

# International Journal of Innovative Research in Science, Engineering and Technology

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## Web-based Online Examination and Admission System

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**ABSTRACT:** Online Web-based Examination and Admission system is web enabled software designed to manage the entire Operations of an institution. It is a simple yet powerful one joint integrated platform that connects all the various departments of an institution like Admin, Student section and many more specialized modules. We have seen over the years that the process of notice boards, important notification about academics has been carried out manually. The process is not only time consuming but also inefficient. Today, we need not to maintain paper based Notice boards. Also in this system we are going to add the web based technology using which we can get the notifications given by the institutes.

**KEYWORDS:** Angular 4, Node js, eclipse, admission and examination system, SQL management studio.

### I. INTRODUCTION

In today's time, instead of advanced technology still all the admission process whether it may be the college or school admission it is being carried out manually using paper and pen which is very inefficient and utilizes much efforts and time. In today's technology where computers are being used everywhere, they are being used as an alternative to pen and paper. The database can store more information about users in less space and in very less time. The solution behind this is web-based online admission and examination system.

This system stores the details of students such as fee details, document details, admission and examination details etc. This Student Database has been designed considering the practical needs to manage Students data.

Our design focuses on Following types of users:

- Admin
- Student
- Staff
  - Exam Section
  - Account Section
- Faculty
  - HOD
  - Teacher

### II. LITERATURE SURVEY

1. Traditional method of Managing information is paper based system. In this system information of each module is stored on papers. It is very difficult to manage this data, also it is time consuming and costly.

2. Half of the educational institutions in developing countries use the traditional method of managing information system with standalone computer machines and store data in different departmental system due lack of infrastructure. On these systems, the software implemented do not integrate processes and cannot interact to each other. In these kinds of system implementation, no concept of service architecture being used.

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3. This system is aimed at developing an Online Examination and Admission system that is of importance to either an educational institution or a college.

## III. PROBLEM STATEMENT

Today all the work at the time of admission of the students is done manually by ink and paper, which is very slow and consuming much efforts and time. Most of the colleges, are maintaining students, faculty information in records. When the number of records increased, it is difficult to maintain the information of each student in old manual system. It is required to Design of a Computerized Automated Student Admission System, to speed up and make it easy to use system.

## IV. EXISTING SYSTEM

In existing system for managing various modules such as Student module, Admin module, Faculty module, Staff module etc. takes lot of paper as well as time.

- Drawbacks of existing system:
- Security is maintained only by using username and password.
- No validation after filling form.
- The speed of execution is slow.

## V. PROPOSED SYSTEM

From the homepage of our system various links are provided such as About Us, Contact Us. About Us module gives us the information about the college and Contact Us module gives the address and contact information of college. The system is designed with following objectives:

- Manual efforts are overcome here as our system is computer based.
- In this system instead of manually filling the admission and examination form, student can directly fill it online.
- It is most reliable and time saving.
- Students can fill exam form, view their exam results, if failed in exam can fill the K.T. form.
- It increases the quality in work for educational institutes.

## VI. METHODOLOGIES

Angular 4 :

Angular is a platform and framework for building client applications in HTML and TypeScript. Angular is written in TypeScript. It implements core and optional functionality as a set of TypeScript libraries that you import into your apps.

HTML :

Hypertext Markup Language (HTML) is the standard markup language for creating web pages and web applications. With Cascading style sheet (CSS) and Javascript, it forms a triad of cornerstone technologies for the World Wide Web.

Node js :

Node.js is an open source, cross-platform runtime environment for developing server-side and networking applications. It uses an event-driven, non-blocking I/O model that makes it lightweight and efficient, perfect for data-intensive real-time applications that run across distributed devices.

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Eclipse :

Eclipse is an integrated development environment (IDE) used in computer programming, and is the mostly widely used Java IDE. It contains a base-workspace and extensible plug-in system for customizing the environment.

## VII. IMPLEMENTATION

Angular is a platform that makes it easy to build applications with the web. Angular combines declarative templates, dependency injection, end to end tooling, and integrated best practices to solve development challenges. It empowers developers to build applications that live on the web, mobile, or the desktop. The implementation of the student information running system comprises of the creativity of the home page which gives the best interface for all the students and admin login. Every user has its own unique username and password provided by the college admin. The home page mainly contains a login through which student and admin can login to follow it to further way.

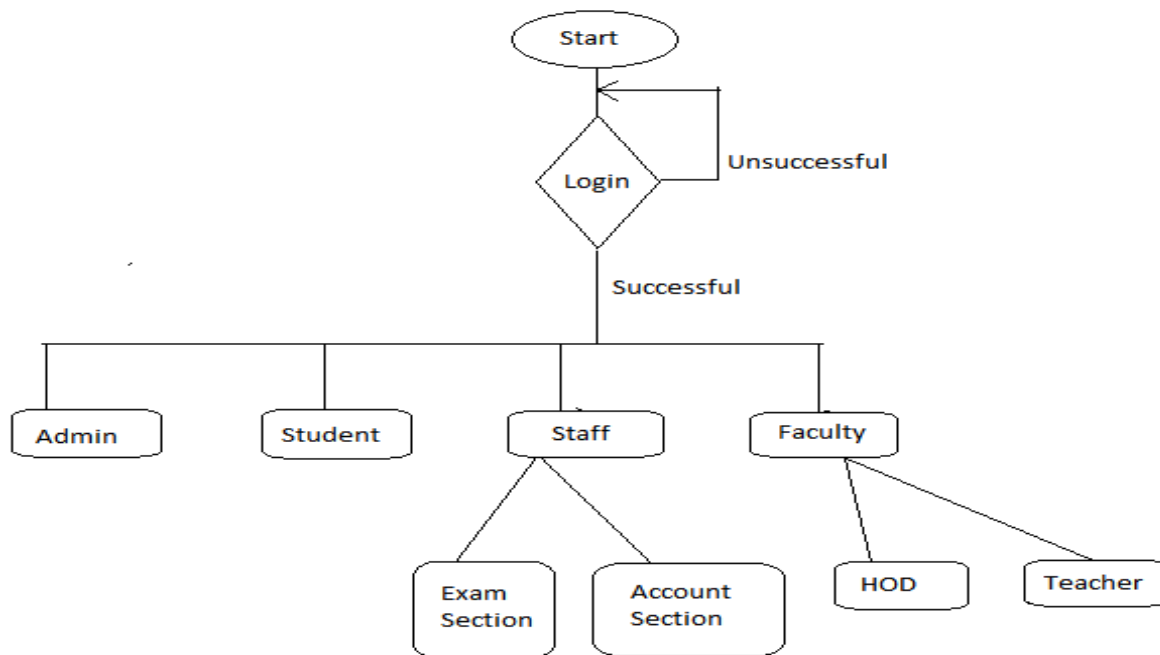


Fig: System Flowchart

- Admin:

Admin plays the crucial role as all process is implemented by admin .The administrator is liable for entering the fresh Student, Teacher, HOD, Accountant and exam section staff by giving the distinct login id and password. Handling the student interpretations like any alterations regarding to the name, address, branch, seats etc. or by modifying or deleting the records.

- Student:

The student starts by logging with their login Id and passwords provided by admin, through which they can access the information. Student will fill the exam form which will also be considered as admission form provided by the exam section. If the form contains any invalid data then it will be resend to student by exam section for re-correction with the reason. Student will make required corrections and send back to exam section. Then finally correct form will be accepted. Fee process will be done offline. He/she can view exam result which is put by exam section.

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- Staff:
  - Exam Section:
    - It will accept the valid exam form and send notification to student that the admission process is completed.
    - Exam section will also display the exam result of respected branch.
  - Account Section:
    - After verification of form from exam section student will take a printout of that form. Then he/she will pay fee offline. Accountant will give receipt copy of paid fee to the student.
  - Faculty:
    - HOD:
      - He/she will add subjects of respected year of different branches.
  - Teacher:
    - Teacher will view the information related to student and subjects entered by HOD.

## VIII. EXPERIMENTAL RESULTS

It is an online system for our college. It comprises of admin unit, student unit etc. Executed outcome result of our College student's admission will be done online by verifying and validating the documents. Each and every process comprises of the requirement of our project that are going to be executed in an better implemented way.

### a) Login module:

Admin, student and other users of the system will login by putting username and password. Once login Dashboard will get open.



Please Sign In



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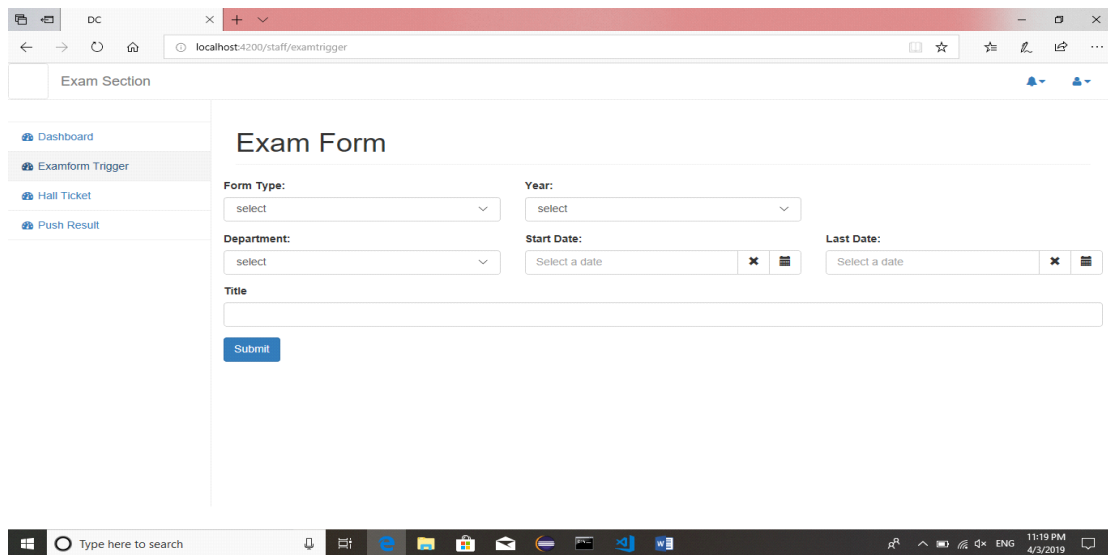
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## b) Exam module:

Exam department sends the exam form with its duration time. Student have to fill the form within the duration time and submit it. If there is any error in the form it will be send again by the exam staff for correction. If the form is not filled within time it will be disabled.



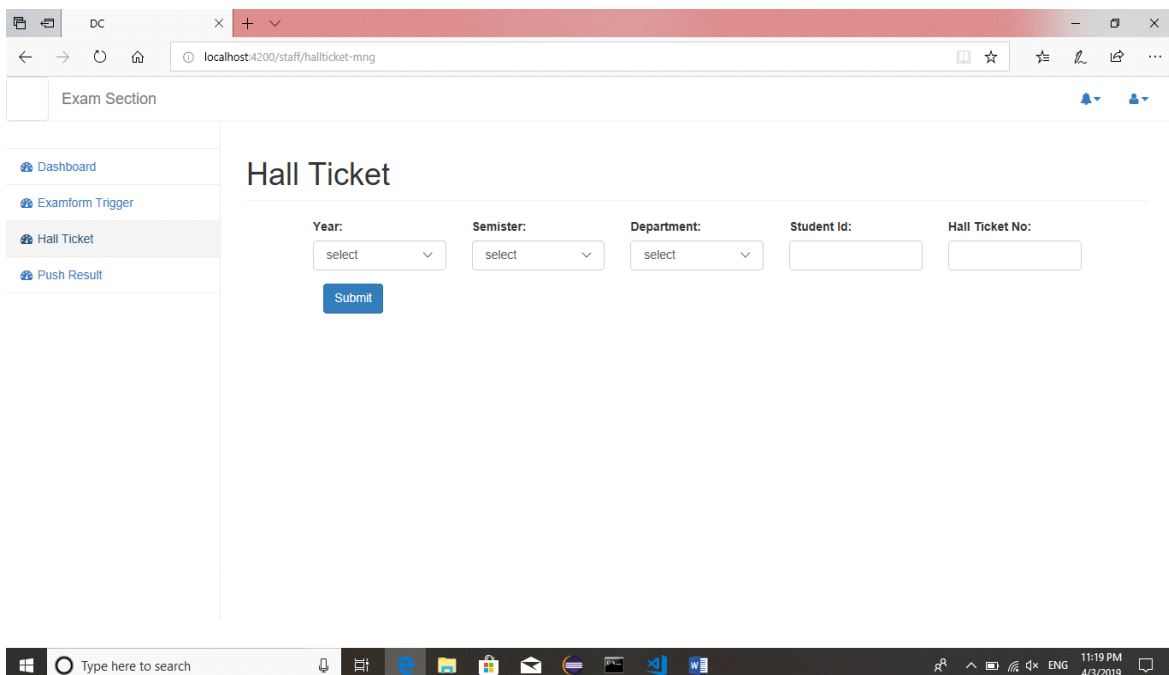
The screenshot shows a web browser window with the URL localhost:4200/staff/examtrigger. The page title is "Exam Section". On the left, there is a sidebar menu with options: Dashboard, Examform Trigger, Hall Ticket, and Push Result. The main content area is titled "Exam Form" and contains the following fields:

- Form Type: select
- Year: select
- Department: select
- Start Date: Select a date
- Last Date: Select a date
- Title: (empty text input)

A "Submit" button is located below the Title field. The Windows taskbar at the bottom shows the date and time as 11:19 PM 4/3/2019.

## c) Hallticket:

Exam staff will fill the related information. He will enter student id number from exam form and seat number from hallticket. After submitting student's id and seat number will get store in database.



The screenshot shows a web browser window with the URL localhost:4200/staff/hallticket-mng. The page title is "Exam Section". On the left, there is a sidebar menu with options: Dashboard, Examform Trigger, Hall Ticket, and Push Result. The main content area is titled "Hall Ticket" and contains the following fields:

- Year: select
- Semister: select
- Department: select
- Student Id: (empty text input)
- Hall Ticket No: (empty text input)

A "Submit" button is located below the Student Id field. The Windows taskbar at the bottom shows the date and time as 11:19 PM 4/3/2019.

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### IX. CONCLUSION

By using existing system accessing information from files is a difficult task. There is no quick and easy way to keep the record of admin, student, staff, faculty etc. The aim of our project is to reduce workload and save time. This is a paperless work. It reduces the man power required. Student's records can be accessed within few seconds. All years together gathered information can be saved and can be accessed at anytime. Our system primarily focuses on building an efficient and user friendly communication system for the educational institution.

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