

Software Requirements Specification Document

For

Online Edu App

Billan Jacob John
MCA A 2020-22

Table of Contents

- 1. Introduction
 - 1.1 Purpose
 - 1.2 Scope
 - 1.3 Product Perspective
 - 1.4 Product Functions
 - 1.5 User Characteristics
 - 1.6 Acronyms and abbreviations
- 2. Requirements
 - 2.1 External Interfaces
 - 2.2 Functions
 - 2.3 Usability Requirements
 - 2.4 Performance Requirements
 - 2.5 Database Requirements
 - 2.6 Design Constraints
 - 2.7 Software System Attributes
- 3. Verification
- 4. References

1. Introduction

1.1 Purpose

The purpose of the document is to provide an outline of the software TechEduApp. It helps the developers to build the software.

1.2 Scope

With the help of this application a user can watch classes and learn from anywhere in the world. Users can also attend the tests provided and evaluate themselves.

1.3 Product Perspective

1.3.1 System Interfaces

The application runs on Android versions 6.0 and above.

1.3.2 User Interfaces

The application has a Login/Sign in options, menu and other navigation options that make the user experience effortless. It has buttons to select the subjects and subtopics and buttons for conducting the tests.

1.3.3 Hardware Interfaces

An android device with Android versions 6.0 or above and internet connection is required.

1.3.3 Software Interface

The language used is Java and the application is developed in Andriod Studio 4.2. The data base used is Firebase Realtime Database by Google.

1.3.4 Memory constraints

The application has a low memory requirements. The storage space required is only 25mb.

1.4 Product Functions

The project focus on developing an Android application that allows users to watch video tutorials and attend tests. The product functions can vary from user using it. The Admin can edit the links to tutorial videos and also edit the questions for the tests. The admin can add new subjects, topics or subtopics. The students can select from different topics and watch video tutorials on the topic and attend the tests provided.

1.5 User characteristics

There are mainly two users for the application, the students and admin. Students use the application to watch the video tutorials provided and attend the tests. The other user admin can edit the topics, video links, questions and remove or add subjects.

1.6 Acronyms and abbreviations

OS : Operating System

IDE : Integrated Development Environment

2. Requirements

2.1 External interfaces

The external interfaces consists of user interfaces, hardware interfaces, Software interfaces and communication interfaces.

2.1.1 User Interfaces

The user interface is designed using Java in Android Studio.

2.1.2 Hardware Interfaces

An android device is required.

2.1.2 Software Interfaces

Android is the OS chosed for running the application. The IDE required is Android Studio and the database used is Firebase by Google.

2.1.4 Communication interfaces

The app is connected to the databse with the help of Firebase console.

2.2 Functions

2.2.1 Admin Functions

2.2.1.1 Login

2.2.1.2 Add/remove new subjects

2.2.1.3 Add/remove new topics or subtopics

2.2.1.4 Add new /edit an existing tutorial link

2.2.1.5 Add,remove or edit a question

2.2.2 User Functions

2.2.2.1 Login

2.2.2.2 Watch Tutorials

2.2.2.3 Attend Test

2.3 Usability requirements

The user should know to use android devices.

2.4 Performance requirements

The system should have less loading time. The edited values should be updated instantly. There should not be lag while scrolling through the pages. Moving from one page to another should not have a delay more than 1000ms.

2.5 Database requirements

The application uses Firebase Realtime data base by Google.

The app is connected to Firebase using API Key.

2.6 Design constraints

The design should not be very complicated. A user without any technical background should be able to use it.

2.7 Software system attributes

The application must run on any device with Android 6.0 or later.

3. Verification

We check whether the system meets all the requirements and constraints mentioned above.

4. References

[Firebase \(google.com\)](#)

[Android Developers](#)

[IEEE Xplore](#)