



TEXAM

-The Future of Online Exams-

OUR TEAM

Motto

“Solving Modern Problems with
Modern Solutions”



Garvit Chouhan
(Front-end & AI
Developer)

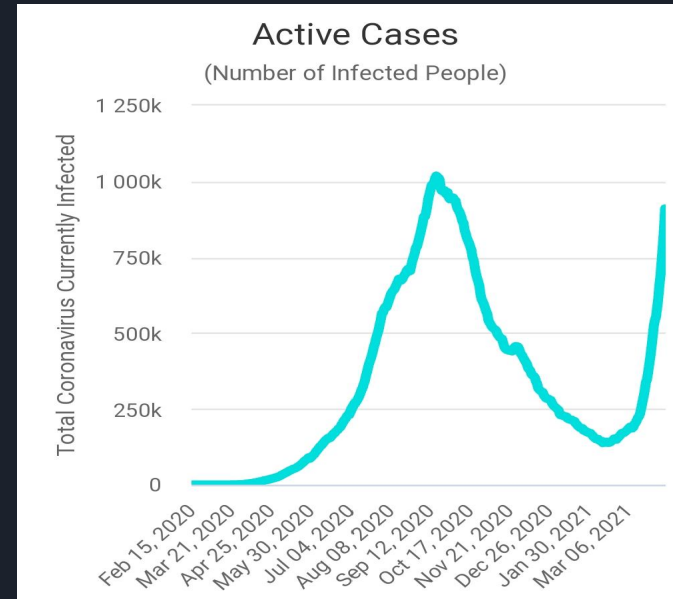


Harsh Singhvi
(Backend
Developer)

Hustlers9000

Problem Statement

“With The advent of Pandemic , The inefficiency of online testing platforms surfaced along with bulk load of miscellaneous activity during online exam.”

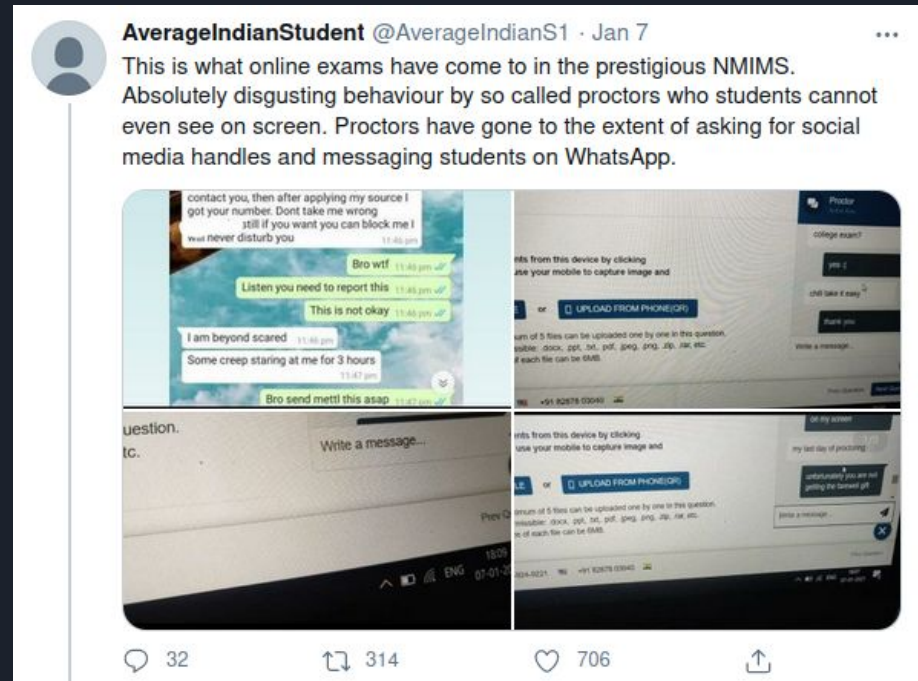




Understanding the Problems

- 01 Inefficiency of Single Teacher To Monitor Multiple students Live Audio & Video Streams Simultaneously.
- 02 For Ideal Results there Should be One teacher per Student, but that's highly inefficient at small scale
- 03 Platforms Like mettl exists where One on One Proctoring Is Provided, Then What's the Problem? “Privacy-Breach”

NMIMS Mettl CASE (Privacy Breach and Online harassment)



Source: <https://thewire.in/education/narsee-monjee-mumbai-harassment-online-exams-mettl>



The Idea

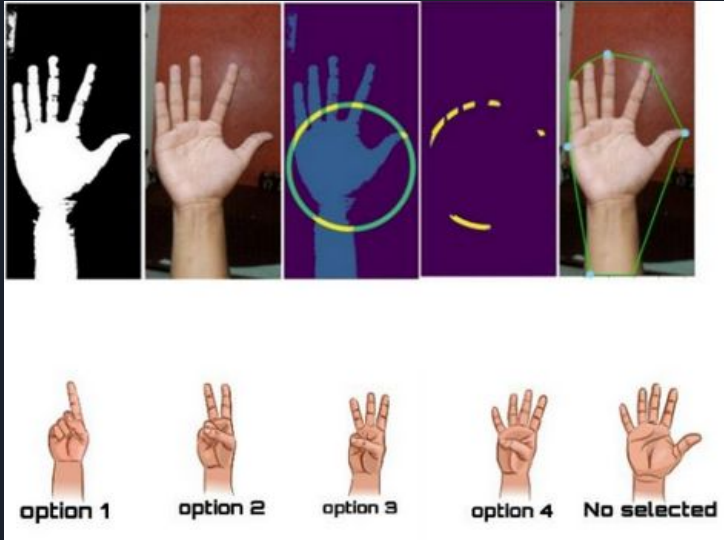
“Building a Robust AI driven System, to conduct AI proctored test, & minimizing the scope of Cheating to The Maximum Extent.”



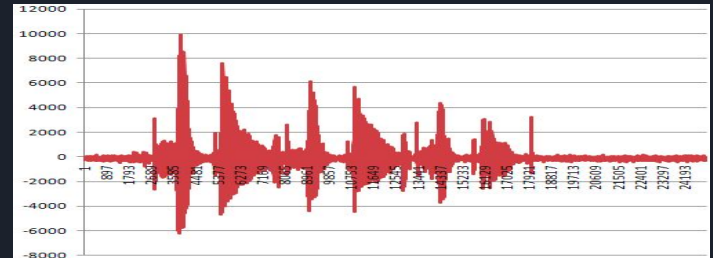
TEXAM

Key Features

Advanced Contact-Less System



AI Monitored Video & audio stream



Key Features

Single Executable Binary

*Extensive control

*Reduce Server Load



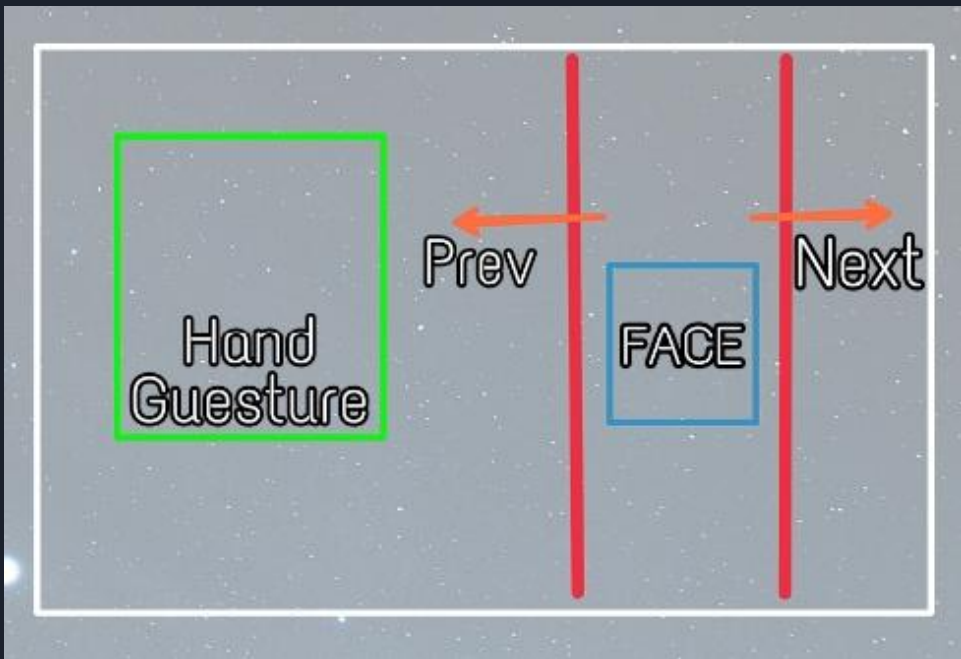
Admin Portal:

- Manage Question (add or Delete).
- View Responses Statistics.

LeaderBoard Portal:

- View Results ,i.e Score Penalties.
- View Ranking Of Students

Guestures



option 1



option 2



option 3



option 4



No selected

Target audience

- Students, Learners, educators.
- Schools, Colleges.
- Online Platforms Such as Byju's, Vedantu, Unacademy
- Online Degrees from eminent Institutes Like IIT Madras, MIT.
- And All The AI Community Round The Globe.





Features of Client Application:

Face-Recognition:
Using HaarCascade.

Gesture Recognition:
Convex Hull in OpenCV.

Advanced Audio analysis:
Using Amplitude Array.



Features of Back-End:

Use of REST API:

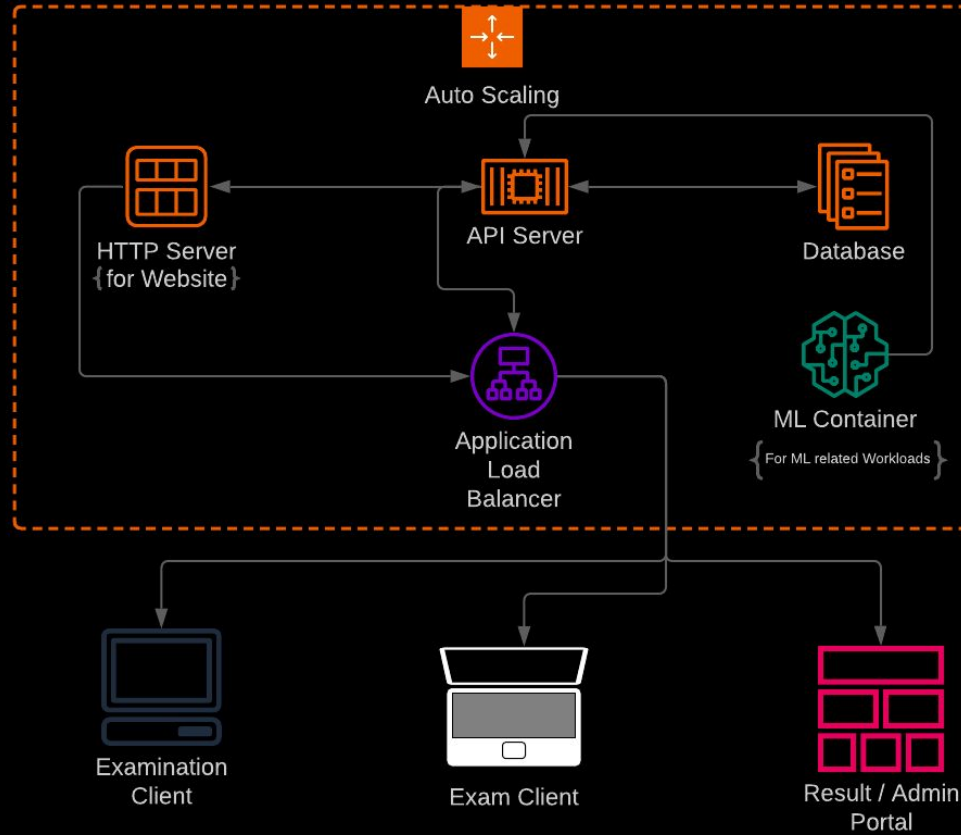
API Blocks provides limited indirect access for storing responses and accessing questions.

Containerization of infrastructure:

High availability, Auto-scaling, Redundancy, Security.

CI/CD pipelines:

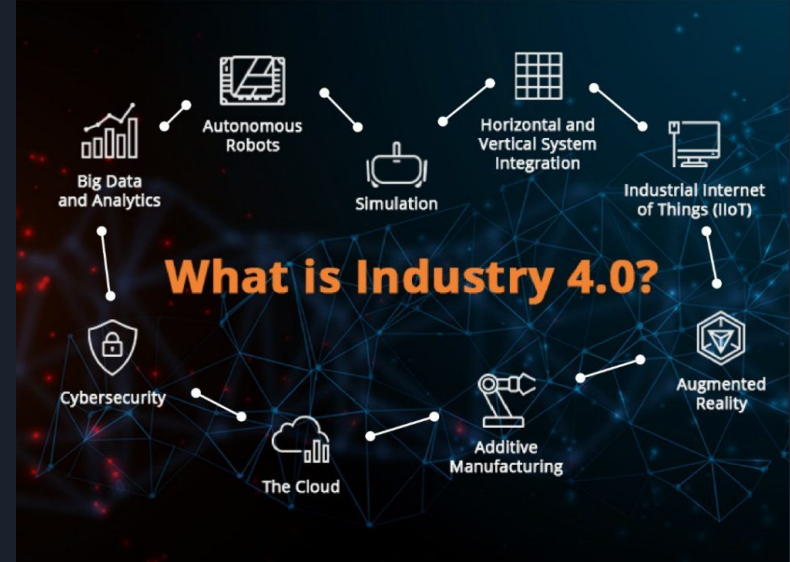
This Automates the build & Deployment process.



TEXAM Infrastructure Diagram

Industry 4.0 Standards:

- ✓ Cloud Computing
- ✓ Artificial Intelligence
- ✓ System Integration and Automation
- ✓ Cyber Security
- ✓ Big Data

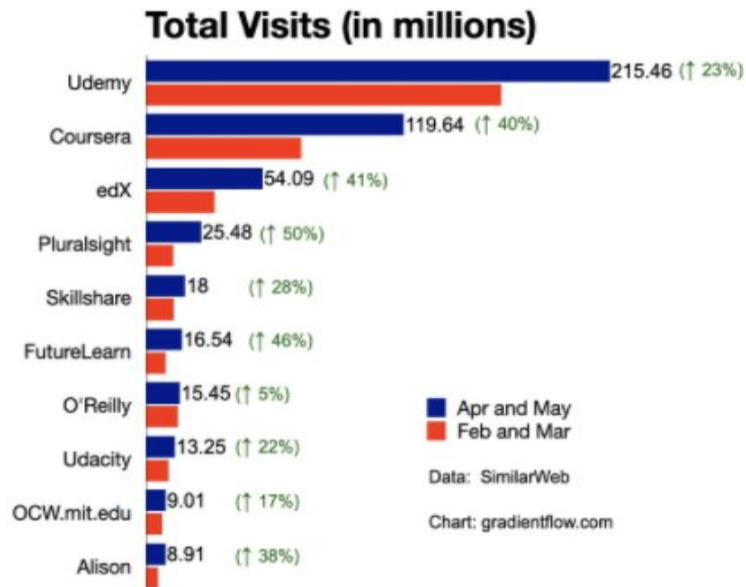




Future Scope

1. **Smartphone detection & Multi-face distinguisher.**
2. **Emotion Analysis** to provide support to emotionally weak candidates.
3. Backup **AI rendering in backend server** for system that fails to process ML Workloads at client site.
4. Production Deployment on **Kubernetes Engine** on **AWS/Azure**. API authentication, more safety and security measures.
5. Video and Audio stream using **WebRTC**.

Online Learning PLATFORMS



May 2020	
Site	AVG visit duration (minutes)
Udemy	12:25
Coursera	15:00
edX	8:16
Skillshare	5:29
FutureLearn	47:01
Pluralsight	12:11
O'Reilly	6:29
Udacity	19:31
Alison	15:02
OCW.mit.edu	3:36



The End