Tuition Management App

using Flutter

Problem Statement

Develop a Flutter application for Android based on your chosen concept, ensuring it incorporates the following elements:

1. Widgets
2. Stateless and stateful widgets
3. Styling and theming
4. Layouts and views
5. Navigation
6. Gestures
7. API calls
8. Database integration
9. Firebase integration

Localization

App Features

01.

State Management:

The project uses StatefulWidget and setState for local state management. While not the most advanced state management solution, it's appropriate for this scale of application.

02.

Firebase Integration:

The project integrates Firebase, specifically Firebase Core and Cloud Firestore, which is an advanced feature for real-time database operations

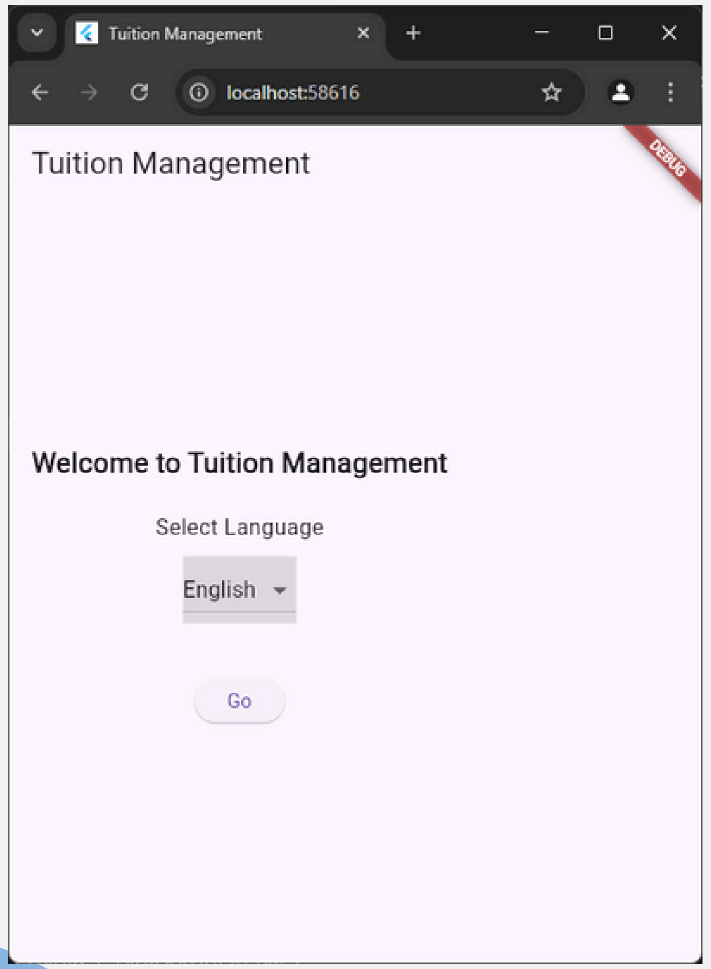
03.

Advanced Flutter features:

App is developed with custom internationalization, Custom widgets and conditional rendering create dynamic interfaces, while optimized ListView and Material Design ensure performance and consistency across platforms.

Navigation flow

01


Tuition Management

localhost:58616

Tuition Management

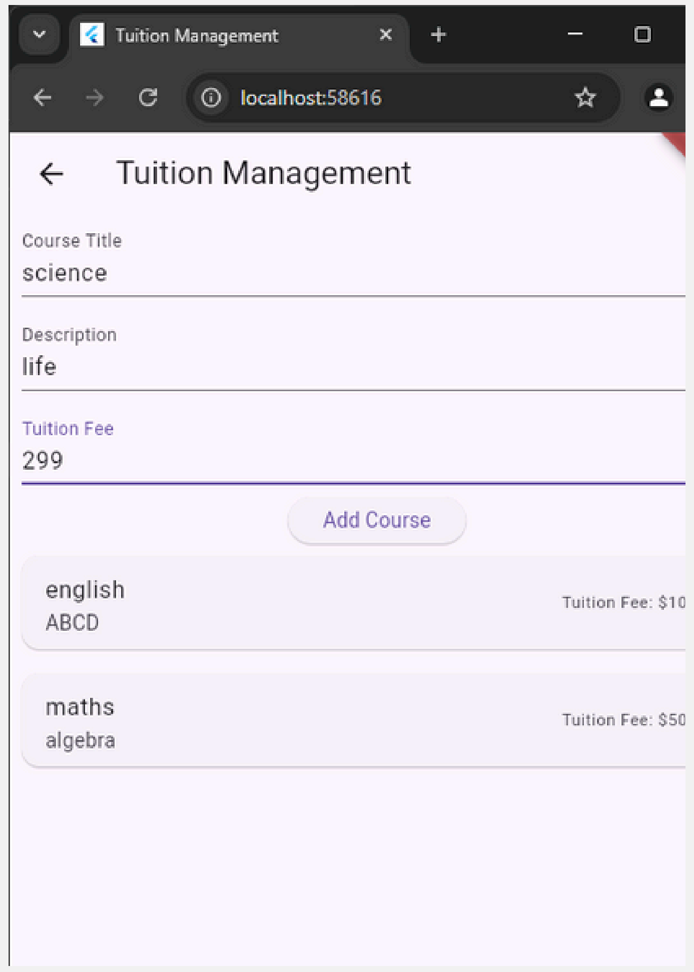
Welcome to Tuition Management

Select Language

English

Go

02


Tuition Management

localhost:58616

Tuition Management

Course Title
science

Description
life

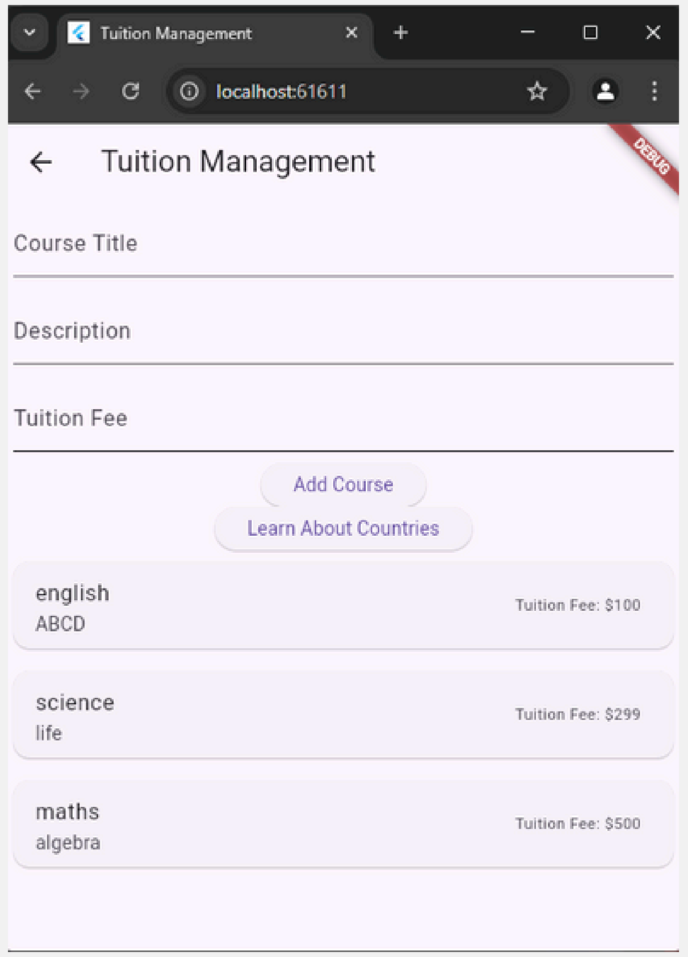
Tuition Fee
299

Add Course

english
ABCD
Tuition Fee: $10

maths
algebra
Tuition Fee: $50

03


Tuition Management

localhost:61611

Tuition Management

Course Title

Description

Tuition Fee

Add Course

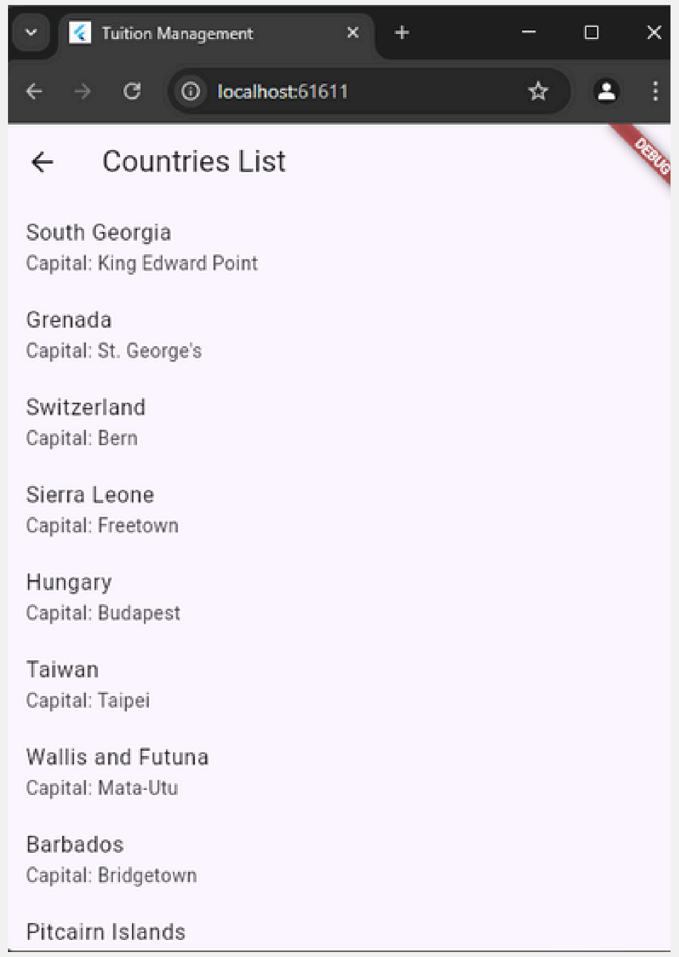
Learn About Countries

english
ABCD
Tuition Fee: $100

science
life
Tuition Fee: $299

maths
algebra
Tuition Fee: $500

04


Tuition Management

localhost:61611

Countries List

South Georgia
Capital: King Edward Point

Grenada
Capital: St. George's

Switzerland
Capital: Bern

Sierra Leone
Capital: Freetown

Hungary
Capital: Budapest

Taiwan
Capital: Taipei

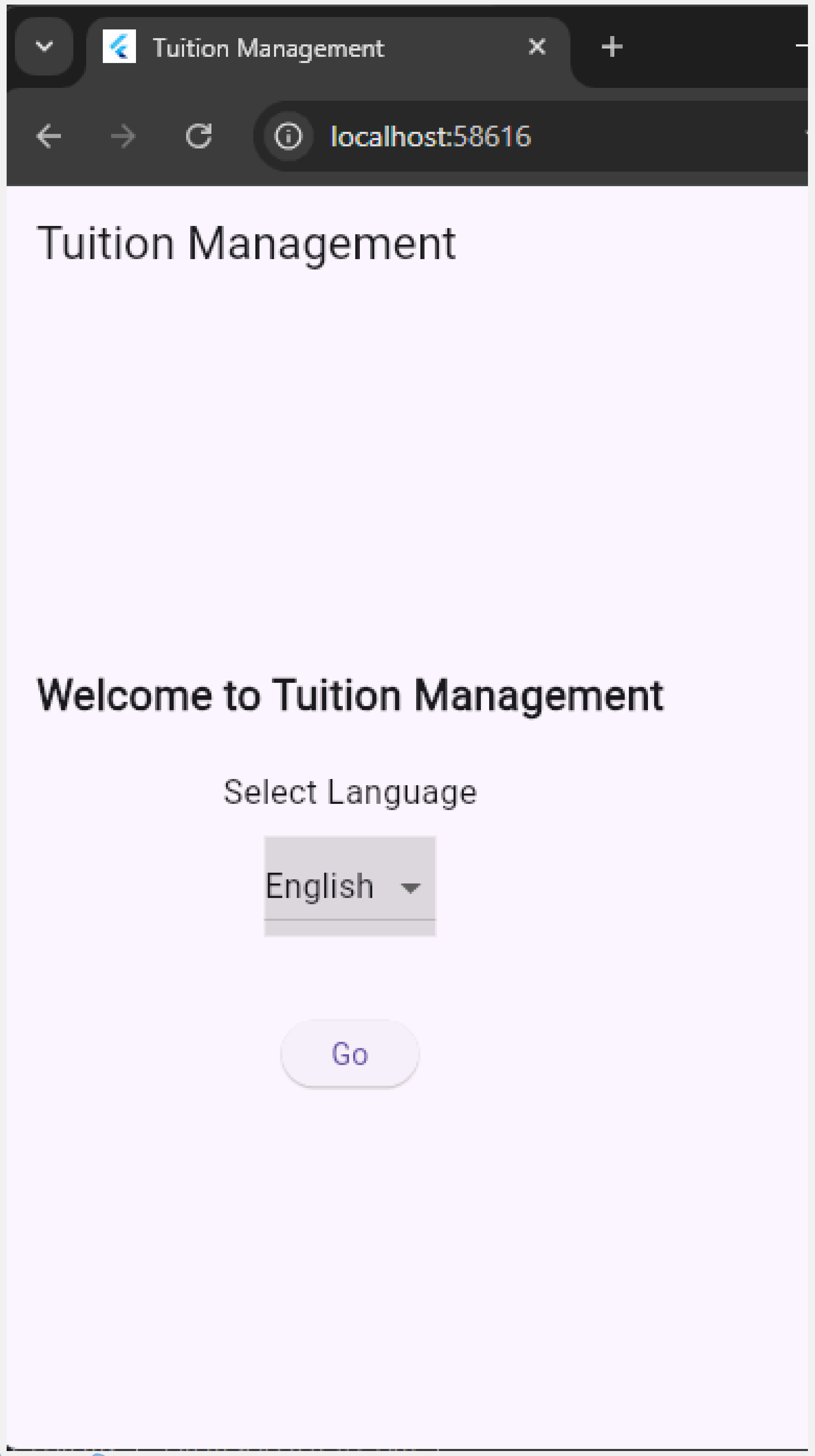
Wallis and Futuna
Capital: Mata-Utu

Barbados
Capital: Bridgetown

Pitcairn Islands

Landing page

this is the welcome page with title and option to set languages.

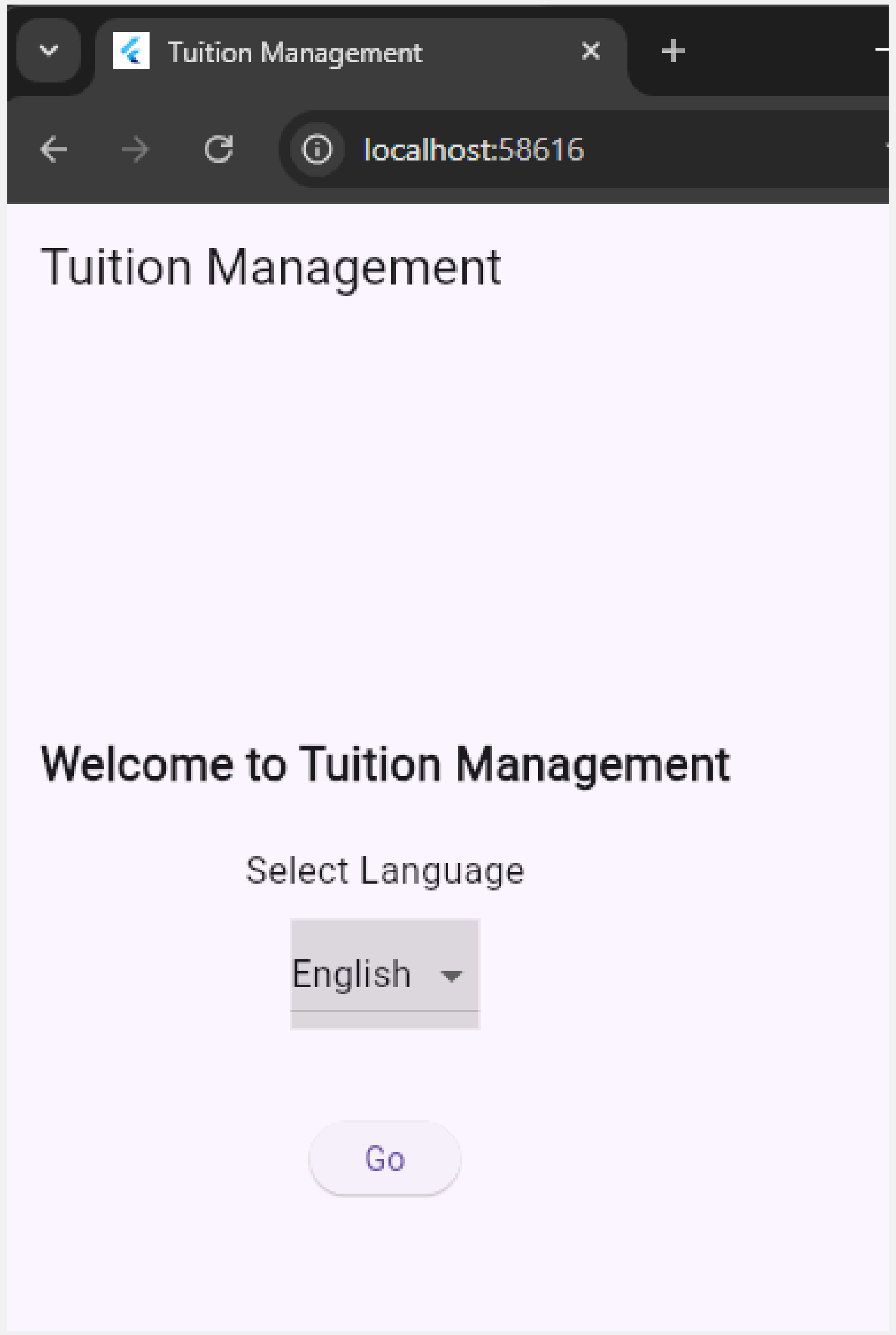


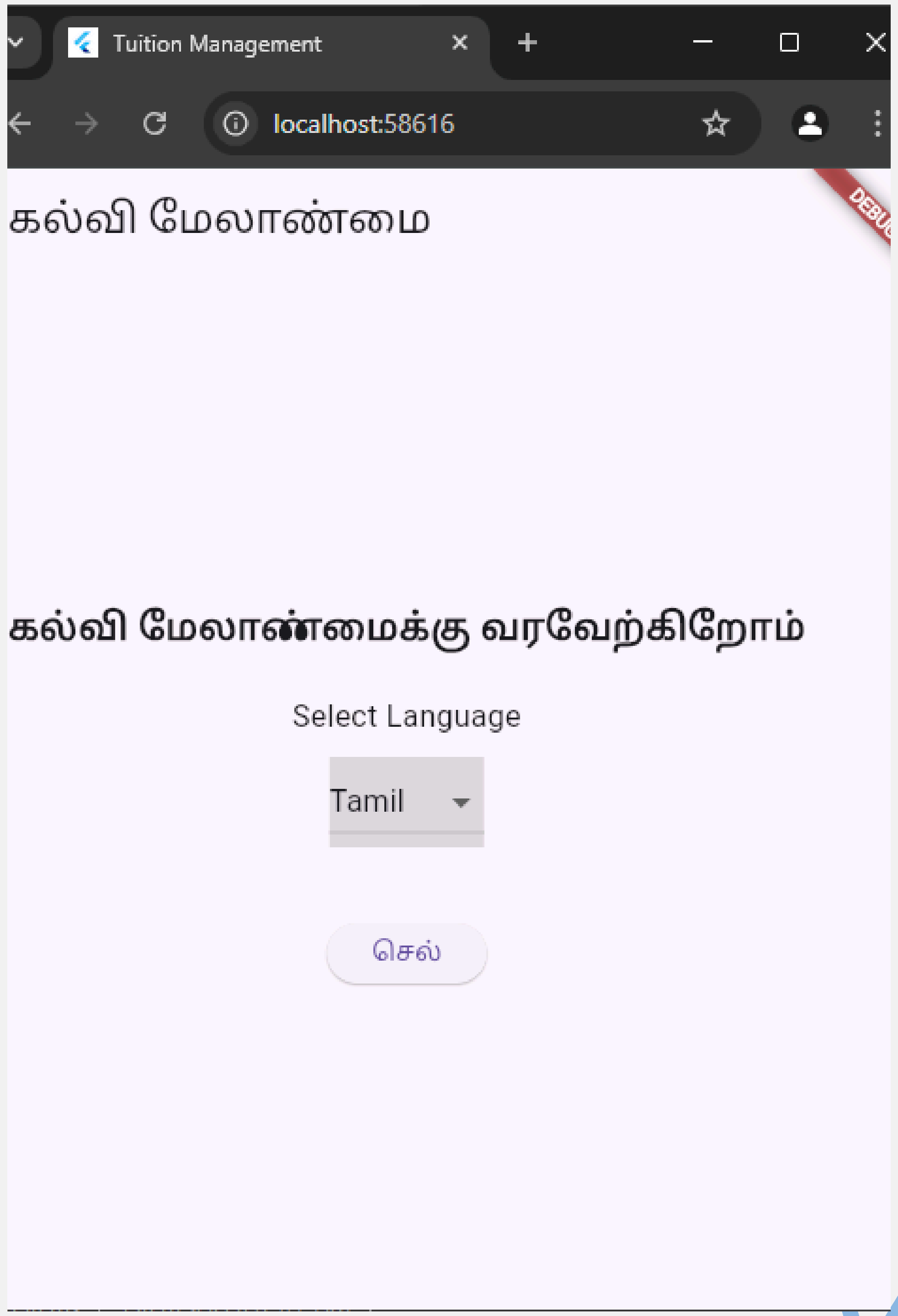
Tuition Management

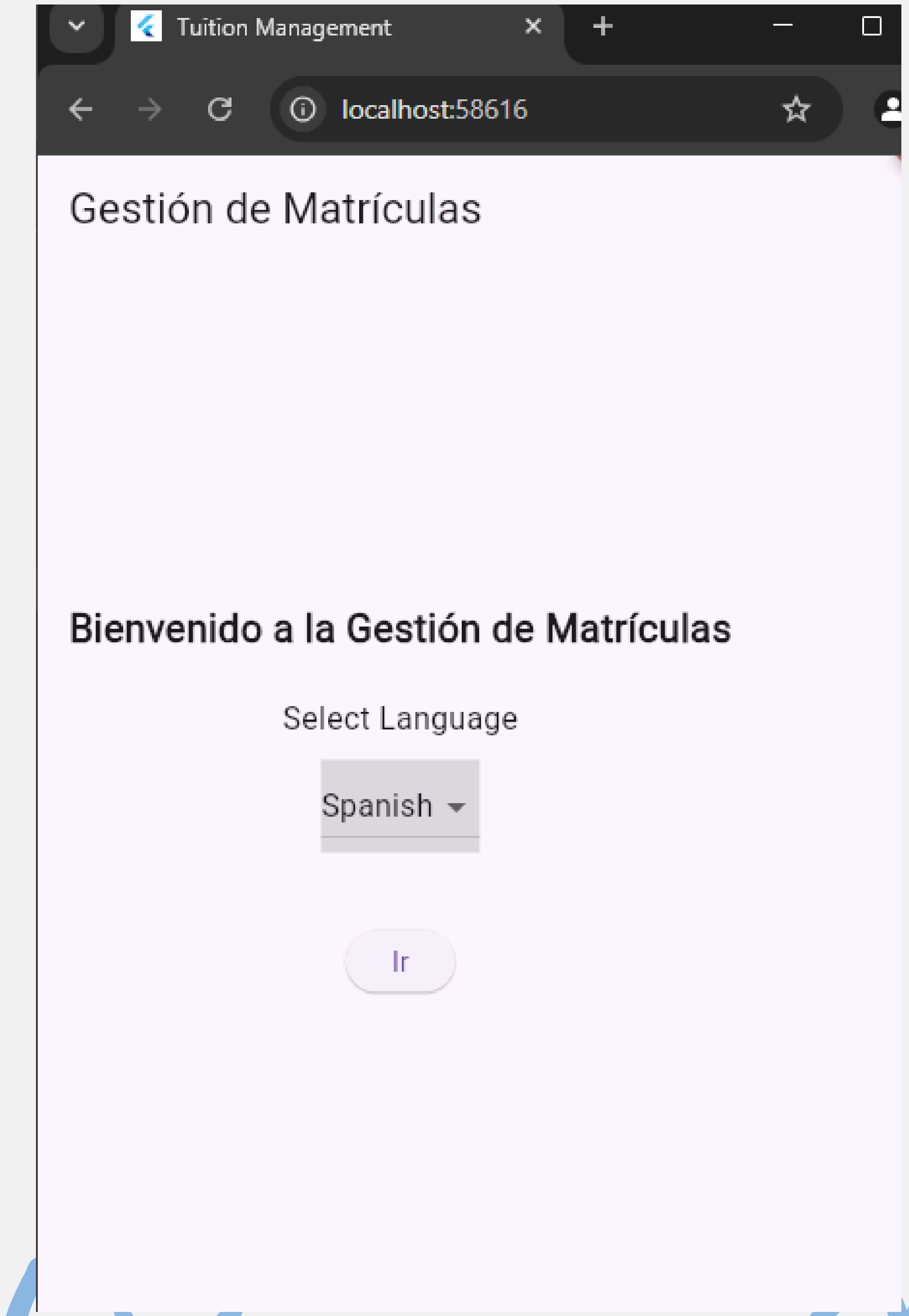
Welcome to Tuition Management

Select Language

Localization

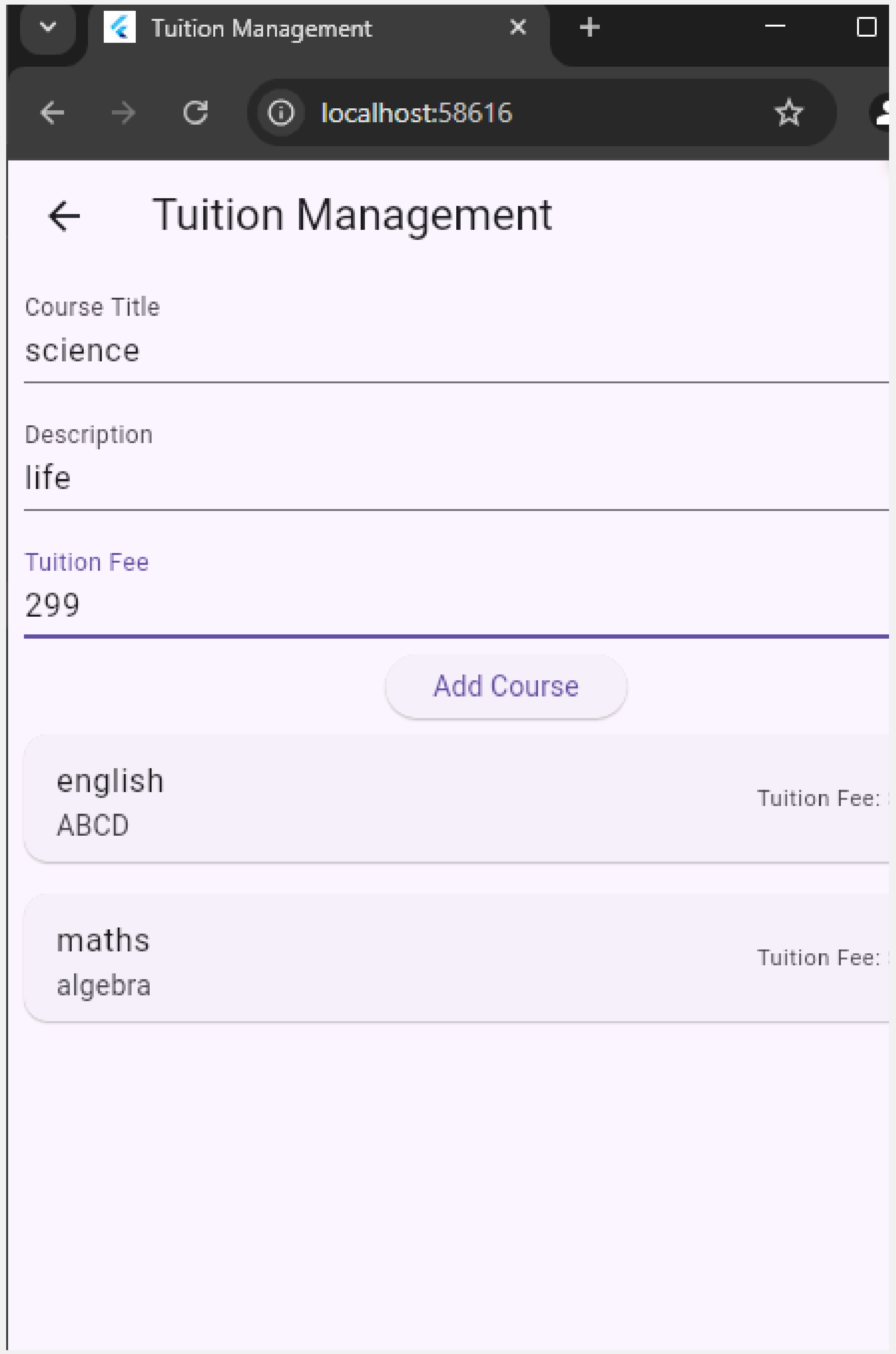

Tuition Management
localhost:58616
Tuition Management
Welcome to Tuition Management
Select Language
English
Go


Tuition Management
localhost:58616
கல்வி மேலாண்மை
கல்வி மேலாண்மைக்கு வரவேற்கிறோம்
Select Language
Tamil
செல்


Tuition Management
localhost:58616
Gestión de Matrículas
Bienvenido a la Gestión de Matrículas
Select Language
Spanish
Ir

course page

The course page displays all available courses and also enables us to create new ones. To accomplish this, I utilized the Firestore database for storing and retrieving data.


Tuition Management

localhost:58616

Tuition Management

Course Title
science

Description
life

Tuition Fee
299

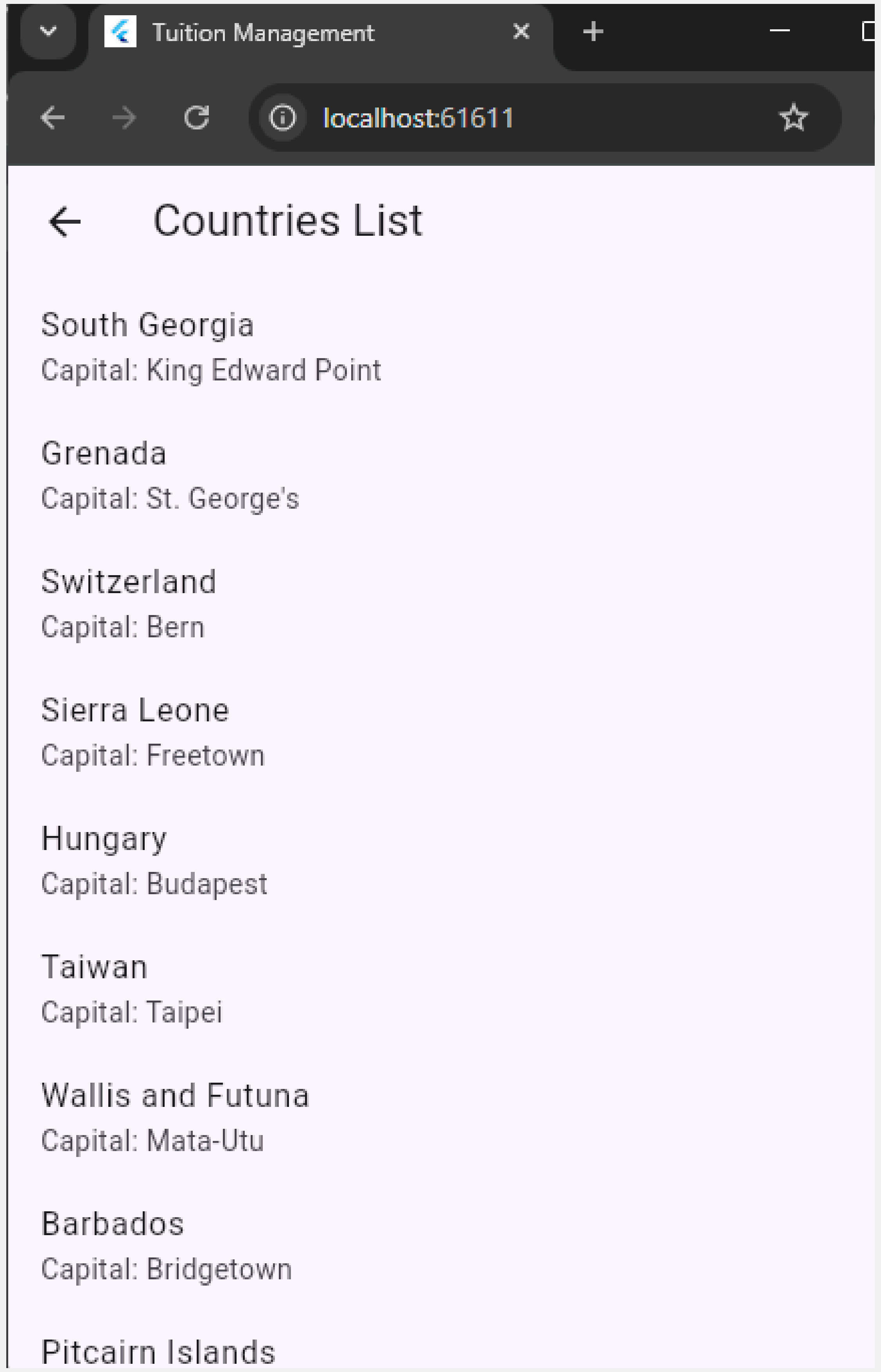
Add Course

english
ABCD
Tuition Fee:

maths
algebra
Tuition Fee:

Learning page

Students have the opportunity to explore various countries and their capital cities. To facilitate this, I have utilized the Rest Countries API to retrieve data and present it in a list format.



Countries List

South Georgia
Capital: King Edward Point

Grenada
Capital: St. George's

Switzerland
Capital: Bern

Sierra Leone
Capital: Freetown

Hungary
Capital: Budapest

Taiwan
Capital: Taipei

Wallis and Futuna
Capital: Mata-Utu

Barbados
Capital: Bridgetown

Pitcairn Islands

Conclusion

This Flutter project demonstrates a comprehensive use of advanced features and best practices in mobile app development. Key highlights include:

1. Firebase integration for real-time database operations.
2. Asynchronous programming with robust error handling.
3. Internationalization for multi-language support.
4. Efficient state management and form handling.
5. Custom widget composition and conditional rendering.
6. Material Design implementation for a polished UI.
7. Efficient list rendering for scalable performance.
8. Navigation between multiple screens.

These features collectively showcase a well-structured, scalable, and user-friendly application that follows modern Flutter development standards.

Thank you very much!