

WTL PROJECT REPORT

TITLE : Exam Cell Automation

TEAM MEMBERS DETAILS :

- Gaurav Dhurjad - 3229
- Ayush Gupta - 3235
- Krishna Hudge - 3237

PROBLEM DEFINITION :

This project consists of several modules which are used in the exam cell process. The Project represents an automated systems which ensures the reduction of the tediousness, more effective work and systematic management. The project deals with the registration of students, the admin, generation of automated Exam Forms. This project also generates Hall Ticket, Results for the students which can be accessed remotely. This allows the admin to enter the results of the students and editing timetable.

REQUIREMENTS :

- **HARDWARE :**
 1. Computer(Device) - A computer or a device is needed to run the developed system.
 2. RAM - RAM should be above 2GB.
 3. Processor - 32/64 bit processors are supported.
- **SOFTWARE:**
 1. Node.js, NPM, Express, Mongoose
 2. Web Browser
 3. MLab (Software to store database)
 4. Visual Studio Code (Editing Tool)

DESCRIPTION :

- **MODULES :**

1. Module 1 - Login : This module provides login for a student as well as the admin.
2. Module 2 - Exam Form and Hall Ticket : This module provides portal for the student to fill their exam forms and immediately provides the Hall Ticket in form of PDF.
3. Module 3 - Result : This module displays the result based upon student's roll number and at the admin side using department, semester and seat no. admin can add the results.
4. Module 4 - Timetable : This module shows the timetable using department and semester and at the admin side using the same details admin can add timings of the examinations.

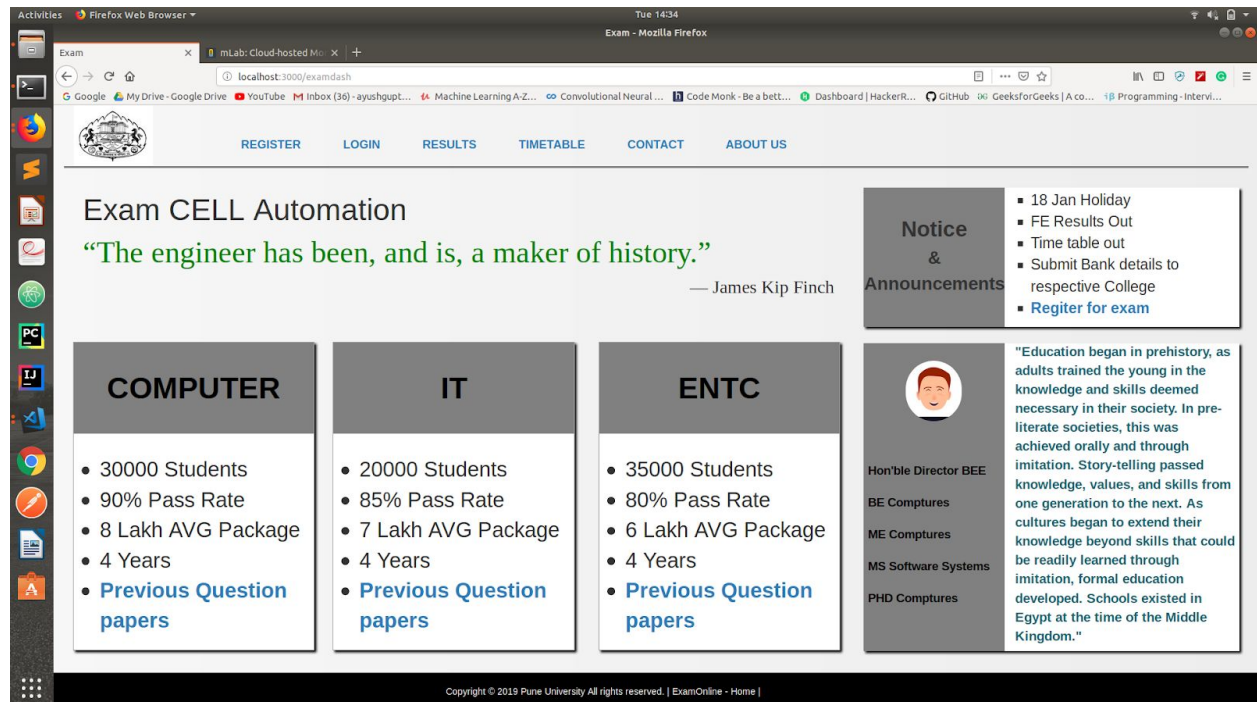
- **WEBPAGE NAME AND TECHNOLOGIES USED:**

Home	HTML, CSS, Bootstrap
Student Details	HTML, CSS, Bootstrap
Registration	HTML, CSS
Login	HTML, CSS, Bootstrap
Exam Form	HTML, CSS, Bootstrap
Timetable (User Side)	HTML, CSS
Timetable (Admin Side)	HTML, CSS
Result (User Side)	HTML, CSS, Bootstrap
Result (Admin Side)	HTML, CSS, Bootstrap

BACKEND:

Server side scripting language	Node.js
Database	MongoDb

SCREENSHOTS:



Activities Firefox Web Browser Tue 14:33 Bootstrap Example - Mozilla Firefox

Bootstrap Example x mLab: Cloud-hosted M... x +

localhost:3000/kz/client/result

Google My Drive - Google Drive YouTube Inbox (36) - ayushgupt... Machine Learning A-Z... Convolutional Neural ... Code Monk - Be a bett... Dashboard | HackerR... GitHub GeeksforGeeks | A co... Programming - Interv...

Get Result

RESULT

SUBJECT	MARKS
Chemistry	50
BEE	80
M1	80
Civil	80
EG	90

CGPA : 8.941176470588236

Result : PASS


Print Result

Activities Firefox Web Browser Tue 14:34 Exam - Mozilla Firefox

Exam x mLab: Cloud-hosted M... x +

localhost:3000/kz/registerfirst

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Eligibility Number Submit

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Activities Firefox Web Browser Tue 14:34 Mozilla Firefox

localhost:3000/kz/register mLab: Cloud-hosted M... x +

localhost:3000/kz/register

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REGISTER LOGIN RESULTS TIMETABLE SYLLABUS CONTACT ABOUT US

Eligibility No*:

Name*:

Mother's Name*:

Address*:

State*:

Phone Number*:

DOB*:

Gender*: ☒ Male ☐ Female ☐ Other

College Name*: Pune Institute of Computer Technology

Course Name*: Computer Engineering

Year of Study*: First Year

Semester*: First

Email*:

Password*:

Submit

Activities Firefox Web Browser Tue 14:34 Login - Mozilla Firefox


Login mLab: Cloud-hosted M... x +

localhost:3000/kz/login

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DASHBOARD RESULTS TIMETABLE CONTACT ABOUT US

SAVITRIBAI PHULE PUNE UNIVERSITY



SIGN IN

Email

Password

LOG IN

[Forgot Password?](#)

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Activities Firefox Web Browser Tue 14:35 Mozilla Firefox

localhost:3000/bh/homea mLab: Cloud-hosted M... x +

localhost:3000/bh/homea

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DASHBOARD RESULTS TIMETABLE EXAM-FORM CONTACT ABOUT US Logout

Personal Details

ELIGIBILITY NO	:a12345
NAME	:Ayush
MOTHER's Name	:Seema
BIRTH Date	:02/04/1998
PERMANENT ADDRESS	:abc
STATE	:Maharashtra
COLLEGE	:Pune Institue of Computer Technology
PHONE NO	:9028600226
Gender	:Male
EMAIL-ID	:ayuwork4@gmail.com

Academic Details

COURSE NAME	:Comp
YEAR OF STUDY :	:1
Semester	:1
SEAT-NO	:F40052345

SUBJECTS

Chemistry
BEE
M1
Civil
EG

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Activities Firefox Web Browser Tue 14:35 Mozilla Firefox

localhost:3000/kx/timetab... mLab: Cloud-hosted M... x +

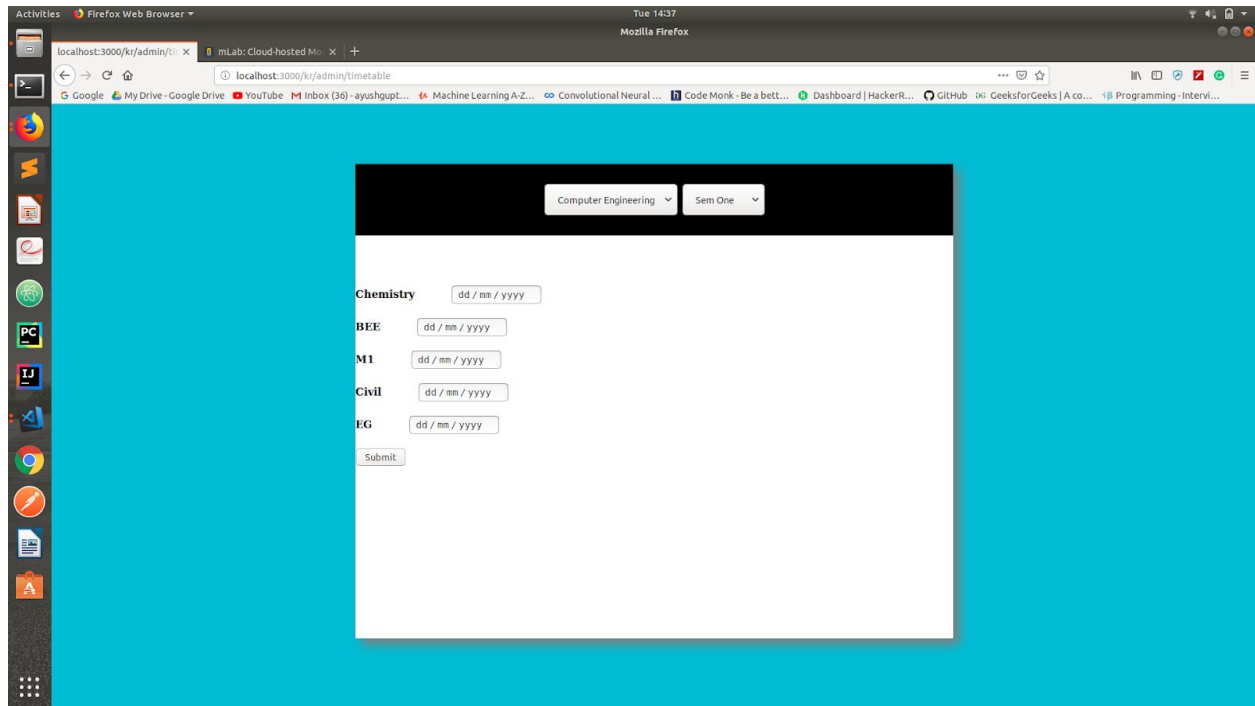
localhost:3000/kx/timetab...

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EXAMDASH RESULTS TIMETABLE CONTACT ABOUT US Logout

Computer Engineering Sem One Search

Subject Name	Date	Time
Chemistry	2019-03-05	10:00 am
BEE	2019-03-20	10:00 am
M1	2019-03-21	10:00 am
Civil	2019-03-21	10:00 am
EG	2019-03-20	10:00 am



Activities Firefox Web Browser Tue 14:37 Bootstrap Example - Mozilla Firefox

Bootstrap Example x mLab: Cloud-hosted Mongo... x +

localhost:3000/rz/admin/result

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PERSONAL EXAMFORM RESULTS NOTICE TIMETABLE Logout

Department

Computer Engineering

Semester

Sem 1

Fetch Subjects

Enter Seat No:

Enter marks

SUBJECT	MARKS
Chemistry	
BEE	
M1	
Civil	
EG	

Submit

Activities Firefox Web Browser Tue 14:40 mLab: Cloud-hosted MongoDB - Mozilla Firefox

Bootstrap Example x mLab: Cloud-hosted Mongo... x +

ObjectLabs Corporation (US) | https://mlab.com/databases/exam

WELCOME PLANS & PRICING DOCS & SUPPORT ACCOUNT LOG OUT

(user:"ayush2498",account:"ayushgupta2498")

Database: exam

Delete database

To connect using the mongo shell:

```
% mongo ds127736.mlab.com:27736/exam -u <dbuser> -p <dbpassword>
```

To connect using a driver via the standard MongoDB URI ([helpful link](#)):

```
mongodb://<dbuser>:<dbpassword>@ds127736.mlab.com:27736/exam
```

mongoos version: 3.6.0 (BMAPv1)

Sandbox databases do not have redundancy and therefore are not suitable for production. Read our documentation on [how to upgrade](#).

Collections Users Stats Backups Tools

Collections

Delete all collections + Add collection

NAME	DOCUMENTS	CAPPED?	SIZE
courses	3	false	17.94 KB
registers	4	false	8.17 KB
results	7	false	11.38 KB
students	4	false	9.55 KB
timetables	3	false	9.44 KB

System Collections

NAME	DOCUMENTS	SIZE
system.indexes	5	0.55 KB

Want more help?

Visit [mlab's documentation](#) and/or contact support@mlab.com

TROUBLESHOOTING :

1] Can not get '/kr/register'

In the main.js file, we took alias name as 'kr' only, after adding '/' before 'kr', it was rendering correctly.

2] Can not resolve express

We did not include express package in package.json file, after running 'npm install express --save' command, it was running correctly.

3] 'sem' property of undefined in result page

We were fetching data from result collection using sno and storing the result in docs. But mongoose returns list, so to access data from docs we have to use docs[0]. And then 'docs[0].sem' gave correct results.

4] Problem of multiple forms in handlebars

Using built-in helpers like if, else, unless we resolved the problem.

FUTURE SCOPE :

As the technologies are emerging it is possible to enhance the system and make it adaptable to desired environment i.e. customize as per the college requirements. For security issues a technology known as QR Code could be implemented. Using which, the results, databases could be digitalized saving a lot of space and providing faster access.

As per the requirements of the University/College, further changes could be implemented in the system making it more reliable, more efficient and convenient for everybody to use it.

CONCLUSION :

Ultimately the result of the implementation of this project will lead to reduce the workload of the students, the faculty members and the exam-cell staff. The result would be a fully-fledged working Automated Examination Process System. Apart from this students will be able to view their results, their academic status on the system itself. The admin will be able to enter the examination marks of the students.

There won't be any need to use multiple different systems for different activities. The processes will be covered by the proposed system. This will reduce the tediousness of the manual process and give a chance for efficient, flexible and automated exam related processes.

REFERENCES :

- [1] <https://nodejs.org/en/docs/>
- [2] <https://mongoosejs.com/>
- [3] <https://www.w3schools.com/>