Implementation of Android Application for Academic E-Clearance

[1]Mittal Patne, [2]Neha Barapatre, [3]Anjali Nandgoali, [4]Vaishnavi Nerkar, [5]Diksha Umare

[1]Assistant Professor, Department of Information Technology, Nagpur Institute of Technology, Maharashtra, India.

[2345]UGStudents, Department of Information Technology, Nagpur Institute of Technology, Maharashtra, India.

Abstract - Online clearance system is an internet base research work that will help ease the queuing system in the university's clearance process. Online clearance system will build an effective information management that is very convenient to use for schools since it is internet based and can be accessed from anywhere. It is aimed at developing a computer software system that replaces the manual method of clearance for graduating students and that also help students to carry out their clearance without coming to the various offices for clearance. The designed software will serve as a more reliable and effective means of undertaking students clearance, remove all forms of delay and stress as well as enable you to understand the procedure involved, as well as how to do your clearance online. This project work makes use of data collection from the university, materials and journals from various authors and the software was developed to effectively achieve the aim of the project. In this project, the implementation of the computer based system was carried out using Java language, Android studio and Firebase.

KEYWORDS: Clearance, Query Language, Databases, Online system.

I.   INTRODUCTION

Online clearance application is a research work that will help build an effective information management for colleges. It is aimed at developing a application for making clearance after graduation. It will more reliable and effective.This project work to make clearance easily those who have submitted their term work, assignments, and manuals on time the clearance sheet will generate automatically. This software was developed to effectively achieve the aim of the project.

Developing an online student clearance system enable full tracking of students records.Online clearance is now used in various academics institute both locally and internationally for various clearance, for instance, online hostel accommodation, UTME online clearance exercise, online admission exercise, online graduating clearance exercise, and National Youth Service Corp online mobilization registration exercise to mention but a few. The admission process of students is strictly done online in some universities.

II.   PROBLEM STATEMENT

Delay in processing clearance form. Unavailability of some key staff while processing clearance form, which leads to students repeatedly visiting a particular office in other to sign his/her clearance form.Misplace of clearance form.Ill-legal removal of form and signatures by students.Takes a lot of times to retrieve a particular clearance form.

In the manual system, the clearance forms are documented in a file cabinet. Each time the clearance form is needed, a search operation is conducted on the file cabinets to locate a particular student's clearance form. To alleviate this problem, there is need to develop an efficient web-based platform that is reliable and cost-effective, which can manage the process efficiently. Therefore, the objective of this study is summarized below:

a) To develop an online clearance system that will effectively and efficiently process students' final clearance.

b) To provide a reliable and transparent system for the students' final clearance devoid of personal inclinations and interest.

c) To alleviate the problems and stress encountered by students during final clearance, most prominent one

being the queuing up of students at various clearance spot.

III. LITERATURE SURVEY

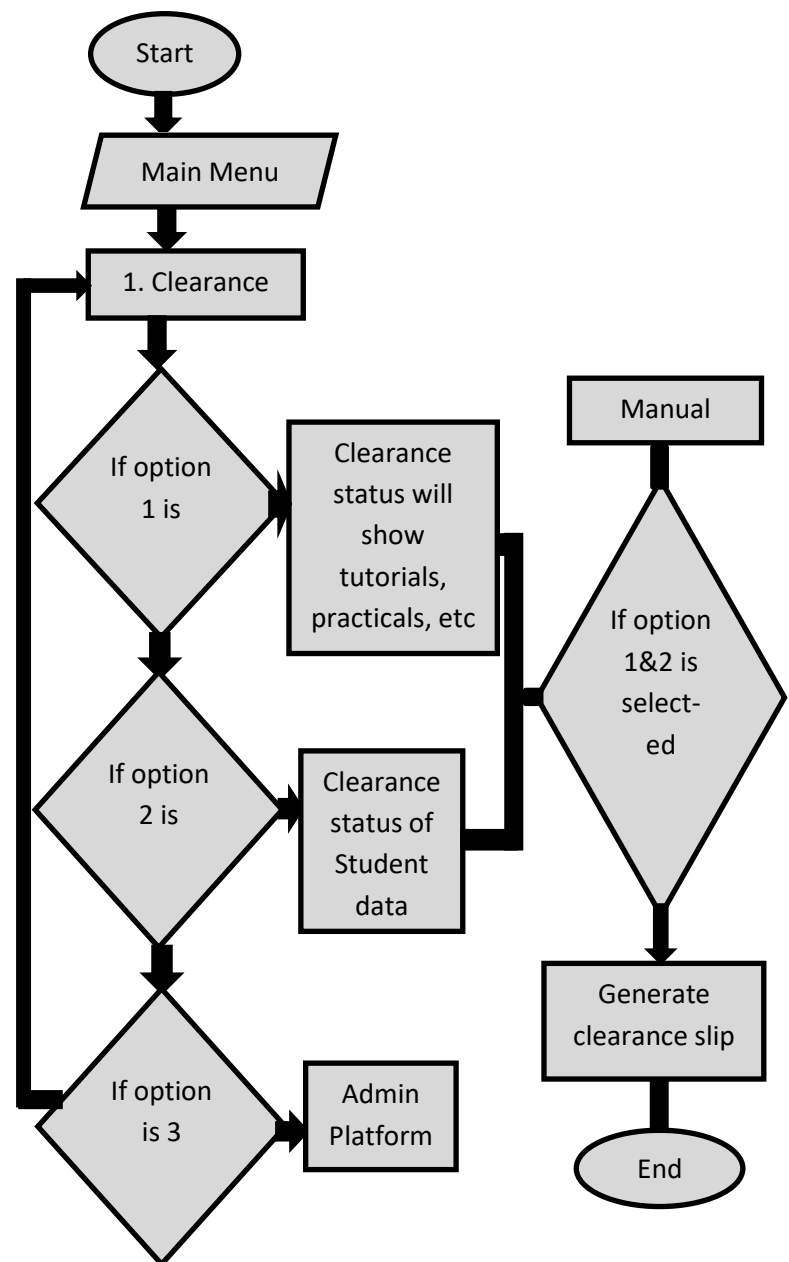| Sr. no	Title	Author	Objectives	limitation
1.	Design and development of online clearance system for payment in tertiary institution.	1. Osman opeyami lateef. 2. Olayinka odedsi.	To develop an online clearance system that will effectively process student for final clearance.	In this system it will be provide only final clearance after completing graduation.
2.	Moving towards Global Technological advancement: Basis for Clearance program development.	1. Luis cadizll. 2. Carl Nino Bondoc. 3. Johnbert Estorga.	To finding a better way to facilitate the signing of student clearance in a private school.	This system is used for only private schools according there directives annually.

IV. METHODOLOGY

Program Testing: After coding, program testing is needed to ensure that the program is working in accordance with the set of objectives effectively.

Evaluation: Once the system came into action it is necessary to be monitored in order to ensure that set objective are been achieved therefore this stage involves reviewing of the general area such as the performance of the new system evaluated in terms of objectives stated in the survey and analysis stage the system development lifecycle is reviewed accordingly.
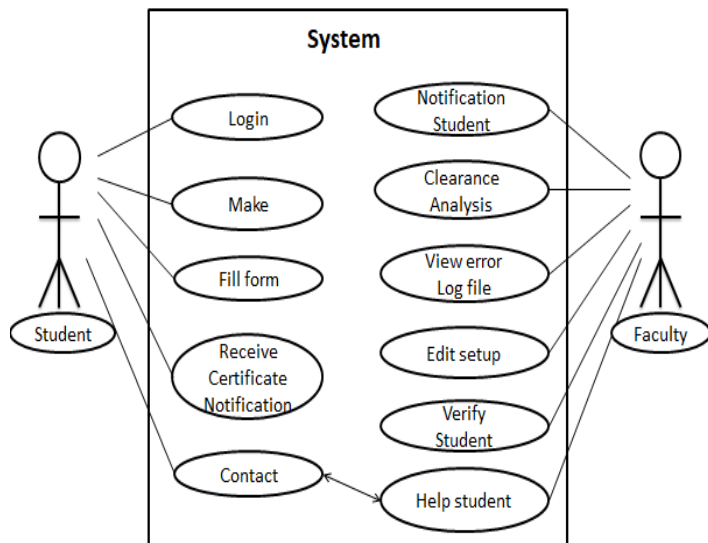
Maintenance: The life span of application can be significantly extended through proper maintenance periodic should be scheduled because preventive maintenance is better than corrective type.

The proposed system uses a top-down design which is a software design technique which aimed to describe functionality at a very high level, then partition it recursively into more detailed level one at a time as shown in Fig.1. The information captured in Fig.1 is further described in Fig.2, which depicts the Use-Case diagram showing the interaction between the user and the proposed system.

Fig.1. Flowchart of E-Clearance Application

Fig.2. **Use-case Diagram of E-Clearance Application**

V.   ADVANTAGES

a) Time Saving:
It saves the time of admin as well as student.

b) Reduces Manual Work:
It reduces the manual work and it also reduces the managing the paper work and help to store the online data.

c) Cost Effective:
It is less costly than offline clearance system.

d) Easy to Use:
It is very easy to use for admin and student
        Managing of data is also easy for the admin.

e) Reduces the Misplace of Documents:
The more problematic things for students is Misplace of their documents like receipts of Tuition fees, bus fees and other fees also.

VI.   APPLICATION

i.   This application is use to generate online clearance for an institute, college and organization.
ii. This system can be used as an E-Clearance over the Internet.
iii. Maintaining the central database for accessing all information relating to students.

VII.   HARDWARE SPECIFICATION

For the effective operation of the newly designed system, the following minimum hardware specifications are recommended.
- The computer system is used should be IBM compatible since they are considered clone systems.
- The Random access memory(RAM) should be at least 128KB.
- The system should have a hard disk of at least 50GB and at least a diskette drive of high density of 1.44MB(3.5 inches).
- The system should be equipped with an E.G.A/V.G.A, a colour monitor.
- An uninterruptible power supply (UPS).

VIII.   SOFTWARE SPECFICATION

The software specifications required on the computer system are: -

- Android
- Java
- Eclipse 3.0

This project mainly divided into two modules:

A.   FACULTY MODULE:-
The Faculty Module has the authority to manage various functionalities of the system. This module will be handled by an Admin (say Head officer of Department) & faculties who has the authority to:
- Register & Log in
- View student
- View & Edit profile
- Update profile
- Help students
- Log out

B.   STUDENT MODULE:-
This module consists of a login option and registration window for unregistered students. Students will use their mobile number as login and a proper specified length password. The functionalities provided in this system
- Register & Log in
- Check Acknowledgement taking form faculty
- View & Edit profile
- Contact to faculty when error occurred
- Log out

IX.   PRESENT WORK

The project aim is to design and development of Academic Online Clearance System, for take clearanceeasily. The Academic E-Clearance system for taking clearance at college, universities to gives more easiness to the users so that they can add and retrieve

information quickly. Once user opens this application all the schedule/events are available to everyone.

There are two types of users that are faculty and student. The student can enter and view information i.e.do registration, update them constantly. Student can very flexibly to access the learning material and it can see the notices & marks from faculty. Admin (faculty) perform task such as sending notice to the students as well as their error clearance is not ready to print. Which one from Assignment, Tutorial, Practical and MST is not submitted? If the all modules are cleared and submitted then contact to Faculty and Admin (faculty) give the print command for clearance.

The present work of the project is as follows:

Faculty Module:
1. Registration Page: In Registration page, faculty will enter the Subject details to get registered into the system.
2. Login Page: In Login page, faculty will Login into the system.
3. View Vacancies posted by company: Faculty will be able to view all data of students.
4. View their own subject details.
5. Update the student sheet of MST, Assignment, Tutorial and Practical when it checks by students.
6. Enter Marks for each MST, Assignment, Tutorial and Practical.
7. Send Announcements to the students and here Admin will be able to send notices to the students.
8. My Profile: Here, Admin (faculty) can view profile and can also edit/modify it.
9. Log out: Admin (faculty) will be logged out from the system.
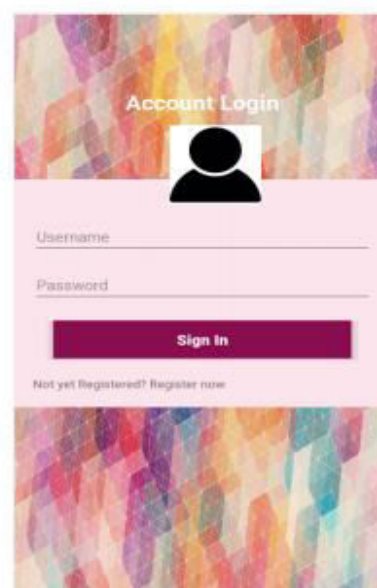
Student Module:
1. Registration Page: In Registration Page: In Registration page, faculty will enter his/her personal and academic information along with structural length password to get registered into the system.
2. Login Page: Here student will enter their Mobile number as login id and Password.
3. Home Page: After Login student will be redirected to this page where system will greet them by calling their name (For Ex. Hello Jon).
4. Checkout: In this page, students check their subject wise notices giving by faculties and see marks.
5. Student Details: Here, Student can see his/her profile and can also edit his/her profile.
6. Log Out: Student will be logged out from the system.

X.   RESULT AND DISCUSSION

Snapshot of designed system is given below which shows interface of various modules of system along with their functionalities.

Fig.9.1. Home Page

Figure.9.1 is a Homepage which consist of Faculty and Student tab; each module having Registration and Login page.
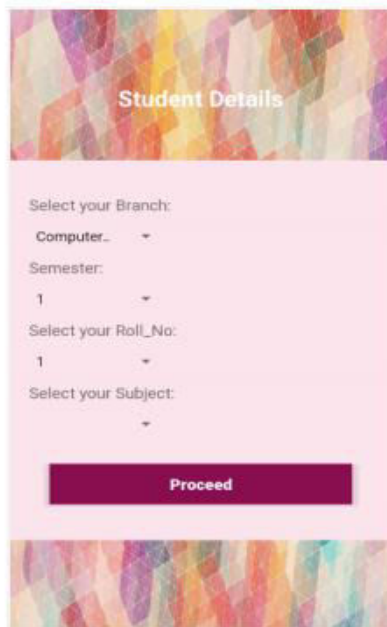

Fig.9.2 Registration and Login Page

Figure.9.2 shows registration and login page. If the students haven't registered they can register by clicking on the Login as Student. Once the students create the account, all the details will store in the database and after Login, students can register into system by entering their personal details andit is also same for Faculty tab.
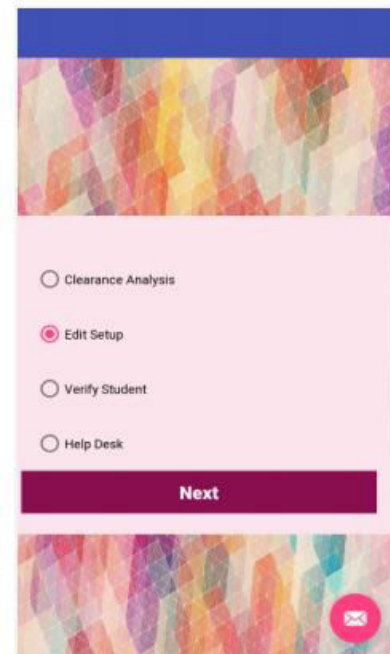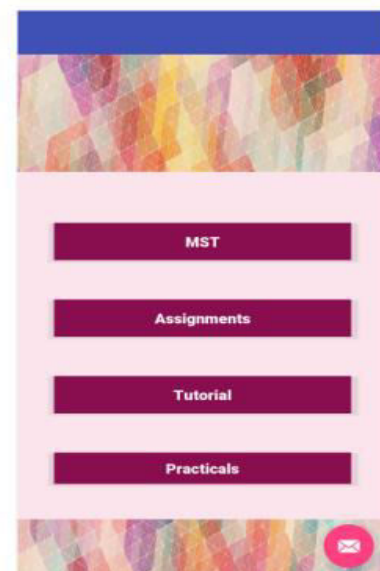
Figure.9.4 shows registration page. After login, Faculty/Students have to go on this page & put the details which are required for registration.

Fig.9.3 Student Academic Details

Figure.9.3 shows Student Academic Details in which students/faculties can enter the academic details for checking the submission of Tutorials, Assignments and Practical etc. for clearance purpose.
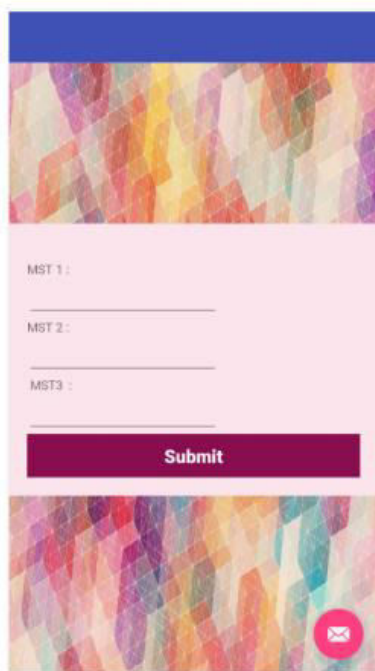

Fig.9.5 Editing Page

In Fig. 9.5, 9.5 (a), 9.5 (b), 9.5 (c) & 9.5 (d); Faculties can check whether all Tutorials, Assignments, MSTs & Practical have been submitted or not. If all these are ok then they can print it & will get clearance copy.
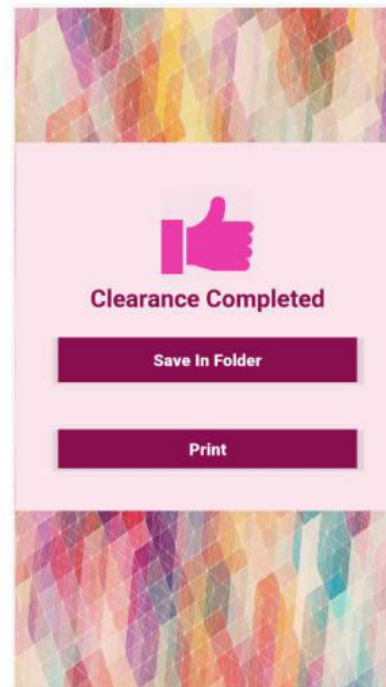

Fig.9.4 Registration Page

Fig.9.5. (a)

Fig.9.5. (b)
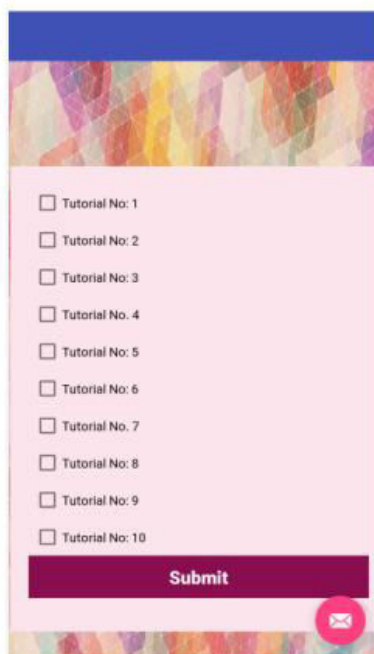

Fig.9.5. (d)

XI.   FUTURE SCOPE

- It will manage a perfect data of every student.
- All transaction or payments with regards to student clearance can be carried out online.
- All tertiary should endeavour to adopt and use an automated online clearance process and keep records effectively and efficiently.
- Researchers can carry out further research on this research.

XII.   CONCLUSION

- The effectiveness and efficiency of this new system provides room for further improvements. As earlier mentioned some of the objectives of this project are not actualize due to some limitations. So this objective could be improved upon.
- This clearance application developed will offer greater opportunities in college management. It was able to manage students clearance process across all the departments and units and it eliminated the weakness of the manual process which mainly lack centralize repository for the clearance process.
- Others are the process is slow, clumsy and stressful. Therefore, the clearance application can

Fig.9.5. (c)

be used for recording and certifying that a student is cleared to disengage or not. The clearance applications are recorded and the status can be determined at any point in time.

REFERENCES

[1]Awuzie, S.C.(2013),Design and Implementation of Online Student Clearance System: A Case Study of Caritas University Amorji-Nike, Enugu State, Nigeria. A project submitted in partial fulfilment of the requirements for the award of Bachelor of Science (B. Sc) in Computer Science.

[2] Web Portal www.stuvia.com

[3] Web Portal http://cdn.bitmedianetwork.com

[4] Web Portal www.academia.edu

[5] Web Portal www.opproject.ng.com