THIAGARAJAR COLLEGE OF ENGINEERING

(Govt. Aided & Autonomous Institution, Affiliated to Anna University, Chennai)

DEPARTMENT OF INFORMATION TECHNOLOGY

18IT780-HUMANCOMPUTER INTERACTION LAB

[LAB EXPERIMENTS - RECORD]

THIAGARAJAR COLLEGE OF ENGINEERING

(Govt. Aided & Autonomous Institution, Affiliated to Anna University, Chennai)

B.TECH INFORMATION TECHNOLOGY

18IT780 – HUMAN COMPUTER INTERACTION LAB

[LAB EXPERIMENTS - RECORD]

REG. NO : 18IT063 ROLL NO : 61637

NAME : PRIYA SAVITHIRI B

BRANCH : B.TECH INFORMATION TECHNOLOGY

THIAGARAJAR COLLEGE OF ENGINEERING

(Govt. Aided & Autonomous Institution, Affiliated to Anna University, Chennai)

This is certified to be the Bonafide Record of 18IT780 – HUMAN COMPUTER INTERACTION LAB Practical work done by Ms. PRIYA SAVITHIRI B for the Seventh Semester – B.Tech Information Technology Degree Course, Department of Information Technology, Thiagarajar college of Engineering, Madurai - 625015, during the academic year 2021-2022.

Register No: 18IT063 **Roll No: 61637**

Submitted for the Continuous Assessment Test - Practical Examination held on 25.10.2021

s

EXTERNAL EXAMINER **INTERNAL EXAMINER**

ONLINE PROCTORING SYSTEM

PROJECT DESCRIPTION:

Online proctoring has surged during the Coronavirus pandemic, and so too have concerns about the practice, in which candidates take exams under the watchful eyes (human or automated) of third-party programs. Candidate concerns are their privacy and increasing test anxiety via a sense of being surveilled. The project aims to provide a safe and user-friendly environment to take exams online to various locations for those who don't have access to campus. The project employs various machine learning models to reduce the burden on the admin to detect malpractice by the students on a large scale. The model verifies and authenticates the candidates taking the exam and continuously checks for any malpractices. This is done by analyzing video and audio that the model processes to verify the integrity of the student.

1. Customer or User expectations & Design Considerations

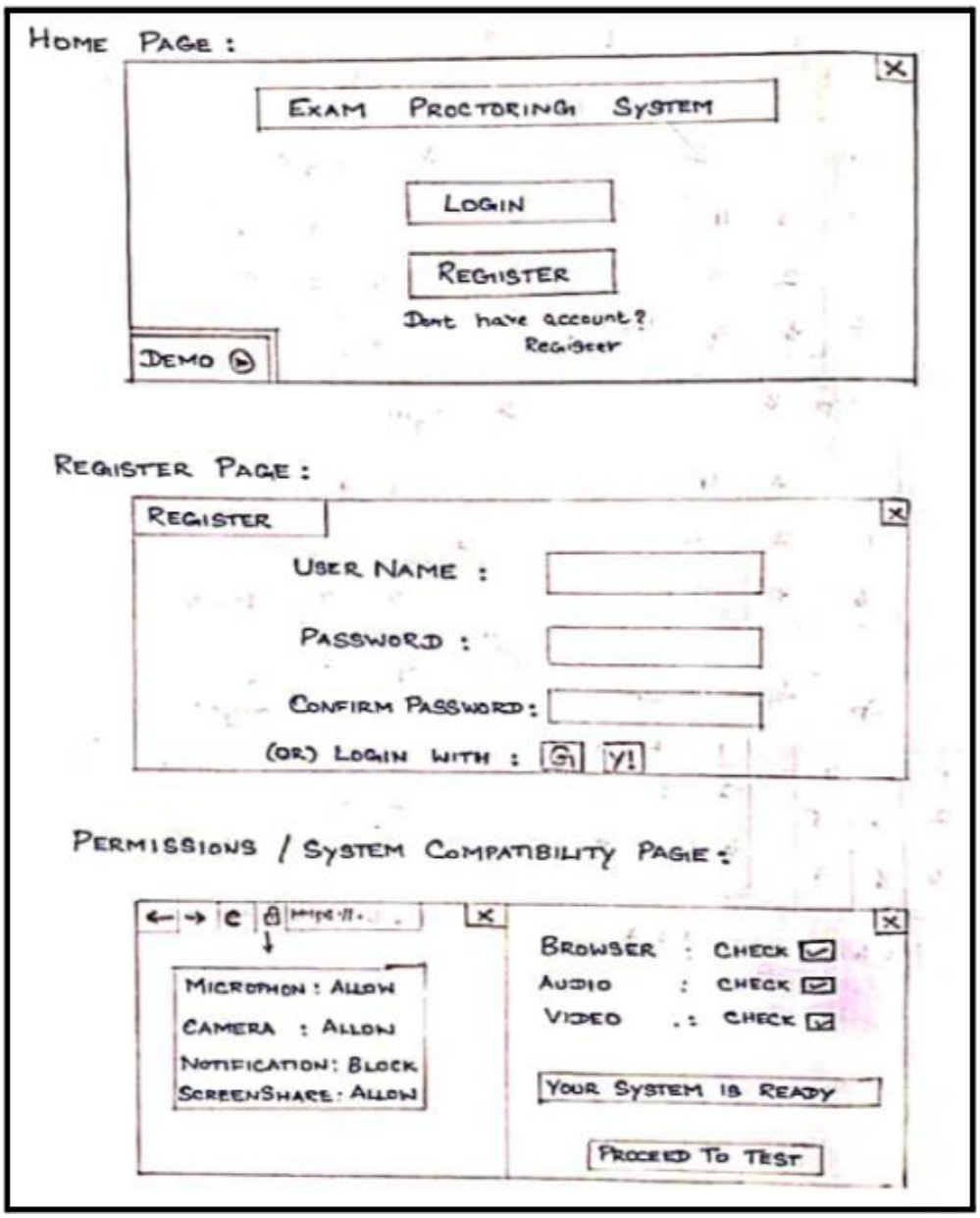
- User Friendly Design Interface
- Attractive and responsive application
- To reduce cheating in online exams
- To avoid verbal assistance
- To detect Remote access and dual device usage
- Anomaly detection.
- Exams conducted in a Well-organized way.

2. As a Designer identify the issues in design, add on /issues/enhancement in Prototype, storyboard design, ergonomics, Typography, Color, Navigation, Interaction Factors and international standards in the website / mobile app design

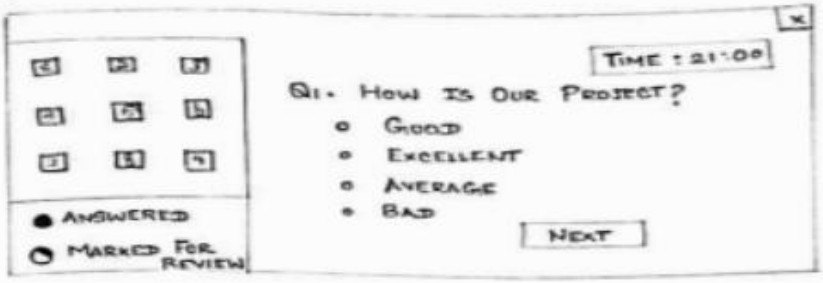
- **ISSUES**
  - ➔ The usage of color should match with human emotions.
  - ➔ It would have a proper color match and avoid unwanted navigations.
- **ADD ONs**
  - ➔ Add required images to make the site much more attractive.
  - ➔ Add some different colors for buttons.
- **ABOUT PROTOTYPE**
  - ➔ Font style and size were perfect, it maintained readability.
  - ➔ Navigation is good and the flow works well.
  - ➔ All the modules were integrated in a good manner.
- **ABOUT STORY BOARD**
  - ➔ Creativity is top notch and most of all modules were implemented.
  - ➔ The tool chosen was good and it had many features to sketch what we had in mind.

STORY BOARD DESIGN

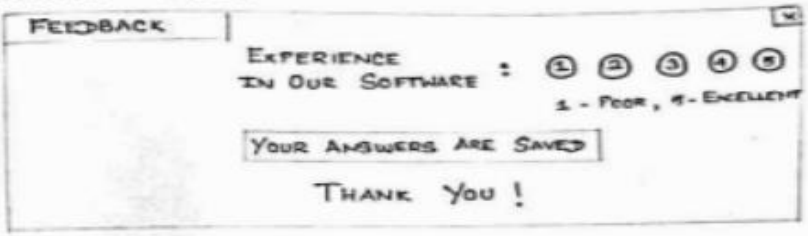
1. Hand Drawn



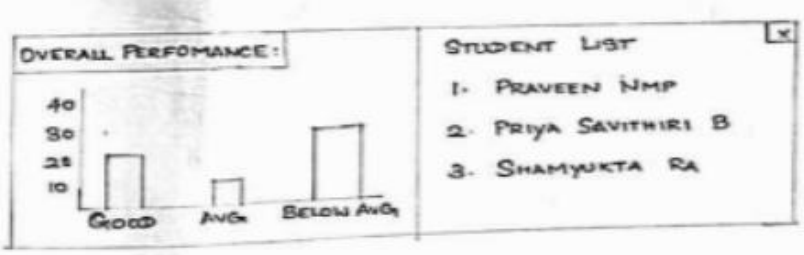
EXAM PAGE :



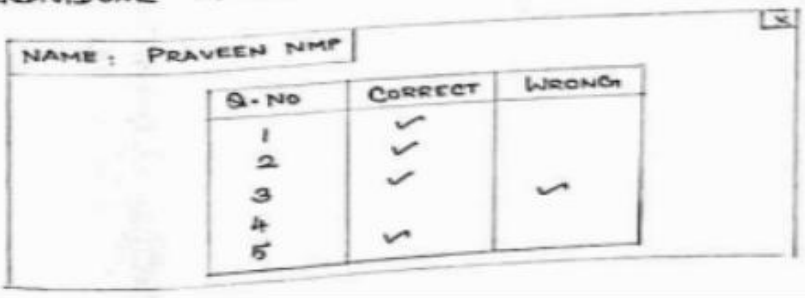
FEEDBACK PAGE :



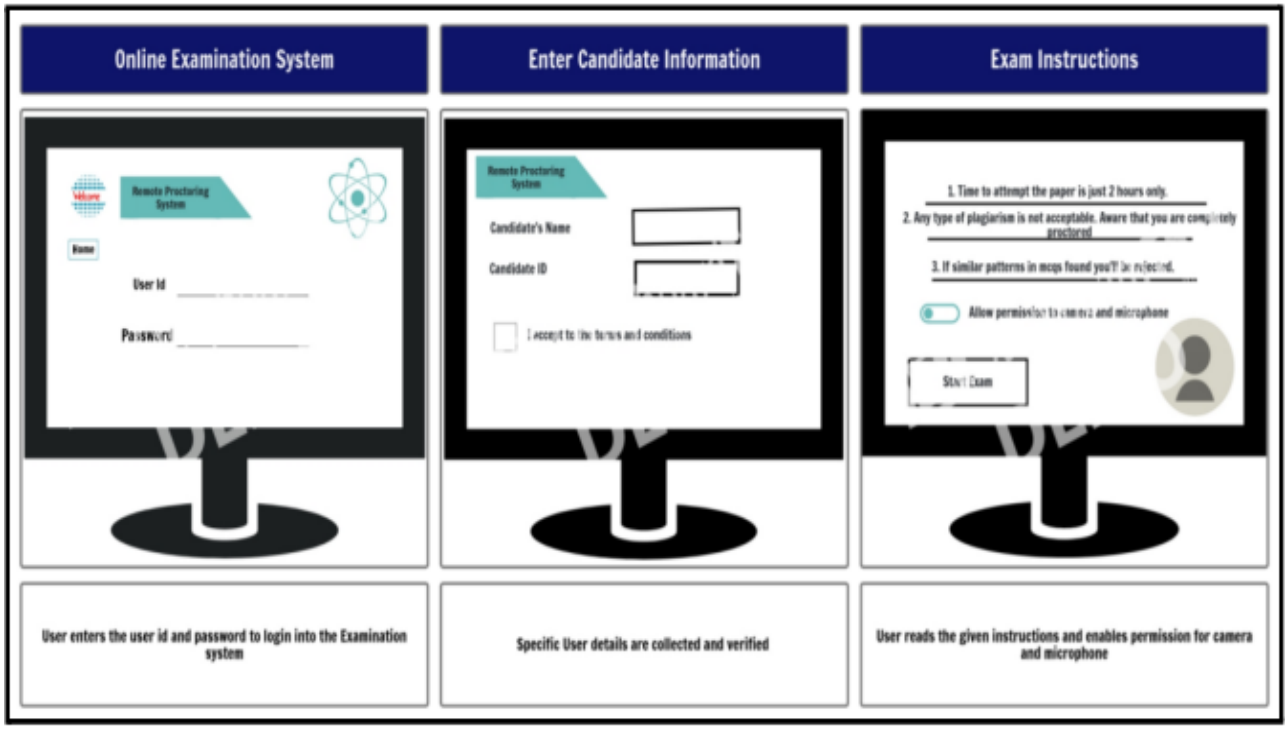
LOGIN AS TEACHER :

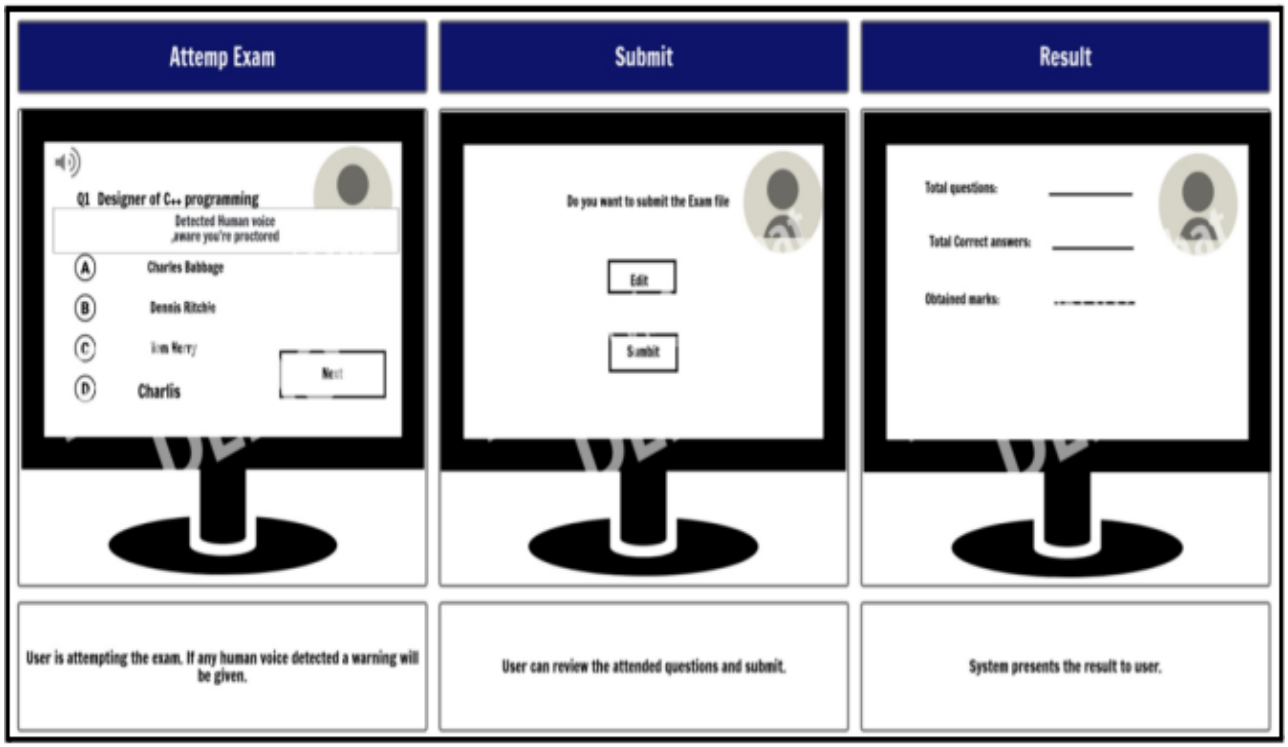


INDIVIDUAL RESULTS :

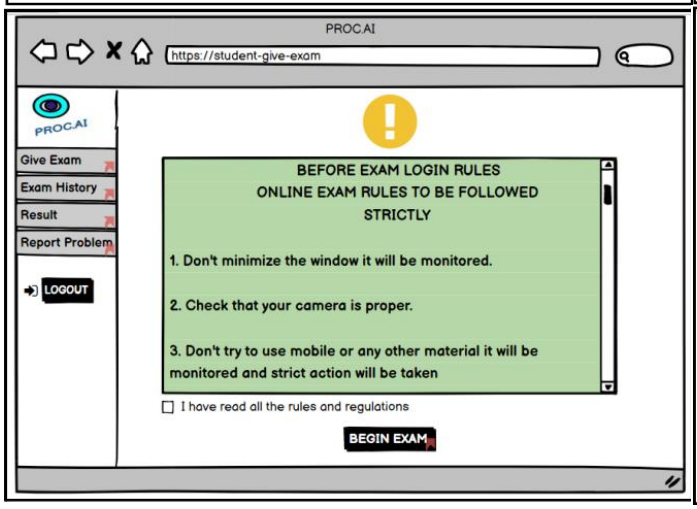


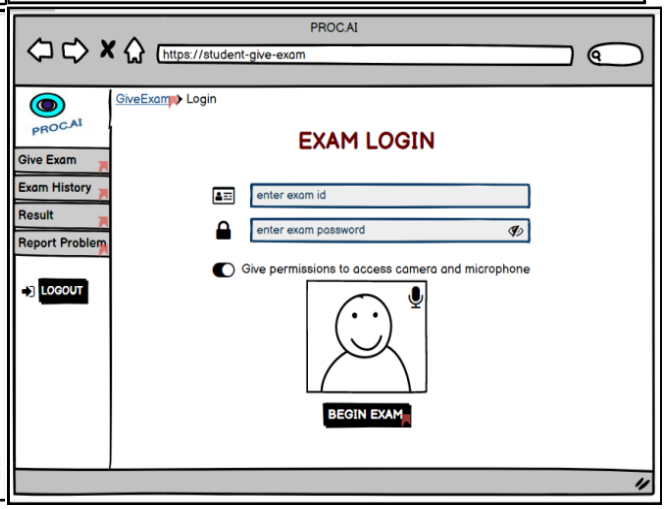
Using Tool:

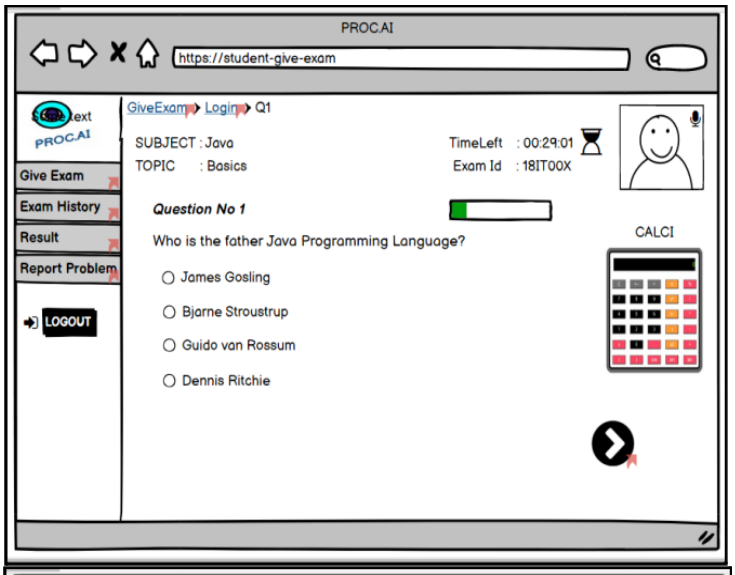

Online Examination System
Enter Candidate Information
Exam Instructions
Remote Proctoring System
User Id
Password
Candidate's Name
Candidate ID
1. Time to attempt the paper is just 2 hours only.
2. Any type of plagiarism is not acceptable. Aware that you are completely proctored
3. If similar patterns in mcqs found you'll be rejected.
Allow permission to camera and microphone
Start Exam
User enters the user id and password to login into the Examination system
Specific User details are collected and verified
User reads the given instructions and enables permission for camera and microphone

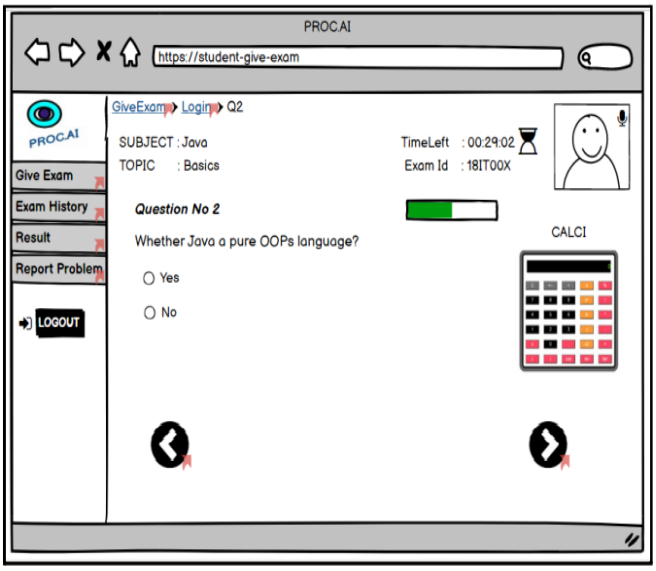

Attemp Exam
Submit
Result
Q1 Designer of C++ programming
Detected Human voice
,aware you're proctored
A Charles Babbage
B Dennis Ritchie
C
D Charlis
Next
Do you want to submit the Exam file
Edit
Submit
Total questions:
Total Correct answers:
Obtained marks:
User is attempting the exam. If any human voice detected a warning will be given.
User can review the attended questions and submit.
System presents the result to user.

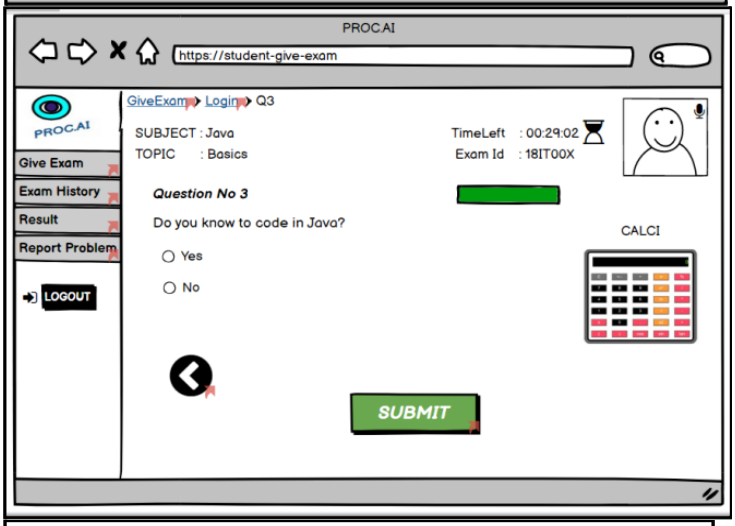
USER INTERFACE DESIGN USING BALSAMIQ TOOL

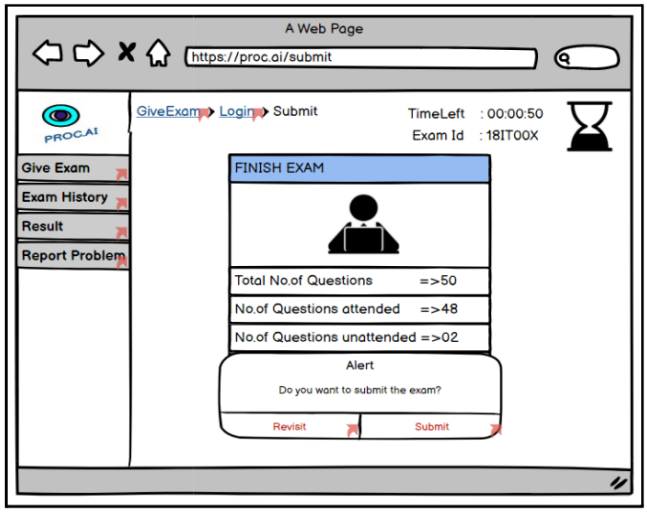


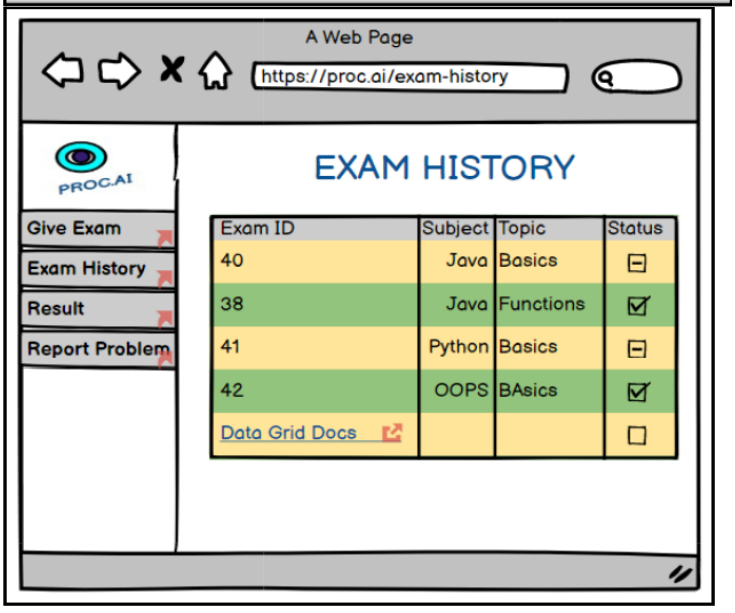


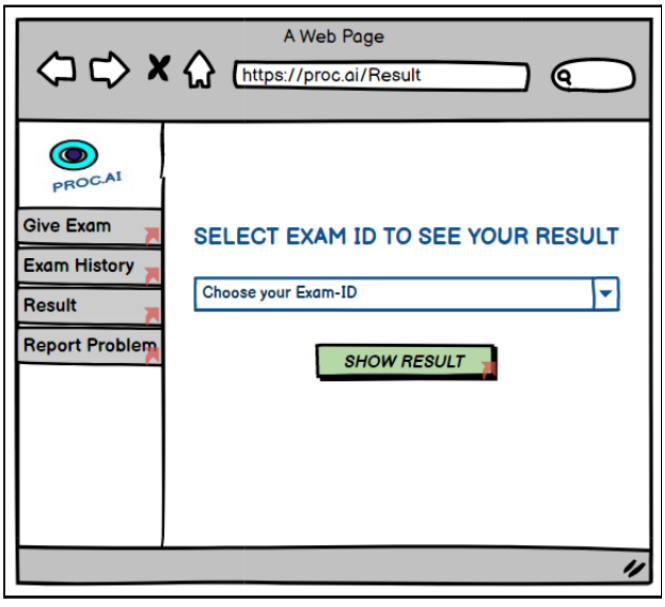

PROC.AI
https://student-give-exam
PROC.AI
Give Exam
Exam History
Result
Report Problem
LOGOUT
GiveExam Login Q1
SUBJECT : Java
TOPIC : Basics
TimeLeft : 00:29:01
Exam Id : 18IT00X
Question No 1
Who is the father Java Programming Language?
James Gosling
Bjarne Stroustrup
Guido van Rossum
Dennis Ritchie
CALCI

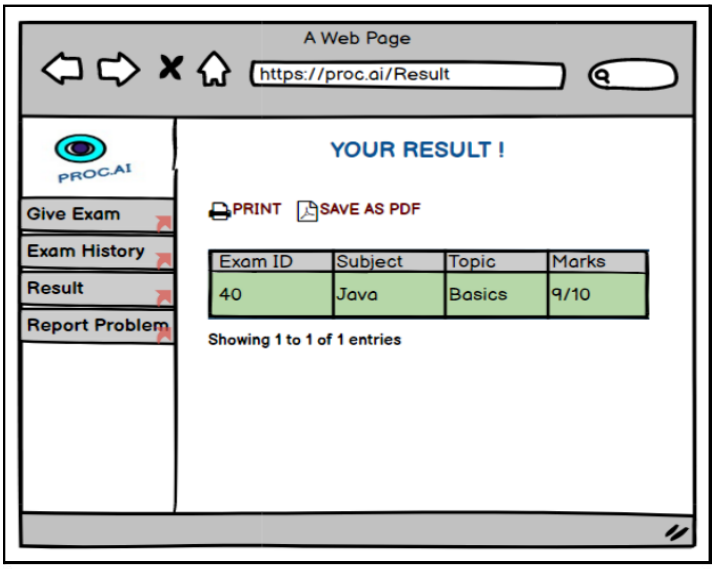

PROC.AI
https://student-give-exam
PROC.AI
Give Exam
Exam History
Result
Report Problem
LOGOUT
GiveExam Login Q2
SUBJECT : Java
TOPIC : Basics
TimeLeft : 00:29:02
Exam Id : 18IT00X
Question No 2
Whether Java a pure OOPs language?
Yes
No
CALCI

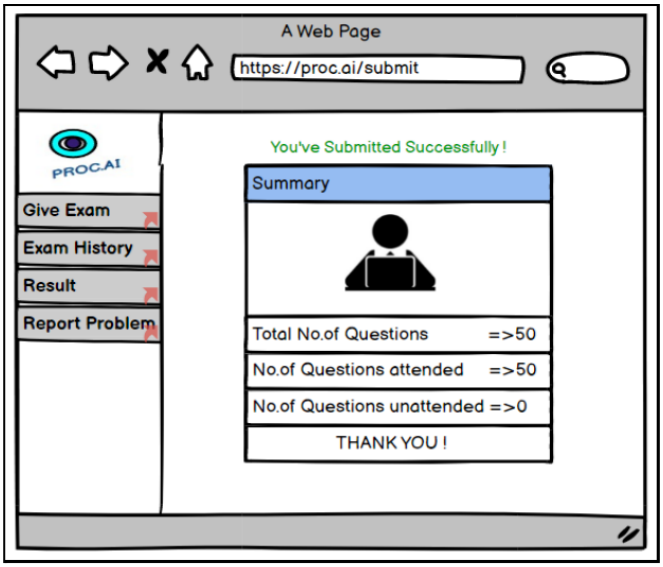

PROC.AI
https://student-give-exam
PROC.AI
Give Exam
Exam History
Result
Report Problem
LOGOUT
GiveExam Login Q3
SUBJECT : Java
TOPIC : Basics
TimeLeft : 00:29:02
Exam Id : 18IT00X
Question No 3
Do you know to code in Java?
Yes
No
CALCI
SUBMIT

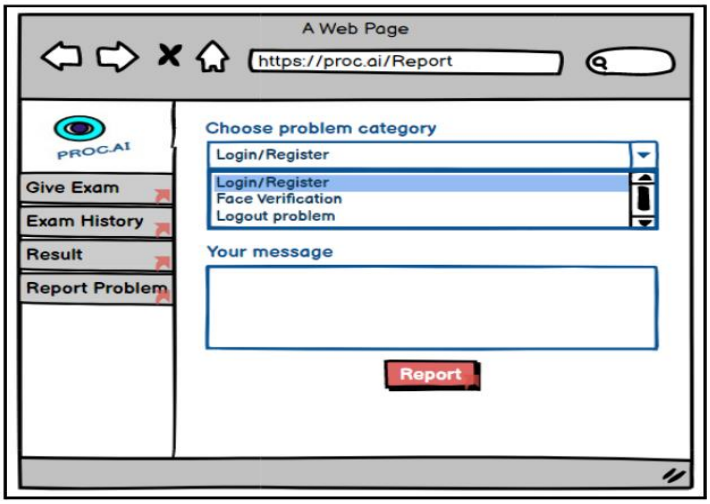

A Web Page
https://proc.ai/submit
PROC.AI
Give Exam
Exam History
Result
Report Problem
GiveExam Login Submit
TimeLeft : 00:00:50
Exam Id : 18IT00X
FINISH EXAM
Total No.of Questions =>50
No.of Questions attended =>48
No.of Questions unattended =>02
Alert
Do you want to submit the exam?
Revisit
Submit


A Web Page
https://proc.ai/exam-history
PROC.AI
Give Exam
Exam History
Result
Report Problem
EXAM HISTORY
Exam ID
Subject
Topic
Status
40
Java
Basics
38
Java
Functions
41
Python
Basics
42
OOPS
BAsics
Data Grid Docs

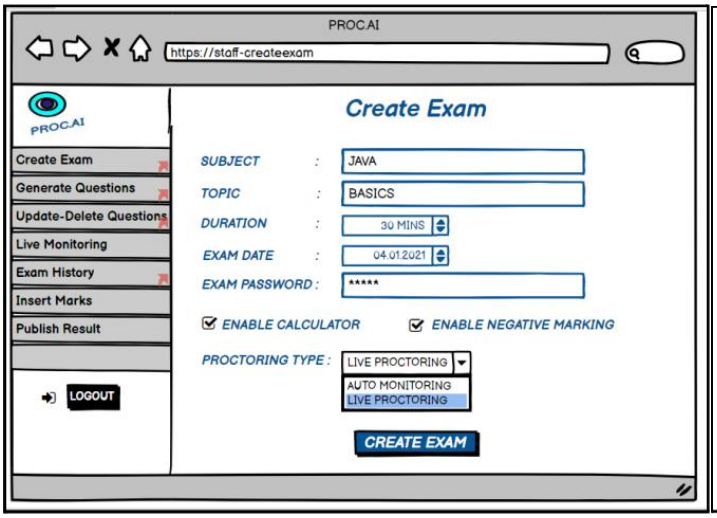

A Web Page
https://proc.ai/Result
PROC.AI
Give Exam
Exam History
Result
Report Problem
SELECT EXAM ID TO SEE YOUR RESULT
Choose your Exam-ID
SHOW RESULT

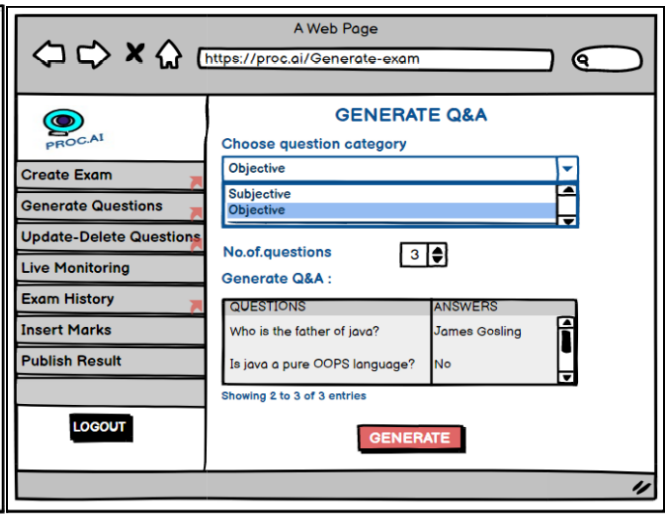

A Web Page
https://proc.ai/Result
PROC.AI
Give Exam
Exam History
Result
Report Problem
YOUR RESULT !
PRINT
SAVE AS PDF
Exam ID
Subject
Topic
Marks
40
Java
Basics
9/10
Showing 1 to 1 of 1 entries

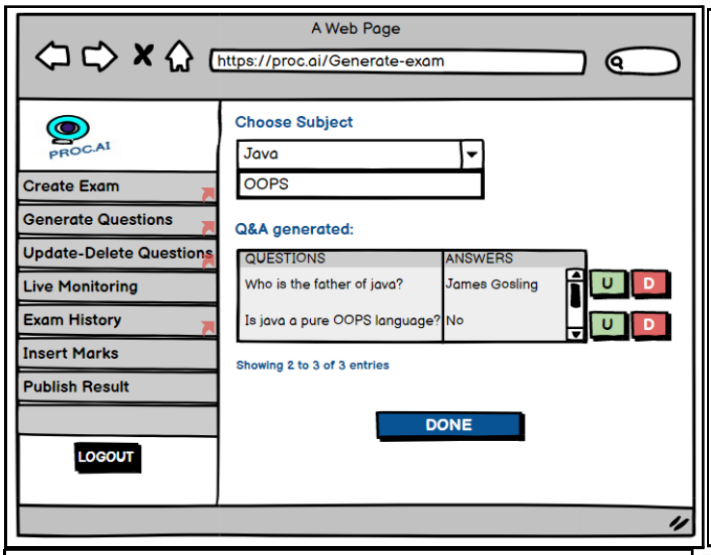

A Web Page
https://proc.ai/submit
PROC.AI
Give Exam
Exam History
Result
Report Problem
You've Submitted Successfully !
Summary
Total No.of Questions =>50
No.of Questions attended =>50
No.of Questions unattended =>0
THANK YOU !

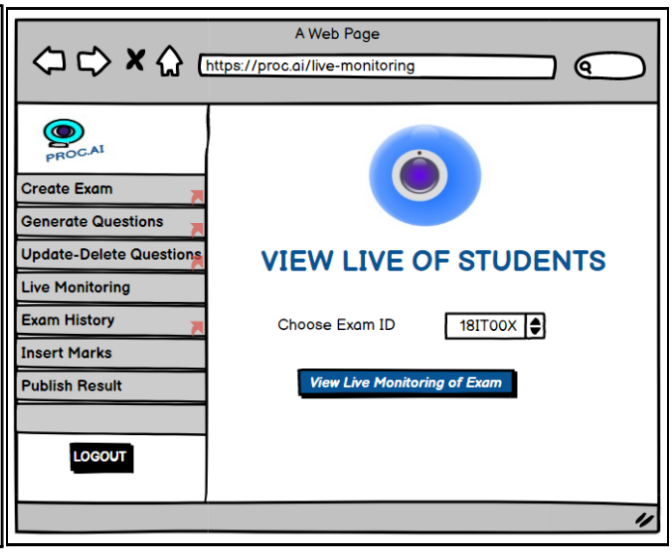

A Web Page
https://proc.ai/Report
PROC.AI
Give Exam
Exam History
Result
Report Problem
Choose problem category
Login/Register
Login/Register
Face Verification
Logout problem
Your message
Report

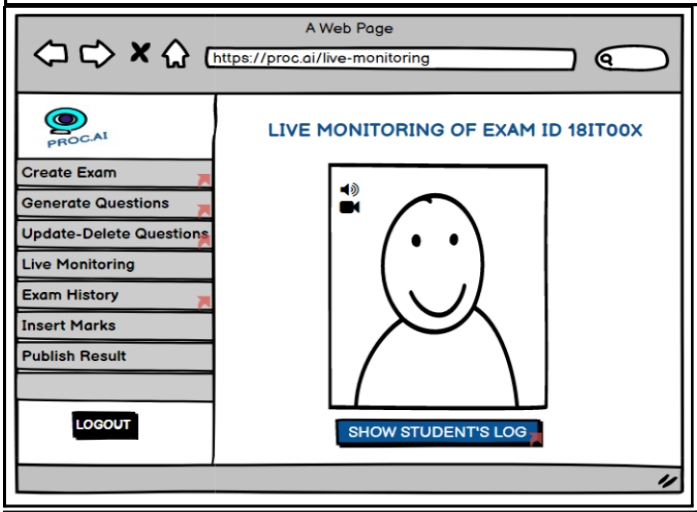
PROC.AI
https://staff-homepage
PROC.AI
Create Exam
Generate Questions
Update-Delete Questions
Live Monitoring
Exam History
Insert Marks
Publish Result
LOGOUT
Welcome to PROC.AI
Hi Teacher : Name of the Teacher

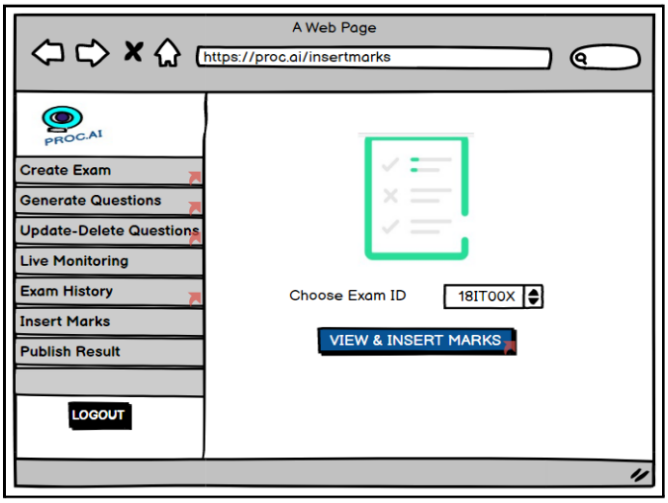

PROC.AI
https://staff-createexam
PROC.AI
Create Exam
Generate Questions
Update-Delete Questions
Live Monitoring
Exam History
Insert Marks
Publish Result
LOGOUT
Create Exam
SUBJECT : JAVA
TOPIC : BASICS
DURATION : 30 MINS
EXAM DATE : 04.01.2021
EXAM PASSWORD : *****
ENABLE CALCULATOR
ENABLE NEGATIVE MARKING
PROCTORING TYPE : LIVE PROCTORING
AUTO MONITORING
LIVE PROCTORING
CREATE EXAM

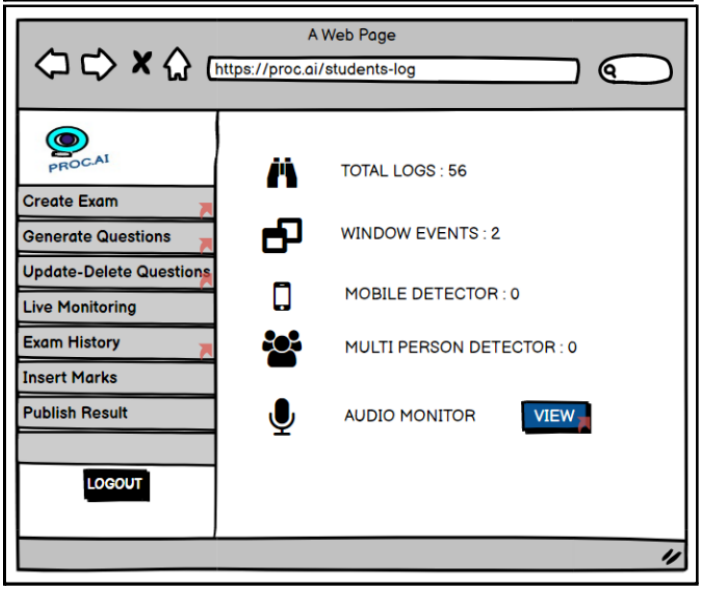

A Web Page
https://proc.ai/Generate-exam
PROC.AI
Create Exam
Generate Questions
Update-Delete Questions
Live Monitoring
Exam History
Insert Marks
Publish Result
LOGOUT
GENERATE Q&A
Choose question category
Objective
Subjective
Objective
No.of.questions 3
Generate Q&A :
QUESTIONS
ANSWERS
Who is the father of java?
James Gosling
Is java a pure OOPS language?
No
Showing 2 to 3 of 3 entries
GENERATE

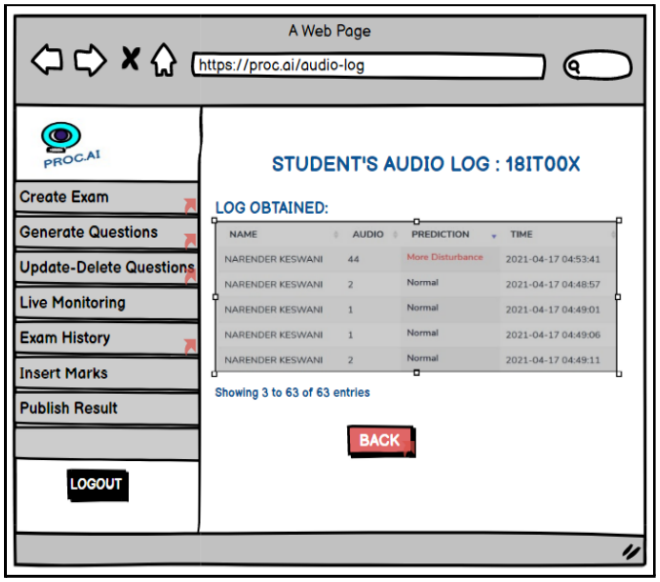

A Web Page
https://proc.ai/Generate-exam
PROC.AI
Create Exam
Generate Questions
Update-Delete Questions
Live Monitoring
Exam History
Insert Marks
Publish Result
LOGOUT
Choose Subject
Java
OOPS
Q&A generated:
QUESTIONS
ANSWERS
Who is the father of java?
James Gosling
Is java a pure OOPS language?
No
U
D
Showing 2 to 3 of 3 entries
DONE


A Web Page
https://proc.ai/live-monitoring
PROC.AI
Create Exam
Generate Questions
Update-Delete Questions
Live Monitoring
Exam History
Insert Marks
Publish Result
LOGOUT
VIEW LIVE OF STUDENTS
Choose Exam ID
18IT00X
View Live Monitoring of Exam

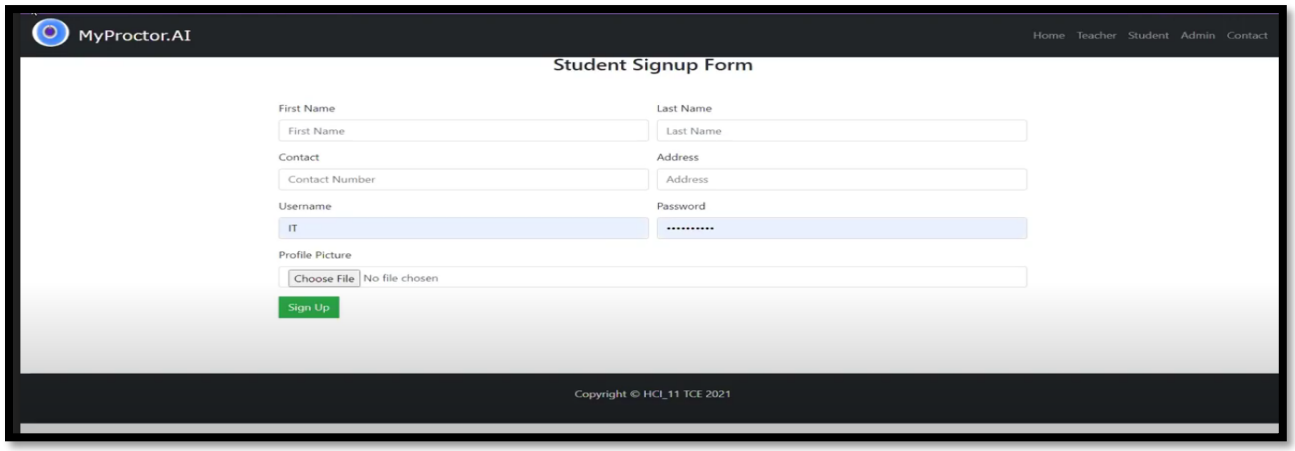

A Web Page
https://proc.ai/live-monitoring
PROC.AI
Create Exam
Generate Questions
Update-Delete Questions
Live Monitoring
Exam History
Insert Marks
Publish Result
LOGOUT
LIVE MONITORING OF EXAM ID 18IT00X
SHOW STUDENT'S LOG

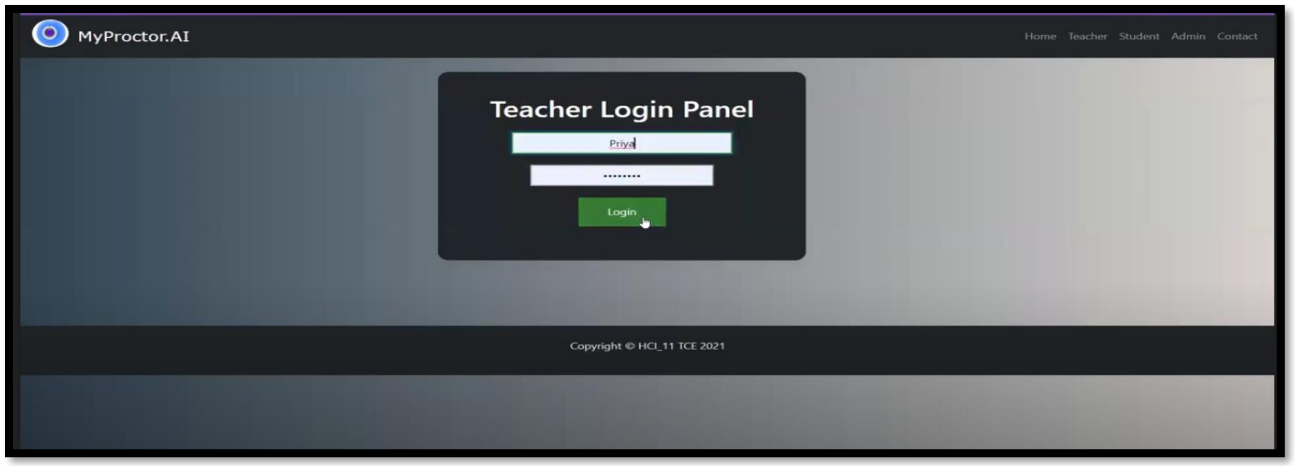

A Web Page
https://proc.ai/insertmarks
PROC.AI
Create Exam
Generate Questions
Update-Delete Questions
Live Monitoring
Exam History
Insert Marks
Publish Result
LOGOUT
Choose Exam ID
18IT00X
VIEW & INSERT MARKS

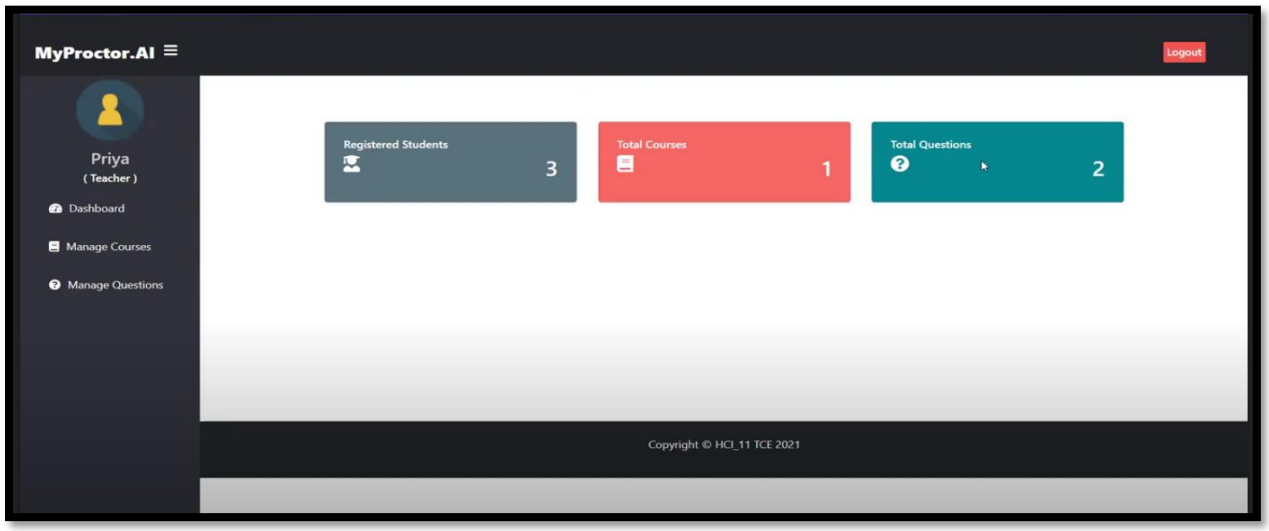

A Web Page
https://proc.ai/students-log
PROC.AI
Create Exam
Generate Questions
Update-Delete Questions
Live Monitoring
Exam History
Insert Marks
Publish Result
LOGOUT
TOTAL LOGS : 56
WINDOW EVENTS : 2
MOBILE DETECTOR : 0
MULTI PERSON DETECTOR : 0
AUDIO MONITOR
VIEW

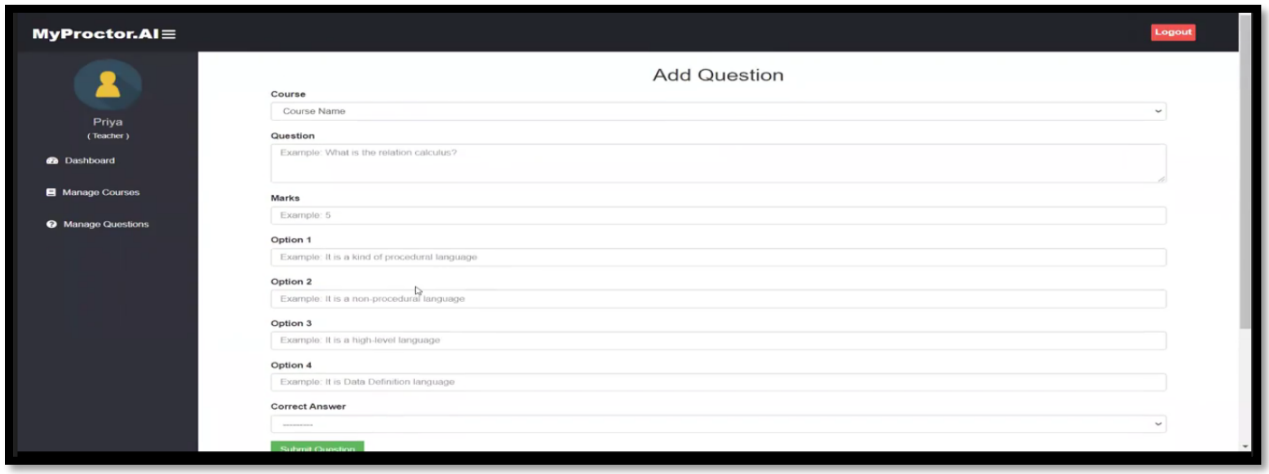

A Web Page
https://proc.ai/audio-log
PROC.AI
Create Exam
Generate Questions
Update-Delete Questions
Live Monitoring
Exam History
Insert Marks
Publish Result
LOGOUT
STUDENT'S AUDIO LOG : 18IT00X
LOG OBTAINED:
NAME
AUDIO
PREDICTION
TIME
NARENDER KESWANI
44
More Disturbance
2021-04-17 04:53:41
NARENDER KESWANI
2
Normal
2021-04-17 04:48:57
NARENDER KESWANI
1
Normal
2021-04-17 04:49:01
NARENDER KESWANI
1
Normal
2021-04-17 04:49:06
NARENDER KESWANI
2
Normal
2021-04-17 04:49:11
Showing 3 to 63 of 63 entries
BACK

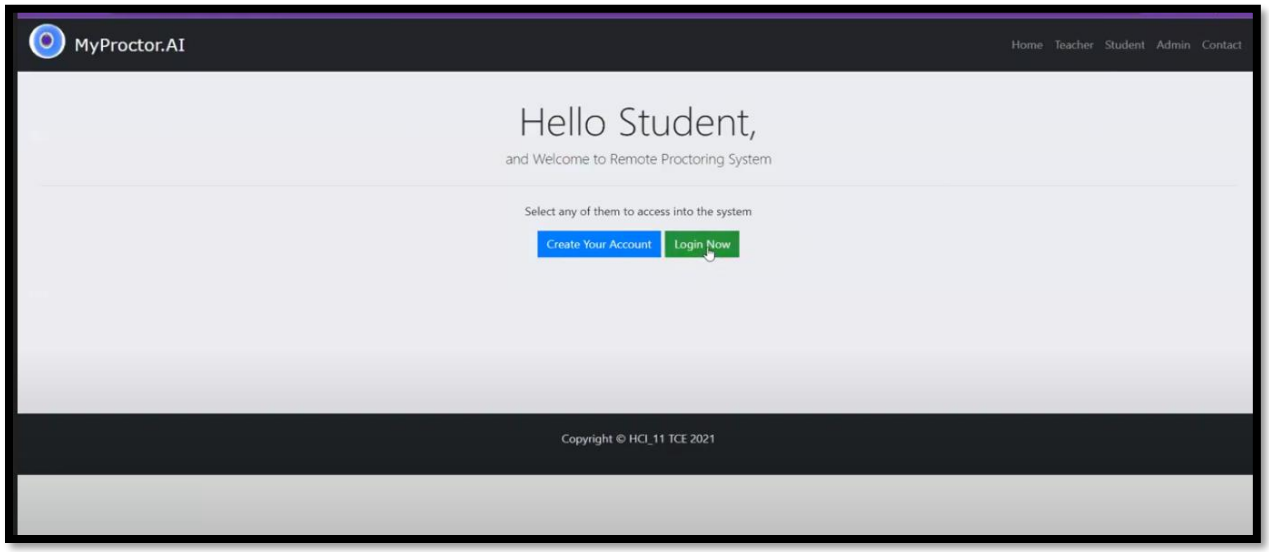
Web Design and Features

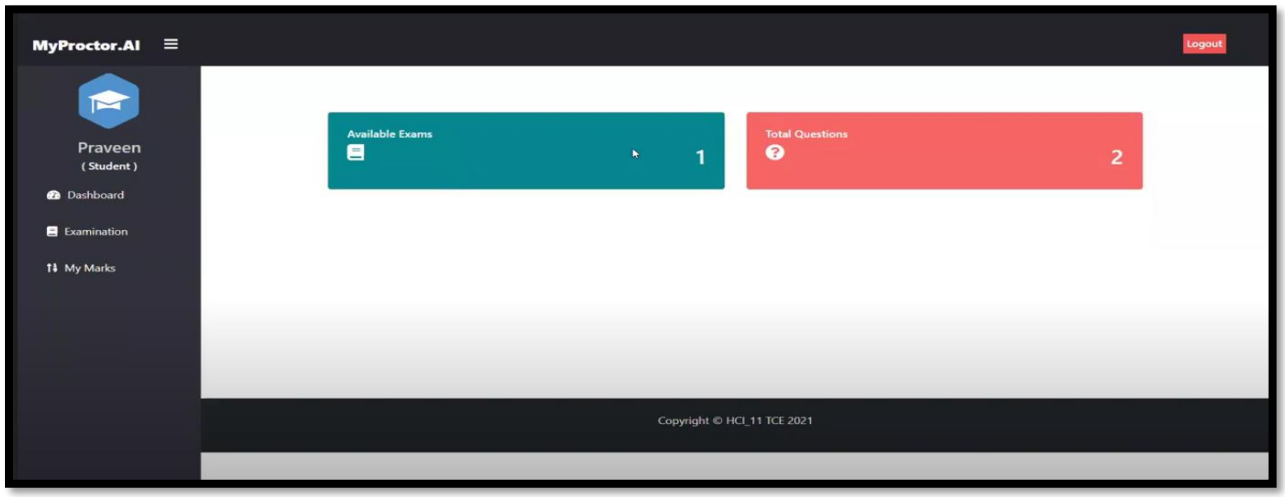





MyProctor.AI
Logout
Priya
(Teacher)
Dashboard
Manage Courses
Manage Questions
Registered Students
3
Total Courses
1
Total Questions
2
Copyright © HCI_11 TCE 2021


MyProctor.AI
Logout
Priya
(Teacher)
Dashboard
Manage Courses
Manage Questions
Add Question
Course
Course Name
Question
Example: What is the relation calculus?
Marks
Example: 5
Option 1
Example: It is a kind of procedural language
Option 2
Example: It is a non-procedural language
Option 3
Example: It is a high-level language
Option 4
Example: It is Data Definition language
Correct Answer


MyProctor.AI
Home
Teacher
Student
Admin
Contact
Hello Student,
and Welcome to Remote Proctoring System
Select any of them to access into the system
Create Your Account
Login Now
Copyright © HCI_11 TCE 2021


MyProctor.AI
Logout
Praveen
(Student)
Dashboard
Examination
My Marks
Available Exams
1
Total Questions
2
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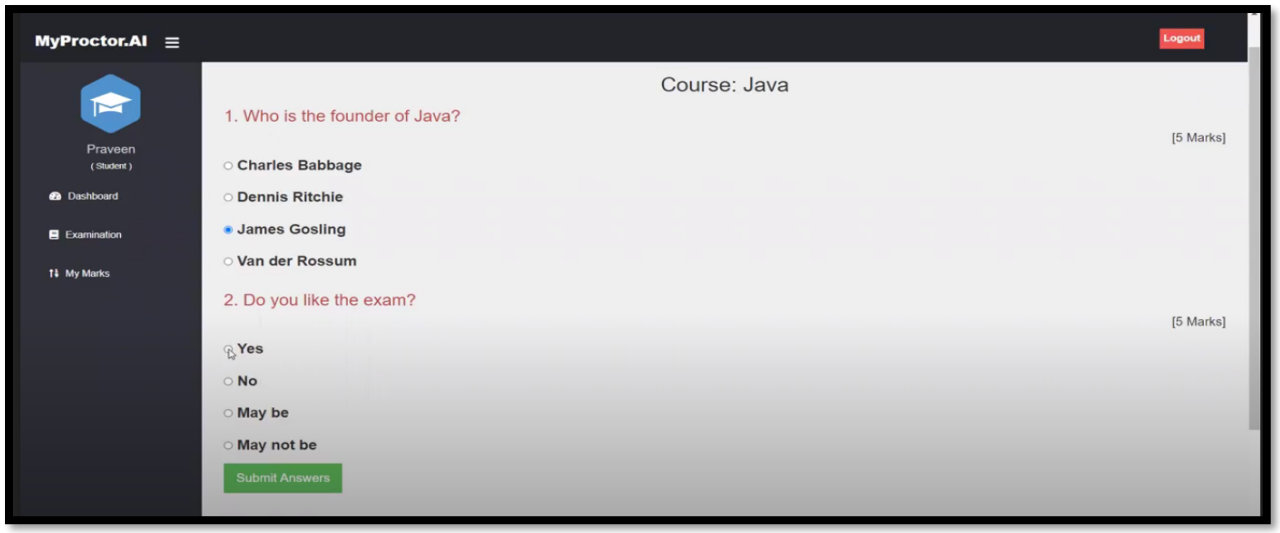
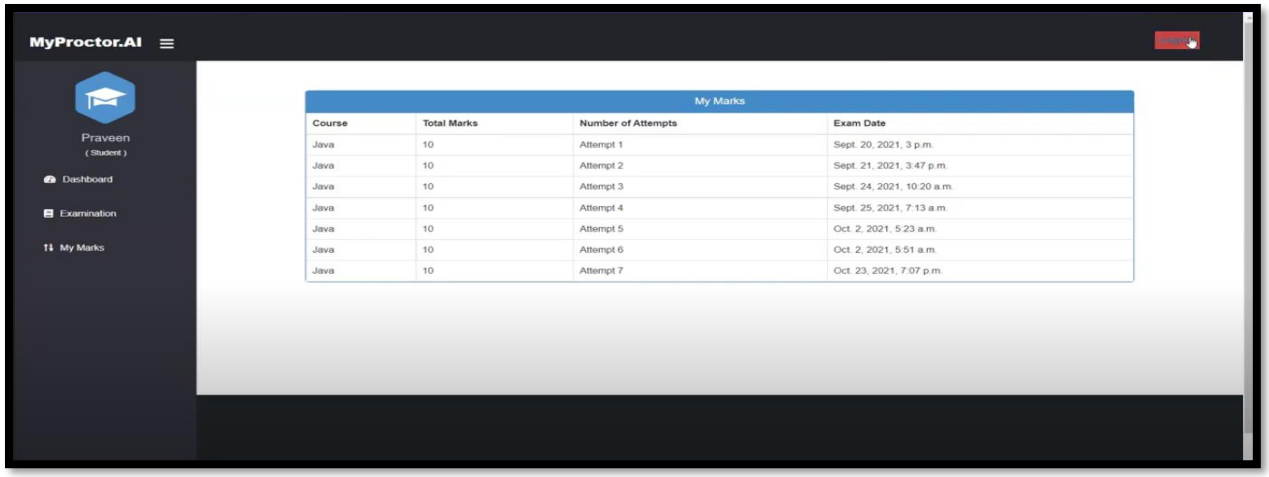
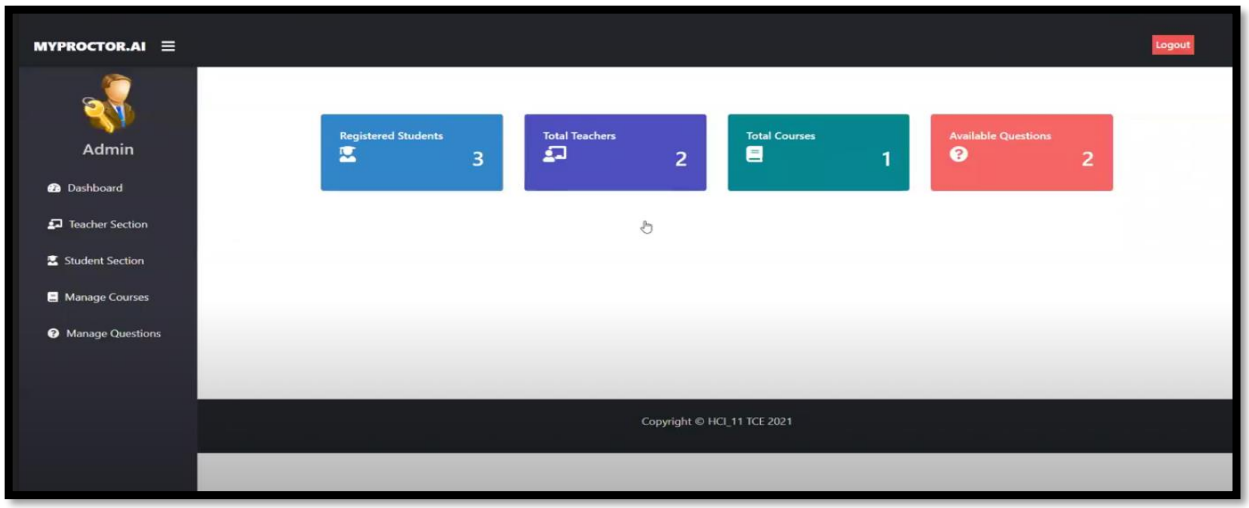

MyProctor.AI
Logout
Praveen
(Student)
Dashboard
Examination
My Marks
Course: Java
1. Who is the founder of Java?
[5 Marks]
Charles Babbage
Dennis Ritchie
James Gosling
Van der Rossum
2. Do you like the exam?
[5 Marks]
Yes
No
May be
May not be
Submit Answers


MyProctor.AI
Praveen
(Student)
Dashboard
Examination
My Marks
My Marks
Course
Total Marks
Number of Attempts
Exam Date
Java 10 Attempt 1 Sept. 20, 2021, 3 p.m.
Java 10 Attempt 2 Sept. 21, 2021, 3:47 p.m.
Java 10 Attempt 3 Sept. 24, 2021, 10:20 a.m.
Java 10 Attempt 4 Sept. 25, 2021, 7:13 a.m.
Java 10 Attempt 5 Oct. 2, 2021, 5:23 a.m.
Java 10 Attempt 6 Oct. 2, 2021, 5:51 a.m.
Java 10 Attempt 7 Oct. 23, 2021, 7:07 p.m.


MYPROCTOR.AI
Logout
Admin
Dashboard
Teacher Section
Student Section
Manage Courses
Manage Questions
Registered Students
3
Total Teachers
2
Total Courses
1
Available Questions
2
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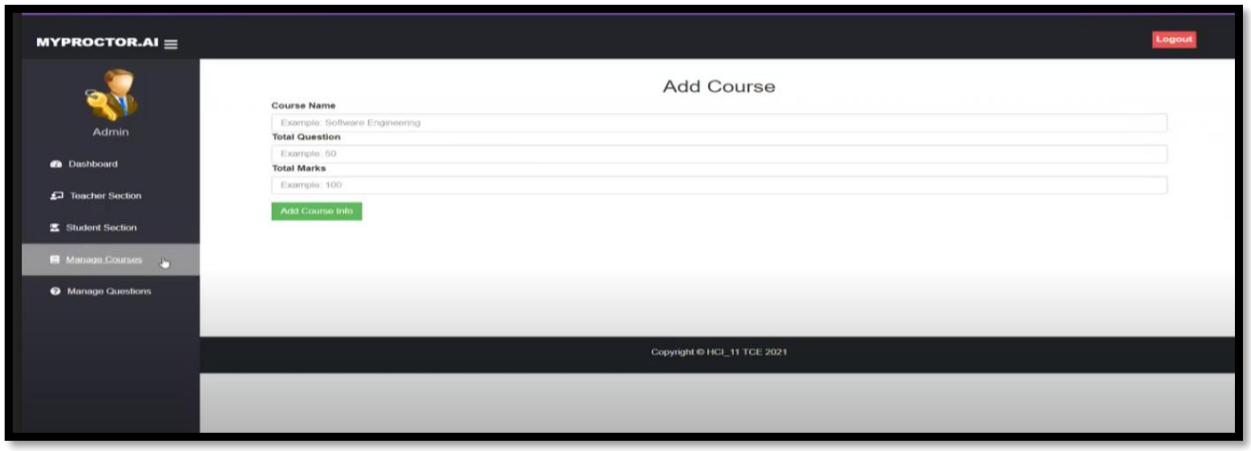
MYPROCTOR.AI
Logout
Admin
Dashboard
Teacher Section
Student Section
Manage Courses
Manage Questions
Add Course
Course Name
Example: Software Engineering
Total Question
Example: 50
Total Marks
Example: 100
Add Course Info
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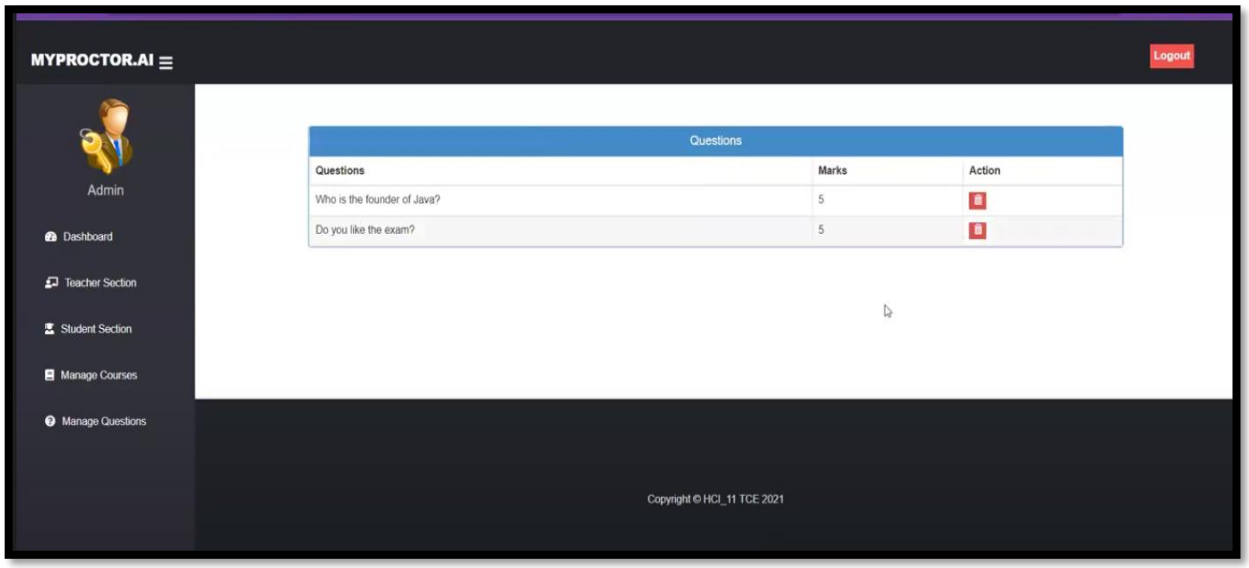
MYPROCTOR.AI
Logout
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Teacher Section
Student Section
Manage Courses
Manage Questions
Questions
Questions
Marks
Action
Who is the founder of Java?
5
Do you like the exam?
5
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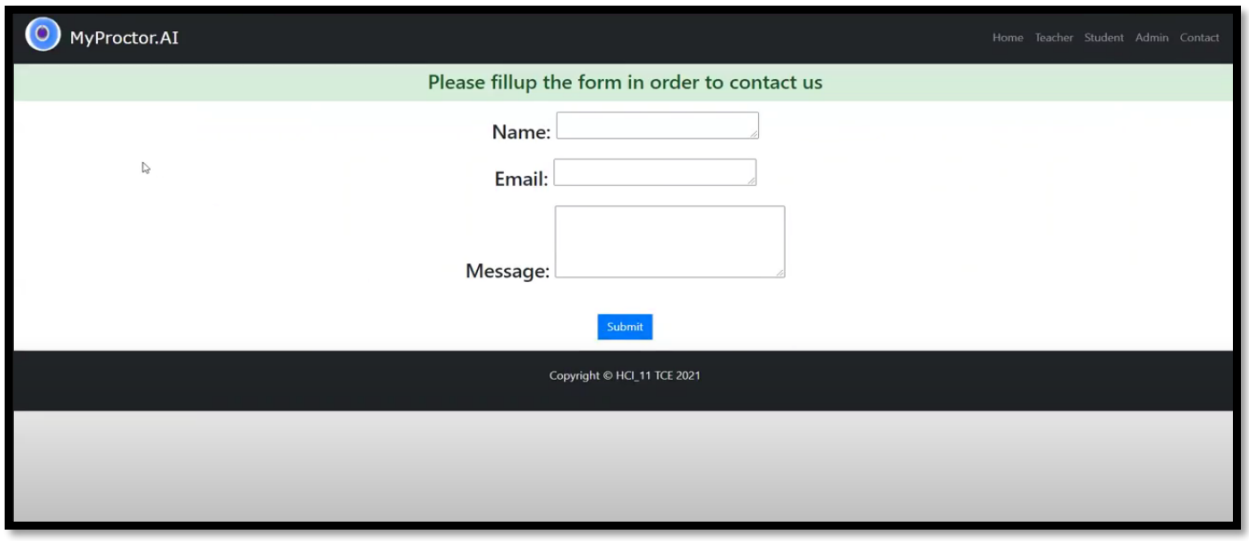
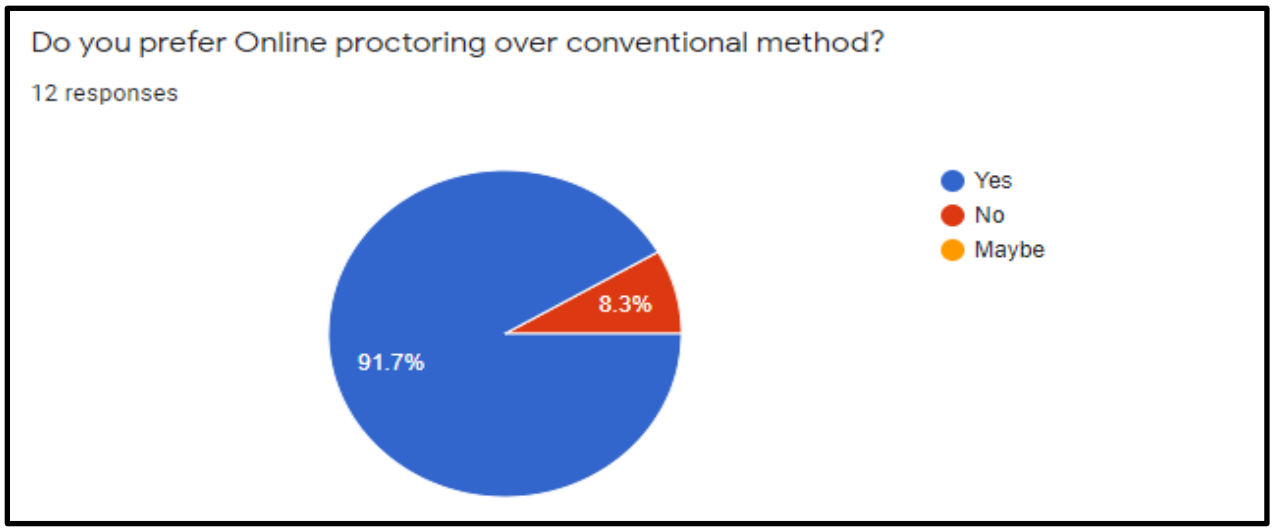


3. Evaluation with the Experts

(Faculty/Friends/Novice User)

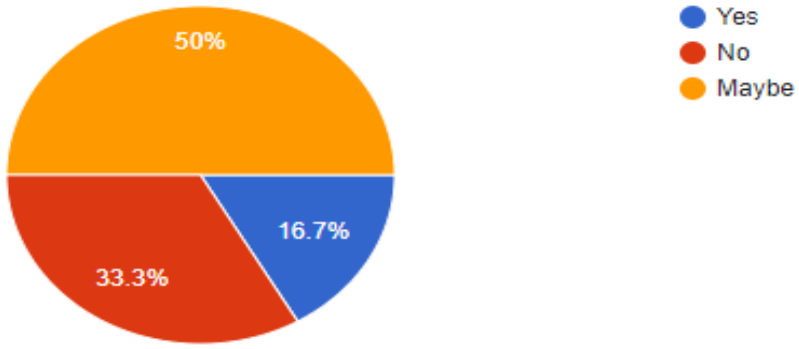
- To change background color.
- Modify font color and make them uniform
- Add some more related to application

4. Survey type evaluation with minimum 3 persons (Technical/Non-Technical)



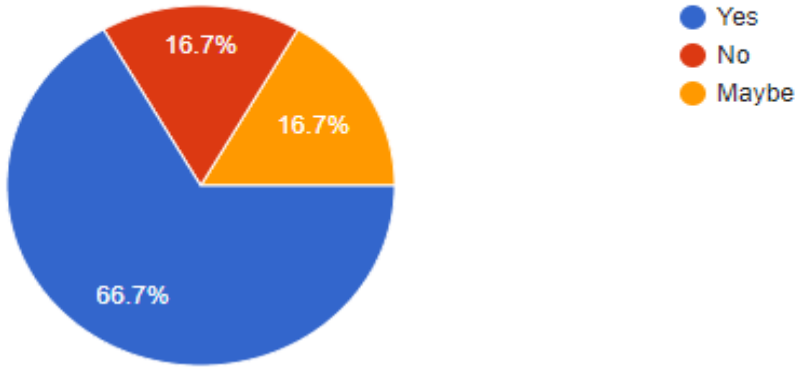
Can you cheat in a proctored exam?

12 responses



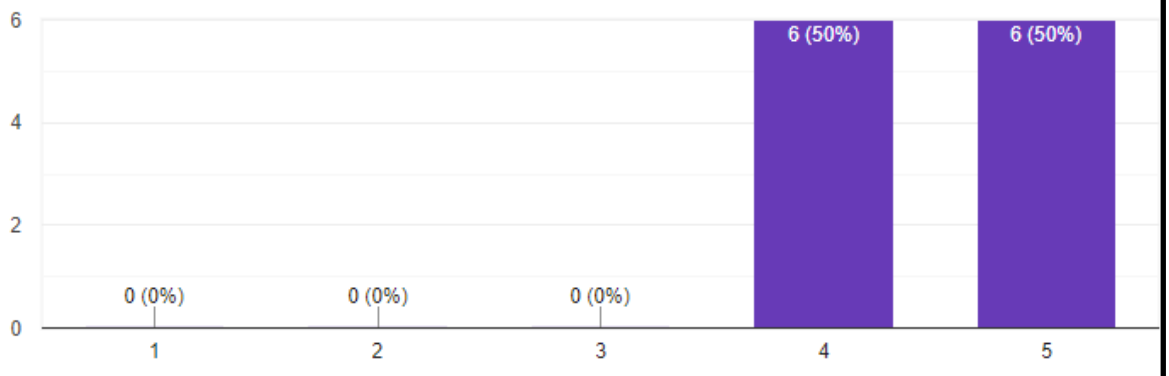
Do you think it is effective in all kinds of remote proctoring?

12 responses



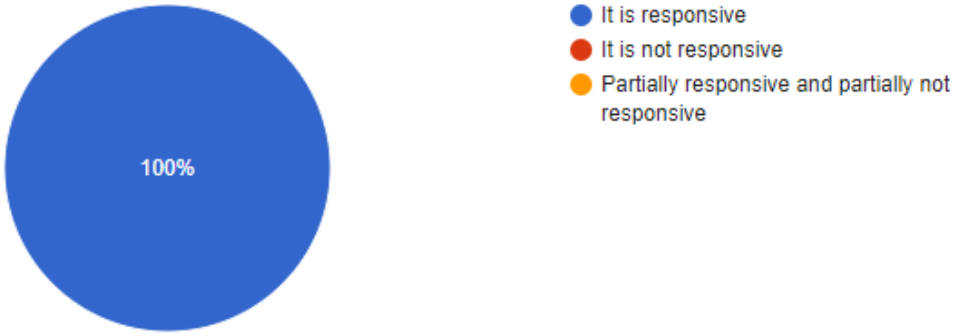
Give your rating for the website based on the innovation level

12 responses



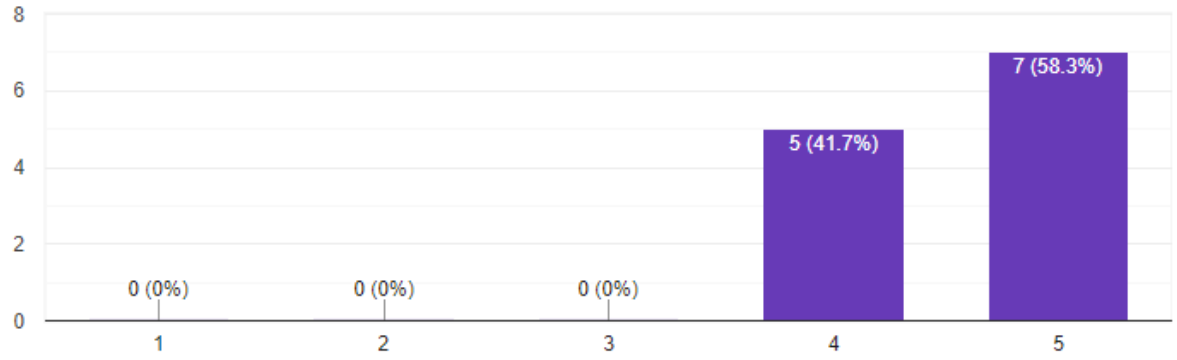
Rate about the responsiveness of the website

12 responses



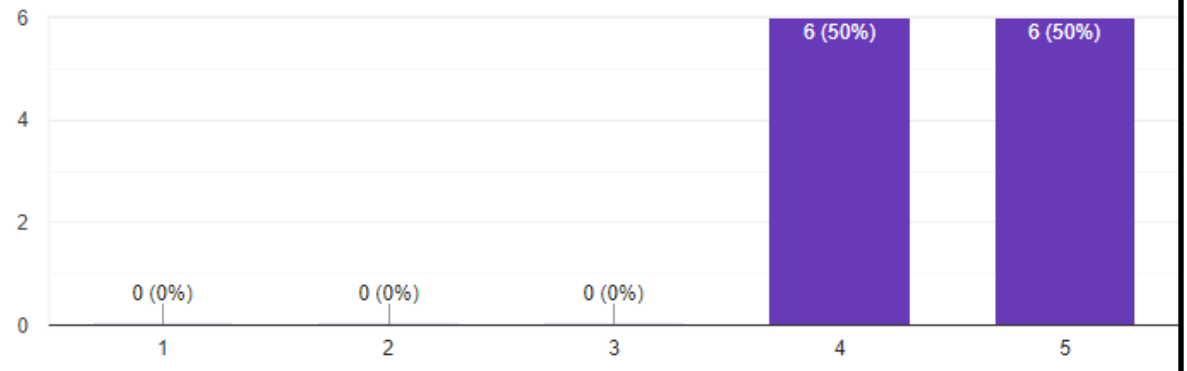
Give ratings based on the typography applied

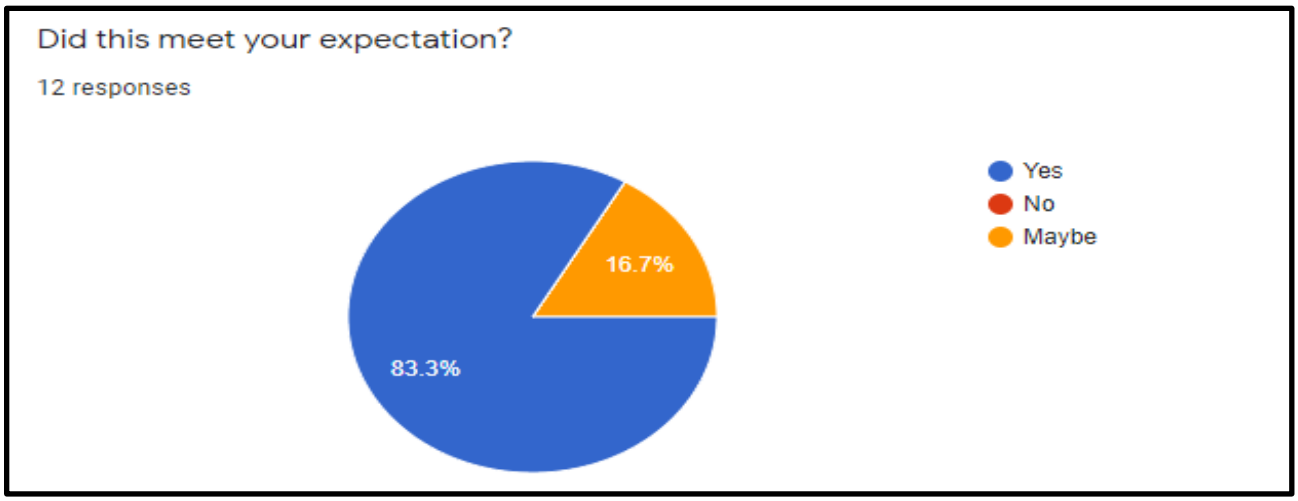
12 responses



Rate the UI design of the website

12 responses





So based on the survey analysis we are able to find that we need to work on the UI designs and also have to make some changes to satisfy all the HCI principles to get a better design outcome.

5. Error Handling and User Centric Design factors considered in the HCI Lab Project

- Error handling:
    1. If the students need to change their selected answers they can change before the completion of the exams.
    2. Teachers can edit the questions before publishing the test.
    3. If the answer is found to be incorrect, Teacher can change the selected answer option for the question and assign marks to every student who has given the correct answer.

- User-centered design improves the user experience with the exact user specified requirements are well satisfied.

- For user centric design factors, we have considered using investigative methods and tools as surveys and interviews.

- Therefore, Google forms have been used to interact with the stakeholders and to collect their requirements.

- Based on the survey results, stakeholders suggested features and developments are added.

6. Disability people factors consideration future with theoretical information

- Since it is a website, there will be no concerns for people with any kind of disabilities.
- Large fonts, spaced out letters, minimum text, and high-contrast color schemes can simplify the visually impaired people testing experience.

7. Evaluate the successful and failure HCI project in general

Success:

- We have implemented this app and we have done all the things from scratch and the application looks simple and easy to use.
- The UI of the application is quite attractive and helps the user to access so it is user friendly.
- More of the functions of the app are implemented with appropriate UI Designs.
- This app will be a successful one when it is used by the right stakeholders/customers.

Failure:

- Although we have done a good simple UI Design since we have not considered all the UI standards such as the Typography and Interaction Factors needs to be much more standardized.
- Still some more functionalities need to be added.