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Implementation of Online Paper Evaluation System

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ABSTRACT: Technology has make our lives easier and the things become better faster, easier, and more convenient. So our way of taking exam should also be changed ie taking classes as well as examination online, so with the use of cloud Services, Python and Django we can develop the Online examination system where examinations are given online. The main moto of this system is to not only minimize the required time but also to generate fast and accurate results. The main objective of our web system is to make exam portable and more convenient and easer to students as well as teachers. User can attend exam without present physicaly in the exam centre. This online Examination System is very useful for Institute's to take or conduct the exam in online mode, it will reduces the time of checking paper and generating. This Virtual examination system will help the Institutions to examine the student. In this system student will upload there answer sheets and the teachers will evaluate them, it is a time saving and efficient way of taking exams.

KEYWORD: Cloud services, Python, Django, online examination system.

I.INTRODUCTION

The Online Examination System is considered as a efficient and convenient way of taking examination because of its accuracy of generating result in less time. Nowadays most of the institutions are taking exams in online mode, so this online examination system will be very usefull. Invigilitors or teachers can easily monitor the progress of the students through this system. As per today's requirement Online paper evaluatiuon system is significantly important to the educational institutions to conduct the exams that save's the time and effort that is required in checking the papers and generating the results of students. Online examination system will helps the educational institutions to keep overall records of the students. Till today taking exams and generating the results was performed manually, this takes more time to complete this process, so to overcome these the paper evaluation system and result generating system is been developed. It will limited span of time which was required early is beneficial for both students as well as the teachers. As the papers are being uploaded online for online evaluation, the invigilator can check the papers anywhere at anytime and according to their comfort. This will reduce the stress of invigilators, such as they have to check offline papers in a fixed time of duration. As the papers will be checked efficiently, the students will get desirable results, according to their performance.

This online evaluation system will help the teachers to monitor the overall performance of the students. The invigilators can easily start evaluating paper from the last paper they have already checked, so they do not need to remember the paper number they were checking or have to evaluate, whenever they want they can resume there evaluation of papers. This system is flexible and effective for all types of institutes, colleges, schools, teachers and students too. The answer sheets of the students, results and their overall performance will be available and stored in the database of the system. This system can run on android, tablet, desktop and the laptop as this system is affordable to each and every student as well as teacher. The students have to upload there answer sheet as per the allotted time as soon as exam time is over students cannot upload there answer sheet, as per to conduct the exam in fair manner.

II.DEVELOPMENT OF WEB-BASED SYSTEM

There are some main objectives of this online examination they are as follows:
- Complete web based system no installation required to run the application in users system.
- The online examination system Generate number of reports for organigasations, institutions like, total students present or registered for examination, no. of students present for examination etc.

- The system is convenient, flexible and reduces the anxiety of the teachers and students.
- The system will help in online interaction between the students, teachers and head of departments.
- The system is designed in such a way that it becomes user-friendly and easy to use.
- Student and members result will be saved on the server and can be view by students later on or in future.
- The system is quite secure because of authentication provided by Amazon Web Services (AWS).
- Access only to the students, teachers and head of departments of the particular college, institution or organizations.

III.EXISTING SYSTEM

Before, the students used to write the papers by going in the colleges, institutions. Then the teacher used to check paper in a specific time. The physical process to retrieve, re-check and counting the marks was hectic and a burden for the teachers. Now, this system provides a way to especially teachers to check the paper efficiently and to track the progress of the whole class as well as the particular student in a easy and efficiently.

The students also facing many problems like makng misuse of the paper as it is physicaly present in the invigilators hand and also the bunch of papers need to be stored and maintain for longer time and there was also the risk of loss of paper. This problem is solved through this system and now the papers can be stores easily in the database for a long period safe and secure.

There are some researchers have developed some solutions to provide the colleges and institutes with the online examination system. All the researchers have contributed to the system to design system in such a way that they become more efficient and are user-friendly. The some of the survey was conducted based on the researchers summarised below:

Ayo, C.K Akinyemi, I.O Adebiyi, A.A & Ekong, U O 2007, "The prospects of e-examination implementation in Nigeria", Turkish Online Journal. The developed system would solve the associated problems with the traditional methods. With e-Examination, it is possible to space the period of examination without compromising quality and integrity of the examination. If e-examination is introduced into other institutions. This system will beneficial for all the educational institutions and exam centers.

B.Ipaye(2009), "E-Learning in a Nigerian Open university", national open university of nigeria. After fully implementation of this system it beneficial for all educational systems. There are so many problems in taking exams offline ie maintaining a bunch of papers, checking them and generating result in traditional way is very complicated and stressfull work, so this system will minimize all this issues. security will be more effective in this system since no other person can access the data of the other person.

F.Andrew, D.Pullen and C.Harper (2009). "Case study of a computer based examination system" Au stralian Journal of Educational Technology, 25(4), 509- 523.10, page 125-135. To make every thing easy and quick the online evaluation paper system is been developed. By developing this system we can save, resources like time and energy required to evaluate every single answer sheet and it may also reduces the need of the paper. As of now most of the examinations are online.

Fagbola Temitayo M., A.Adebisi A., oke. Alice O(2013)," Computer-Based Test (Cbt) System for university academic enterprise examination", international journal of scientific & technology research Volume 2, Issue 8, August 2013. Has developed a computer based test system and it is also used to take MCQ's based exams. Where the teacher or the lecturers will upload the question paper ans the students will give the exam on that system by login in by using there respected ID's

M.Z. Rashad, M.S. Kandil, A.E. Hassan, and M.A. Zaher had developed the web application for mass evaluation, using various open source technologies such as HTML, AJAX and PHP, MYSQL. The online paper evaluation system is been developed for virtual examination ie. A person can give exam for anywhere there is no need of the infrastructure to take exams. It may also beneficial for the teachers or invigilators too.

Naresh.Chiranji, CH.Deepthi, T.P.Shekhar,"A novel approach to enhance security for online exams", IJCST Vol. 2, Issue 3, September 2011. Has developed a system with security for online exam system, to reduce the time of teachers as well as students. It is also a fully secure system with full authentication.

Y. Zhenming Y., Z. Liang and Z.Guohua (2003), "A Novel Web-Based Online Examination System for Computer Science Education", 33rd ASEE/IEEE Frontiers in Education Conference, S3F-7-S3F-10. Has generate a system to reduce the manual effort as it is more reliable and time saving and it also increases the efficiency of work. In which students can also fill the exam forms.

Mohammad A.Sarrayrih, Mohammed.Ilyas (2013),"Challenges of Online Exam, Performances and Problems for Online University Examination". They had developed a online examination system in which they have put the face recognition where the students has to first verifiy their biometric face recognition.

IV.PROPOSED SYSTEM

- Student
- Teacher
- Head of Department (Institutions head)
- Paper uploading
- Revaluation of papers
- Result generating
- Timetable
- Statistics (overall progress in pie chart)
- Search
- Notification
- Feedback

V.TECHNOLOGIES USED FOR IMPLEMENTATION

1. Amazon web server (AWS) :-
   - Amazon Web Services (AWS) is the most widely use cloud platform. AWS is a platform which the most flexible and secure cloud computing environment.
   - In this online examination system AWS service is used to store the data in the cloud storage
   - Cloud storage involves at least one data server that a user connects to via the internet. Where user sends data or request data from the server where the data is been stored safe and secure.

2. HTML/CSS :-
   - Hypertext Markup Language and Cascading Style Sheets are two of the main technologies for building Web pages. CSS is the language which helps in including colors, layout, and fonts in the web page. HTML and CSS are languages that give style to web pages.
   - In this online examination system web based application HTML/CSS is used for the design of front end or user interface.

3. javascript :-
   - To make interaction between user and web page javascript is used.
   - JavaScript frameworks is a collections of JavaScript code libraries that provide developers with already written code to use for programming for developing interactive web applications.

4. Python :-
   - Python is an high-level programming language. Python is a easy to learn and simple language. Which is mostly used in AI and ML.
   - In this system python is used for complete back end code

5. Django :-
   - Django is an open source framework use for the backend development of code. Its main goals is to make the code simple, flexibe, reliable, and scalable.
   - Check the paper from anywhere at any time.

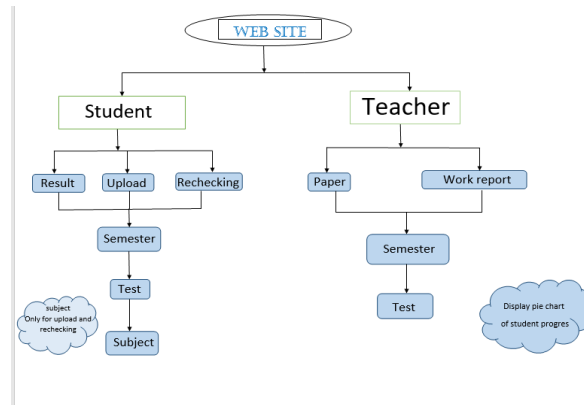## VI.DESCRIPTIONS OF MODULE

1.FLOWCHART OF SYSTEMS

Fig. 2: Student – teacher tabs structure

This structure shows the approaches of students, teachers and HODs with the system, once they log-in in the system.

A. STUDENT SECTION
In student section it is shown that how student can interact with online system.

1. View Result **-** By clicking on the result tab students will be able to view their results. A person can't view the result of any other student. The results can only be viewed by log-in in the correct student id.

2. Upload paper **-** The students have to upload their written paper in the given time in the upload section and via student section papers will be transferred to teacher's section for evaluation.

3. Rechecking **-** If student want to get his/her paper re-evaluated on the basis of a desirable reason, the paper can be applied for re-evaluation by clicking on this tab.

4. Semester **-** This tab will have option to choose semester 1 – 8 and the students have to choose the semester to which they belong. If they are choosing inappropriate semester then the request will not been completed.

5. Test **-** The test option determines whether the test is formative assessment, summative assessment or normal weekly test.

6. Subject **-** In subject option there will be subjects related to the particular semester after selecting the correct semister. After only clicking the proper subject, the test paper will get submitted to the relevant teacher/invigilator of that subject.

B. TEACHER SECTION
The teacher will have certain tabs in their section they are as viz.

1. Check Paper/Upload result **-** The paper in the teacher section will have papers consisting of various students belonging to various semester and only then subject relevant teacher will get papers of their subject respectively. Teacher can add paper, check paper, upload result.

2. Work Report **-** The work report will consist of the work done by the teacher till the date and how much work is left. The work report tab will get to know the numbers of paper been checked and similarly about the no. of unchecked papers.

3. Semester/Subject **-** In this tab the teacher can select the semester of which He/She wants to check the paper of that semester and that particular subject.

4. Test **-** The test tab will help to get access the papers of the tests of which the teacher wants to evaluate.

5. Add student **-** This tab will enable teacher to add new students in the system. As every year, new students get admitted to the college, in the same way they need to get admitted to this system and all the new students are been provided with new college domain ids to enable them to access the system.

C. HEAD HEAD OF THE DEPARTMENT(HOD)/ADMIN
The HOD will have certain tabs in their section so they can keep an eye on teachers and students as well.

1. Add/Remove Teachers **-** The HOD/Admin has the access to add or remove Teacher as well as Students. Admin can add a new faculty, whole system is under control of Head of Department/Admin.

2. Database Control **-** The Hod/admin will have access to the data and have control to the database.

3. Assign Subjects **-** The HOD's will assign subjects to the teachers according to there specialization, and also assign a timetable to teacher.

4. Access Teachers' previous record **-** The Hod will have records of the teachers of their respective department and can easily access the record of the teacher of any time. This will help to check the performance of the teacher for the development of the students.
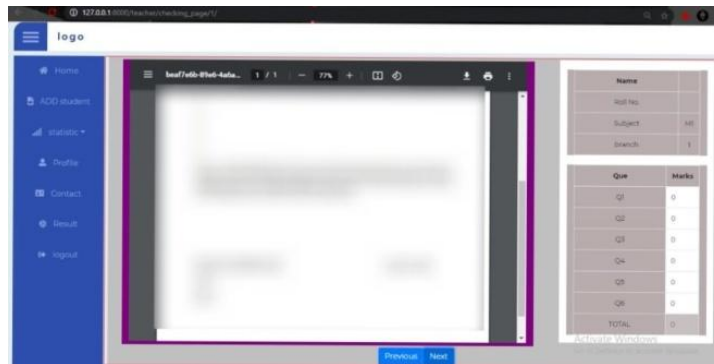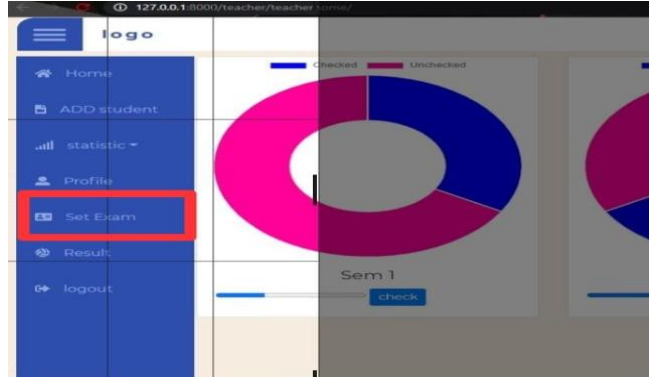
VII. FLOW-CHART
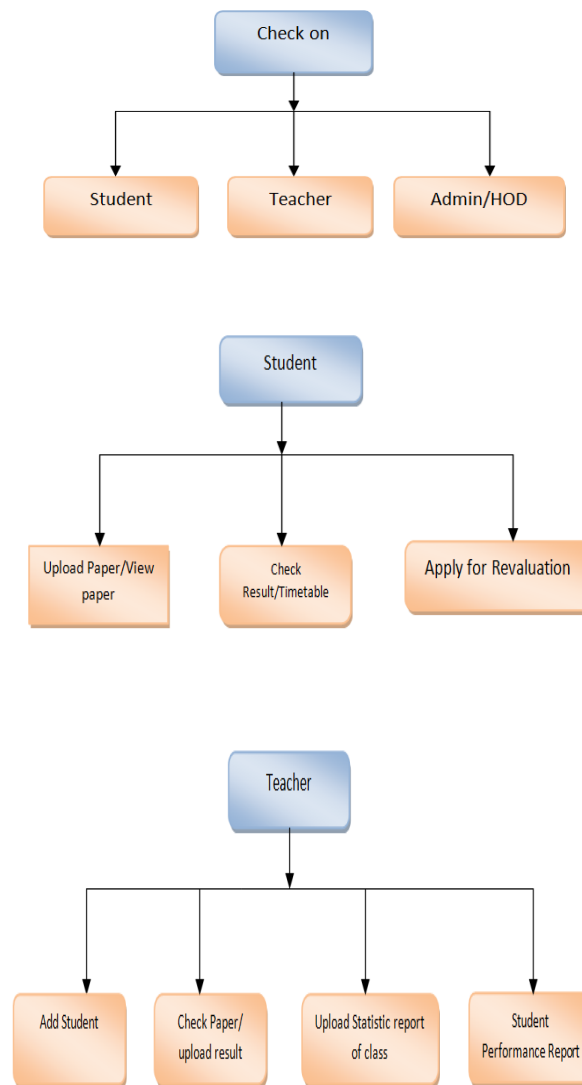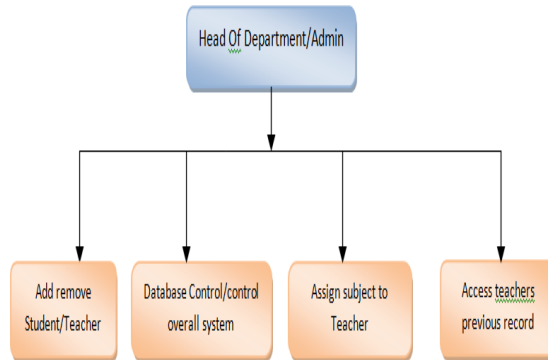
VIII.FUTURE SCOPE

1. Live interactive classes for students.
2. To manage online attendance of students.
3. Online Admission and Exam form Filling.
4. Section for Parents - Teacher online meet.
5. Online Scanner to scan the paper so that the student can directly upload the paper.
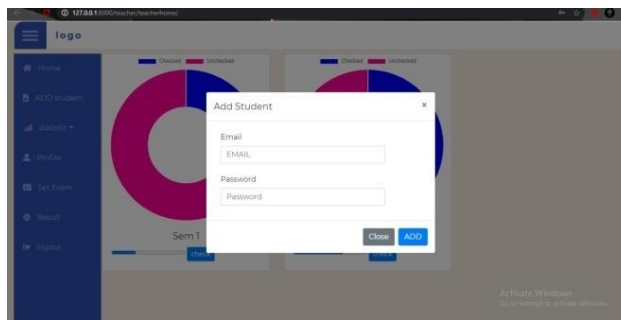
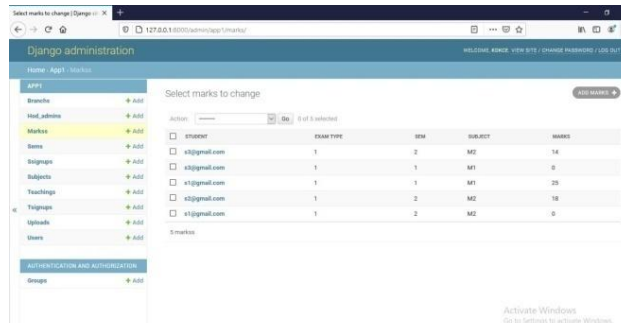## IX.RESULTS

1) Home Page
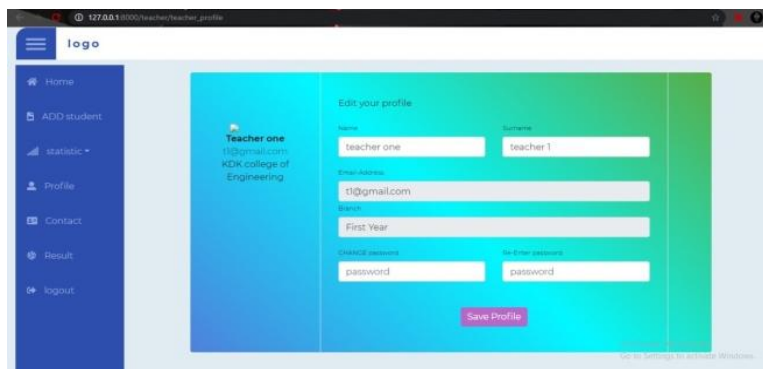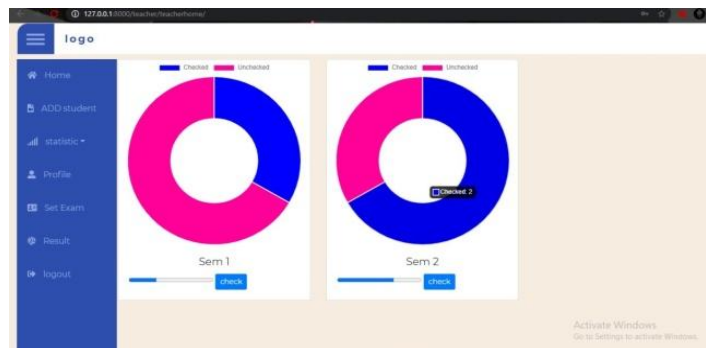
2) Teacher side

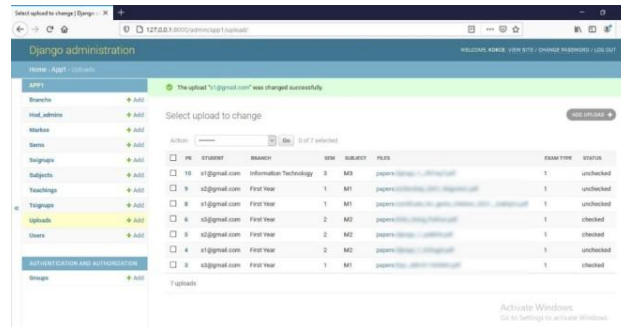**Paper checking (teacher side)**

Add Student (Admin Side)

3) Server side view

Students data stored in server

Students data server side

X.CONCLUSION

   This web-based online evaluation system helps to evaluate the papers of the students in less time with more efficiency. This system is safe and secure. The data in the system is stored in the AWS Server which makes it easier to store the data for a longer period and the data can be easily accessed at any time and at any place and also the is fully secure. All the students, teachers and Admins can get the information they required in a limited span of time which makes the system more efficient. The system is made in such a way that it convenient and user-friendly.

This system will also reduce paper work. students can easily submit papers and invigilator can easily evaluate the papers at any period of time so there are no time bound issues. This system provides full mobility to students, teachers and HoD. After generation of the result, students can check the result as well as can review the papers uploaded by them after evaluation and generation of marks and results.

XI.ACKNOWLEDGMENT

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