

Tutor Time Mobile Base Learning Application

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This Report Presented in Partial Fulfillment of the Requirements for the Degree of
Bachelor of Science in Computer Science and Engineering.

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DAFFODIL INTERNATIONAL UNIVERSITY

DHAKA, BANGLADESH

25 January 2023

APPROVAL

This Project/internship titled “**Tutor Time**”, submitted by Atin Fyrose (191-15-2351) and Sumiya Mahmud Monisha (191-15-2434) to the Department of Computer Science and Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfilment of the requirements for the degree of B.Sc. in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on 25 January 2023.

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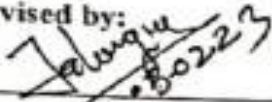
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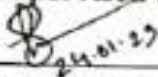
We declare that this project has been completed via us under the supervision of **Mohammad Jahangir Alam, Sr. Lecturer, Department of Computer Science and Engineering, Daffodil International University**. We also say that neither this project nor any phase has been submitted somewhere else to award any degree or diploma.

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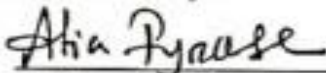
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ABSTRACT

Many people perished during this period. Many people perished during this covid-time. Many people jobless, it's also hampered our education. Suddenly one day, we learn that a close buddy father has died. Her father died as a result of the Corona virus. That day's her family will be completely hopeless. My friend is not continuing to her study. So, he began to look for work. He gets a part-time work, but the pay is insufficient to support his family. Then he goes in search of a tutor but is unsuccessful. People nowadays believe that offline education is ineffective and that it is difficult to locate qualified teachers. Tutor time app is that great opportunity for student and teacher. Tutor's Time is a platform where unemployed people, educated housewives can get part-time jobs from home without needing to be desperate. It's also help students can directly select online offline private tutors at very low cost. Tutor Time app allows you to book your own time from the comfort of your smartphone, choose a tutor according to your convenience, schedule tutorials, select online tutors at low cost, it is very convenient for students, all students from middle class families can tutor here. At their convenience and directly communicating with your teacher can resolve issues. Any courses completed in a short period of time and for the least amount of tuition. Face-to-face meetings are the most effective. Students receive completion certificates. Online education learning necessitates active participation and interaction. Any student may use this software to learn any topic from anywhere and enroll in courses at the lowest feasible cost. A teacher may share their knowledge with students while making extra money. Students can choose and study from their own teachers. During the counseling hour, students may consult with a teacher if they so want.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

Our culture is obsessed with completing tasks as soon as possible, including learning. Of course, individual study is required for learning. The usage and development of innovative language learning and teaching materials based on communication technology is aimed at addressing students' communicative demands. More students are connecting to the internet through mobile devices. Mobile learning is the ability to study from anywhere and at any time by using a portable electronic device. Students, too, desire the option of learning using a digital curriculum, preferring to learn more easily and joyfully. On smart phones, we may access a variety of educational programs that can teach us academic and non-academic topics at any time and from any place. Because they mix innovation with primary learning, these educational apps provide a substantial contribution to one's learning. This software is separated into two sections: professor and students. The application's superuser, Admin, has total authority over it. He may use the website to add academic and non-academic categories, as well as all topic categories and subject names associated with the main category. Admin has the authority to approve the lecturers who have registered for the application. The professor, who may use the Android app, is another component of this program. Students may create their own username and password when they register for the app. Students may examine all of the materials offered by lecturers and give comments and recommendations on the resources provided here. It advises students on what they may anticipate to do at various points during the course. There are numerous approaches to achieving learning outcomes. Every premium membership comes with a limitless amount of courses and coaching services, as well as an infinite number of students. Any courses that can be finished in a short length of time and for the least amount of tuition. Invite the writers, team members, and contributors to modify their rights and regulations. Meetings in person are the most effective. Students are given certificates of completion. Online education learning requires active involvement and interaction.

1.2 Motivation

Tutor time will aid students in quickly finding the top instructors and courses. Tutoring time is beneficial to students. Students today benefit greatly from online learning strategies from a young age. Statistics programs that are incorporated into the curriculum assist college students in improving their grades. Many students have said that their interest in online learning has increased. Online learning will play an important role in social development and cultivating a love of learning in pupils.

1.3 Objectives

The goal of this app is to make the lives of regular people and business owners easier. Virtually anyone anywhere in Bangladesh with an internet connection and a mobile phone can use it. It is very convenient for teachers & students.

The principal aims of the project are as follows:

- ✓ To provide the most effective type of meeting is face-to-face.
- ✓ Reduced cost for students.
- ✓ Choose course teacher easier for students to find any course without leaving their homes.
- ✓ To provide this feature the easiest, secure and user-friendly UI.
- ✓ To increase course variety.
- ✓ To promote the online service for everyone to make their lives safer and more comfortable.
- ✓ Better time management.
- ✓ Make user data accessible

1.4 Expected Outcomes

It informs students on what they may expect to undertake at certain stages during the course. There are several methods for producing learning results. All premium memberships include an infinite number of courses and coaching services, as well as an unlimited number of students. Any courses completed in a short period of time and for the least amount of tuition. Bring in the authors, team members, and contributors to customize their rights and rules. Face-to-face meetings are the most effective. Students get completion certificates. Online education learning requires active involvement and interaction.

1.5 Project Management and Finance

Let's chat about what it's like to be a teacher. First and foremost, it is a less demanding work than others, and I am taking it with a lot of experience. I've worked in various occupations, and I can assure you that teaching is not stressful since there is a sense of accomplishment in knowing that you are helping someone, especially a youngster. It's satisfying in that manner. When you teach, you feel good about yourself. We're talking about money. Money is also beneficial. I know there's a common misconception that teachers don't make a lot of money. If you teach privately or manage coaching businesses. I'm telling you, there's a lot of money at stake. So, if you want to become a tutor or a teacher. It's a great concept. So here is this website called tutor time. This application or gateway. What it doesn't do is aid you. It acts as a go-between for the tutors. As an example, let me speak about myself and a student, Sara. I am a teacher, and Sara is my student. Now that I am at home, I want to teach someone, and Sara is at her house, she wants to study for someone. She wants to hire a tutor. So she doesn't know who I am, and I don't know who she is. How would she know who I am, unless I market myself? Okay, which is a challenging career that requires a lot of money, or if I'm just starting out as a teacher. That is not something I believe I could afford. So, how do I approach Sara? That is where this software will come in handy. How would it benefit you? It is a location where both students and tutors will log in. This software will figure it out. If Sara and the instructor are from the same course or class.

As a result, teachers must enter all of their information into this site and complete their profiles. I'll walk you through the steps. First and foremost, I will make an account for myself, after which I will construct a decent profile for myself. Such as educational qualifications, employment institutions, current address, phone number, email address, and so on.

After that, you must submit the papers for verification. That is you after your paperwork have been validated. became a tutor and you will get a batch and after becoming a verified tutor. Then you create some course such as physics, chemistry, math etc. Several students can approach you and you can also approach student.

1.6 Report Layout

Our project report is organized as follows:

- ✓ Chapter 1 contains an introduction to our project, motivation, the reason for the research, the projected output of this study, project management and funding, and the form of this report.
- ✓ Chapter 2 discusses the project's history, including preliminary work, related works completed, comparative analysis and summary, the breadth of the issue, and the problems we encountered.
- ✓ Chapter 3 covers business process modeling, requirement gathering and analysis, use case modeling and description, logical data model, design requirements, and code implementation.
- ✓ Chapter 4: Front-end Design, Back-end Design, Interaction Design, and Flowchart Design.
- ✓ Chapter 5: Frontend Design Implementation, Database Implementation Testing implementation, test results, and reports
- ✓ Chapter 6: Impact on Society, Environmental Impact, Ethical Aspects, and Sustainability Plan
- ✓ Chapter 7: provides the conclusion and future work, summary and conclusions, and implications for additional research.

Finally, we have all references in this area.

CHAPTER 02

Background

We created the project in Android Studio. This Android Studio project comprises everything that defines an application's workspace, from source code and assets to test code and build parameters. We used Java as the programming language for this project. As a database, we utilized Firebase holo. The Firebase software development platform makes it easier to create both online and mobile apps. This BaaS solution includes four beta products and purposeful APIs in addition to the 18 services it provides. It can also be integrated with iOS, Android, web, and Unity installs. The biggest promise for developers is the ability of visual code to operate on any device, at any time. The majority of popular programming languages have rudimentary support in Visual Studio Code. Visual Studio Code makes it easier to create resources and drag-and-drop applications. Then we used Firebase to create, update, and delete the database. A database allows us to retrieve user-friendly data.

2.1 Preliminaries

Tutor Time app uses many technologies like Java, Firebase, Android Studio, Design xml.

Our app is an Android based e-learning app. E-learning apps are interactive applications that allow students to enter data and get the expected results on their device. All a learner needs to access such an app is an internet-connected smartphone. Tutor Time is a hit with students, parents and educators. Its videos are engaging, visual learner-oriented, use photographs and other illustrations, and allow students to work at their own pace. Our app is a native Android app. These apps are designed specifically for your mobile device's operating system.

Android studio: Android Studio provides an integrated environment for building apps for Android phones, tablets, Android Wear, Android TV, and Android Auto. Structured code modules let you divide your project into functional units that can be built, tested, and debugged independently. Familiarizing yourself with Android Studio will help you work more efficiently. Best of all, you can take advantage of the integrated debugger and testing tools to create error-free code.

Java: Applications developed using Java are cross-platform compatible, making Java one of the most popular languages for developing applications. When it comes to mobile app development, I must make the best choices to make your mobile app stand out from the rest. Java is an open-source programming language that makes it easy to develop apps, grow networks, works independently across all platforms and multiple operating systems, and is a great programming tool with low investment.

Firestore: Firestore is ready to use with Firebase services like cloud functions, authentication, real-time database, Cloud Fire storage, cloud messaging, and more. These complementary Firebase services let you build powerful micro services and web apps.

- Large, reliable database. ...
- Fast and secure hosting.
- Offer newcomers a free start.
- Google Analytics
- Firestore Cloud messaging of cross-platform.

Firestore authentication.

XML: XML is easier for beginners to read and understand, and less difficult to code than HTML. XML is fully compatible with Java™ and 100% portable. XML is one of the most widely used formats for exchanging structured information today. Between programs, between people, between computers and people, locally and across networks.

2.2 Related project

When we chose to construct an app and then a 10 minute school that are the most frequent and popular e-learning sites that are widely known to everyone in the globe, we followed lots of renowned ready-made projects. And keep track of their actions and work policies. Those are all well-known and popular sites for us, such as 10 Minute School, Shikko, and so on. There are three or four venues throughout the world that we visited the most in order to create our concept for my nation.

However, we will just display one below:

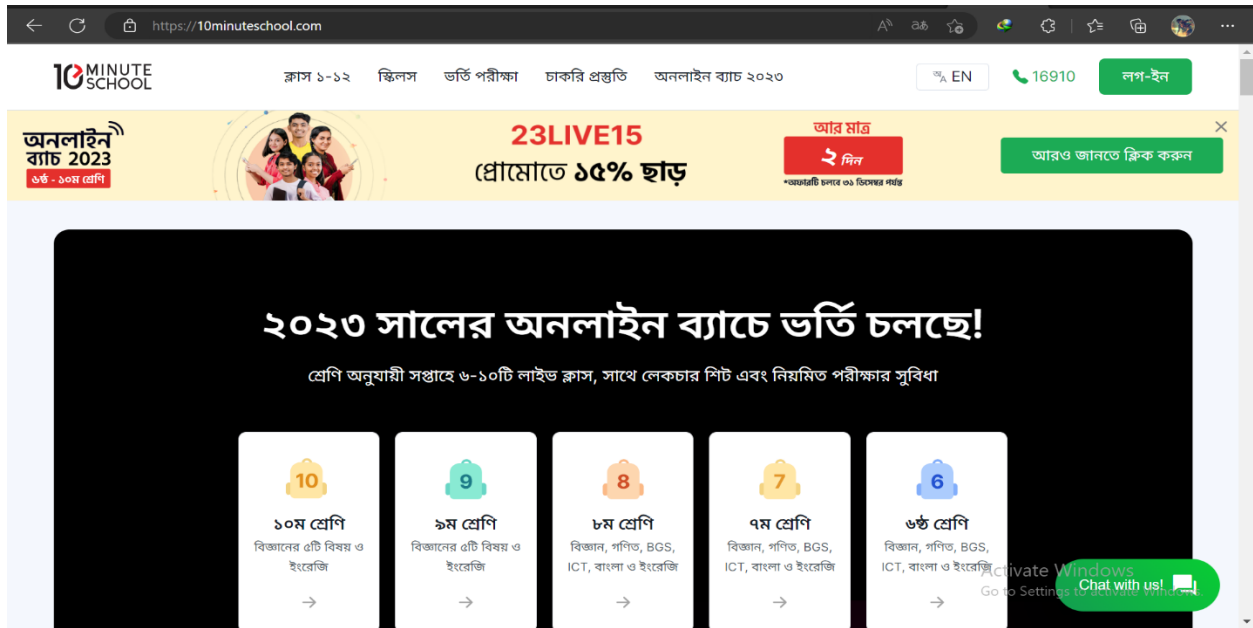


Fig 2.2:10 minute's school

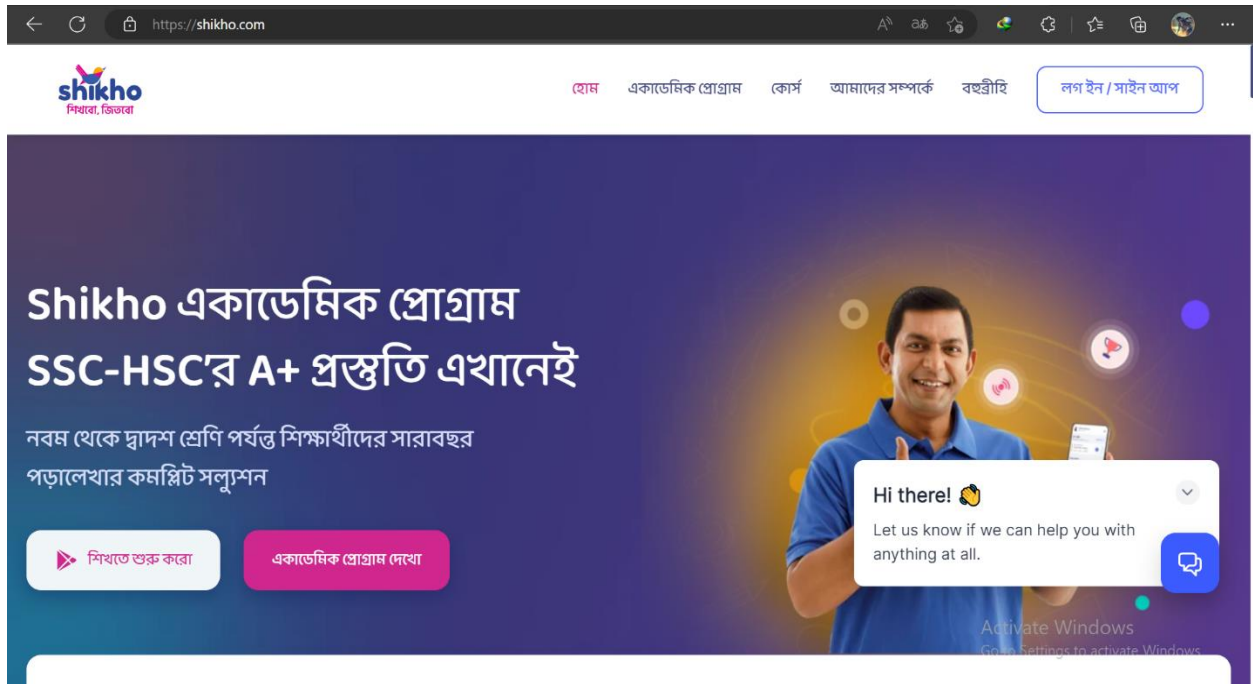


Fig 2.2: shikko.com

We learnt from those websites:

- ✓ Maintain proper etiquette.
- ✓ Excellent organization.
- ✓ Easy to operate.
- ✓ Safety and security are adequate.
- ✓ Among other things.

2.3 In comparison to others

Table 2.1: Comparative analysis

A case study	10 min school.com	Shikko.com	E-commerce on the internet
User and administrator registration and login	YES	YES	YES
Multilanguage	YES	NO	YES
Discount	YES	YES	YES
Profile progress	YES	YES	YES

2.4 Analyzing problems

When I decided to make this, we ran into a slew of issues:

- ✓ It was difficult at first to comprehend the project language.
- ✓ It is impossible to communicate with the teacher if you do not have access to the internet.
- ✓ However, keeping up with regular updates is really difficult.
- ✓ Internet access is required for API connection.

2.5 Challenges

- ✓ In some circumstances, package installation issues.
- ✓ Always look for updates.
- ✓ Easy to use.
- ✓ Data collecting and time management.
- ✓ Examine the system control management.

CHAPTER 3

Requirement Specification

3.1 Business process modeling

To represent the business processes in our project, we are using the agile methodology. The following are the explanations for why a working application is frequently provided.

- ✓ The most effective type of meeting is face-to-face.
- ✓ The frequent and close collaboration between businesspeople and developers.
- ✓ Affordable charge.
- ✓ Reduce risk.
- ✓ Educational pattern change.
- ✓ Unemployment problem solve.
- ✓ Continues to pay attention to the technical situation.
- ✓ Adaptation to new policy norms on a regular basis.

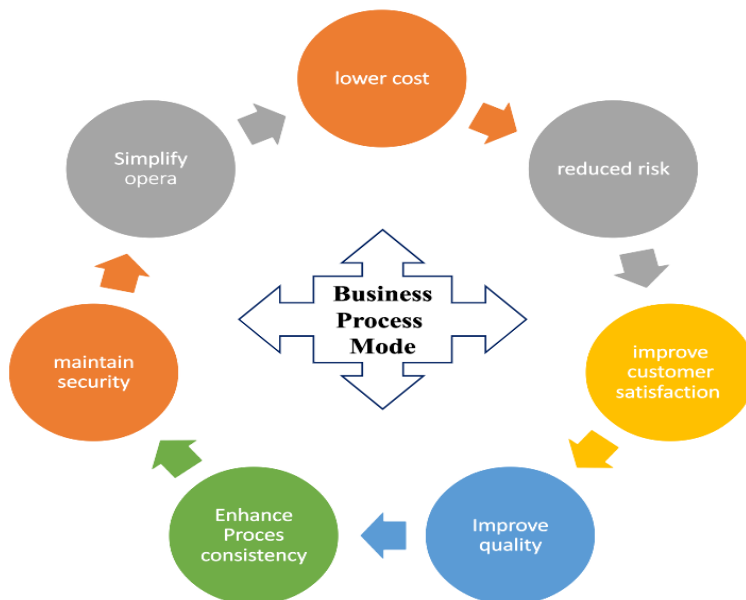


Fig 3.1: Business Process Model

3.2 Requirement collection and analysis

An initiative's analysis is a critical component. A project cannot be successfully completed without thorough study and planning. It is impossible to produce a lovely project. Because the delivery date is already defined when we design a project, we must coordinate the project work on time and finish it inside the time period. A project work tree represents a person's resolve to accomplish a job. Project work often necessitates the use of several resources, including time, people, materials, and student practice of skills and linguistic systems. Our project method is a collaborative approach assisted by the instructor in which students gain and use information and skills to identify and solve practical issues via a decision-making process. Project-based learning not only enables students to work on their own learning, but it also helps them build problem-solving and learning abilities, as well as other skills important for their future, such as critical thinking and time management. Our proposal is an online management system for pharmaceutical items ordering and delivery based on Android. Analysis was a huge challenge when we originally began thinking about this project. When we begin the inquiry, we uncover some important characteristics that will aid our endeavor.

Project: Native android

Programming language: java

Software: android studio

Design: xml

Software Requirements

- ✓ Java
- ✓ Android Virtual Devices (AVD)
- ✓ Android Studio ▪ Firebase
- ✓ Adobe Illustrator
- ✓ Figma

Software Requirements

- ✓ Windows Operating System

Requirements for User

- ✓ Smartphone (Android 5.0+)
- ✓ Internet Connection

3.3 Use case modeling and description

A use case in system analysis is a strategy for discovering, defining, and organizing system requirements. In this use case diagram, the main actors of the E-learning management system are: teachers and students who perform various types of use cases such as self-registration, login/logout, create profile, view profile, add course, search course, view course, apply for course, payment fees, approve course, watch live stream, create notes, and final exam. It is made up of a number of factors that, when combined, have a greater impact than the sum of their separate impacts. All system operations relevant to the users should be included in the use case. A use case, in other words, is a collection of possible events that may occur in order to achieve a certain purpose. The relationship between and among the actor and the use case of online learning management system:

- Teacher entity
- Student entity

- a) The line separating the area of interest from the rest of the world.
- b) Actors are those who participate in the system and are assigned roles according to those duties.
- c) It's the line that separates an interest system from everything else in the world.
- d) Participants, who are often persons that are connected with the system and are classified according to their responsibilities.
- e) Describes the use scenarios in which the exact roles played by the players within and outside of the system are described.
- f) The links and interactions between and among the participants, as well as the use cases. The following figure .

3.3.1 Shows the Use Case Diagram of the project

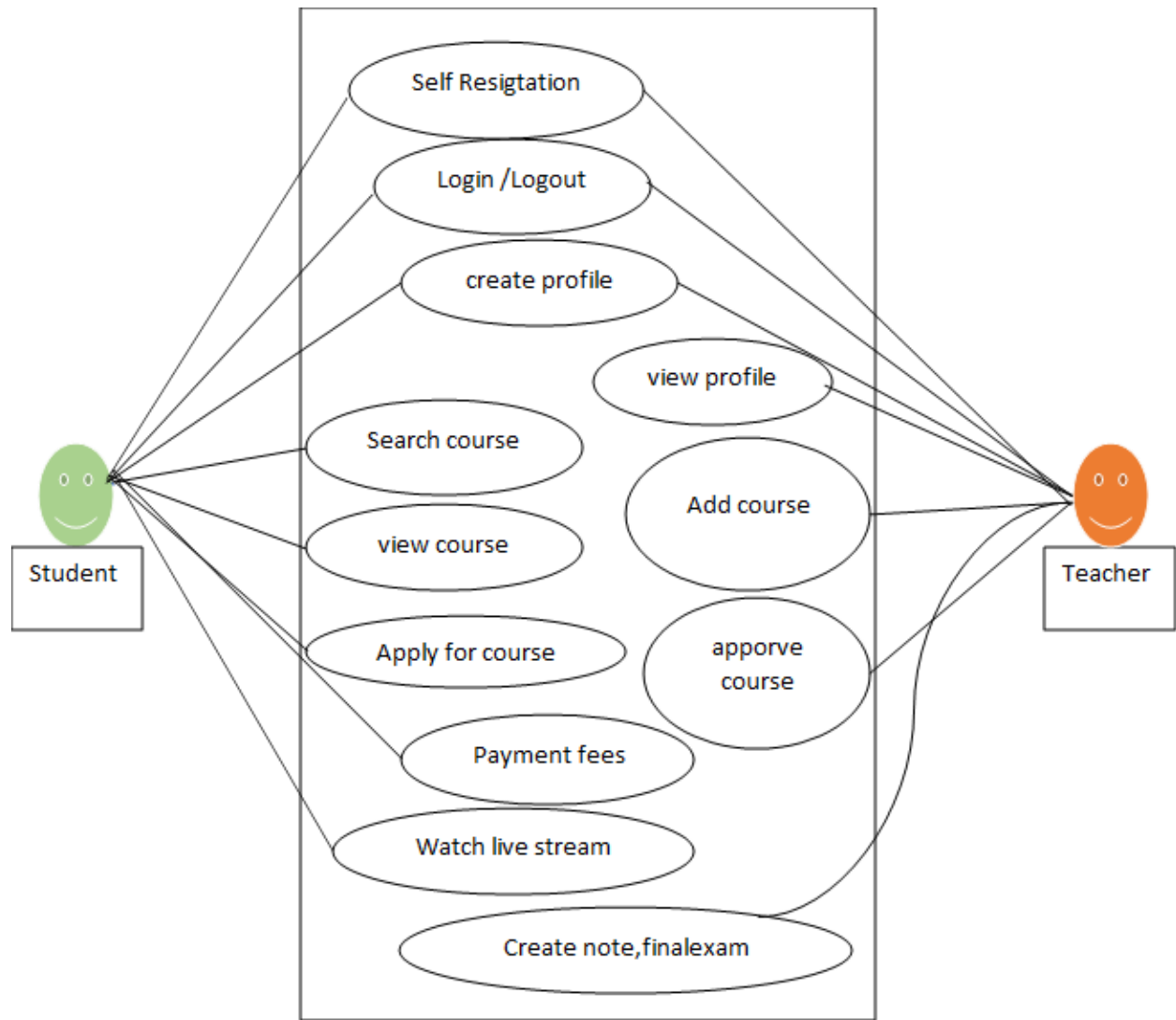


Fig 3.3.1: Use Case Diagram

3.4 Logical data model

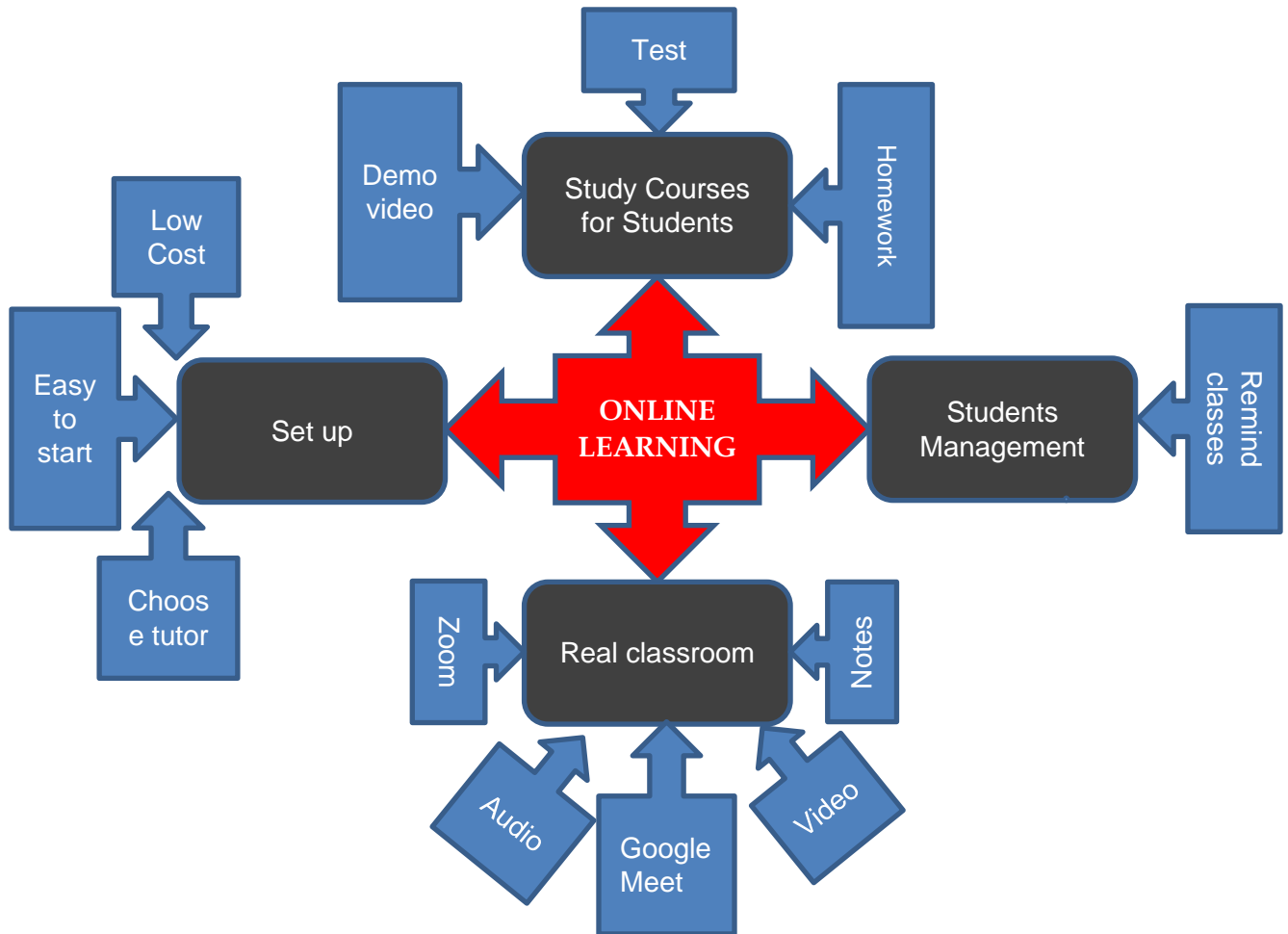


Fig 3.4.1: Logical data Model

3.5 Design Requirement

Tutors connect into the system using their email addresses or phone numbers to establish an account and begin using the app. Teachers build their own profiles, which include personal information such as name, work description, courses taught, credentials, and so on. Then the instructor creates a course for the students, and the students may add, or delete courses. Teachers may use this tool to submit movies, images, PDF papers, interactive knowledge tests, and other instructional resources. Tutors may be notified about future courses, new students on their course, completed assignments, and so on.

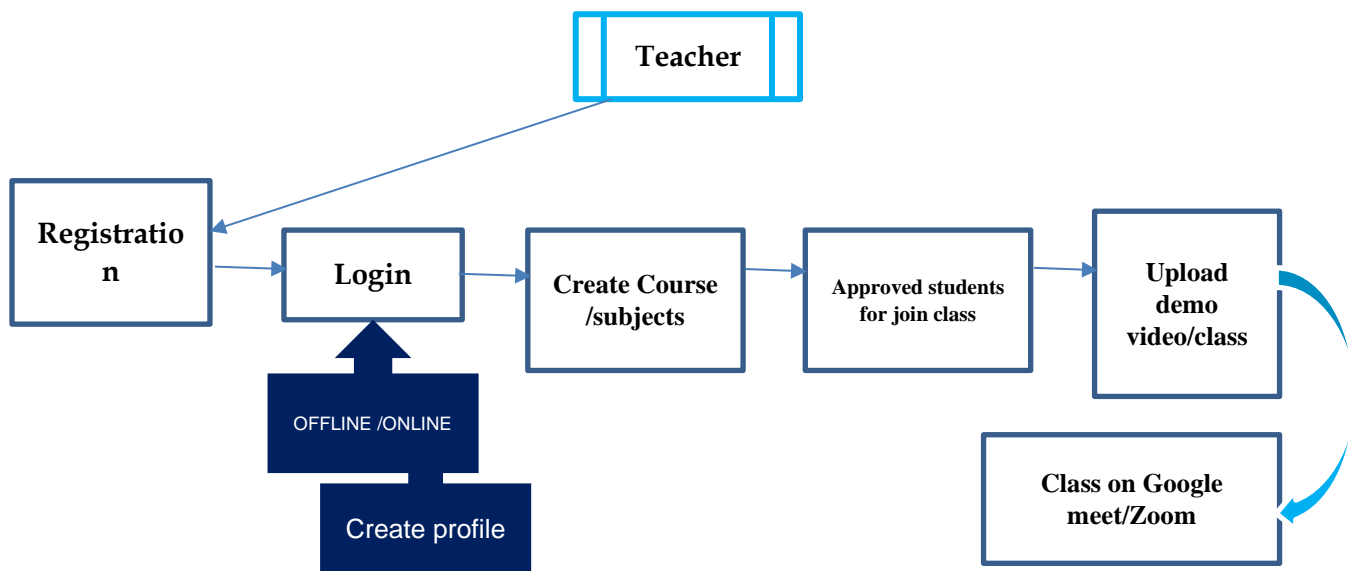


Fig 3.3.5.1: Teacher Management System

Students begin utilizing this app and complete required courses; students connect in to the system using their email address and phone number. Students build profiles and give personal information such as their name, class, age, location, objectives, topic, and so on. Students may use this function to find classes. They may check the course curriculum, tutor details, cost, total student enrollment in the course, and other information. This comprehensive dashboard provides pupils with all necessary information.

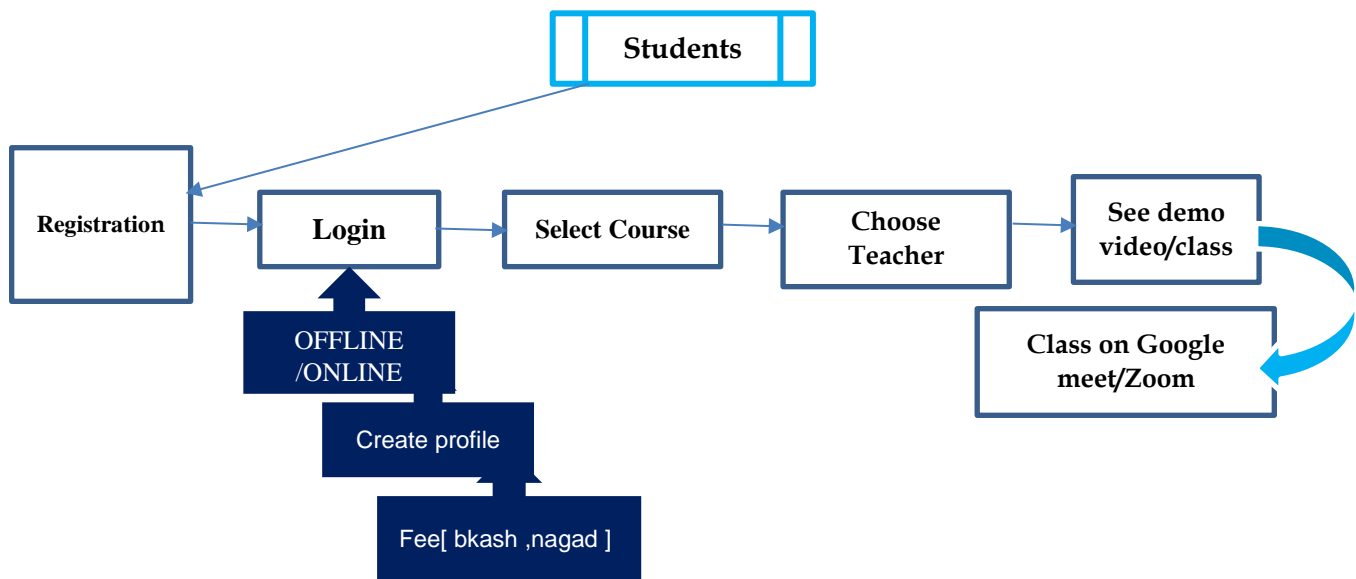


Fig 3.3.5.2: Student Management System

Purchased courses, ongoing courses, the student's progress, connected Teachers, and a calendar of forthcoming lessons or tests are all examples of information. Students may use this tool to pay for their courses. Students often pay for courses. To implement the payment functionality, we may use a payment platform like Bkash, Nagad to incorporate a secure payment gateway. Students may be notified of any developments, such as future courses, approved courses, schedules, and so on. This feature does more than just make it easier to log in. It also enables students to choose their tutor and communicate with them face to face.

3.5.1 Code Implementation

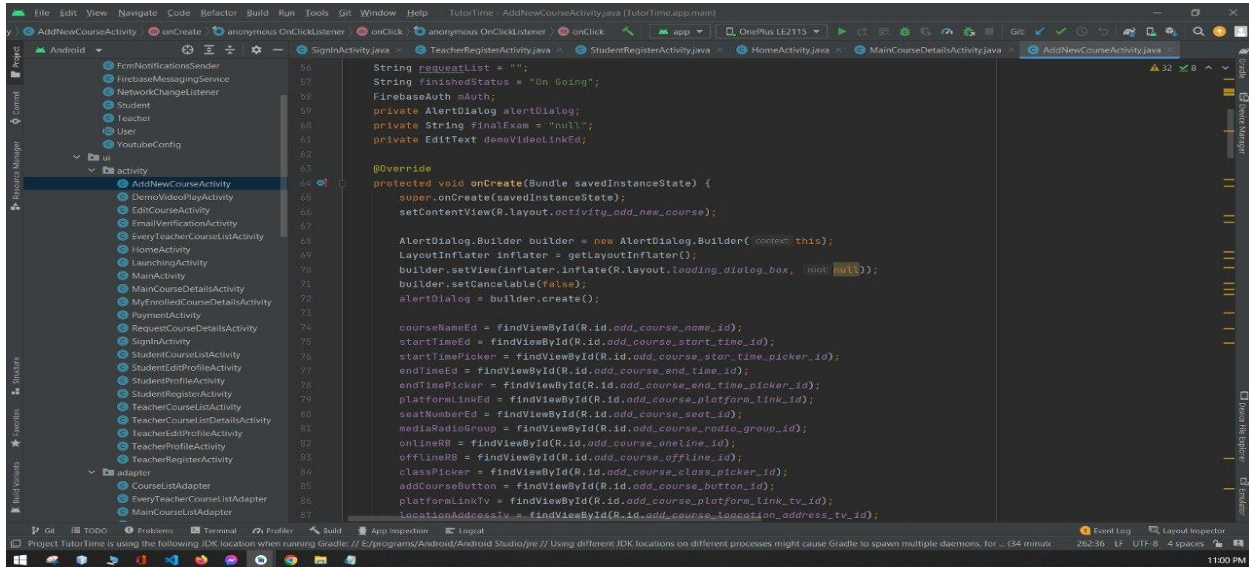
We made advantage of the tutor time mobile app backend java. Backend is a tutor time program that allows workstations and servers to communicate with one another. A mobile app's backend is its brain. Backend data processing, storage, and security are also important considerations. This app backend runs on the server, and it's the portion of the app that you don't see, but it's critical to the operation of your mobile app. The backend handles: -Data processing and storage independent of the capabilities of a smartphone

-Data synchronization and sharing across many platforms and devices Updates to the mobile app's content

-Management of the app's business logic

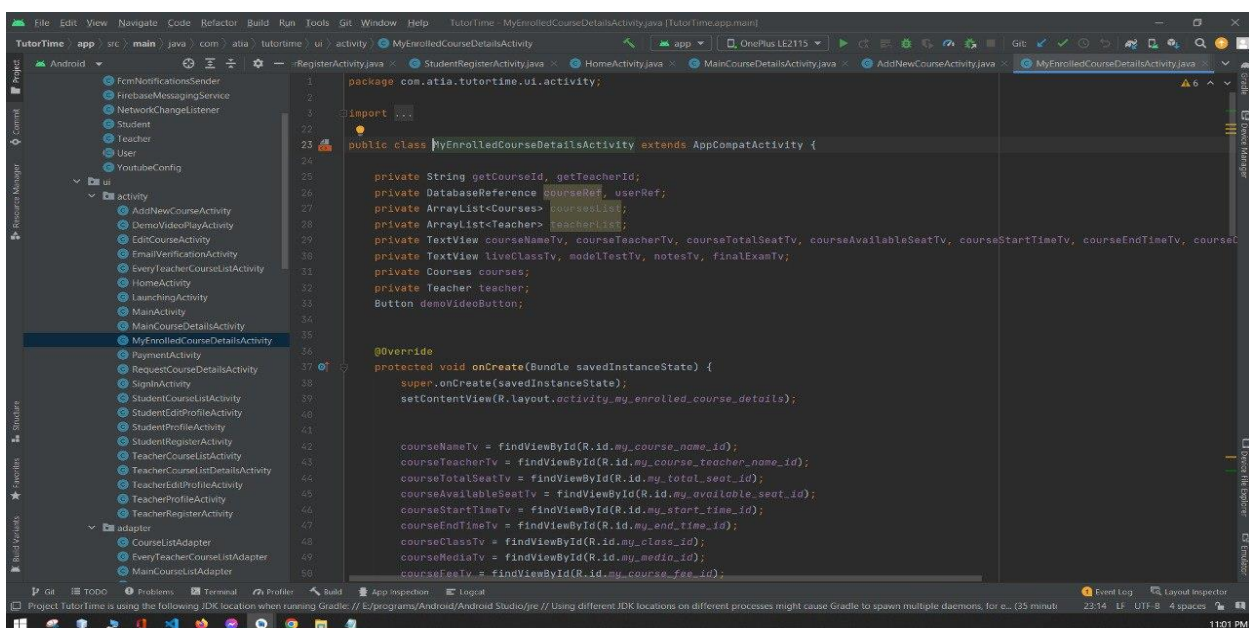
-Authorization and authentication that govern data access.

Some implementation of code details-



```
String pendingList = "";  
String finishedStatus = "On Going";  
FirebaseAuth mAuth;  
private AlertDialog alertDialog;  
private String finalExam = "null";  
private EditText demoVideoLinkEd;  
  
@Override  
protected void onCreate(Bundle savedInstanceState) {  
    super.onCreate(savedInstanceState);  
    setContentView(R.layout.activity_add_new_course);  
  
    AlertDialog.Builder builder = new AlertDialog.Builder(context, this);  
    LayoutInflater inflater = getLayoutInflater();  
    builder.setView(inflater.inflate(R.layout.loading_dialog_box, root = null));  
    builder.setCancelable(false);  
    alertDialog = builder.create();  
  
    courseNameEd = findViewById(R.id.add_course_name_id);  
    startTimeEd = findViewById(R.id.add_course_start_time_id);  
    startTimePicker = findViewById(R.id.add_course_start_time_picker_id);  
    endTimeEd = findViewById(R.id.add_course_end_time_id);  
    endTimePicker = findViewById(R.id.add_course_end_time_picker_id);  
    platformLinkEd = findViewById(R.id.add_course_platform_link_id);  
    seatNumberEd = findViewById(R.id.add_course_seat_id);  
    mediaRadioGroup = findViewById(R.id.add_course_radio_group_id);  
    onlineRP = findViewById(R.id.add_course_online_id);  
    offlineRP = findViewById(R.id.add_course_offline_id);  
    classPicker = findViewById(R.id.add_course_class_picker_id);  
    addCourseButton = findViewById(R.id.add_course_button_id);  
    platformLinkTv = findViewById(R.id.add_course_platform_link_tv_id);  
    locationAddressTv = findViewById(R.id.add_course_location_address_tv_id);
```

Fig; 3.5.1.1 Add course Implementation



```
package com.atia.tutortime.ui.activity;  
  
import ...  
  
public class MyEnrolledCourseDetailsActivity extends AppCompatActivity {  
  
    private String getCourseId, getTeacherId;  
    private DatabaseReference courseRef, userRef;  
    private ArrayList<Courses> coursesList;  
    private ArrayList<Teacher> teacherList;  
    private TextView courseNameTv, courseTeacherTv, courseTotalSeatTv, courseAvailableSeatTv, courseStartTimeTv, courseEndTimeTv, courseLiveClassTv, modeTestTv, notesTv, finalExamTv;  
    private Courses courses;  
    private Teacher teacher;  
    Button demoVideoButton;  
  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.activity_my_enrolled_course_details);  
  
        courseNameTv = findViewById(R.id.my_course_name_id);  
        courseTeacherTv = findViewById(R.id.my_course_teacher_name_id);  
        courseTotalSeatTv = findViewById(R.id.my_total_seat_id);  
        courseAvailableSeatTv = findViewById(R.id.my_available_seat_id);  
        courseStartTimeTv = findViewById(R.id.my_start_time_id);  
        courseEndTimeTv = findViewById(R.id.my_end_time_id);  
        courseClassTv = findViewById(R.id.my_class_id);  
        courseModisTv = findViewById(R.id.my_modis_id);  
        courseFeeTv = findViewById(R.id.my_course_fee_id);
```

Fig 3.5.1.2 Enroll course Implementation

```

package com.ata.tutortime.ui.activity;

import ...

public class PaymentActivity extends AppCompatActivity {

    private TextView paymentOperatorTv;
    private EditText paymentTransactionEd;
    private Button paymentConfirmButton;
    private AlertDialog alertDialog;
    private DatabaseReference courseRef, enrollmentRef;
    private FirebaseAuth mAuth;
    private String approveStatus = "pending";
    private String courseId, teacherId, teacherPhone, courseFee;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_payment);

        AlertDialog.Builder builder = new AlertDialog.Builder(context, this);
        LayoutInflater inflater = getLayoutInflater();
        builder.setView(inflater.inflate(R.layout.loading_dialog_box, root = null));
        builder.setCancelable(false);
        alertDialog = builder.create();

        courseRef = FirebaseDatabase.getInstance().getReference("course");
        enrollmentRef = FirebaseDatabase.getInstance().getReference("enrollment");
        mAuth = FirebaseAuth.getInstance();

        paymentOperatorTv = findViewById(R.id.payment_operator_id);
    }
}

```

Fig 3.5.1.3 Payment Implementation

```

public class SignInActivity extends AppCompatActivity {

    private EditText signInEmail, signInPassword;
    private Button signInButton;
    private TextView navigateToSignUp, forgetPasswordTv;

    private FirebaseAuth mAuth;

    private AlertDialog alertDialog;
    private NetworkChangeListener networkChangeListener = new NetworkChangeListener();
    private DatabaseReference databaseReference;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_sign_in);

        signInEmail = findViewById(R.id.sign_in_email_id);
        signInPassword = findViewById(R.id.sign_in_password_id);
        signInButton = findViewById(R.id.sign_in_sign_in_button_id);
        navigateToSignUp = findViewById(R.id.sign_in_navigate_to_sign_up_id);
        forgetPasswordTv = findViewById(R.id.sign_in_forgot_password_id);

        mAuth = FirebaseAuth.getInstance();

        AlertDialog.Builder builder = new AlertDialog.Builder(context, this);
        LayoutInflater inflater = getLayoutInflater();
        builder.setView(inflater.inflate(R.layout.loading_dialog_box, root = null));
        builder.setCancelable(false);
        alertDialog = builder.create();
    }
}

```

Fig 3.5.1.4 Request course Implementation

CHAPTER 4

Design Specification

4.1 Front-end Design

Tutor app is online mobile learning app. This functionality is always preferable and handy and desirable when I am building this app developed. This app front-end design features list are –

- Instructional overlay
- Registration /Login
- User profile /Dashboard
- Search / Filter
- Database
- Push notification
- Offline /Online mode
- Paid course
- Social media tools
- Core content functionality (Course page)
- Communication and interaction module (video conferencing)
- Additional features (Demo video)

4.2 Backend design

Now we can explain about part by part backend design –

The logic data model is what we use for the back-end design. Although it goes into great detail regarding the data, it could care less about how it will be used in the database. A logical data model has the following features:

- includes everything that exists, including the interactions between things.
- Each entity's virtues are listed out in detail.
- there is a list of foreign keys.
- At this point, people begin to understand.

First, we'll demonstrate our Android app for creating a registration form. Second, we will demonstrate how to create a login form. With registration, we demonstrate how we can validate data submitted by the user. Validation may check to see whether an email address is legitimate and if the user supplied all of the essential information, for example, we check if Edit Text for the first and last name is empty. Phone number, email address, educational qualification, gender Password should be strong. We have planned a method to warn the user that the data is invalid. We demonstrate how to verify whether a password is lengthy enough on login activity. A login and registration form are required:

- ✓ Clean user interface.
- ✓ Create profile.
- ✓ Validation.
- ✓ Notifications for the user that the data is incorrect.
- ✓ Instructions for the user

4.3 Interaction Design

The usage of an E-learning platform and applications. We are now looking to create an interactive E-learning Android mobile application for students.

This software will assist students in learning by utilizing their smartphones. It will not only help kids learn faster, but it will also make learning easier for them. Students will utilize this program to learn from several platforms more easily.

Students and tutor users will be able to accomplish tasks such as enrolling with the program and creating an account in the firebase database by inputting information such as Name, Gender, Mobile Number, Email, and Password. Students may choose and enroll in the course d. A tutor can create a course by adding students to his courses.

Functional Prerequisites:

The following functionalities will be included in the application.

- ✓ Student Registration
- ✓ Teachers Registration
- ✓ Login
- ✓ Create self-profile
- ✓ Add Course
- ✓ Course Selection
- ✓ Approve Course
- ✓ Tutor Details section
- ✓ Online / Offline platform
- ✓ Demo video section
- ✓ Communication and interaction module
- ✓ Notes
- ✓ Log out

Tools:

Design: XML/Material Design,

Languages: Java

Android Studio is the developer environment. We may use the Firebase database. This project necessitates the construction of class diagrams, activity diagrams, data flow diagrams, sequence diagrams, use case diagrams, use case descriptions, scope, hard requirements, non-functional requirements, testing test cases, SRS papers, design guides, and other diagrams.

4.4 Flowchart Diagram

An example of a flowchart is a graph that depicts a process or shows preparation. Additionally, a flowchart may be described diagrammatically as a technique to comprehending an assignment that goes step by step. The flowchart displays on the steps as a variety of boxes that are connected using bolts to organize themselves.

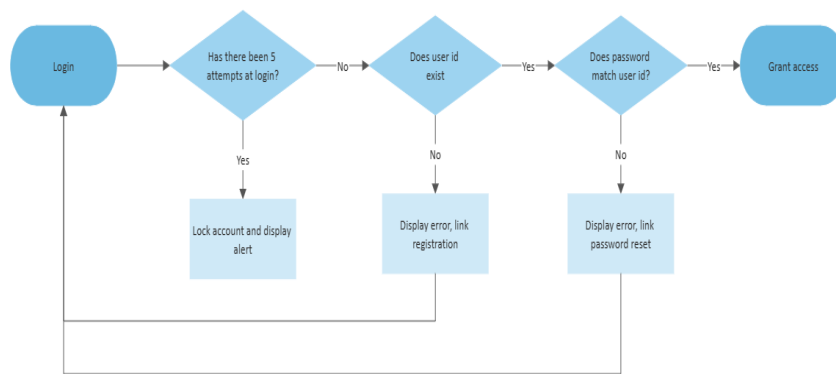


Fig 4.4.1 login system flowchart Diagram

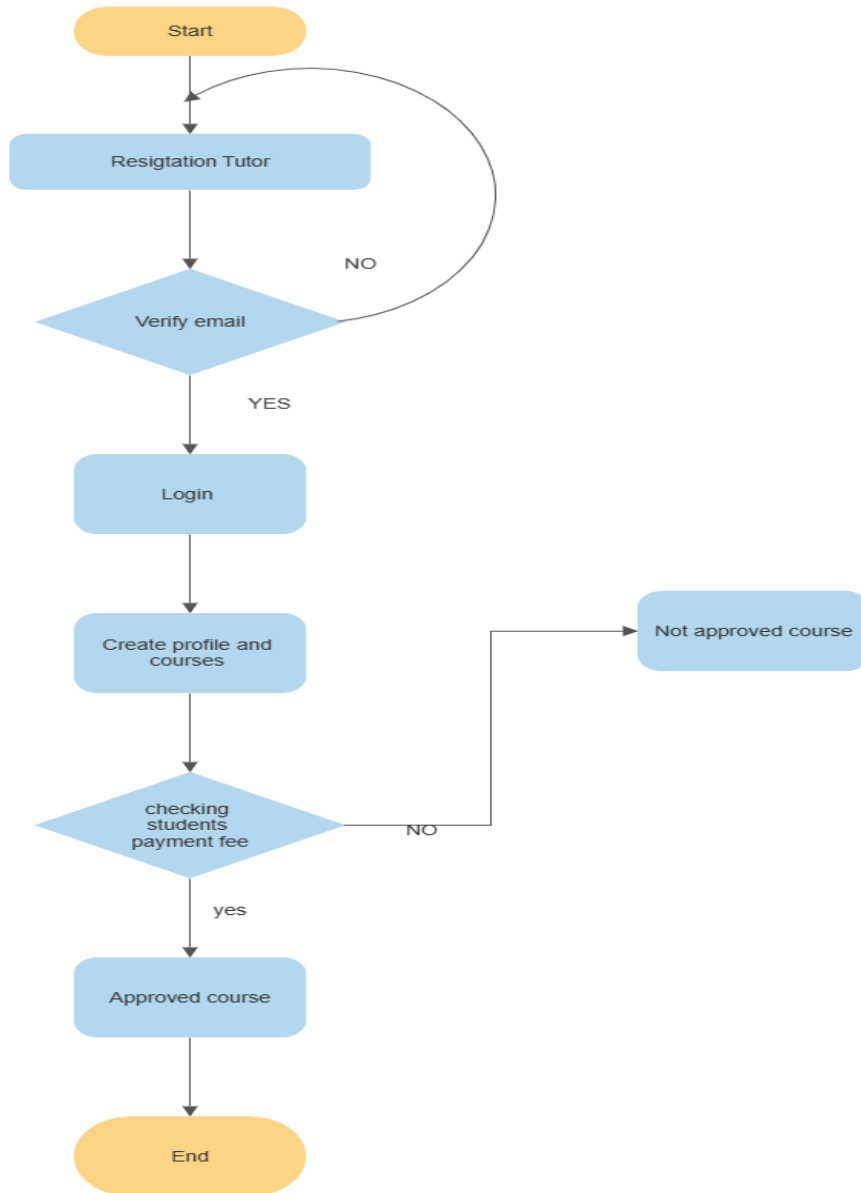


Fig: 4.4.2 Tutor management system flowchart Diagram

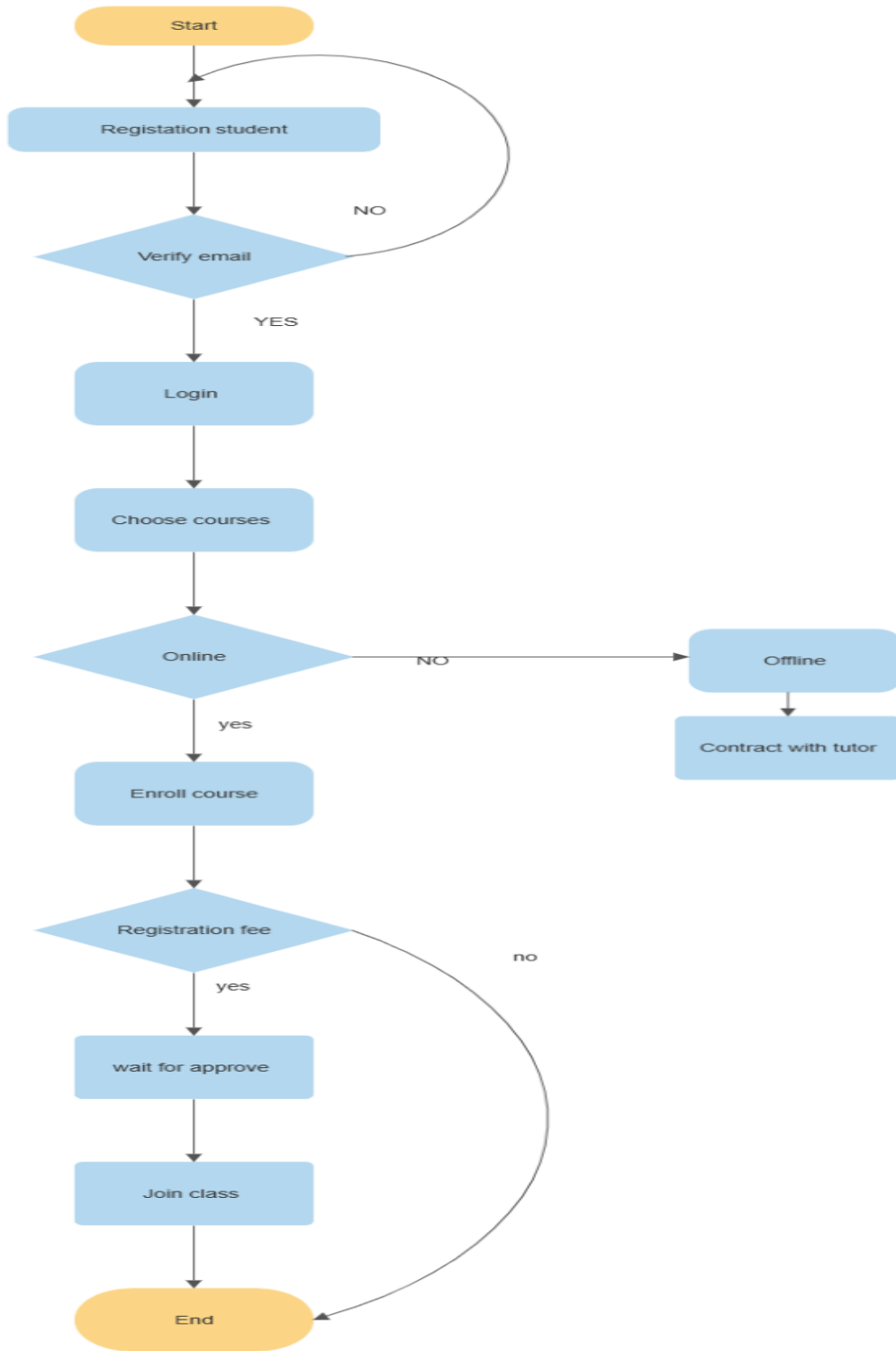


Fig: 4.4.3 Students management system flow Diagram

CHAPTER 5

Implementation and Testing

5.1 Implementation

We've included some project samples to demonstrate implementation and testing. Database configuration, front-end design configuration, interaction design configuration, testing configuration, test results configuration, and report configuration will all be covered. Finally, an overview of the findings is provided, along with their future implications.

Welcome to Tutor time

In this page you can find options to choose to register as Teacher or Student. If you already have an account then there is an option to go to login page. The following figure 5.1.1 Shows the welcome page of our app. Users can go to login or registration page from this page.

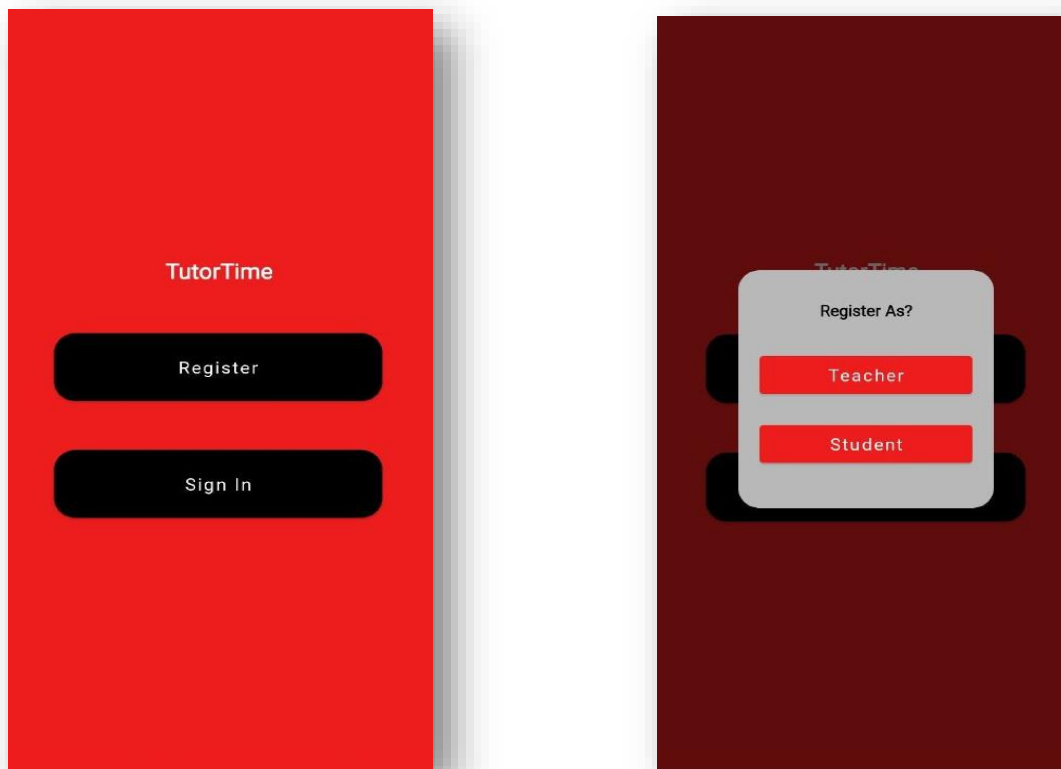


Fig 5.1.1: Home page

Teacher Registration Page

Teacher Registration Page The following figure 5.1.2 shows that you can register as teacher by submitting the information below or if you already have an account then you can go to login page from here by pressing the login button at the end of the page.

The figure displays two sequential screens of a teacher registration form. The first screen, titled "Registration", contains three text input fields: "Full Name", "Email", and "Phone with bkaash". Below these is a "Degree (e.g: B.Sc, M.Sc)" section with five radio button options: B.Sc, M.Sc, HSC, PHD, and MBBS. The second screen continues the form with a dropdown menu for "Education Area(e.g: Physics)", a "Job Institution" text input, "Gender" selection (Male/Female), a "Profile Picture" field with an add button, "Password", and "Confirm Password" text inputs. At the bottom of the second screen is a prominent "Register" button and a "Sign In" link for existing users.

Fig 5.1.2: Teacher Registration Page

Student Registration Page

The following figure 5.1.3 shows that you can register as student by submitting the information below or if you already have an account then you can go to login page from here by pressing the login button at the end of the page.

The figure displays two sequential screenshots of a student registration page. The left screenshot, titled "Registration", contains the following fields and options: "Full Name" (text input), "Email" (text input), "Phone" (text input), "Gender" (radio buttons for "Male" and "Female"), "Profile Picture" (text input with "Add here (click the add button)" and a plus icon), and "Password" (text input). The right screenshot continues the form with "Password" (text input), "Confirm Password" (text input), "Class" (radio buttons for "10", "11", and "12"), and "Age" (radio buttons for "10", "11", and "12"). At the bottom of the right screenshot is a prominent "Register" button and a link that says "Already have an account? Sign In".

Fig 5.1.3: Student Registration Page

Login Page

The following figure 5.1.4 shows that you can login as teacher/student by entering the email address and password you have registered with. You can also login as Admin from this page.

Sign In

Email

atia15-2351@diu.edu.bd

Password

.....

Sign in

Don't have an account ? [Sign Up](#)

Fig 5.1.4: Login Page

Teacher and student Home Page

You can see in the following figure 5.1.5, you can view. You can also go to option at the upper right corner and go to profile, Courses and Log Out.

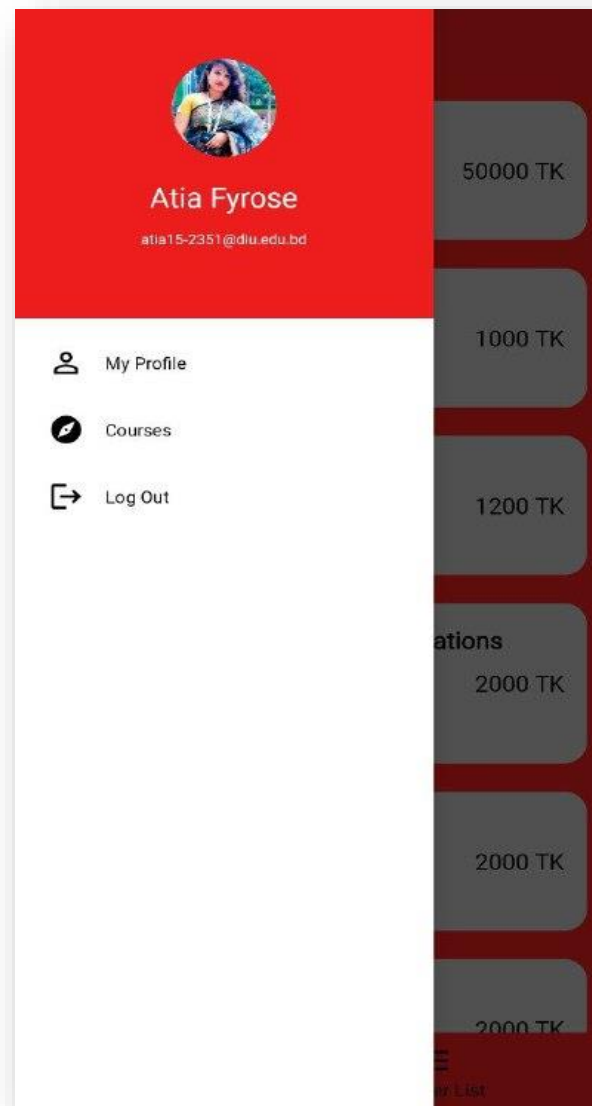


Fig 5.1.5: Teacher Home Page

Add course & course details page

You can see in the following figure 5.1.6, you can view. You can also go to option at the upper right corner and go add course & view course Teacher can add course and remove course information by using these options respectively.

Ordinary students can request their teachers to enrol them in classes. Your terms include fees to be paid and all logical and factual information about the student-

- Log in to Tutor Time using the Android app.
- Open the page for the tutorial you want to try.
- Click Register.
- Click Start Free Demo Video.
- Then choose courses
- Payment into pay Bkash/Nagad
- Then request tutor for approvable
- Tutor check all details all are right to approve the course

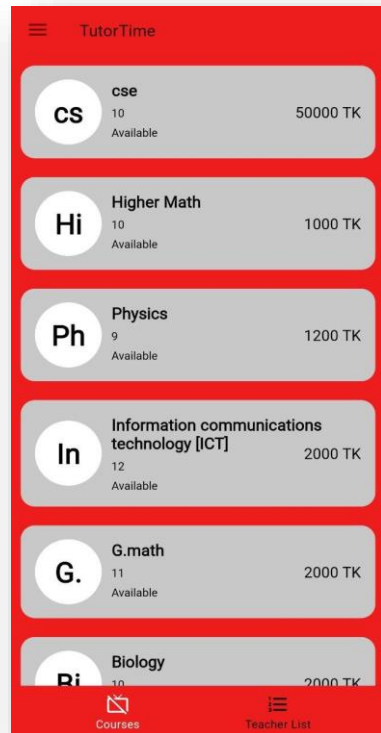
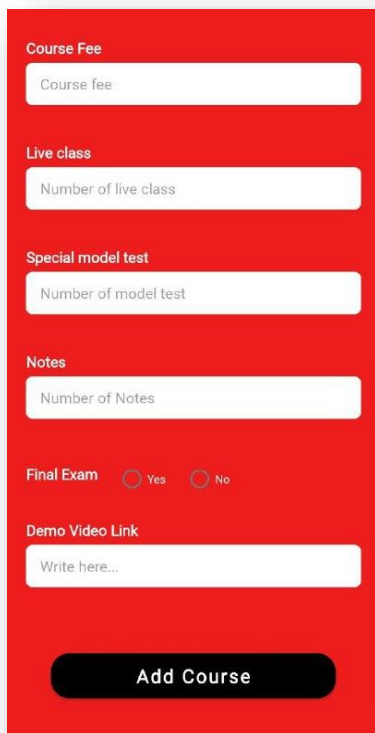
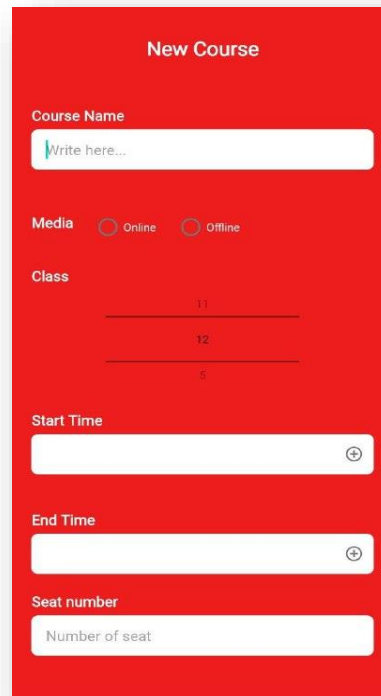
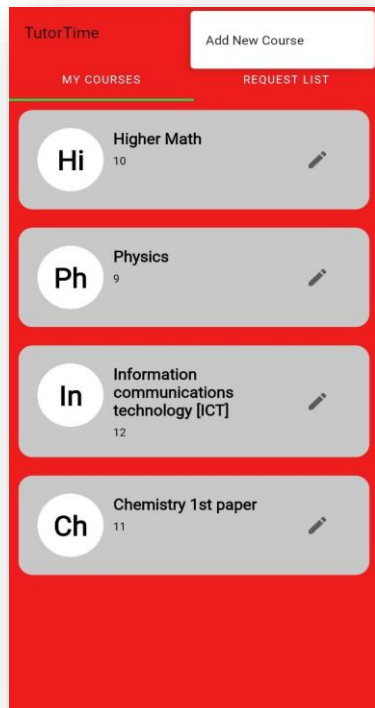


Fig 5.1.6: Add course and course details page

Enroll course & Approve course details page

You can see in the following figure 5.1.7, you can view. Student can also go to option at the select the course and under button enroll course and wait to approve add course. Teacher can also go to option at the upper left corner approve the course.

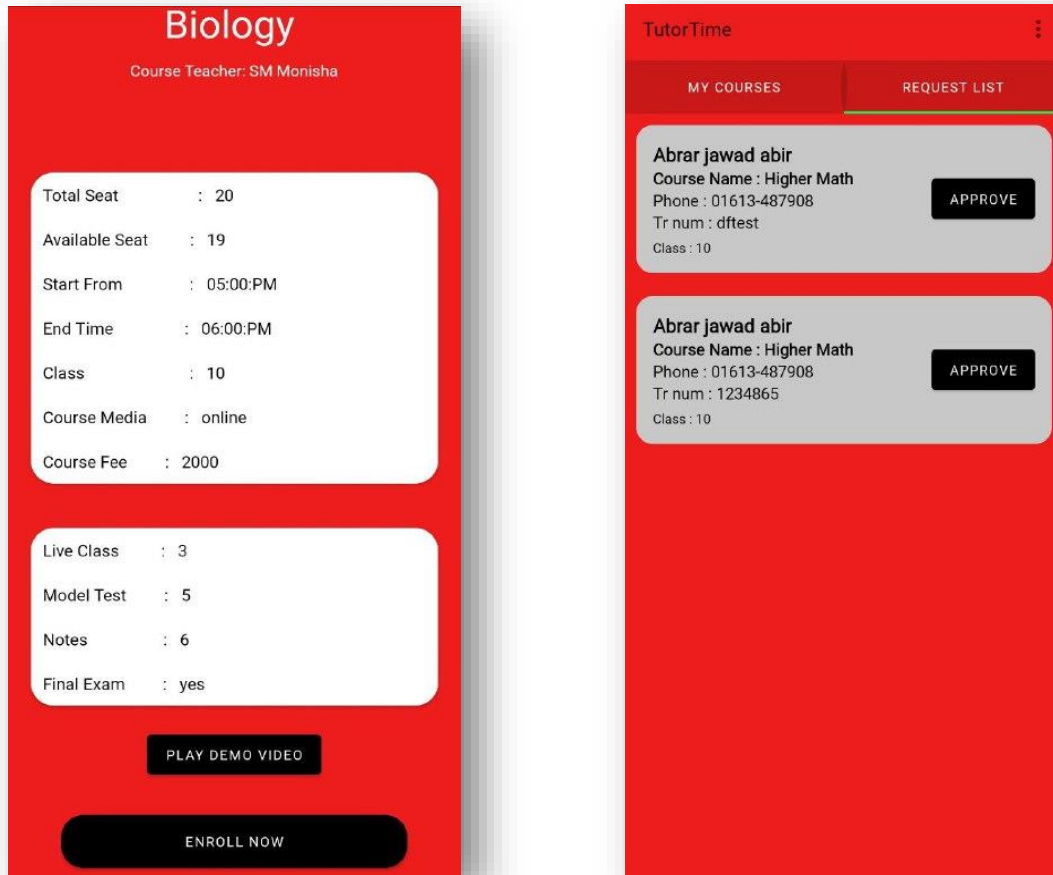


Fig 5.1.7: Enroll course & Approve course details page

5.2 Database Implementation

The following figures 5.2.1, 5.2.2, 5.2.3, and 5.2.4 demonstrate that this is the admin panel in Firebase. Admins can view and add/remove courses and users from this page. The best part is that it is a role-based system, which means that different roles can be assigned to different users. Tutor time connection to Firebase for authentication, user addition/removal, real-time database, course addition/removal, enrollment, and so on.

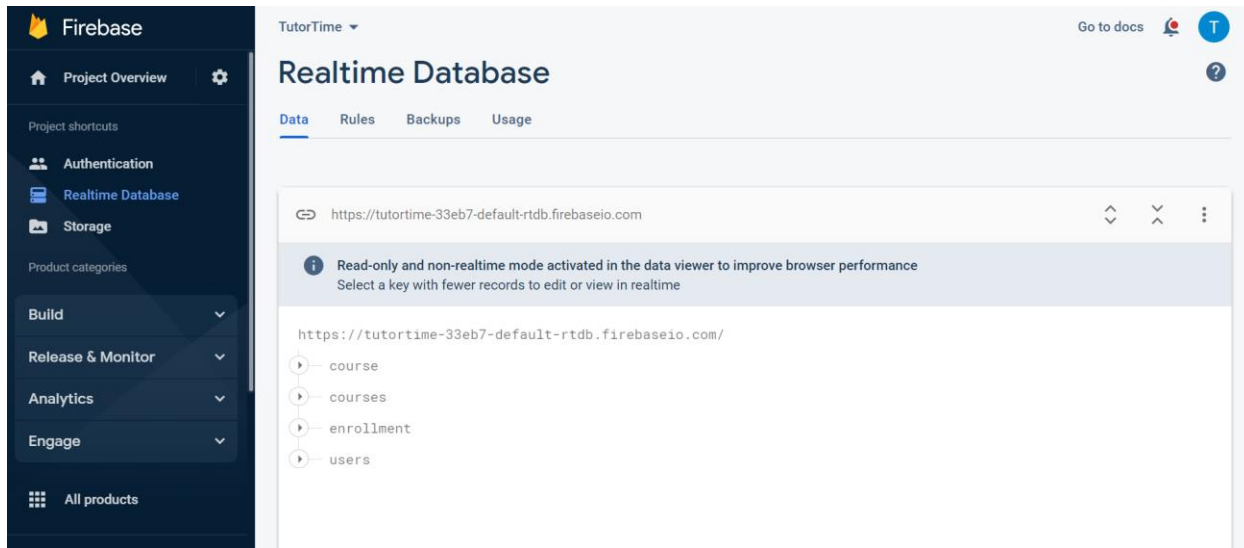


Fig 5.2.1: Real-time Database

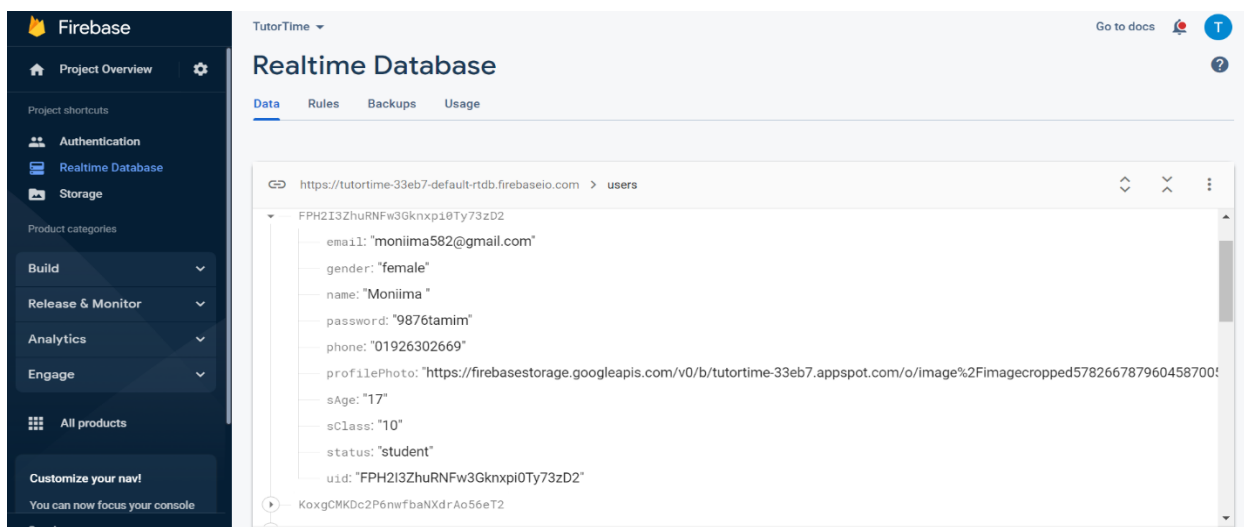


Fig 5.2.2: User details database

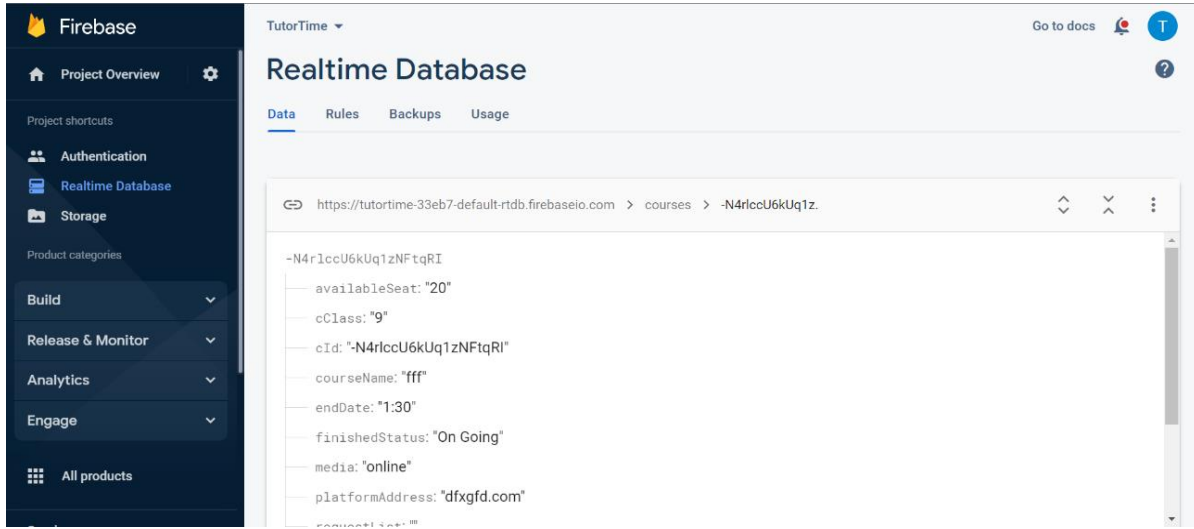


Fig 5.2.3: Course details database

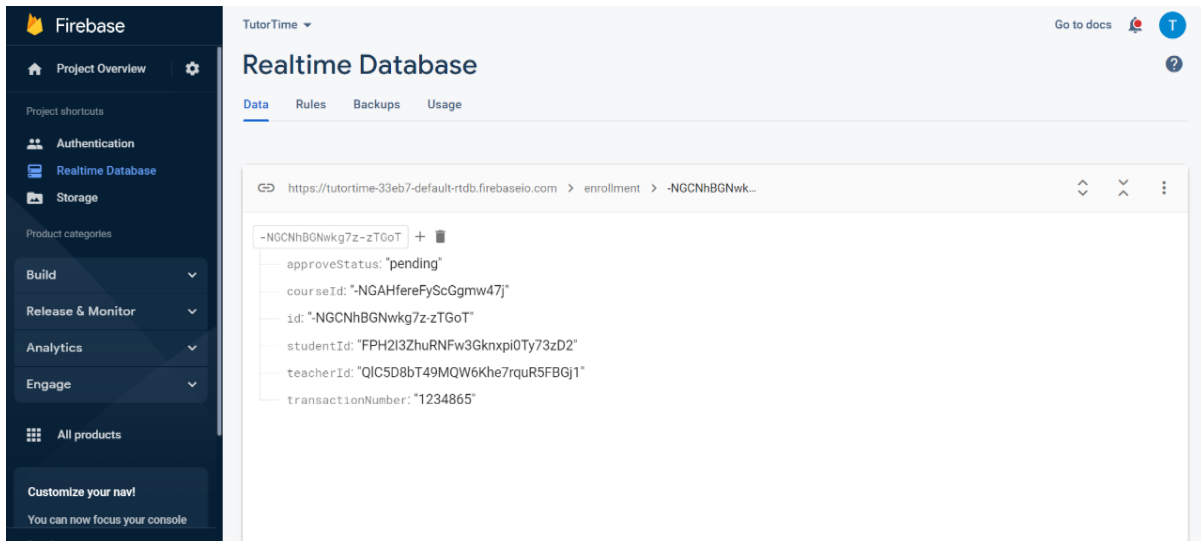


Fig 5.2.4: Enrollment database

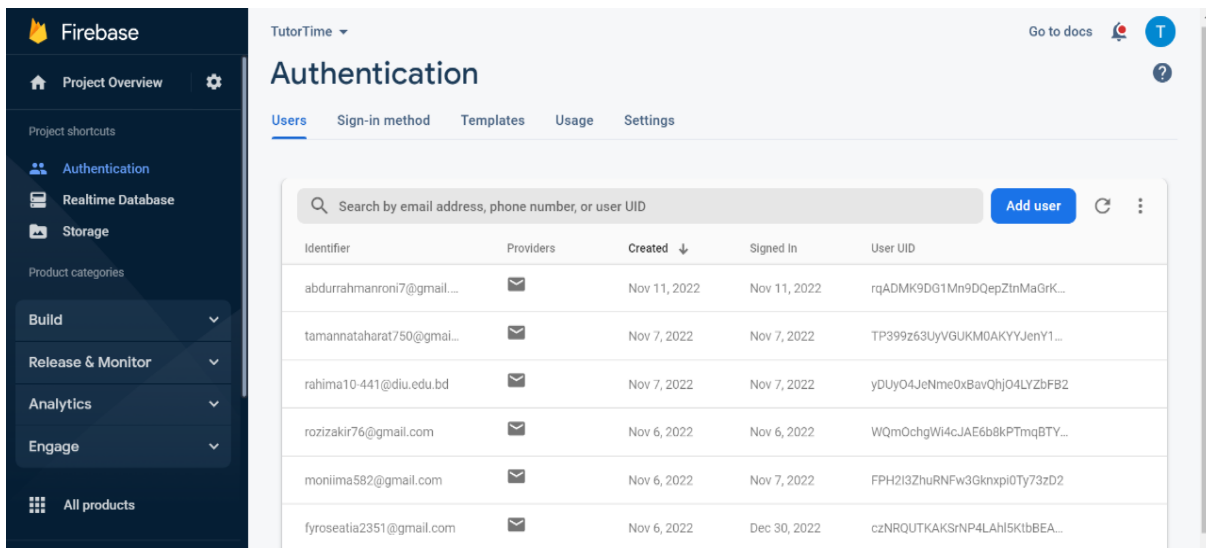


Fig 5.2.3: Authentication

5.3 Testing implementation

1st this is the initial release, an authorized strategy, including approved tests, testing kinds, and so on, should be in place. If there is a distinct time need for researching functionality or business rules, or if the testing will be difficult, etc., this should be included in the plan. We are face many problems. It's a large undertaking. It was difficult for us to manage, but we are ready to install it. It is not an easy project to deal with so many pupils and instructors.

Face many challenges-

- ✓ When I submit certain images to app, the app crashes and closes without explanation.
- ✓ When I enter the erroneous email address into this app, it shuts without explanation.
- ✓ The app must be malware-free, otherwise, it may cause software or hardware to disintegrate, necessitating more effort and money to address.
- ✓ Getting notification is the biggest challenges of our apps.
- ✓ To meet the needs of the users, mobile applications should be fast.

5.4 Test results and report

Our application is android base. Android application testing presents a number of issues. There are several aspects to consider before the Android testing process can be fully executed, but once completed, this becomes a really exciting activity.

These are the outcomes:

- ✓ Simple to use.
- ✓ User friendly.
- ✓ The security level is adequate.
- ✓ Customer satisfaction is really high.

CHAPTER 6

Impact on society, environment and Sustainability

6.1 Impact on society

Students can quickly find the top tutors and courses with the help of Tutor Time. Time spent tutoring students is beneficial. Online learning strategies are now used from an early age, to the great benefit of students. The integration of statistics programs into the curriculum is assisting college students in raising their grades. Many students who have taken part in online learning have attested to an increase in interest. Students' love of learning and the advancement of society both benefit greatly from online education.

- Furthermore, several national preferences exist for online learning, notably in terms of advertising.
- Bangladesh is currently expanding and gaining population as a country.
- The services are created with the consumer in mind.
- Contracts are signed far too soon.

6.2 Impact on Environment

Students who have never had the freedom or flexibility to choose their own learning path, or who come from top-down and prescriptive educational institutions, may find online learning tough. College online programs may be quite beneficial to a busy student. The courses are flexible in terms of time management since students do not have to travel and sit in a class at a set time throughout the week. Online courses are sometimes less costly than regular classes, and they may be done at the student's own pace. Middle and high school students may benefit from the ease of online education as well. Including online courses in addition to their regular academic load may help struggling or at-risk students make up for lost or failing absenteeism or being nomadic resulting in missed credits.

6.3 Ethical Aspects

Using this software, any student may learn any subject from anywhere and enroll in courses at the lowest possible cost. A teacher may share their expertise with pupils while earning extra money. Students can select their own teacher and learn from them. If a student wishes to speak with a teacher, they may do so during the counseling hour.

6.4 Sustainability plan

- It communicates the students what they may anticipate to do at certain points throughout the course.
- There are numerous techniques to creating learning outcomes.
- All premium subscriptions include limitless courses and coaching services, as well as unlimited students.
- Any courses finished in a short period of time and for the lowest tuition charge.
- Bring in the writers, team members, and contributors and tailor their rights and regulations.
- Students earning course certificates.

CHAPTER 7

Conclusion and future plan

7.1 Discussion and conclusion

Bangladesh has not been an exception to the long-running worldwide trend of e-commerce in the business sector. The pandemic's protracted suspension of physical education has considerably helped to the trend's current rise in popularity across the country. The trend looks to be continuing; this much is certain. Internet education is becoming more popular, and people are utilizing it in the same way that they use other online services. Users will be able to obtain services with safety and convenience by using this software. The app's clear and quick user interface will benefit both users. It offers a simple UI that makes it simple to reach a large audience. We finished it utilizing our experiences as well as assistance from Google and the internet.

All of the criteria obtained during the development process were satisfied or surpassed by the application. I've worked with a variety of technologies and gained a wealth of expertise along the way. Working on this project increased my confidence in web development.

7.2 Scope for further development

This program will make life easier for ordinary people and students. Bangladeshis have access to tutoring time. It might be enhanced in a number of ways.

- ✓ Wish to develop for commercial use.
- ✓ Create an ISO version.
- ✓ Create a Bangla version of the software for crippled children.
- ✓ Move to web-based apps.
- ✓ Adding more choices and smoothing up the UI.

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Tutor Time

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