LEARN PROGRAMMING

A PROJECT SUBMITTED BY

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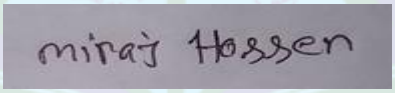
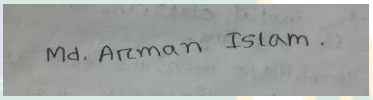
Declaration

This is to certify that this project is my original work. No part of this work has been submitted elsewhere partially or fully for the award of any other degree or diploma. Any material reproduced in this project has been properly acknowledged.

Student's Name & Signature | Student's Name & Signature | Student's Name & Signature

Md Ishrafil Hossain | Miraj Hossen | Md.Arman Islam

Approval

The Project titled “Find Me” has been submitted to the following respected members for 1.50 credit subject Software Development Sessional by the following student and has been accepted as satisfactory.

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Acknowledgement

First and foremost, I would like to thank God Almighty for giving me the strength to finish this work.

The satisfaction that accompanies the successful completion of this Project would be incomplete without the mention of people whose ceaseless cooperation made it possible, whose constant guidance and encouragement crown all efforts with success.

I am grateful to my honorable project Supervisor **Md. Rifat Hossain**, Lecturer, Department of Computer Science and Engineering, Bangladesh Army International University of Science & Technology (BAIUST), for the guidance, inspiration and constructive suggestions which were helpful in the preparation of this project.

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I would also like to extend my gratitude to all of my teachers for their valuable guidance in every step of mine during the four years of learning stage. Finally I would like to thank my friends, senior, juniors and the staffs of the department for their valuable suggestion and assistance that has helped in successful completion of the project.

Table of Contents

Abstract

Learn Programming is a platform where students can learn programming such as HTML5.CSS3, C++ and JAVA. It's makes for simple way to learn. Students must register and login first. Student can learn anytime by using given user id and password. Addition and update of any kind of changes will be done by admin.

Chapter-1

1.1 Introduction:

The impact of computers and internet, on our lives today is probably much more than we really know. Getting information and quickly turning it into a product that consumers want is the essential key to staying in business and all of this is done now-a-days using computers and applications or information systems. Online learn system is an advantage for any kind of students. It can provide programming easy access to learn for anyone. It creates an environment with less error possibility and fewer manual work that will be much efficient than the traditional online learn system.

1.2 Motivation:

Learn Programming is aimed to create an easy and automated way for the students to learn program. This is an application that has the perspective of programming supporter to best learn, and success in life any kind of way.

1.3 Organization of the Project :

Literature review: It contains the description of fundamental concept of learning programming system.

Methodology of our work: It contains the information of programming languages such as c, c++, java and html.

Implementation of our work: This chapter contains the details description of programming languages.

Conclusion and recommendations: This chapter concludes my project paper and some recommendations are given here for the future improvement of this work.

1.4 Conclusion

In this chapter we have given a basic introduction of the project. In the next chapter we will describe the theoretical concept related with the application of development of Learning programming system.

Chapter 2: Literature Review

Today in the internet getting learn programming tutorial is not very easy. Students have to be learned those languages from various websites which is very difficult for them.

2.1 Existing Work on the System

The system which is used nowadays has some drawbacks which need to be improved for better performance. The existing system which we use for learning programming language is very difficult for us. Now-a-days every institution is being dependent on the online system for most of the work process.

2.2 Drawbacks of the Existing System

- isolation from the outside world;
- lack associated with live communication with the particular teacher and fellow college students;
- the absence associated with the usual media (paper textbooks, notebooks, etc.);
- lack of the clear timetable for courses, that is, discipline;
- organizational issues are solved independently (there will never be the group headman);
- evaluation of the material, moving tests you perform separately. Group projects are not really as common on Internet courses.

Chapter 3: System Overview

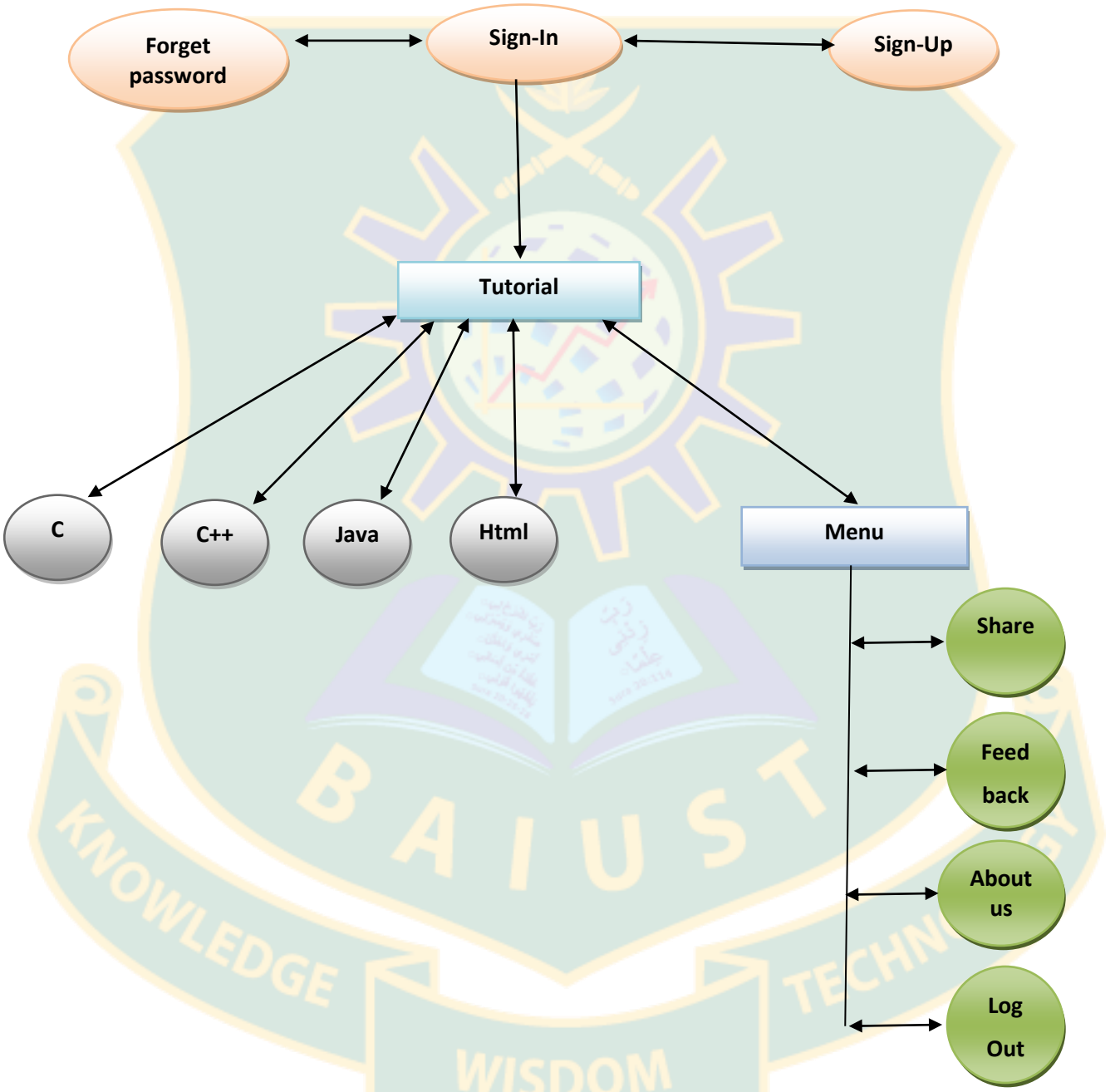
3.1 Proposed System

The purpose is to design a web application which contains up to date information of programming languages for the students; which will be more efficient.

3.2 Benefits of the Proposed System

- no binding towards the place. You can exercise anywhere: in the nation, on holiday on the seashore, even in public transport
- you can choose the most convenient form for presenting material: audio, video, even animated.
- you can study in any convenient for you, at any time convenient for you.
- you get the latest and relevant information from “those who are in the subject” who really works in this area today.
- you study only what you need, without adding unnecessary items.

3.2.1 System Architecture Diagram



3.2.2 Workflow

The detailed workflow of this application is as follows:

User: An individual user can see our programming tutorials by simply creating account (email & password).

3.3.3 Firebase

Firebase has two types of database: Realtime Database and Cloud Firestore.

We have used only real time database.

The Firebase Realtime Database is a cloud-hosted database. Data is stored as JSON and synchronized in real time to every connected client. When you build cross-platform apps with our iOS, Android, and JavaScript SDKs, all of your clients share one Realtime Database instance and automatically receive updates with the newest data

Chapter 4: Implementation Details

4.1 Methodology

4.1.1 Introduction

The goal of this project is to develop a web based system for the betterment of every students.

4.1.2 Used Methodology

We have used Incremental Method on the proposed system.

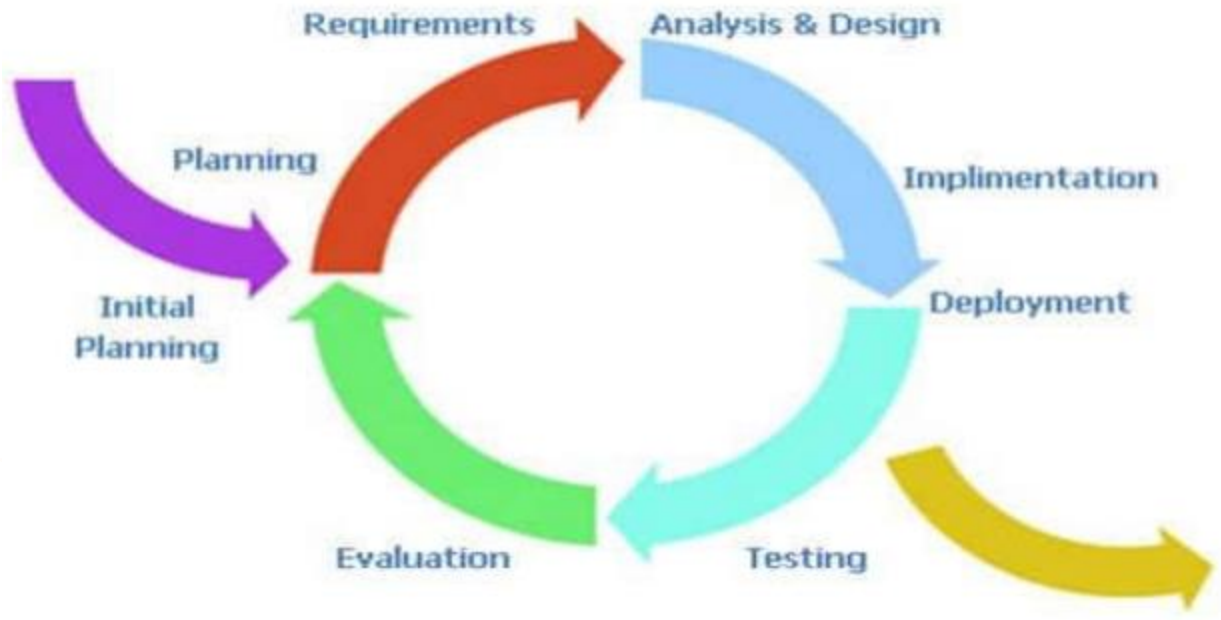


Fig 2: Incremental Model of the project

The incremental build model is a method of software development where the model is designed, implemented and tested incrementally (a little more is added each time) until the product is finished. It involves both development and maintenance. The product is defined as finished when it satisfies all of its requirements. This model combines the elements of the waterfall model with the iterative philosophy of prototyping.

4.1.3 Conclusion

Here, we have presented the whole methodology of the project. Implementation process and requirements will be discussed next.

4.2 Data Collections

After doing some research we collect our data from tutorialspoint website.

4.3 System Requirements

Front end:

UI design:

User interface design (UI) or user interface engineering is the design of user interfaces for machines and software, such as computers, home appliances, mobile devices, and other electronic devices, with the focus on maximizing usability and the user experience.

Backend:

Firebase:

The Firebase Realtime Database is a cloud-hosted database. Data is stored as JSON and synchronized in real time to every connected client. When you build cross-platform apps with our iOS, Android, and JavaScript SDKs, all of your clients share one Realtime Database instance and automatically receive updates with the newest data.

Architecture:

- **MVC**: The Model-View-Controller (MVC) is an architectural pattern that separates an application into three main logical components: the model, the view, and the controller. Each of these components are built to handle specific development aspects of an application.

4.4 Implementation Details :

4.4.1 Administration :

Students:

- Admin can add a new student and delete it.
- Can access all the student's information.

4.4.2 User Part

4.4.2.1 User Login

user can login with their email and password in order to view our programming tutorials.

4.5 System Design

4.5.1 Database Design

It is fair to say that database play a critical role in almost all areas where computers are used, including business, electronic commerce, engineering, medicine, law, education, and library science. A database is collection of a related data. A database has the following implicit properties:

- A database represents some aspect of the real world, sometimes called the mini-world or the Universe of Discourse (UOD) changes to the mini world are reflected in the database.
- A database is a logically coherent collection of data with some inherent meaning. A random assortment of data cannot correctly be referred to as a database.
- A database is designed, built, and populated with data for a specific purpose. It is an intended group of users and some preconceived application which these users are interested.

Database Management System (DBMS)

is a collection of programs that enables users to create and maintain a database. DBMS is a general –purpose software system that facilitates the process of defining, constructing, manipulating, and sharing database among various users and applications. Defining a database involves the specifying the data types, structures, and constraints of the data to be stored in the database. The database definition or descriptive information is also stored in the database in the form of dictionary; it is called Meta data constructing the database is the process of storing the data on the storage medium that is controlled by the DBMS. Manipulating a

database includes functions such as querying the database to retrieve specific data, updating the database to reflect in the mini-world, and generating reports from the data. Sharing a database allows a multiple users and programs to access the database simultaneously. Application program accesses the database by sending queries or request for data to the DBMS. A query typically causes some data to be retrieved; a transaction may cause some data to be read and some data to be written into the database.

Chapter 5: Experimental Results & Discussion

5.1 Introduction

In this chapter, we will describe the programming tutorials of the project. Here, we have also evaluated the extent that this project is successful in achieving the objectives that are defined at the beginning of this project. In this chapter, we will show some programming tutorials from our proposed system.

5.2 Evaluation

Evaluation refers to a periodic process of gathering data and then analyzing or ordering it in such a way that the resulting information can be used to determine whether a organization or program is effectively carrying out planned activities, and the extent to which it is achieving it's stated objectives and anticipated results. So, it is important to evaluate our system for its further development.

5.3 Evaluation Method

There are two different distinct ways to measure the effectiveness. Subjective and objective. Subjective performance can't be measured or quantified while objective evaluation can only be evaluated by measurable qualities. While quality of work can be

easily measured, how well a certain student get benefited through the system is the main concern of this project.

5.4 Results and Analysis

In this section, we will show the entire output of the project as screenshots are attached in the document below:

Chapter 6: Figure

Fig-1: Splash Screen

Fig-2: Home Screen

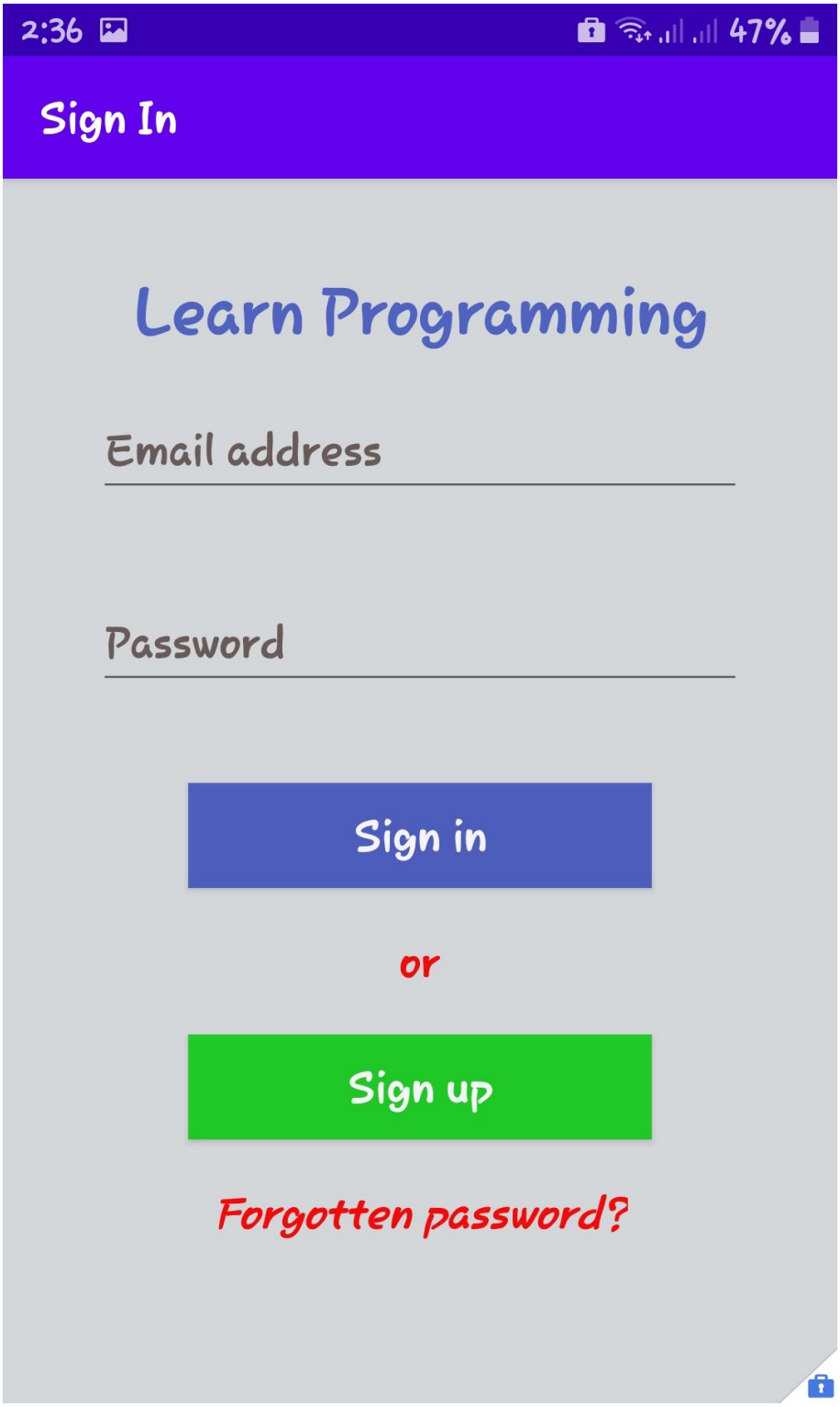


Fig-3: Sign-In Screen

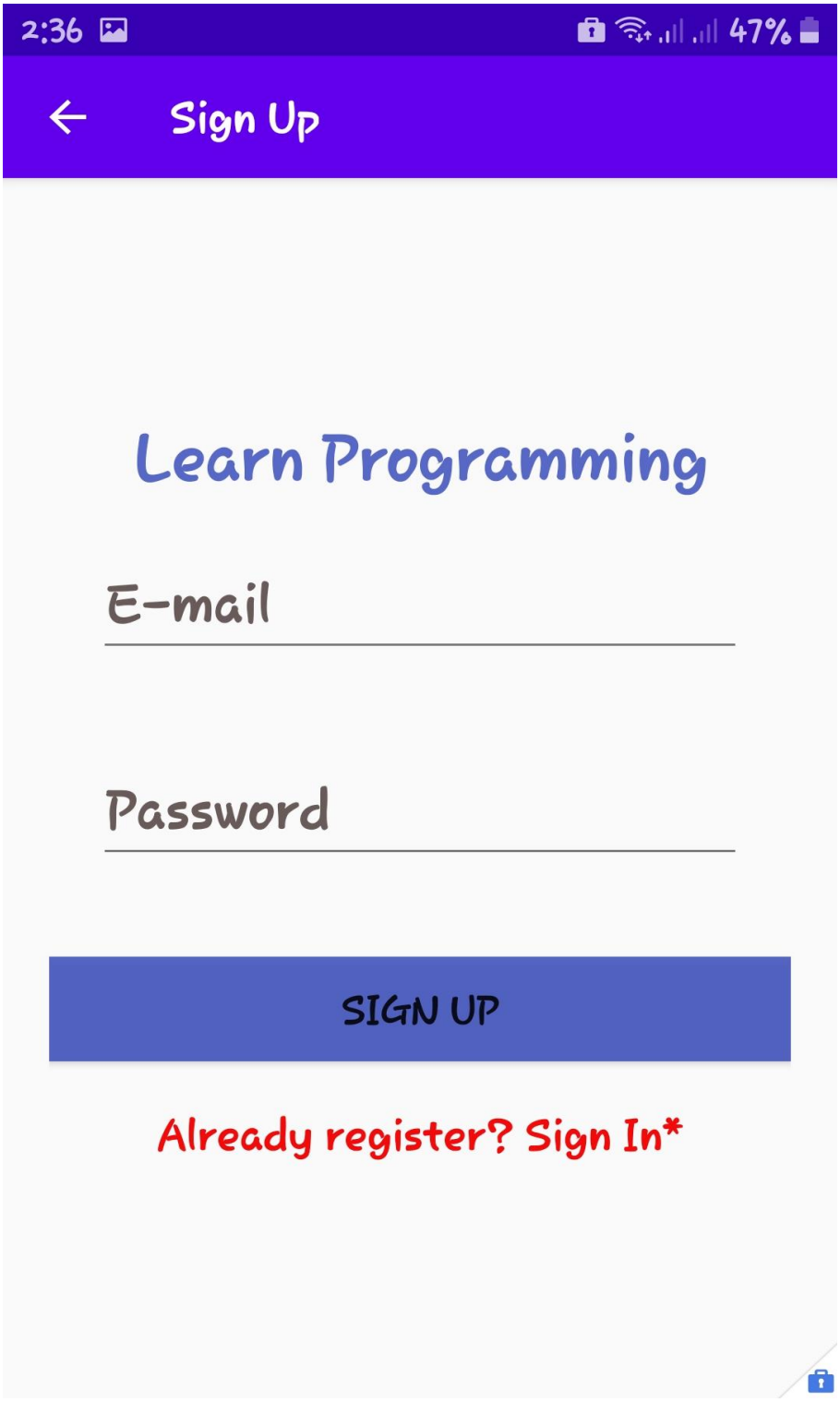


Fig-4: Sign-Up Screen

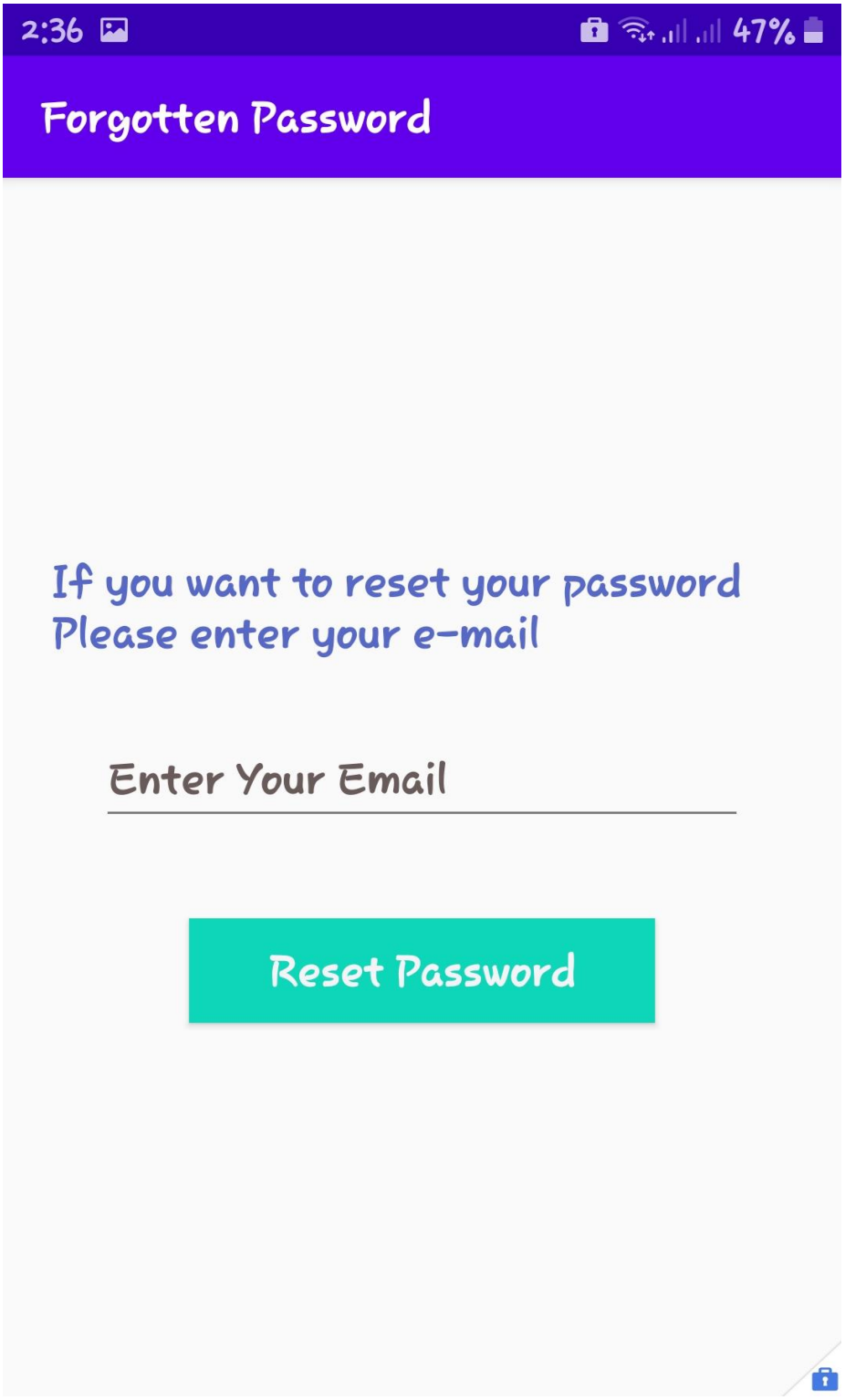


Fig-5: Forgotten Password Screen

Fig-6: Sign-In Screen with Gmail & Password

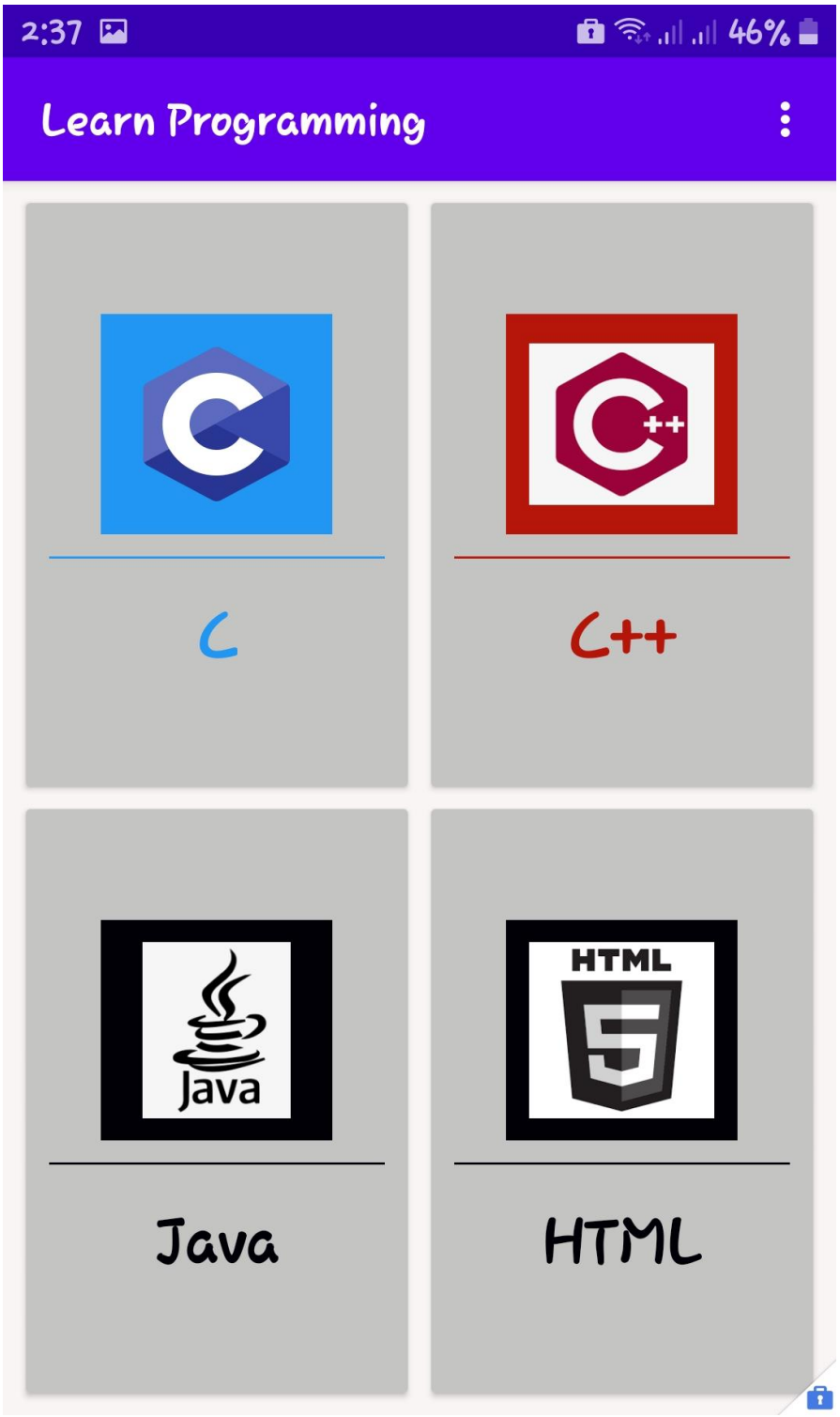


Fig-7: Tutorial Screen

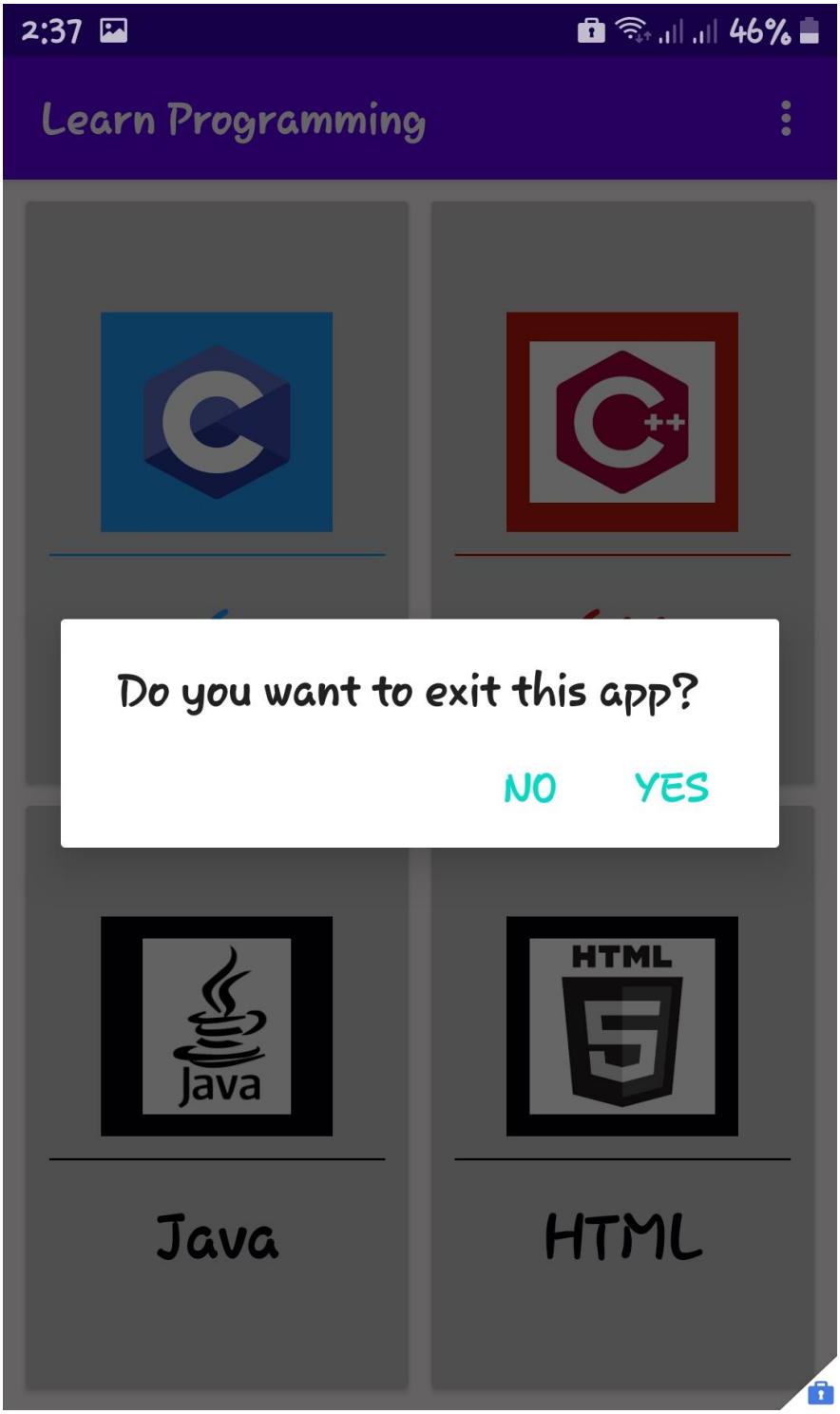


Fig-8: Tutorial Screen with exit option

Fig-9: C-Programming Index Screen

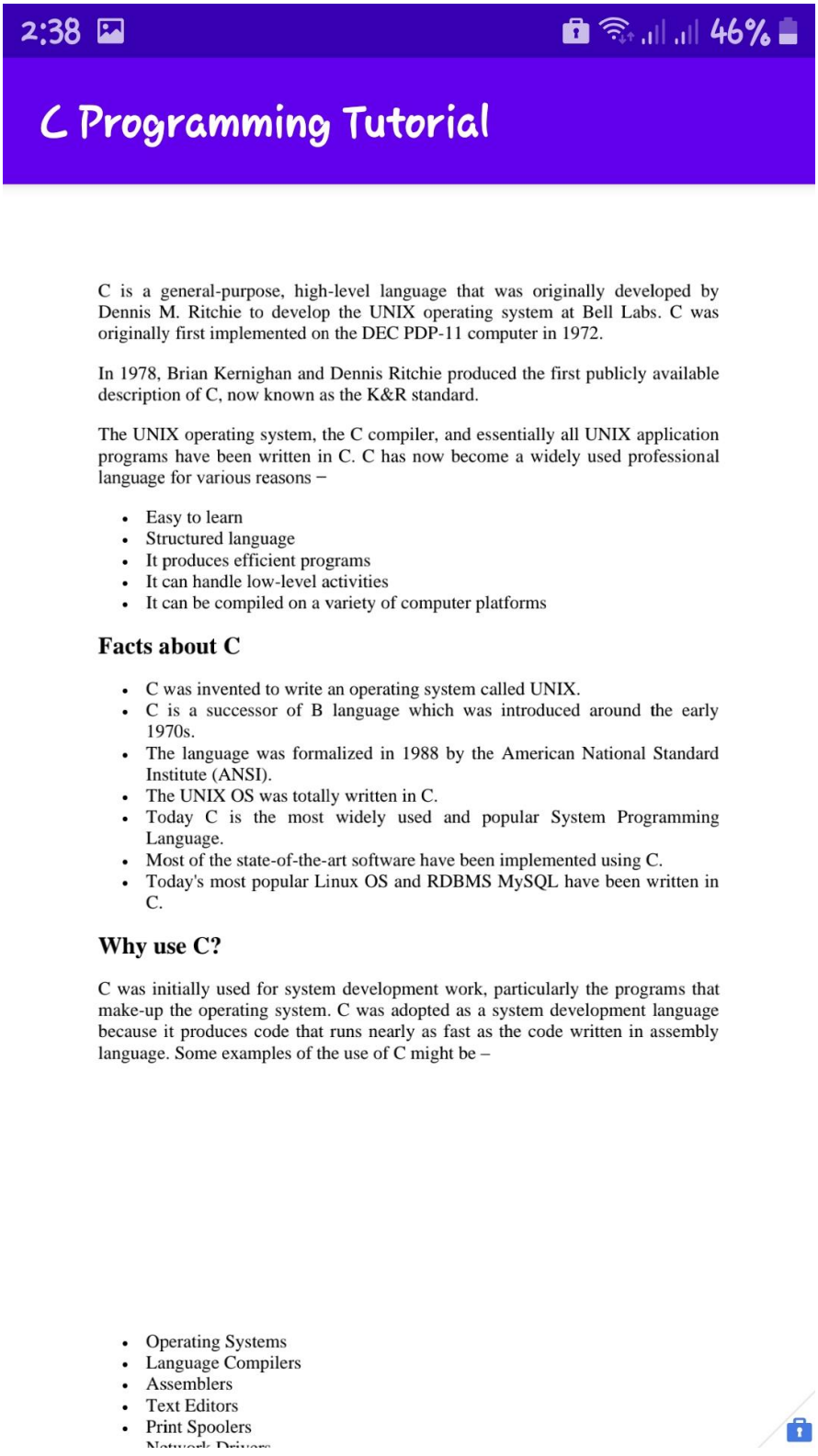


Fig-10: C-Programming Index Details Screen

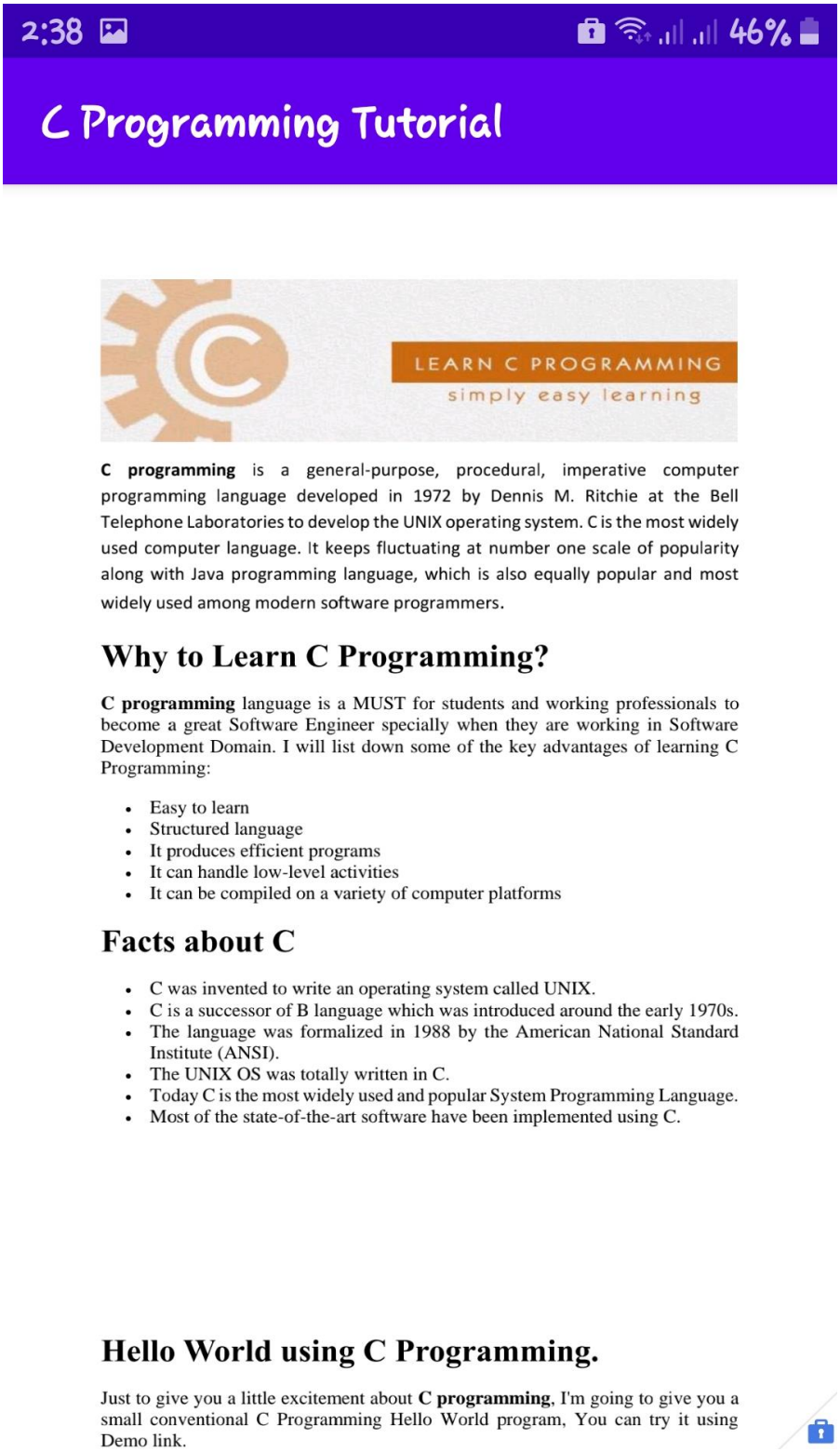


Fig-11: C-Programming Index Details Screen-2

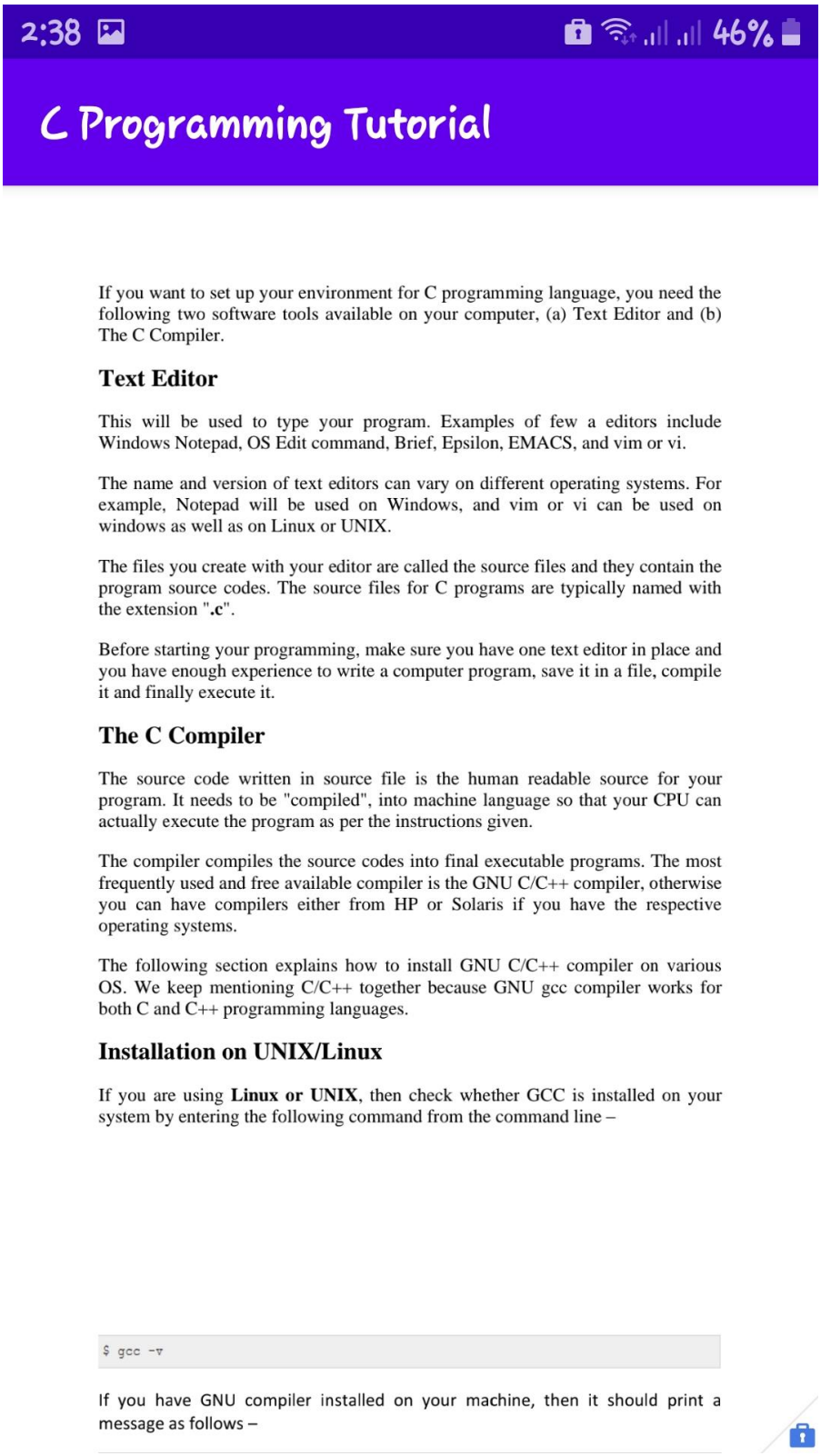


Fig-12: C-Programming Index Details Screen-3

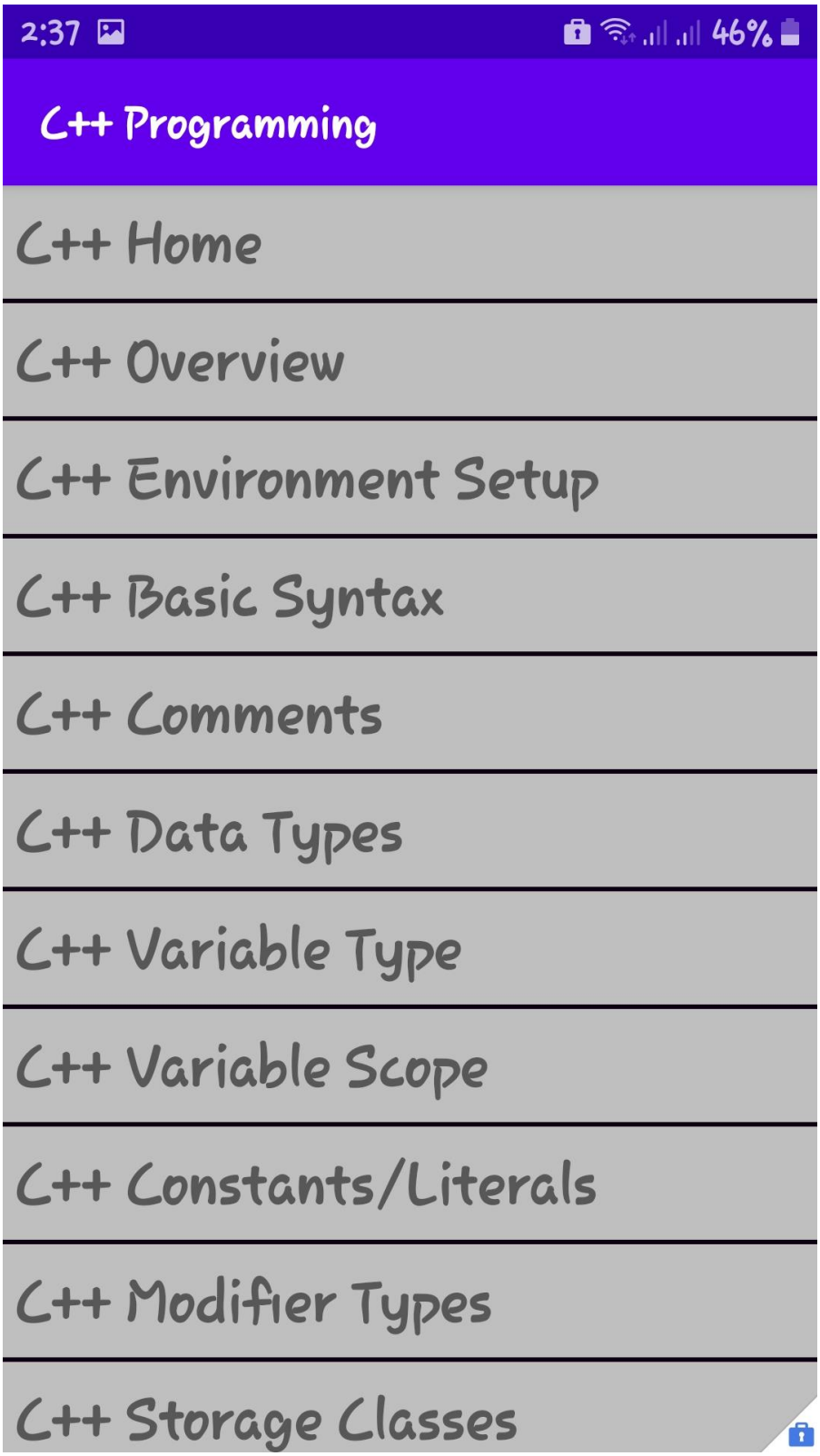


Fig-13: C++Programming Index Screen

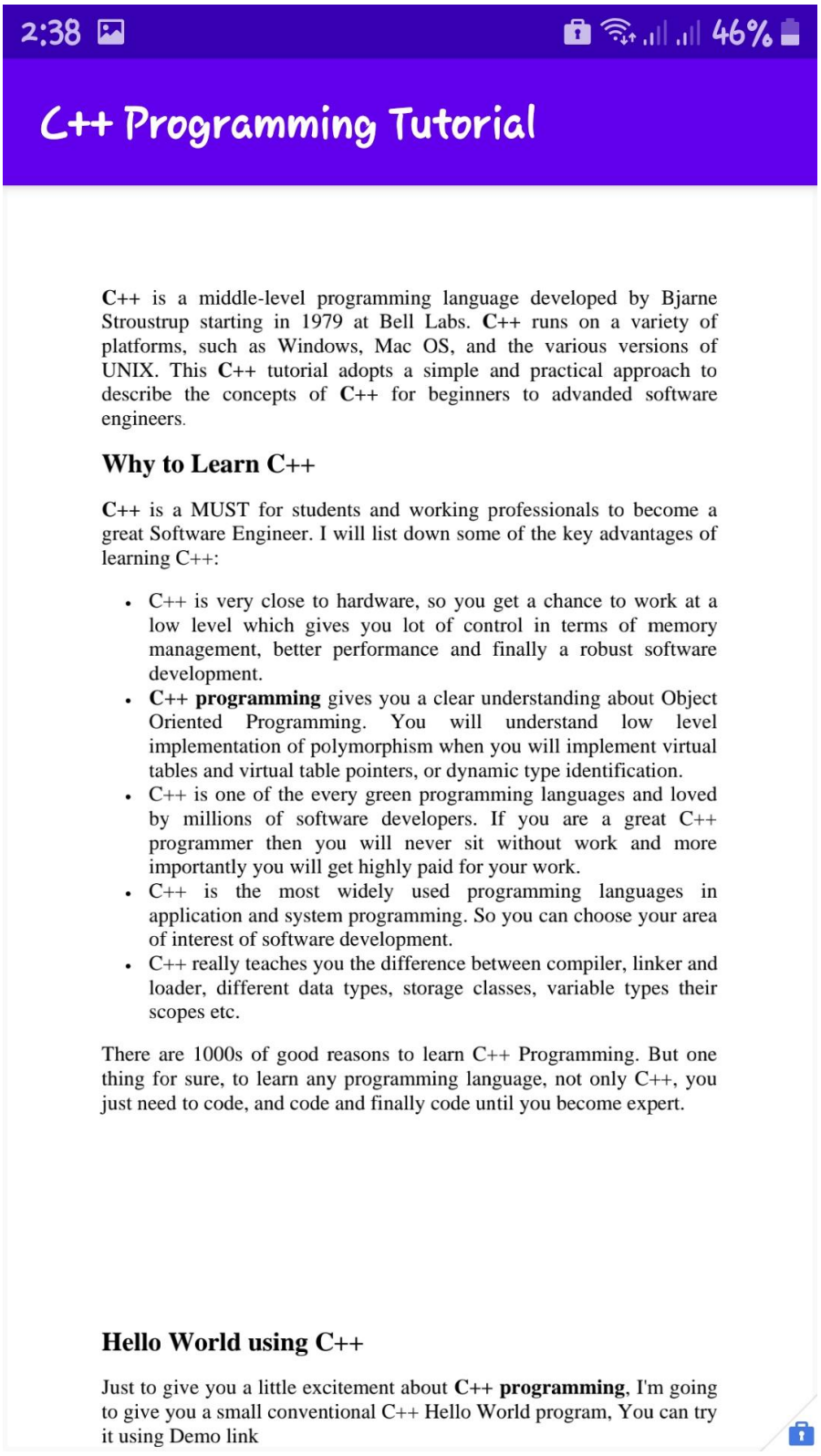


Fig-14: C++Programming Index Details Screen

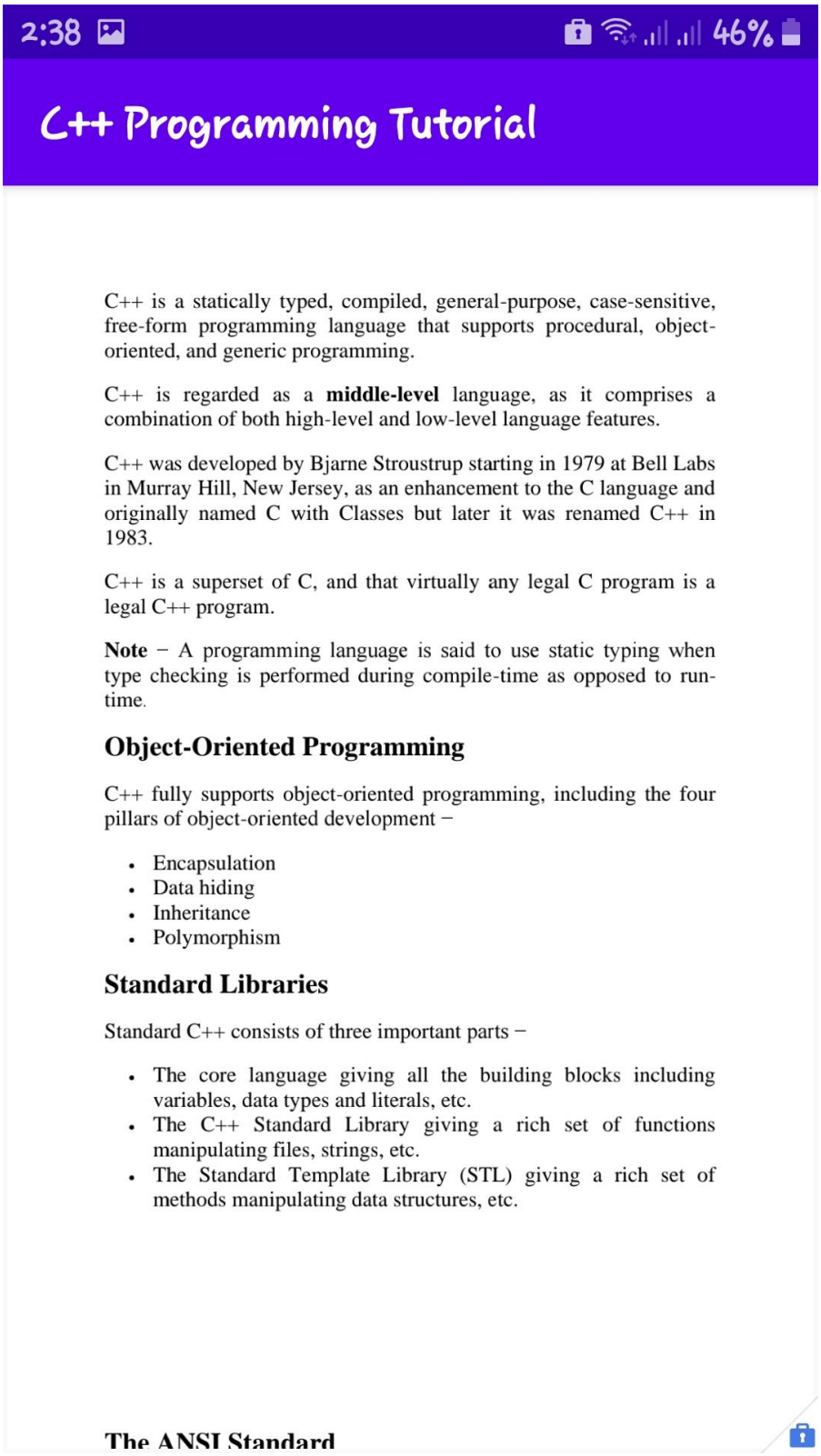


Fig-15: C++Programming Index Details Screen-2

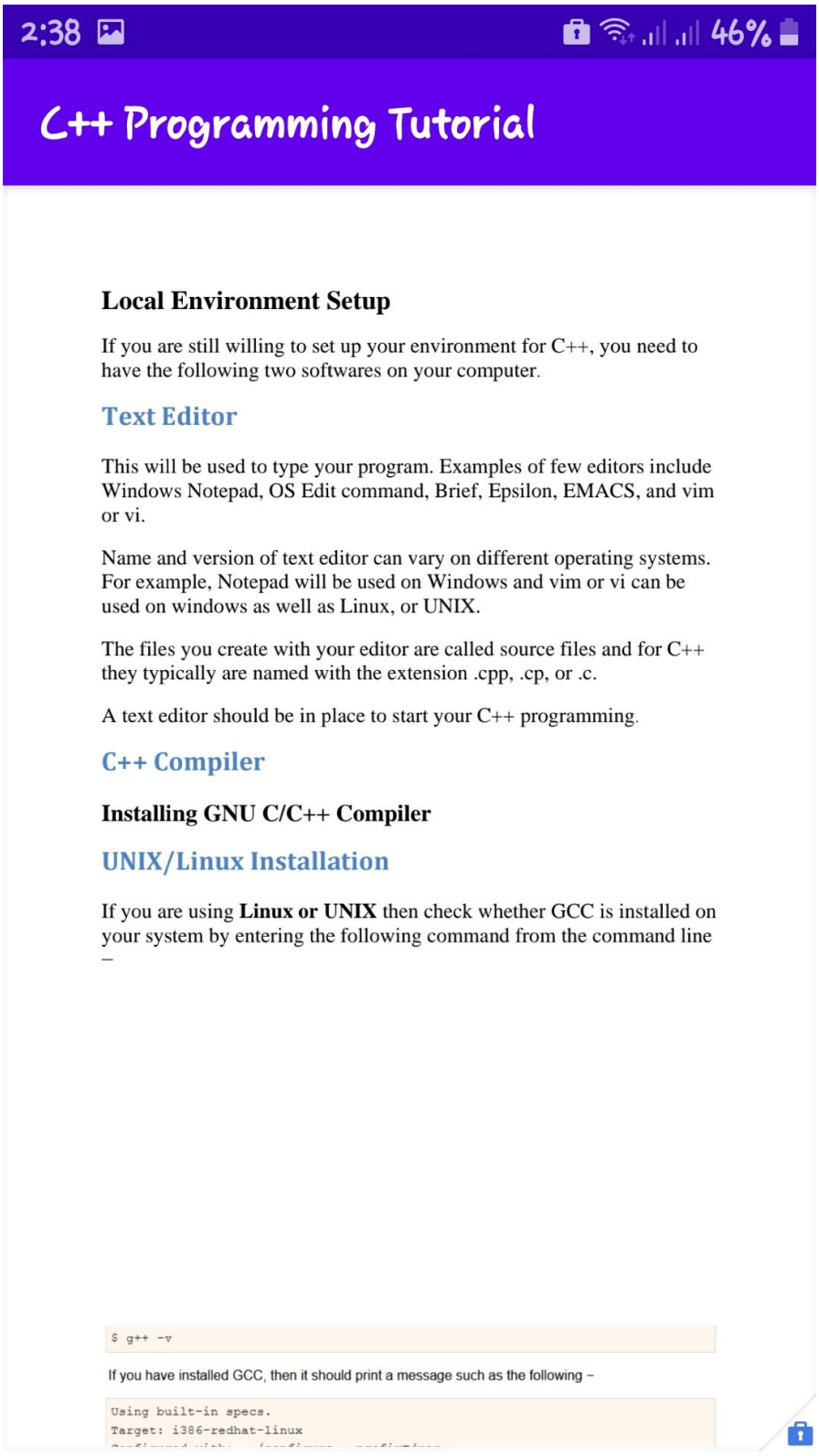


Fig-16: C++Programming Index Details Screen-3

Fig-17: Java Programming Index Screen

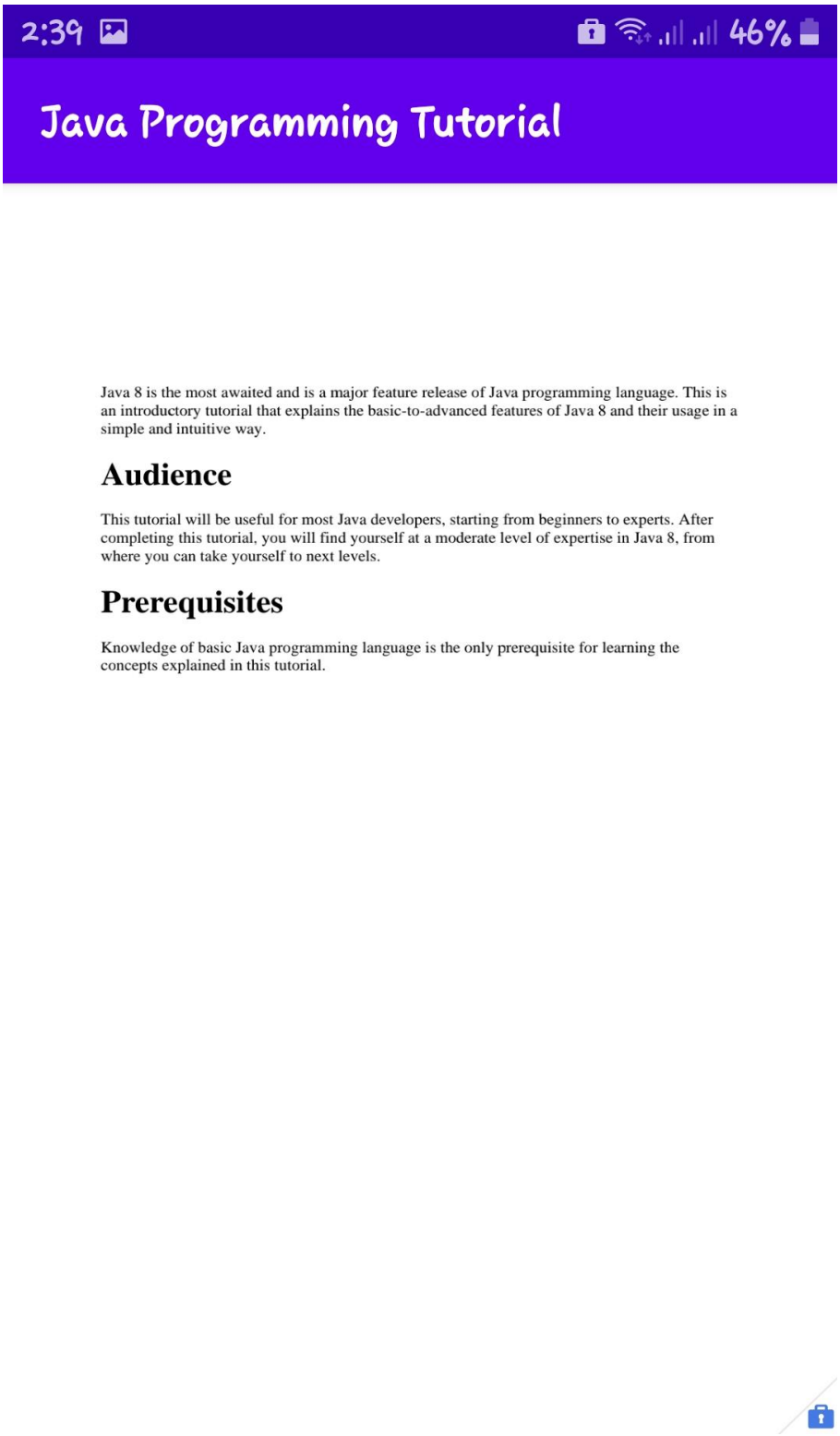


Fig-18: Java Programming Index Details Screen

Fig-19: Java Programming Index Details Screen-2

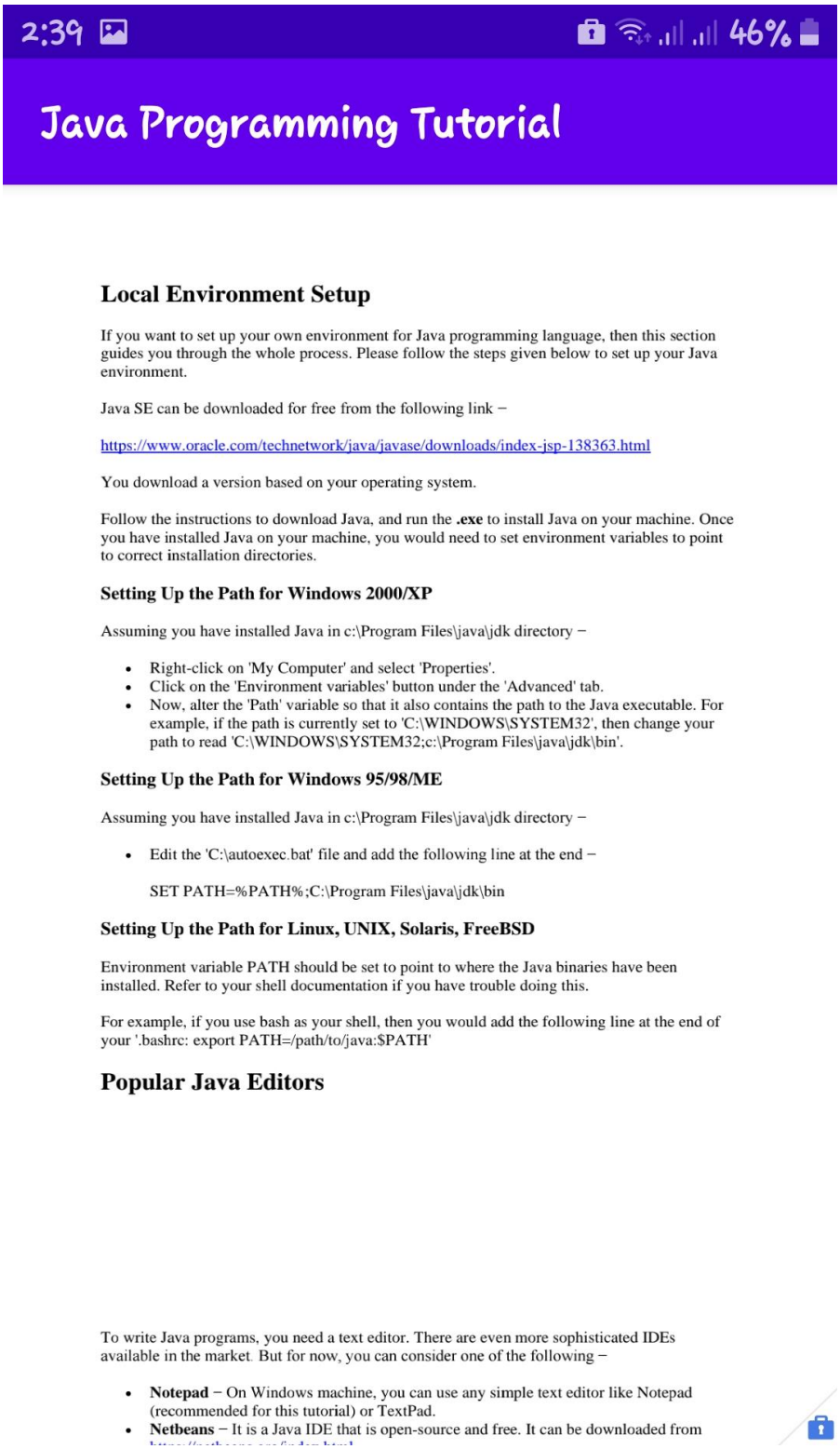


Fig-20: Java Programming Index Details Screen-3

Fig-21: HTML Programming Index Screen

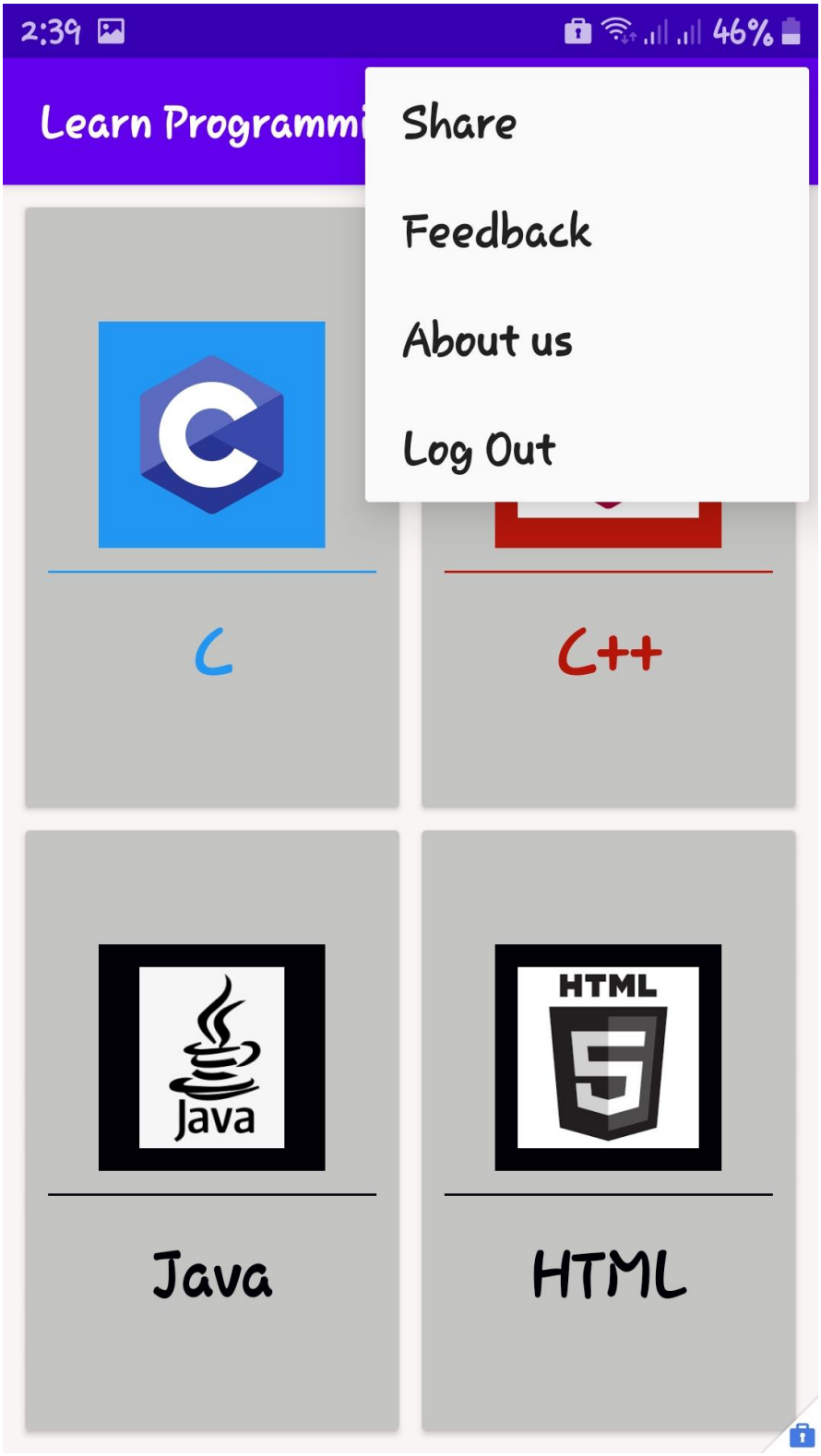


Fig-22: Tutorial Screen with Option Menu

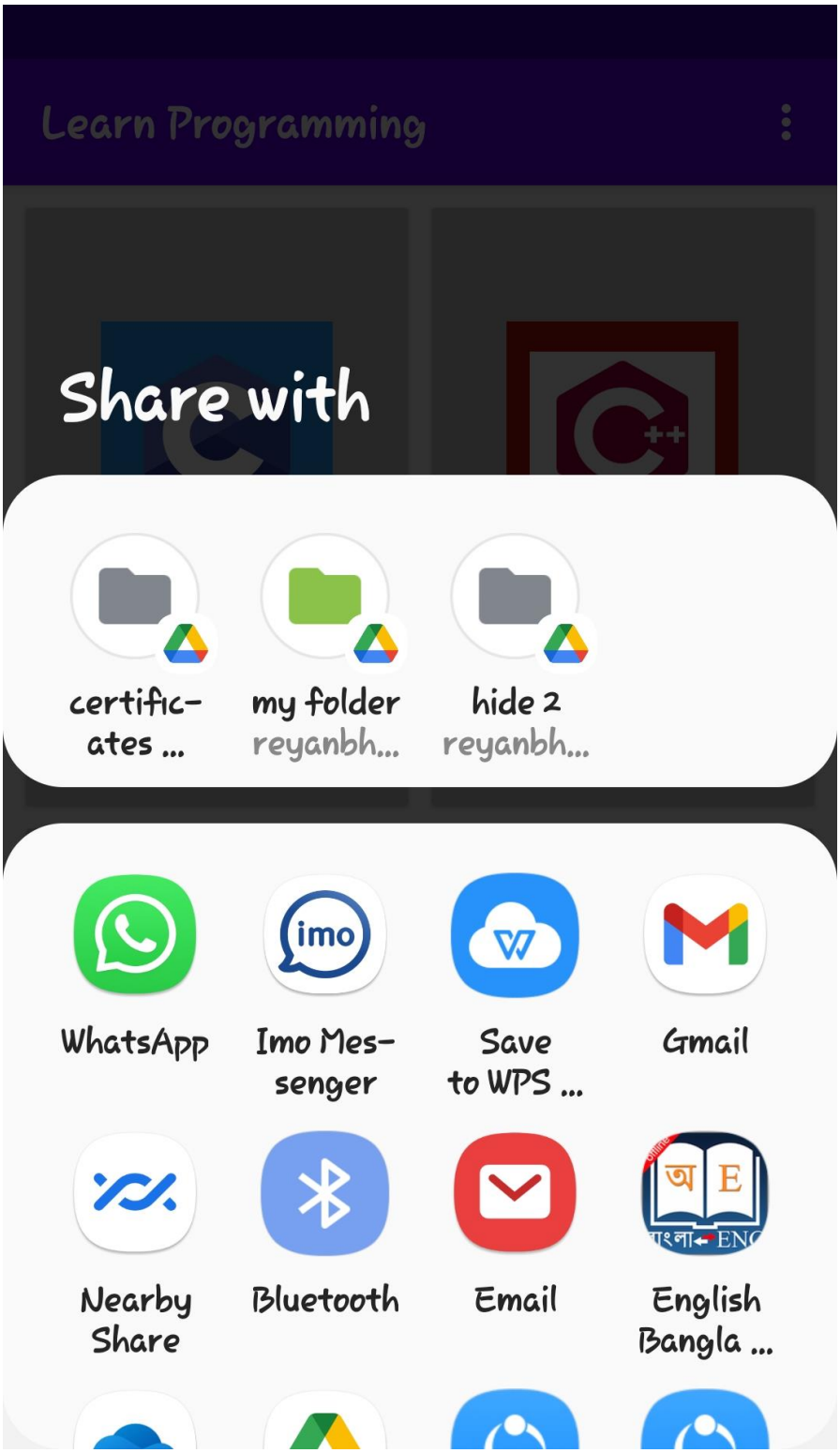


Fig-23: Share Screen

Fig-23: Feedback Screen

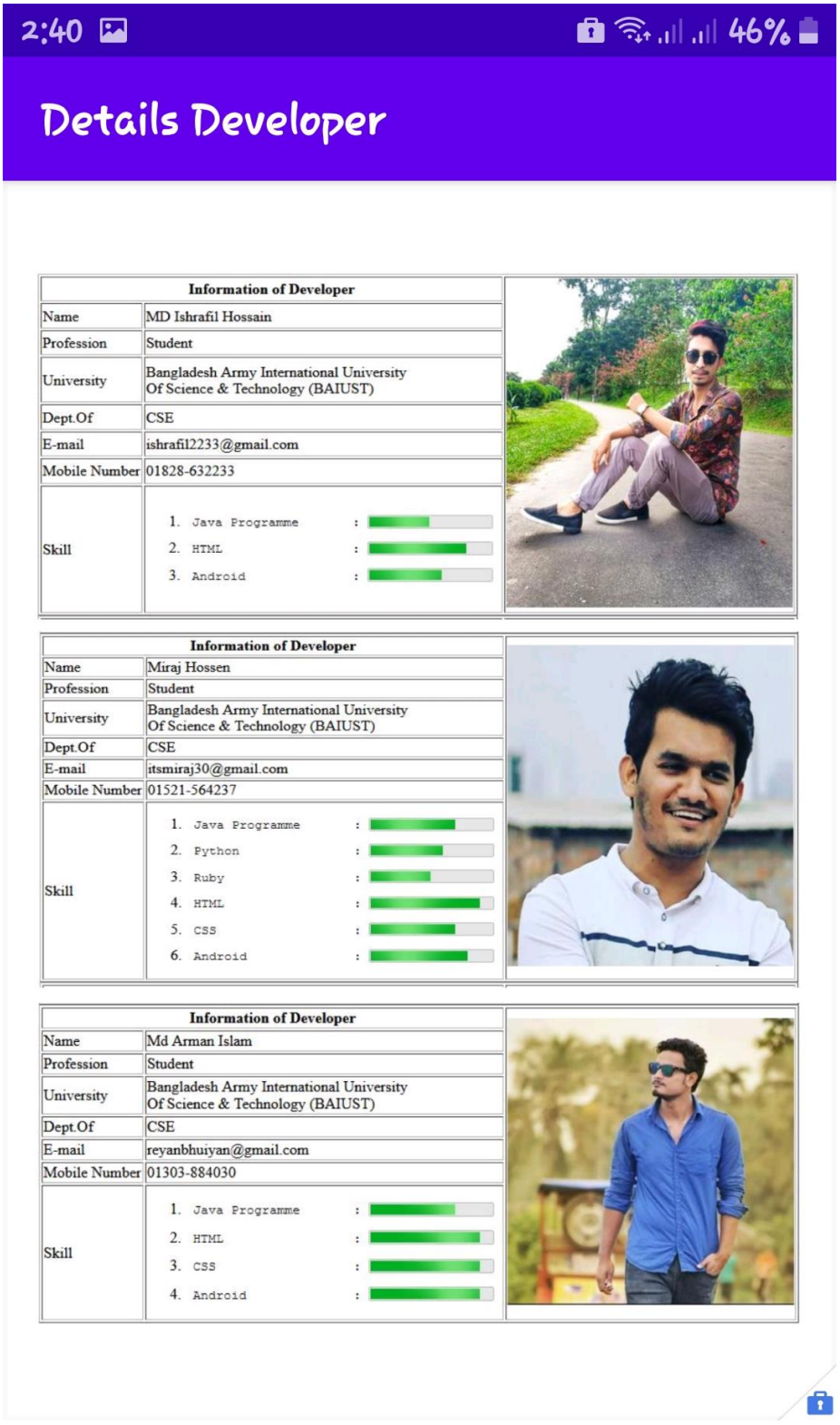


Fig-24: About us Screen