

GLA UNIVERSITY, MATHURA



**TOPIC: MINI PROJECT SYNOPSIS ON
VIRTUAL STUDY ROOM**

Submitted by:

**Name: Vasu Agarwal
Id: 191500900**

**Name: Sejal Bansal
Id: 191500739**

**Name: Sanchita Srivastava
Id: 191500712**

**Name: Yashasvi Gautam
Id: 191500935**

**Name: Tanuruddh Pratap Singh
Id: 191500848**

Submitted to:

**Faculty Name: Mr. Akash Kumar Choudhary
Technical Trainer**

DECLARATION

I the undersigned solemnly declare that the project report **VIRTUAL STUDY ROOM** is based on my team work carried out during the course of our study under the supervision of **Mr. Akash Kumar Choudhary, Technical Trainer, Department of Computer Science, GLA UNIVERSITY, MATHURA**. I assert the statements made and conclusions drawn are an outcome of my team research work. I further certify that the work contained in the report is original and has been done by me and my team under the general supervision of my supervisor. We have followed the guidelines provided by the university in writing the report. Whenever we have used materials like data, text from other sources, we have given due credit to them in the text of the report and giving their details in the references. The work has not been submitted to any other Institution for any other degree in this university or any other University of India or abroad.

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|------------------------------|-----------|
| 1.) Sejal Bansal – | 191500739 |
| 2.) Sanchita Srivastava – | 191500712 |
| 3.) Yashasvi Gautam – | 191500935 |
| 4.) Tanuruddh Pratap Singh – | 191500848 |
| 5.) Vasu Agarwal - | 191500900 |

The problem statement:

With the advent in technology and with the perpetual increase in the strength of the students and the number of departments in the educational institutions, it is laborious to exchange the study materials between the students and faculties.

The main objective of this project is to help the students get over the traditional methods of learning and make them accustomed to the internet where they can study online and notes are easily available for those courses. The implementation of this project helps the students to learn new technologies and skills through online mode. The students can also gain access to the notes.

This project also helps students in saving a lot of money of their parents. It also saves lot of time in going to classroom.

This project is implemented on Android to facilitate easier access on a popular medium. The project uses JAVA language to provide the app its functionality. Amazon S3 is used as cloud storage where all data is stored. The GUI components are developed using XML.

Virtual Study Room is an inexpensive, efficient and comfortable way for students to easily learn their favorite courses.

INRODUCTION

These days many students are learning different courses to improve their skills and upgrade themselves. The 'Virtual Study Room' has been developed to provide the best facilities to a student so that he/she could focus on the studying not on finding the different resources. This application will provide different courses for a student to learn. If a student is dedicated to learn a new skill or to upgrade his previous skill this application is best choice for him.

About the Project:

Project is on making a learning application. The purpose of our app 'Virtual Study Room' is to provide different courses, videos and notes of all the courses so that student may not need to search for courses and he may easily access it.

Student have to make account for accessing different courses and then he may get started with all the courses for free. Account credentials are stored in google firebase. All courses are present on the server and our will fetch the courses from the server to our application. Our Project will provide user a better UI experience.

Primary Reason to choose this project

Many students find it difficult to find courses at one place. So, our app will provide all the resources that will be needed to gain knowledge. This application helps students to utilize their time in exploring new courses instead of checking any other social media applications. Students may start getting interests in courses which will make them more valuable for their future life. Many students are going towards e-learning so our application may be helpful for them. Users want better UI and app that looks attractive, so to provide users a good experience in studying and not get bored while seeing UI.

The Main Objective of the Project:

The Main Objective of the project is to provide multiple courses on one platform so that the student may not need to waste his/her time in finding courses that he/she may want to learn. Student have to make account for accessing courses and the app will provide all the notes and video lectures of that course to student. By providing attractive UI users will get attracted towards it and try to open it many times so that he/she can explore more and more course.

Feasibility study:

A feasibility study combines up-to-date pedagogical research with best practice in implementation of online learning tools acknowledging that organizational specifics may call for online, blended, or even classroom/field delivery. A feasibility study is conducted in a team with subject experts combining the specifics of delivery with alternative online learning delivery methods.

- Interoperability and Flexibility
- Cost effectiveness
- Support and Training
- Ease of Use
- Scalability
- Sustainability

Future Scope

Initially, our application provides free courses if demand of our application increases then we will add premium courses that will provide more benefit for users like asking doubts through chat. It can provide automatic suggestions for courses that are related to their previous search.

Working Methodology of the Project

App will first ask for registration so that student data is saved in our database.

Student will be able to access all the courses and he/she can access video lectures and notes of that course. All the account details are stored in google firebase. All the courses are stored in server and we will fetch data from api to our application and we will setup this json response to recycler view. We will retrofit for network call fetching data from server.

Details about the Hardware and the Software

System requirements-

Supported Operating System- Microsoft Windows 7/8/10/11

Software required – Google Firebase, Android Studio, JDK 16.0.2

Technology Implemented – Front-end and Back-end technology

Browser – Google Chrome

Hardware requirements –

For Android Studio - Minimum 4gb RAM, IDE, Android emulator, Android SDK, Minimum 2gb of disk space free

Processor – Intel i3 or above

Listing out Testing Technologies –

Frontend and backend-

Frontend- Android emulator, XML.

Backend- Google firebase, Android Debugger, JAVA

What contribution would the project make and where?

This project can help in learning methods like:

1. It can save time finding courses at different sites, all the courses are available here at one place.
2. It is inexpensive as all the courses are free.
3. It improves virtual communication.
4. It can contribute in long distance communication where a student cannot travel areas that are far away from their locality. So, in that case offline course can be held in online mode.

Scope for extension into a major project:

It can extend to provide premium services to our users. We can start live interactive classes with teachers to solve doubts of students and also add live chat feature. This project can add machine learning libraries to suggest multiple courses based on their previous search. It can also include weekly quiz test that can be useful for students to test their learnings.

Working Methodology of the Project

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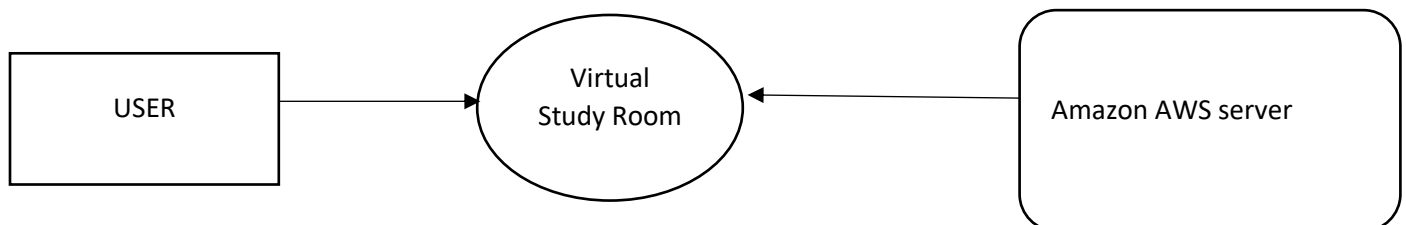
Module Description

1. First module contains registration of user's account which will store in Google firebase.
2. Second module will contain data that is fetched from Amazon server to our application.
3. When user select a course, it will send request to server and server will play video.

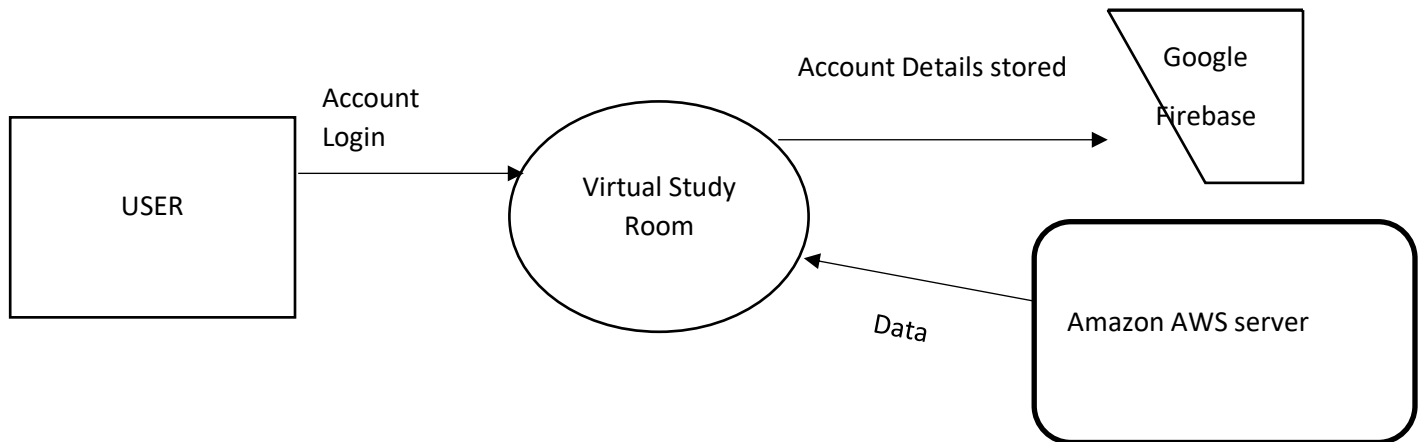
Data Flow Diagrams

DFD: - A data flow diagram (DFD) illustrates how data is processed by a system in terms of inputs and outputs. As its name indicates its focus is on the flow of information, where data comes from, where it goes and how it gets stored.

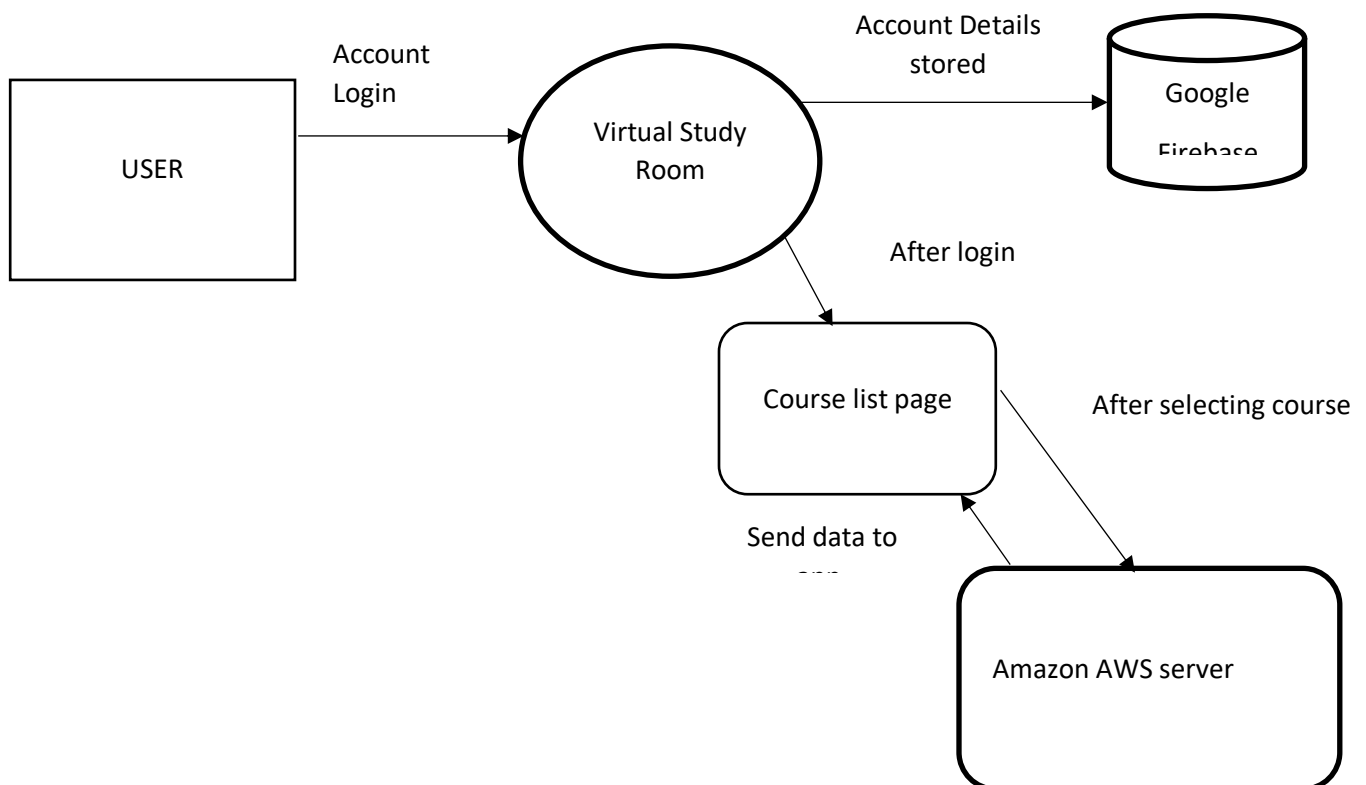
0 Level DFD: -



1 level DFD: -



2 level DFD



Conclusion:

This project has brought a positive impact in the lives of students and working professionals. It has given an opportunity to take up additional courses along with their studies or job as per their convenience.

It has become easy for students to refer the content as per their freedom. In the era of online education, the scope of this application increases a lot more and it will be beneficial for students as well as professionals. This project will save a lot of money of users.

References:

- 1.) <https://www.wikipedia.org/>
- 2.) <https://developers.google.com/>
- 3.) <https://www.w3schools.com/>