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Assigning Assignment & Notes Online Through Android App

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ABSTRACT: Assigning Assignment & Notes Online is an Android Application based module which allows student and faculty to communicate about assignment and notes. It provides personalized learning with among the students. It is a system that allows the student to submit their works online without submitting any physical file.

In this system educator will assign and collect the assignments and provide notes for students virtually. Then students will be able to do assignments and submit it to teachers after completion. Students will also be able to access the notes provided by teacher. All these data will be stored in firebase and always available till erased by teacher.

This system will overcome the problems faced by teacher and student in traditional system or manual system. This system reduces the paperwork, distance, and time. Students can submit their assignment any time anywhere within due date. One of the best features of this system is to keep record of every assignment, notes, time of submission and results, which will be further usable if required. The proposed system changes the method of study to improve them and introduceseasy and systematic approach for further exam preparation.

KEYWORDS: Assigning Assignment & Notes Online, Android Application Based Module, Firebase, Personalized Learning, Traditional System.

I. INTRODUCTION

Technology has drastically improved the existing educational system over the past few years. 'Self -study', using online platforms. This technology plays huge impact on educational systems globally. The current teaching-learning environment adopts personalized learning. Nowdays, it is essential to adopt new way of studying because the problem arises from manual system used by colleges is that it has no record about the time or marks of student assignment. Some of the student hand over their assignment after the due date. Some of the assignments can be lost by students as well as faculty and as we do not have any record about it. students have to write the assignment once again. As there is no record of assignment faculty would not able to check whether the student have submitted the assignment or not. This project also reduces the unnecessary workload of faculties and student. The scope for the App Based Assignment System is that student can submit their assignment anytime and anywhere there is no need of the presences of teacher as the student is submitting the assignment online. The collection of the assignments will be kept by the teacher and the student can view their marks anytime they want. This system is very useful as well as innovative because there is no paper involved and even this system is user friendly.

This system is developed with the help of Android Studio IDE, within that XML is used for system UI designing, JAVA is used for logic and backend programming and The Firebase is used as Database for the system.

The objective behind such system is to develop an interaction medium for teachers and students for grading and assessment purposes. The system was developed to mitigate the traditional process of providing an assignment and collecting the answers for the given work.

Thus, an android app-based assignment and notes sharing system will be able to cater for a wide range of requirements either for students or lecturers at various institution.

II. LITERATURE REVIEW

This paper is reviewing several other similar systems and technical stuffs that helped to developing the paradigm. We have talked through system design for assignment and notes sharing system.



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Syed Hasan, in August 2016 found that, most of the universities following the current system in case of student's assignments submission. Students need to print their assignments, bind it and submit it with the soft copy to admin office which is completely time consuming. Moreover, some universities having separate campus for assignment submission. As a matter of facts students need to go there for submitting their assignments as well.

Now-a-days, e-submission has become increasingly important because of the availability of internet connections around the world. So, assessment using online has become easier compare to any previous time. It is very important how the students reacts towards the online assignment submission system implementing at their university and also the value of assignment feedback comment they usually receive from the lecturers, (Rabab A. Wahab, 2015).

With traditional assignment submission system, lots of problems arise especially when the students have to submit the answers of the assignment to the lecturer. V. Ramnarain-Seetohul, and J. Abdool Karim (2012) found that there may be problems due to distance, time, or format of the assignment (written or printed).

Some Existing Systems:

A. Blackboard Learning Management System

Blackboard learn is a virtual learning environment and learning management system developed by Blackboard Inc. in January 21, 1997 that gives access to online course materials, grades, and many other academic and functionalities. Some of the Blackboard learning and teaching functions are to deliver content management and sharing, communication and virtual collaboration which includes - online assessments, student progress tracking, assignment and grading management.

B. EdmodoSocial Learning Platform

Edmodo Social Learning Platform. Online Education. Based in San Mateo, California (USA), Edmodo was founded in 2008 by Nicolas Borg and Jeff O'Hara. As an online networking application for educators, students and parents, it is in a controlled environment appropriate for schools, colleges and universities. It is functional as a free-of-charge tool for communication with over 500,000 students worldwide.

C. Google Classroom

Google classroom was launched in 2014; therefore, studies related to the effectiveness of Google classroom are limited. Shaharanee, Jamil, &Rodzi (2016) analyzed Google classroom's active learning activities. They used TAM (Technology Acceptance Model) to study the effectiveness of the activities posted on the platform. Results of 100 students revealed that comparative performance of Google classroom was far better in the areas of communication, interaction, perceived usefulness, ease of use, and overall students' satisfaction.

III. PROJECT DEVELOPMENTAPPROACH

The Iterative Waterfall model is the most widely used software development model. in this model, iterations are allowed. What this means is that, in this type of model, the developers are free to go into the previous phases of development to make any sort of modification or changes. This is possible because, in this model, there are feedback paths provided for every phase and no matter in which phase you are working, you can always go back to the previous phases and make the necessary changes. All the phases of the Iterative Waterfall Model are almost the same as they were in the classical waterfall model, and these phases are:

- System Requirement
- Software Requirements
- Analysis
- Program Design
- Coding
- Testing
- Operation

To develop this system Android Studio is used. Android Studio also supports Iterative Waterfall Model. There are several inbuilt features in android studio like XML for UI design, Java and Kotlin for logic and backend programming, Firebase for database etc. In Android Studio we can iterate the process of development like program design, Coding, Testing many times. If there will be any error arises Android Studio immediately provides feedback and gives the solution hint to



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resolve that problem. Once we have resolve all the problems then we can go for the testing process. Iterative waterfall model is very simple to understand and use. That's why it is one of the most widely used software development models.



Fig-1: Iterative Waterfall Model

IV. METHODOLOGY

A. Modules – There are two main modules in this system:

1. Student – This module is used by Students to get Materials provided by teachers such as Assignments, Notes, Syllabus, Results etc.

2. Teacher – Teachers will be able to give Assignment, Notes and other several materials by using Teacher module. For using this module faculties must have to signup first and, then login.

B. Architecture

This particular app has a Homepage which is known as Main Activity in designing aspects. In Main Activity there are three options are available which are as Follows:

- 1) Student This particular option is for students.
- 2) Teacher This option is only for faculties.
- 3) About Us This option is just an information about developer

1) Architecture of Student Module

Student module is basically a interface for students where they can get several materials, Which are provided by faculties.

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Fig-2: Architecture of Teacher Module

In this module there are several other modules are known as:

TABLE I.	OPTIONS	AT STUDENT	MODULE
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S.	Functionality	Description
No.		
1.	Assignments	When a faculty gives or post the assignment then that will be seen by this module directly. assignments can be either pdf or jpeg.
2.	Notes	Also when teacher post any notes then that will be seen by this module.
3.	Syllabus	This field is used for Syllabus.
4.	Submit Assignment	The assignment which was assign, if it is done by the student then they can upload their assignment by using Submit Assignment Module. The assignment submitted by student will first store in Database then it will further fetched by Faculty for grading purpose.

2) Architecture of Teacher Module

Teacher module is basically a Login Activity. It has Registration field and reset password as well. Which has following functionalities:

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Fig-3: Architecture of Teacher Module

1. Register – Register is the process of creating new user as faculty which will be further able to manage the materials. Any faculty can register himself by using name, email and password. That email and password will very important for login purpose. User email and password will be stored in Firebase Authentication. After successful registration user will be redirected to dashboard.

2. Login – A Faculty can login by using appropriate email and password, this email and password must be same as that credentials which was used during his registration. If user is successfully logged in then he will be redirected to Dashboard where he can use some other modules. Login has following options:

S.	Functionality	Description
No.		
1.	Give	This field is mainly Objective of this entire project. Where faculty
	Assignment	is able to give assignment to students. Assignment uploaded by
		teacher was further stored in database, then will be available in
		student module.
2.	Upload Notes	By using this field faculty can share the notes. This will also be
		stored in database.
3.	Result	Assignment submitted by Students can be seen by this field and
		further will be graded as well.
4.	Syllabus	Used for showing the course syllabus.

TABLE I. OPTIONS AT LOGIN MODULE

V. RESULT

The system developed is a working prototype and this system able to give benefits to the students, lecturer and university as a whole. Below are several results that highlighted:

A. Students

- Convenient for students and teachers, using the online Assignment giving system is a lot easier to use since they can simply go online 24/7 without any time restriction.
- Due Date can be mentioned by educator.

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- Cost saving, eliminates the unnecessary meeting and the cost of travel.
- Higher security and privacy.
- This is Android Mobile based app so easy to use.
- **B.** Teachers
- Convenient for faculties, using online student project management system teachers can simply monitor the progress of students.
- Reduce the effort of collection of assignment physically and make their job more appropriate.
- As this system reduce the time hence, it will increase the teaching experience of teachers.

VI. CONCLUSION

We The review presented in this paper is about workable prototype of an educational android app based application that is capable to track students assignments allow communication between student and educator and equip with study materials. The prototype was developed with the help of Android Studio and its inbuilt features like XML for UI design, Java for logic design and Firebase for database.

All the figures and tables are the perfect explanation about this system, how it will be developed, and how we can use this in real life. After several research we have found that it is necessary to move from the erstwhile old systems to new electronic systems that are more effective. In this case, the possibility of marking assignments electronically becomes real and available. The electronic marking of student assignments will save time, efforts and energy as well as expenses. It will also mean more accuracy and reliability for both the students and their instructors.

Future work – There are further more implementation can be possible in this system such as:

- By providing attendance record system.
- Face-to-Face doubt session through video calling facilities.
- By developing any system which will keep track of projects through this system.
- Implement web-based system as well.
- Implementation of the system in a way that can handle the plagiarism between students.

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