



ISSN NO. 2320-5407

Journal Homepage: - [www.journalijar.com](http://www.journalijar.com)

## INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR)

Article DOI: 10.21474/IJAR01/12370  
DOI URL: <http://dx.doi.org/10.21474/IJAR01/12370>



INTERNATIONAL JOURNAL OF  
ADVANCED RESEARCH (IJAR)  
ISSN 2320-5407  
Journal Homepage: <http://www.journalijar.com>  
Journal DOI: 10.21474/IJAR01

### RESEARCH ARTICLE

#### EXAMINATION MANAGEMENT SYSTEM

**Divya H.<sup>1</sup>, Nandhini S.<sup>1</sup>, Shobana S.<sup>1</sup> and Dr. M. Sujithra<sup>2</sup>**

1. Msc Data Science, Department of Data Science February 2020 Coimbatore Institute of Technology Coimbatore.
2. Assistant Professor Department of Data Science Coimbatore Institute of Technology Coimbatore.

#### **Manuscript Info**

##### **Manuscript History**

Received: 25 November 2020

Final Accepted: 28 December 2020

Published: January 2021

##### **Key words:-**

Workflow, Streamline, Exam Preps, Automation. Designed to Manage Access Permissions For Different Users To Prevent Misuse Exam Information and Various Data As Well

#### **Abstract**

Examinations are a scary subject discuss among students and even for teachers. Examinations require very smooth functioning of exams and it is dependent on managers establishing the processes and a working relationship with the Exam Centre Manager. Also communicating these with staff and students ensures everyone is working towards the same goal. Automated systems can bring all the hassle related to examination management to ease. Academia ERP is a comprehensive system that provides Examination Module which covers all the activities related to management of examination directly from receipt of Enrolments Forms and Examination Forms through the processing of Results and Printing of Certificates and Statistical Reports etc. The Examination module involves all the necessary forms that are needed for the student to fill up to register for exams. The module is connected to the student database; therefore, it helps in retrieving all necessary information about the student on just filling in the Id/ name/ enrolment etc. Academia's Examination module provides the followings for easy and effective management of examinations at the institute- Academic or examination module follows systematic workflow beginning for pre-examination setup, student marks update to defining different reports etc. **Exam Management module** in Academia ERP is an excellent automation system that can effectively automate and streamline planning and execution of the exams, and it has been designed to make the examination processes efficient and also paper free. Academia's Exam Management portal helps you to automate the entire examination process from Pre-exam preps like the creation of test papers, Exam timetable and grading criteria etc. to handling logistics and allocating invigilators. The automation systems are designed to manage access permissions for different users to prevent misuse and mismanagement of legal and official data by an unauthorized user for not only exam info but various other data as well. This project aims on developing an efficient platform for managing examination systems. It consists different modules as described above. The student and examination details are stored in a database.

*Copy Right, IJAR, 2021,. All rights reserved.*

**Corresponding Author:- Divya H**

Address:- Msc Data Science, Department of Data Science February 2020 Coimbatore Institute of Technology Coimbatore.

**Introduction:-**

Examination management system includes many key features and modules. It includes Plan and Register module, Question Paper module, Conducting Exams modules, Evaluate and Publish module.

In the exam pre-phase, the exam applications of the students are processed and stored in the system. The System generates Examination Timetable. Conduct different kinds of exams as per the institute Timetable. Easily enable exam invigilator to conduct the examination in the allotted exam hall with configurable seating plan and marking of student & invigilator attendance. Dynamic Seating plans with shuffling feature for exam rooms. Rapid Enrolments and Registration of Students for Examinations.

Setup question papers and get approvals processed within the system and under complete encryption. The question papers can be of different types and uniquely defined for different groups as well. Easy registration of students for all of the course's examination within the deadline. Automatically generate hall tickets through the exam software for issuing to students during exams and hall ticket format can be choice by the institute. Keep the students and invigilators informed at every stage with automatic email notifications.

Have complete control over the system by creating entire workflow and allocating roles and defining each role. Handle room allocation, rescheduling, incident/misconduct management and so on. Create multiple types of question papers such as multiple choice questions; fill in the blank, true or false, column matching and more. This Increases the secrecy and credibility of the examination. Create automated approval workflows from question paper preparation to routing it for approval providing a large question bank to prepare for the examination.

Monitoring and controlling all information related to student and invigilator attendance by session/hourly/day wise attendance in the morning and afternoon and generation of reports. Evaluation process can be on-screen. On screen Evaluation process involves various security stages like complete security management process, evaluator handling process and click by click audit processes etc. Instantly publish exam results by defining date and time with student result management system.

**Methodology:-**

**Django:**

Django is a high-level Python web framework that enables rapid development of secure and maintainable websites. Built by experienced developers, Django takes care of much of the hassle of web development, so you can focus on writing your app without needing to reinvent the wheel. It is free and open source, has a thriving and active community, great documentation, and many options for free and paid-for support. Django helps you write software that is complete, scalable, versatile, secure and maintainable. In this web development Django is used as a connectivity tool. It is (and has been) used to build almost any type of website — from content management systems and wikis, through to social networks and news sites. It can work with any client-side framework, and can deliver content in almost any format (including HTML, RSS feeds, JSON, XML, etc).

**Mysql:**

Mysql is a fast, easy-to-use RDBMS being used for many small and big businesses. Mysql is developed, marketed and supported by Mysql AB, which is a Swedish company. Mysql is becoming so popular because of many good reasons –

Mysql is a very powerful program in its own right. It handles a large subset of the functionality of the most expensive and powerful database packages.

Mysql uses a standard form of the well-known SQL data language.

**Mysql:**

is an open-source relational database management system that works on many platforms. It provides multi-user access to support many storage engines and is backed by Oracle. So, you can buy a commercial license version from Oracle to get premium support services.

Database varies according to the host. Every database would require a user name and password, in order to access the database. Database administration can be done using PHP scripts or using a program like PHPMyAdmin. The next step is to create the database tables for storing the website information. Creating a database table using PHPMyAdmin is also simple. Alternatively, one can create and configure the entire database using the following PHP script. MYSQL here is used to store the details of the registered users.

### Visual Studio:

The Visual Studio code editor also supports setting bookmarks in code for quick navigation. Other navigational aids include collapsing code blocks and incremental search, in addition to normal text search and regex search. The code editor also includes a multi-item clipboard and a task list. The code editor supports code snippets, which are saved templates for repetitive code and can be inserted into code and customized for the project being worked on. A management tool for code snippets is built in as well. These tools are surfaced as floating windows which can be set to automatically hide when unused or docked to the side of the screen. The Visual Studio code editor also supports code refactoring including parameter reordering, variable and method renaming, interface extraction, and encapsulation of class members inside properties, among others.

### Python:

Python can be used to build server-side web applications. While a work is not required to build web apps, it's rare that developers would not use existing open source libraries to speed up their progress in getting their application working.

Python is not used in a web browser. The language executed in browsers such as Chrome, Firefox and Internet Explorer is Java Script. Projects such as pyjs can compile from Python to JavaScript. However, most Python developers write their web applications using a combination of Python and JavaScript. Python is executed on the server side while JavaScript is downloaded to the client and run by the web browser.

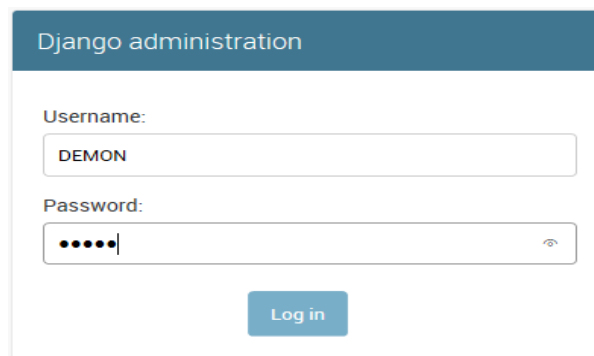
### Css:

With CSS, we are able to create rules, and apply those rules to many elements within the website. This approach offers many advantages when site-wide changes are required by a client. Since the content is completely separated from the design, we can make those changes in our Style Sheet and have it affect every applicable instance. Since rules are only downloaded once by the browser, then are cached and used for each page load, the use of CSS can lead to lighter page loads, and improved performance. This contributes to lighter server load and lower requirements, which overall saves money for our clients.

### Results and Discussions:-

Only the admin can alter the examination details. In that only the admin was supposed to add or remove a product that is present in the database. The database is under complete control of the admin. The management admin has its own user name and password. Only authorized admin can access the database data of a company.

The students can view their marks available in the management website. But the admin alone can alter the data content in the database.



The image shows a screenshot of the Django administration login interface. At the top, there is a dark blue header with the text "Django administration" in white. Below the header, there are two input fields: "Username:" with the value "DEMON" and "Password:" with masked characters "•••••". A blue "Log in" button is positioned below the password field.

1. This project is aimed to create an exam management app to maintain data from various exams.
2. Performing insertion, deletion, altering of data present in management database (Admin).

**Inference:**

This project gives a complete view of an examination management system. This project includes the security properties that an examination system should satisfy. We can infer that all the properties that are needed for an examination and the students those who attend the examination will be in a calm atmosphere. This helps them to give their best in their exams. If someone lags behind then they have lack of concentration in their exams or something make them lose their concentration in their examination hall. Using Django and Mysql we may infer the further arrangements in examination system.

**Conclusion:-**

In this project we have presented a secure exam management system. We have reviewed all exam stages and we have identified the different security properties that every exam stage must satisfy. Such information allowed us to define a system based on different protocols that offer a high security level for all exam stages. Moreover, the scheme has been implemented in-order to test its functionality and some implementations have been presented. We have used Django as frontend and Mysql as backend and made connectivity between those two that becomes the implementation part. A template is selected and login, registration etc, those process has been implemented. Hereby we conclude this project by various factors included in this project is highly efficient and well versed in future woks.

**Reference:-**

<https://www.analyticsvidya/online-exam-management-system.com>.

1. Nijaz.(2000). Dynamic Web-based Application Development. New York:Prentice Hall .
2. Enright, A.G., and Libert, T., "The Web: It's not just for E-mail Anymore", American Society for Engineering Education (ASEE) Annual Conference Proceedings, Charlotte, North Carolina, 1999.
3. Newton, Harry, "Newton's Telecom Dictionary", 14th Edition, 1998.
4. Ritchey, Tim, and Shobe, Matt, "JavaScript For Macintosh", 1996 .
5. Harold, Elliotte Rusty, "Java Network Programming", 1997 .
6. Biedny, David, and Monroy, Bert, "Adobe Photoshop Handbook", 2.5 Edition, 1993.