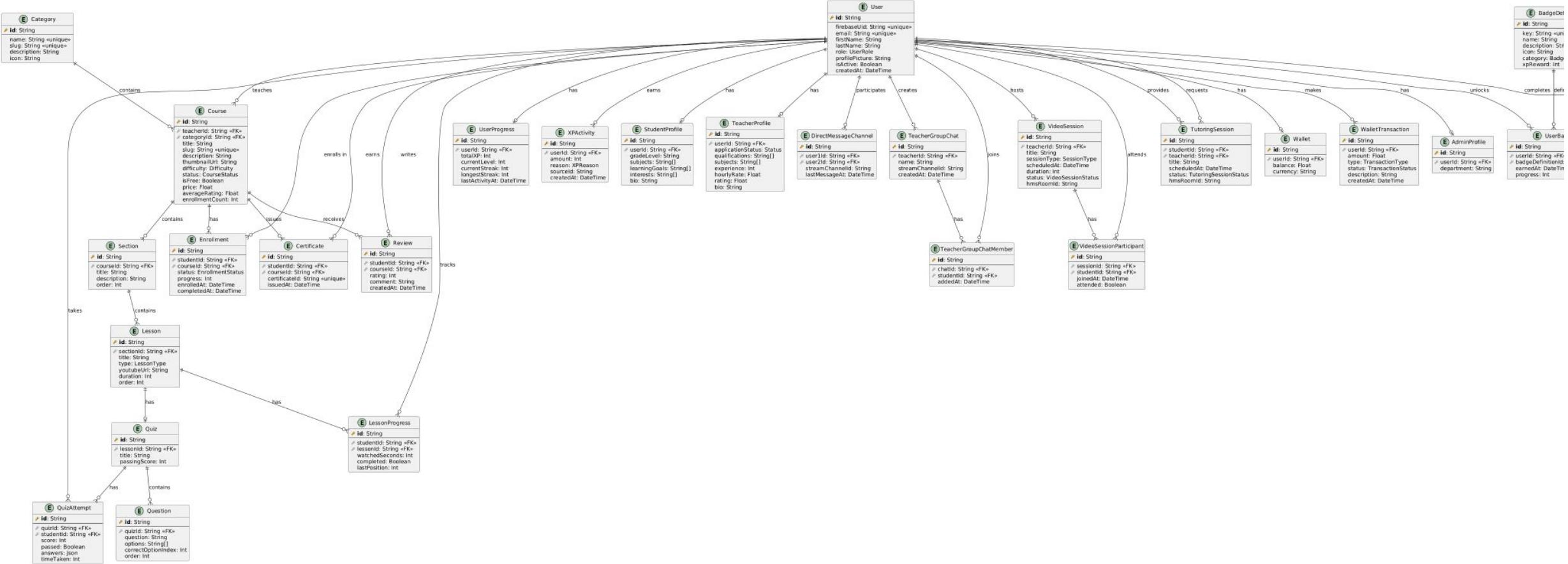
# Admin's Activity Diagram



# Teacher's Activity Diagram

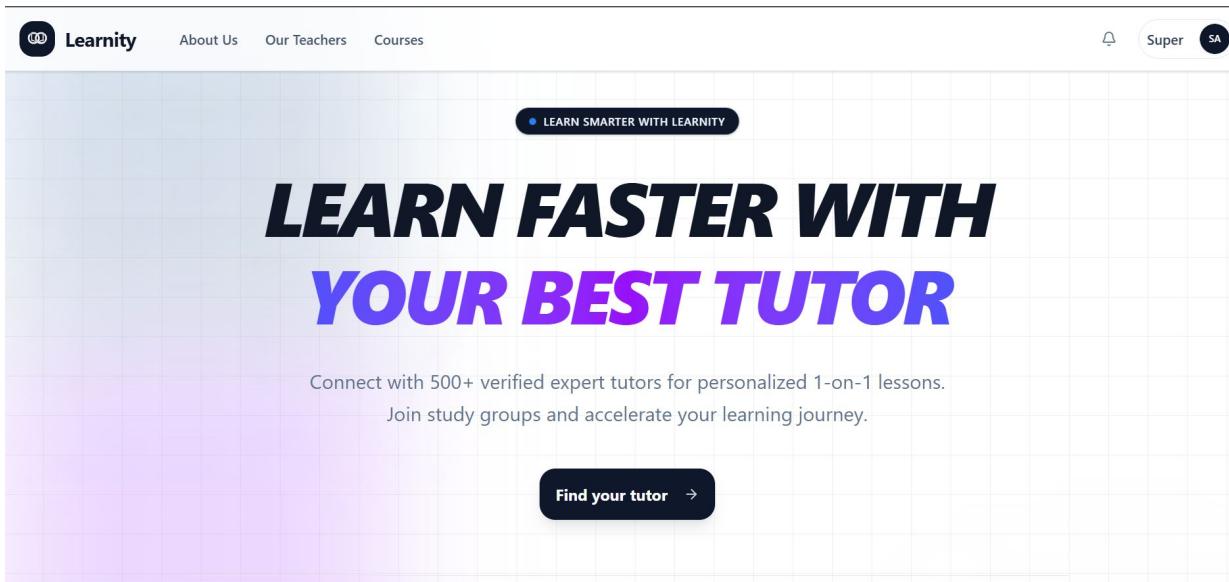


# Entity Relation Diagram



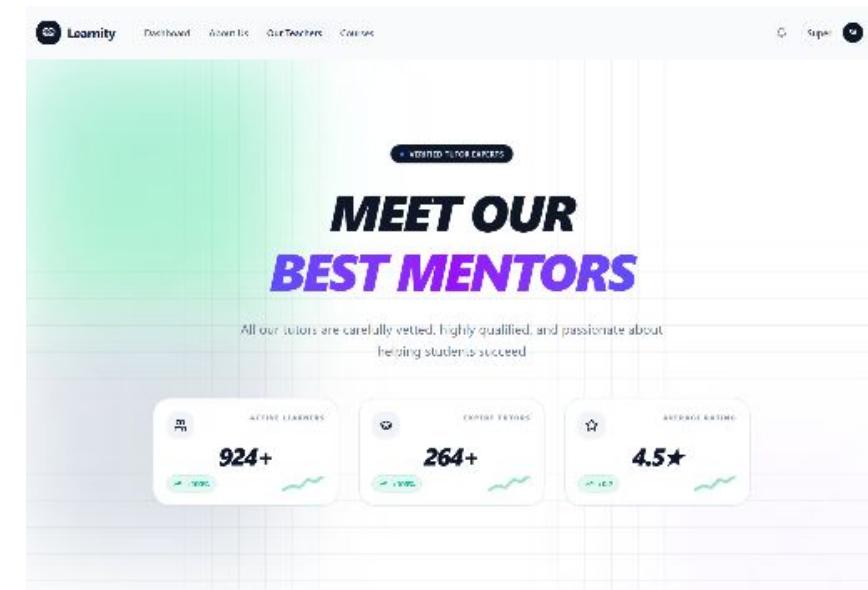
# Implementation

## Landing page



The landing page for Learnyt features a white header with the brand logo and navigation links for About Us, Our Teachers, and Courses. A dark blue footer bar contains a bell icon, a 'Super' button, and a 'SA' button. The main visual is a grid pattern with a central callout: 'LEARN SMARTER WITH YOUR BEST TUTOR' in bold black and purple text. Below it, a subtext encourages users to connect with 500+ verified expert tutors for personalized 1-on-1 lessons and to join study groups. A 'Find your tutor' button with a right-pointing arrow is at the bottom.

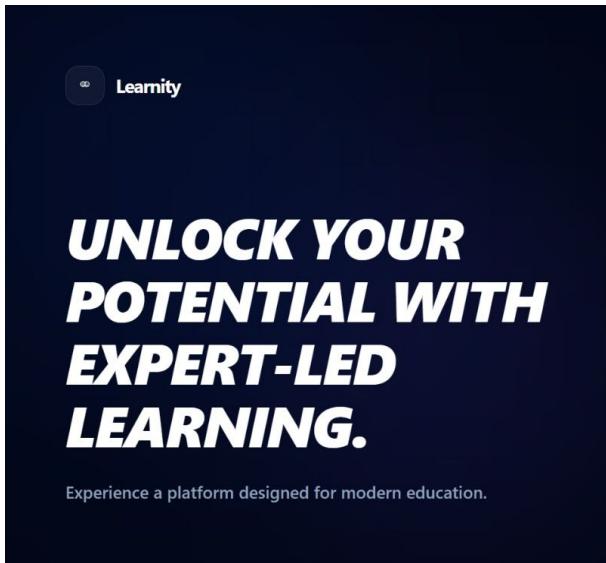
## Teacher Page



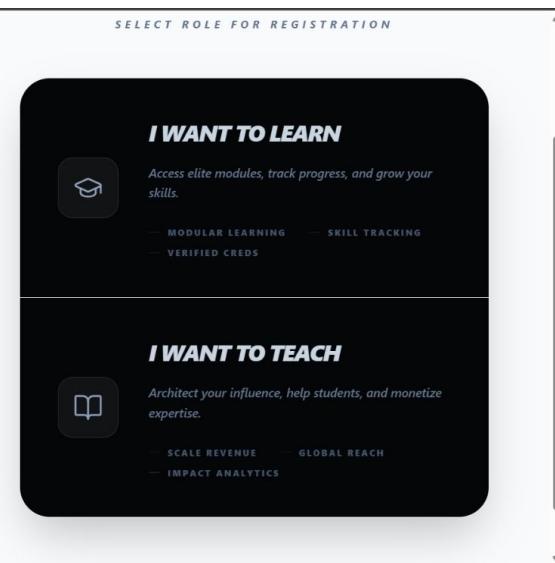
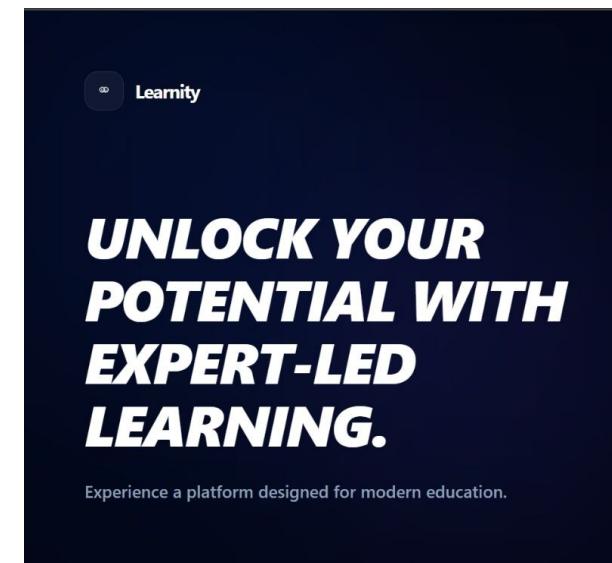
The teacher page for Learnyt features a white header with the brand logo and navigation links for Dashboard, About Us, Our Teachers, and Courses. A dark blue footer bar contains a bell icon, a 'Super' button, and a 'SA' button. The main visual is a grid pattern with a central callout: 'MEET OUR BEST MENTORS' in bold purple text. Below it, a subtext states that all tutors are carefully vetted, highly qualified, and passionate about helping students succeed. Three performance metrics are displayed in cards: 'ACTIVE LEARNERS' (924+), 'EXPERT TUTORS' (264+), and 'AVERAGE RATING' (4.5★).

# Login page and role selection

User sign up page



Role selection page



# Registration pages

## Student Registration page

← Back

### Student Registration

Create your student account to start learning

**Personal Information**

First Name  Enter your first name

Last Name  Enter your last name

Email Address  Enter your email address

We'll send a verification email to this address

**Security**

Password  Create a strong password  
Must contain uppercase, lowercase, number, and special character

Confirm Password  Confirm your password

**Academic Information**

Grade Level  Select your grade level

**Subjects of Interest**  
Select the subjects you're interested in learning (choose at least one)

<input type="checkbox"/> Mathematics	<input type="checkbox"/> Science	<input type="checkbox"/> English
<input type="checkbox"/> History	<input type="checkbox"/> Geography	<input type="checkbox"/> Physics
<input type="checkbox"/> Chemistry	<input type="checkbox"/> Biology	<input type="checkbox"/> Computer Science
<input type="checkbox"/> Art	<input type="checkbox"/> Music	<input type="checkbox"/> Physical Education
<input type="checkbox"/> Foreign Languages	<input type="checkbox"/> Economics	<input type="checkbox"/> Psychology
<input type="checkbox"/> Philosophy	<input type="checkbox"/> Literature	<input type="checkbox"/> Statistics

I agree to the [Terms of Service](#) and [Privacy Policy](#)

I am human  Privacy - Terms

**Loading...**

## Teacher Registration page

Sign In

Step 1 of 3

### Learnyty

### Become a Teacher

Progress  33%

**Let's get to know you**

Basic information to create your account

First Name \*  John

Last Name \*  Doe

Email Address \*  john.doe@example.com

We'll send important updates to this email

Password \*  Create a strong password

Confirm Password \*  Confirm your password

Country \*  Select your country

Phone Number  +1234567890

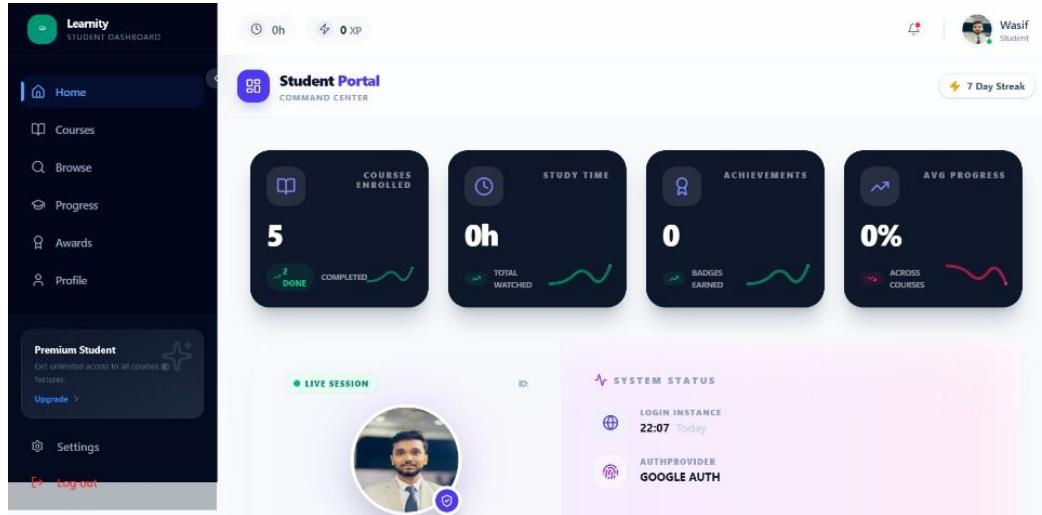
Include country code (optional)

**Loading...**

**Next →**

# Dashboard pages

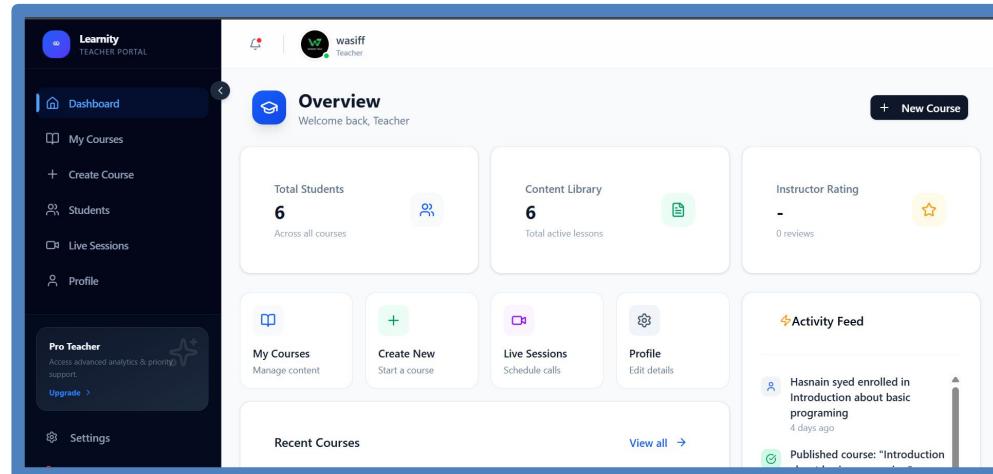
Student dashboard



Admin Dashbaord



Teacher Dashboard



# Courses Section

Student Learnings Page

The screenshot shows the student dashboard with a dark theme. At the top, it displays '0h' and '0 XP'. Below that is the 'My Learning Path' section with the title 'Calculus Mastery' and a progress bar at 0%. To the left is a sidebar with 'Courses' selected, along with other options like 'Browse', 'Progress', 'Awards', and 'Profile'. A 'Premium Student' badge is visible. On the right, there's a summary of total courses (5 modules), in progress (3 modules), and completed (2 modules). Below this is a list of all courses.

Browser Courses

The screenshot shows the 'INTELLIGENCE BASE' course catalog with a dark theme. It features a search bar and a filter button. Below the search bar, it says 'Found 10 courses'. There are four course cards: 'FREE' Mathematics, 'FREE' Programming, 'FREE' Programming, and 'Advanced Calculus Mastery' (price \$49.99). The sidebar includes 'Courses' selected and other navigation links.

Teacher's courses

The screenshot shows the teacher's courses dashboard with a dark theme. It displays 'My Courses' with a summary: 4 total courses, 3 published, 6 total students, and an average rating of 0.0. Below this are three course cards: 'Redis' (published, Beginner), 'PostGIS' (published, Beginner), and 'MySQL' (published, Beginner). The sidebar includes 'My Courses' selected and other navigation links.

Student Progress

The screenshot shows the 'Learning Progress' dashboard with a dark theme. It tracks milestones: 5 courses enrolled, 3 lessons completed, 10m study time, and 40% average progress. Below these are activity metrics: 100% live feed. The sidebar includes 'Courses' selected and other navigation links.

Create Courses

The screenshot shows the 'Create New Course' form with a light blue header. It asks for 'Course Title' (e.g., Introduction to Web Development) and 'Description' (Describe what students will learn in this course...). It also includes 'Category' (Select a category) and 'Difficulty Level' (Beginner). The sidebar includes 'Create Course' selected and other navigation links.

# Student Gamification & reward system

## Student Awards Page

The dashboard features a sidebar with navigation links: Home, Courses, Browse, Progress, Awards (selected), Profile, Premium Student (upgrade to Premium Student), and Settings. The main area displays two cards: 'Achievements' (0 of 8 unlocked) and 'Focus Momentum' (Status: ELITE, 7 DAY STREAK). The 'Achievements' card shows a Rank 1 badge with 60 XP, a progress bar, and a sync button. The 'Focus Momentum' card shows a 7-day streak grid and a consistency metric of 94%.

The top section shows 'Courses' and 'Lessons' progress bars. Below is a 'SYSTEM LOGS' section with activity logs for Courses and Lessons, and a '+ ACTIVE SYNC' button. At the bottom is the 'ACHIEVEMENT VAULT' section with tabs for ALL (14), LEARNING, STREAMS, INTELLIGENCE, and NETWORK. It lists eight achievement cards: First Steps, Dedicated Learner, Knowledge Seeker, Week Warrior, Monthly Master, Century Champion, Quiz Master, and Top Reviewer.

This section provides detailed information for each achievement in the vault. For example, 'First Steps' is at 100% completion, while 'Century Champion' is at 0%. It also shows global completion metrics: GLOBAL COMPLETION 0%.

# User Profile Pages

## Student Profile

The Learnyt Student Dashboard features a central profile matrix with sections for Academic Focus (5 subjects), Future Goals (5 outcomes), and Profile Growth (100% complete). Below this is a large profile picture of Wasif Malik, with his name and website listed. The dashboard also includes sections for Academic Profile (Basic Information, Learning Goals, Subjects I Study, Study Style, and Interests), Teacher Profile (Basic Information, Professional Headline, About Me Bio, and Identity Visualizer), and a sidebar with Home, Courses, Progress, Awards, and Settings.

## Teacher Profile

The Learnyt Teacher Portal shows the 'Edit Profile' page for Wasif Malik, a teacher. The page includes tabs for Identity & Brand, Expertise & Docs, and Logistics & Info. The Identity & Brand section contains fields for First Name (wasif), Last Name (Malik...), Professional Headline (e.g. Senior Math Tutor with 5 years experience), and About Me (Bio) (i am just really good at teaching duh i am just really good at teaching duh i am just really good at teaching duh i am just really good at teaching duh ....). The Expertise & Docs tab shows a progress bar at 70% Completed and a 'View Public' button. The Logistics & Info tab is partially visible.

# Admin Portal

## Admin Dashboard

The dashboard displays key performance indicators for the platform. It includes sections for Platform Performance (New Signups, Session Completion, Teacher Retention, Revenue Growth), System Health (Platform status and reliability), and User Metrics (Total Users, Active Teachers, Students, Monthly Revenue). A sidebar provides navigation for Overview, Security Hub, Analytics, Users, Applications, Demo Tools, and Auth Debug.

**Platform**

For Students	For Teachers	Company
Find a Tutor How It Works Pricing	Become a Tutor Teacher Benefits Resources	About Us Our Teachers Contact Terms of Service Privacy Policy

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## Audit logs

This dashboard focuses on security monitoring. It features a Security Overview section with real-time data on active users, failed logins, and recent events. Below it is a Failed Login Analysis section showing the number of failed logins over time and a list of top IP addresses. A Top IP Addresses section lists the most active IP addresses by event count. The bottom part of the dashboard shows recent security alerts.

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## Analytics

The analytics dashboard provides insights into user activity and application status. It includes a User Growth Trend section showing new active users per month, a Teacher Applications section showing pending review, approved, and rejected applications, and a This Month's Performance section summarizing key metrics for the current month. A sidebar allows switching between Overview, Security Hub, Analytics, Users, Applications, Demo Tools, and Auth Debug.

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## User management

The user management interface lists all users on the platform. It includes columns for user ID, name, role, status, and join date. A sidebar provides navigation for Overview, Security Hub, Analytics, Users, Applications, Demo Tools, and Auth Debug.

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## System Settings

The system settings dashboard includes tabs for General, Security, Notifications, and Features. Under General, users can manage platform name, support email, and platform description. The Security tab covers maintenance mode and user registration. The Notifications tab allows users to connect with expert tutors. The Features tab lists various platform features. A sidebar provides navigation for Overview, Security Hub, Analytics, Users, Applications, Demo Tools, and Auth Debug.

**General**

Platform Name: Learnity  
Support Email: support@learnity.com  
Platform Description: Connect with expert tutors and enhance your learning journey

**Security**

Maintenance Mode: Temporarily disable access to the platform  
User Registration: Allow new users to register on the platform

**Notifications**

For Students: Find a Tutor, How It Works, Pricing  
For Teachers: Become a Tutor, Teacher Benefits, Resources  
Company: About Us, Our Teachers, Contact, Terms of Service, Privacy Policy

**Features**

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# Conclusion and Result

## **CONCLUSION:**

The "Digital Divide" in Pakistan is not just about a lack of internet; it is about a lack of relevant content. Learnity fills this void. This project has taught us that building an EdTech platform is not just about writing code; it is about understanding user psychology. By integrating real-time video (100ms) and chat (GetStream), we transformed a static website into a thriving community. The platform provides easy navigation, secure authentication, and a scalable database structure that can grow with the user base. Most importantly, Learnity demonstrates that high-quality educational infrastructure can be built on a student budget using modern "Serverless" technologies, providing a blueprint for future digital sovereignty in Pakistan's education sector.



## **Lesson Learned:**

- Database design for multi-role applications using postgresql.
- Team collaboration using Agile methodology.
- Importance of planning and clear requirements.
- The value of feedback and iteration in building better solutions.
- Working on monolithic architecture.

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Thank you