



Dharmsinh Desai University , Nadiad
Faculty of Technology
Department of Computer Engineering

A

PROJECT REPORT ON

JobOn

A Recruitment Platform

By

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Subject: SYSTEM DESIGN PRACTICE

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CERTIFICATE

This is to certify that the practical / term work
carried out in the subject of

SYSTEM DESIGN PRACTICE and recorded in this journal is
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1.

Abstract

The **JobOn a Recruitment Platform** provides software solutions that help organisations with their technical recruitment needs. Organisations can take Online contests/events in an efficient manner and no time wasting for checking the result. The main objective is to efficiently evaluate the candidate thoroughly through a fully automated system that not only saves lot of time but also gives fast results. Candidate Can Register Ownself in diffrent events and evaluate ownself and make good career in Good organisations.

2. Introduction

2.1 Brief Introduction

Now a Days Peoples and company Employers are very fond of the recruiting platform designed for Finding Good talent. Without Any man-effort one can organize contests and interested people can register and compete with each other without need of any formal employee. We provide a system preciously for Computer and IT companies ,so independent code editor which provides compilation/run of code and very good interface for organizers for uploading same kind of real life programme.as well as leaderboard interface for sorting all candidates.

2.2 Tools/Technologies Used

Technologies :

Mongo DB, Node, ExpressJS, Angular 6 (MEAN Stack)

Tools :

Visual Studio Code

GitHub Desktop

Umlet

3. Software Requirement Specifications

3.1 Types of User

1. candidate
2. Admin
3. Employer

3.2 System Functional Requirements

SRS for "jobOn-an online recruitment platform"

Features of candidate

R1 : Login

Description : candidate can login up in System by entering necessary data i.e. email, Password.

Ip : candidate details

Op : Success/error message

R2 : Logout

Ip : candidate request

Op : Success/error message

R3 : Sign up

Description : candidate can sign up in System by entering necessary data i.e. Name, email, Password.

Ip : candidate details

Op : Success/error message

R4 : Manage candidate's profile

Description : candidate can view own profile details and also update it.

R4.1 : View profile details

Ip : candidate request

Op : Profile details

R4.2 : Update profile details

Ip : candidate details

Op : Success/error message

R5 : View event list

Description : candidate can view upcoming events details.

Ip : candidate request

Op : Event details list

R6 : Register for event

Description : candidate can register for upcoming events by selecting from available event list.

Ip : candidate request

Op : Success/error message

R7 : Solve problems of events/practice section

Description : candidate can solve problems of particular event or those which are available in practice section.

Ip : Selection of problem

Op : Question details

R8 : Submit solutions

Ip : solution details

Op : Success/error message

R9 : View Result

Description : candidate can see own result of either particular event or for those problems whose solutions are submitted.

Ip : candidate selection

Op : Result details

R10 : View own progress

Description : candidate can view own history of results of events for which he/she participated and those result of problems which he/she attempted from practice section.

Ip : candidate selection

Op : History of results

R11 : View leader board

Description : candidate can view the list of applicants of events for which he/she participated in sorted manner with respect to performance.

Ip : candidate request

Op : Sorted-list of candidates

R12 : Give rating for event

Description : candidate can give appropriate rating as per his/her experience for quality of problems as well as system interactions.

R12.1 : Give rating for quality of problems

Ip : Rating details

Op : Success or error message

R12.2 : Give rating for system interactions

Ip : Rating details

Op : Success or error message

R13 : View solutions of problem

Description : candidate can view the solutions of particular problem which are given by other candidates.

Ip : Selection of problem

Op : Solution of problem

R14 : Write comments for problem

Description : candidate can write his/her view, approach and doubts in comment section that are visible to other candidates.

Ip : comment details

Op : Success/error message

R15 : View notifications

Description : candidate can view the list of notification which admin has send.

Ip : candidate request

Op : list of notification details

Features of company

R16 : Login

Description : company can login up in System by entering necessary data i.e. email, Password.

Ip : employer details

Op : Success/error message

R17 : Logout

Ip : employer request

Op : Success/error message

R18 : Sign up

Description : employer can sign up in System by entering necessary data i.e. Name,email>Password.

Ip : company and employer details

Op : Success/error message

R19 : Manage employer's profile

Description : employer can view own profile details and also update it.

R19.1 : View profile details

Ip : employer request

Op : Profile details

R19.2 : Update profile details

Ip : employer details

Op : Success/error message

R20 : Send Request for event

Description : employer can request to admin for event which he/she wants to organize.

Ip : event details

Op : Success/error message

R21 : Upload question set

Description : After given acknowledgment from admin for event employer can upload event's question set by giving all details of questions.

Ip : Question details

Op : Success/error message

R22 : View leader board

Description : Employer can view the leader board of event which is organized by them after event finish.

Ip : Employer request

Op : Sorted-list of candidates

R23 : Send mail to candidate

Description : Employer can send mail to the candidates who were participated in event which is organized by them after event finish.

Ip : Mail details and selection of candidates

Op : Success/error message

R24 : View notifications

Description : Employer can view the list of notification which admin has send.

Ip : Employer request

Op : list of notification details

Features of Admin

R25 : Login

Description : Admin can login up in System by entering necessary data i.e. email,Password.

Ip : Admin details

Op : Success/error message

R26 : Logout

Ip : Admin request

Op : Success/error message

R27 : Manage event

Description : Admin can manage all the functionalities related to event like giving proper acknowledgment to the event requested by particular company as well as Organizing events behalf of company,delete events and view past and future events.

R27.1 : view event requests

Ip : Admin request

Op : Event requests list

R27.2 : Give acknowledgment to event request

Ip : acknowledgment details

Op : Success/error message

R27.3 : Organize event

Ip : event details

Op : Success/error message

R27.4 : Delete event

Ip : event selection

Op : Success/error message

R28 : Manage practice questions

Description : Admin can manage all the functionalities related to practice questions like add practice questions to practice module as well as delete questions and view list of it.

R28.1 : Add practice questions

Ip : Questions details

Op : Success/error message

R28.2 : Delete practice questions

Ip : Question selection

Op : Success/error message

R28.2 : view practice questions list

Ip : Admin request

Op : Question details list

R29 : Send notification

Description : Admin can Send text message or mail to company or candidate.

R29.1 : Send notification to candidate

Description : Admin can Send text message or mail to candidate when new event is organized or any response from company is come as well as reminder for which his/her registration is done.

Ip : notification details

Op : Success/error message

R29.2 : Send notification to company

Description : Admin can Send text message or mail to company at starting and ending time of event as well as when event related stuff should be given to them.

Ip : notification details

Op : Success/error message

R30 : Sort-list candidates

Description : Admin can sort list of candidate for particular event.

Ip : Admin request

Op : Sorted-list of candidates

R31 : Send Sort-list to company

Description : the event which is organized by particular company, the sort-list of candidate for that event can be send to them by admin.

Ip : Admin request

Op : Sorted-list of candidates

R32 : View feedback

Description : Admin can view list of feedback given by candidates.

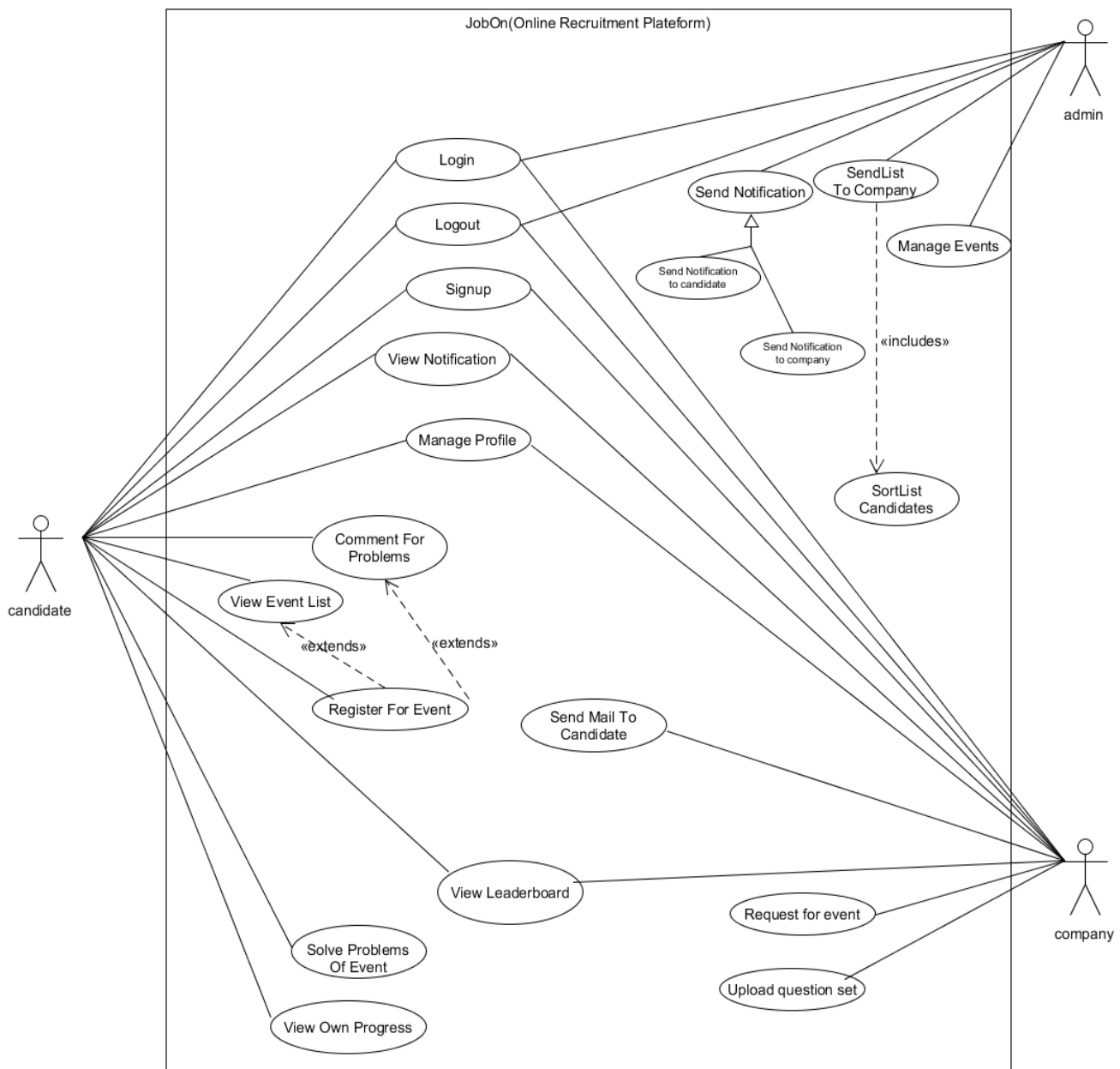
Ip : Admin request

Op : list of feedback details

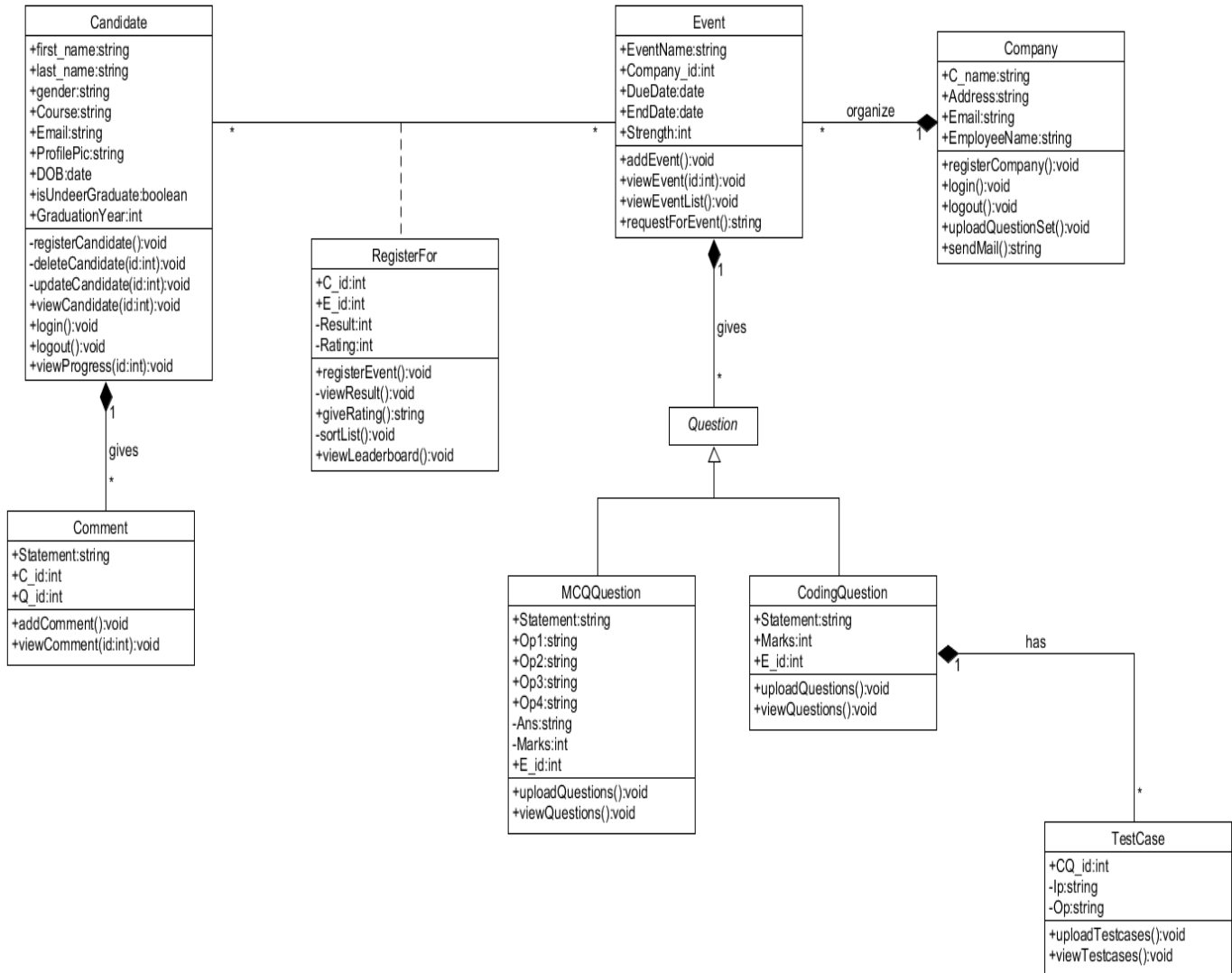
4.

Design

4.1 USECASE DIAGRAMS

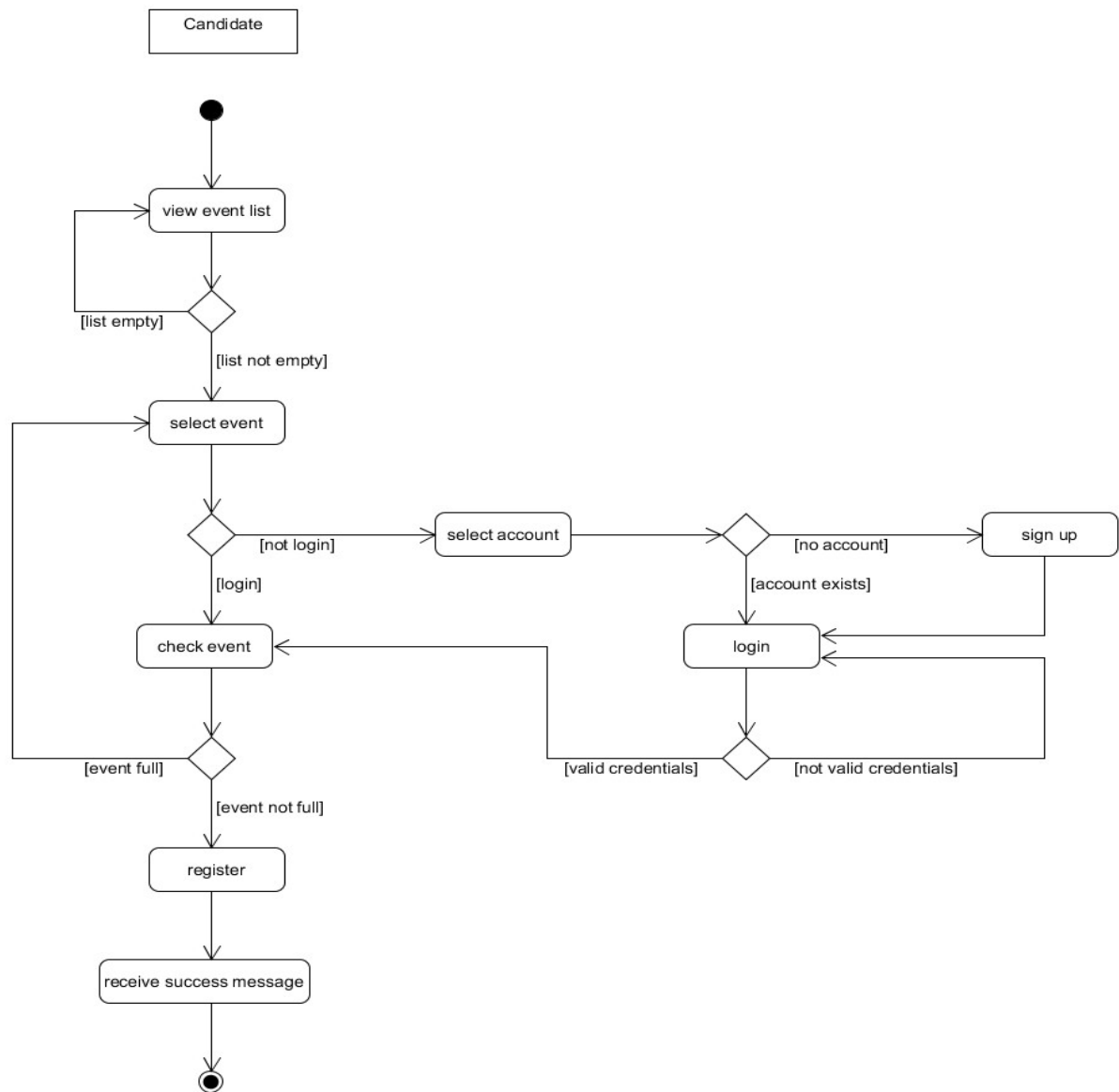


4.2 CLASS DIAGRAMS

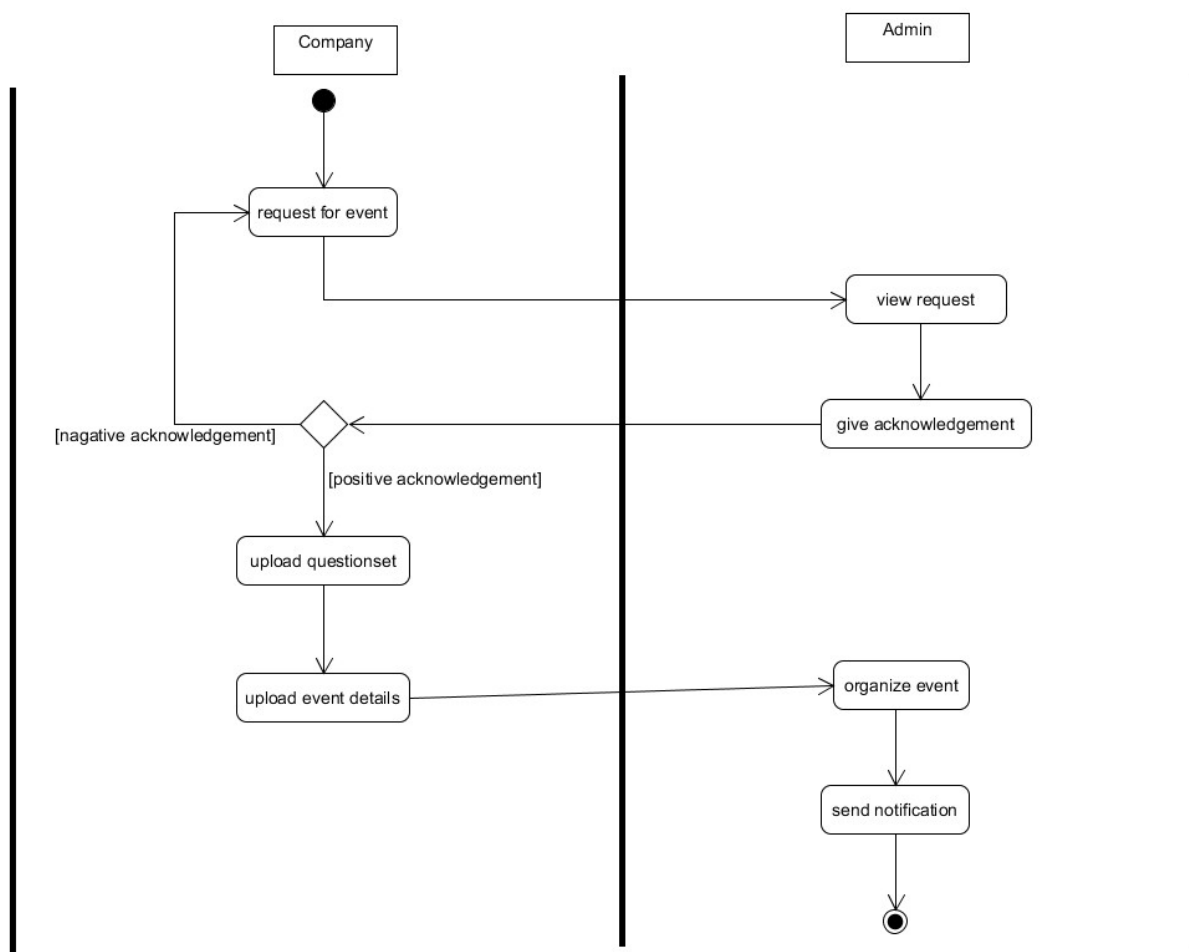


4.3 ACTIVITY

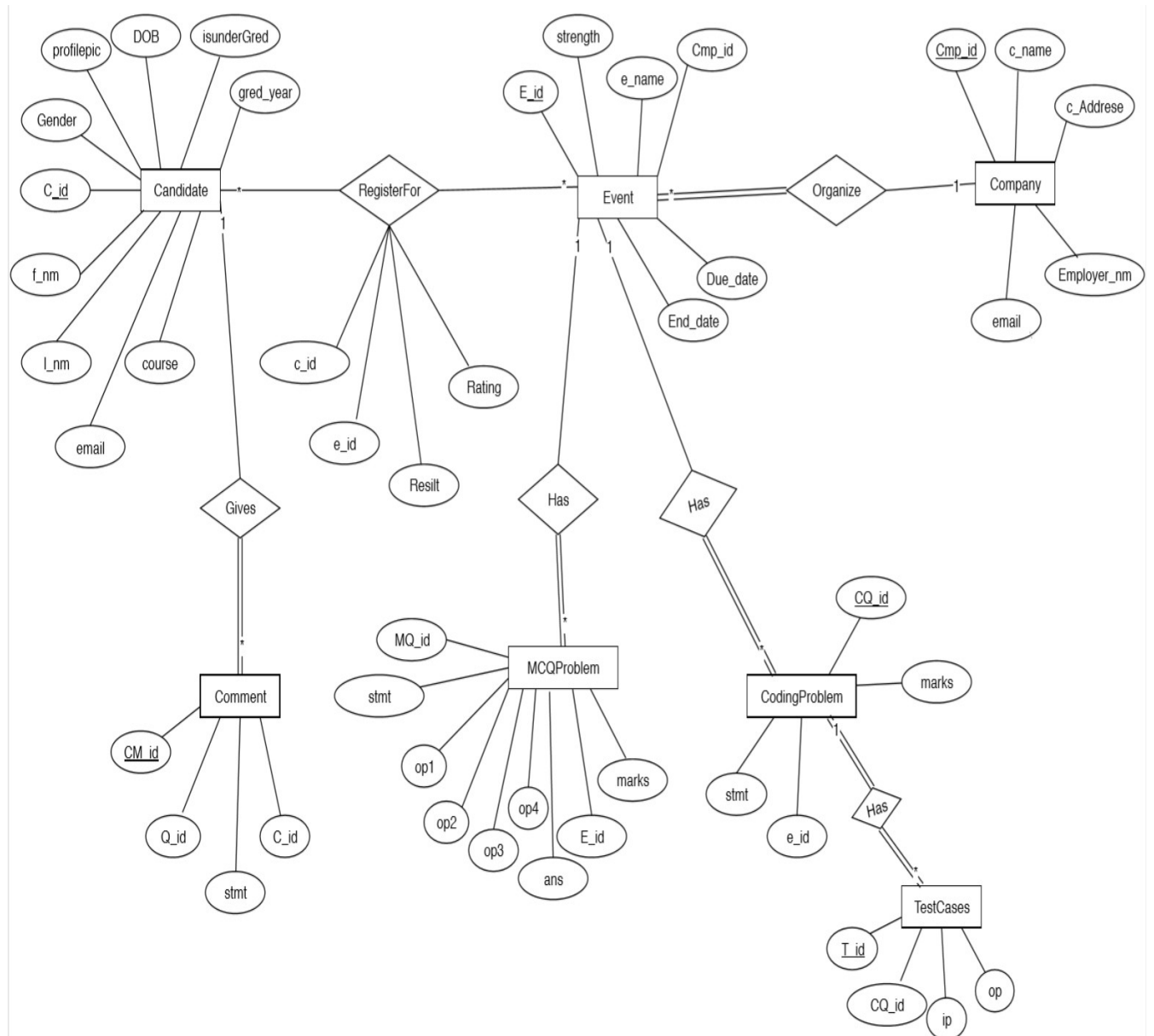
1. register For Event activity



2. Create Event Activity



4.5 E-R Diagram



4.4 Data dictionary

COMPANY					
SR NO	NAME	TYPE	SIZE	PK/FK	REFERENCE
1	CompanyId	Varchar(2)	20	PK	-
2	CompanyName	Varchar(2)	25	-	-
3	Address	Varchar(2)	20	-	-
4	EmployerName	Varchar(2)	10	-	-
5	Email	Varchar(2)	10	-	-

MCQPROBLEM					
SR NO	NAME	TYPE	SIZE	PK/FK	REFERENCE
1	MCQId	Varchar(2)	20	PK	-
2	Statement	Varchar(2)	100	-	-
3	Op1	Varchar(2)	50	-	-
4	Op2	Varchar(2)	50	-	-
5	Op3	Varchar(2)	50	-	-
6	Op4	Varchar(2)	50	-	-
7	Answer	Varchar(2)	50	-	-
8	Marks	int	5	-	-
9	EventId	Varchar(2)	20	-	-

CODINGPROBLEM					
SR NO	NAME	TYPE	SIZE	PK/FK	REFERENCE
1	CodeId	Varchar(2)	20	PK	-
2	Statement	Varchar(2)	100	-	-
3	Marks	int	5	-	-
4	EventId	Varchar(2)	20	-	-

CANDIDATE					
SR NO	NAME	TYPE	SIZE	PK/FK	REFERENCE
1	CandidateId	Varchar(2)	20	PK	-
2	FirstName	Varchar(2)	25	-	-
3	LastName	Varchar(2)	25	-	-
4	Course	Varchar(2)	50	-	-
5	Email	Varchar(2)	10	-	-
6	Gender	Varchar(2)	10	-	-
7	ProfilePic	Varchar(2)	50	-	-
8	DOB	date	25	-	-
9	isUnderGraduate	boolean	1	-	-
10	GraduationYear	int	5	-	-

REGISTERFOR					
SR NO	NAME	TYPE	SIZE	PK/FK	REFERENCE
1	CandidateId	Varchar(2)	20	FK	CANDIDATE
2	EventId	Varchar(2)	20	FK	EVENT
3	Result	int	10	-	-
4	Rating	int	5	-	-
5	Total	int	10	-	-

EVENT					
SR NO	NAME	TYPE	SIZE	PK/FK	REFERENCE
1	EventId	Varchar(2)	20	PK	-
2	EventName	Varchar(2)	10	-	-
3	Strength	int	10	-	-
4	CompanyId	Varchar(2)	20	FK	COMPANY
5	DueDate	date	5	-	-
6	EndDate	date	5	-	-

TESTCASE					
SR NO	NAME	TYPE	SIZE	PK/FK	REFERENCE
1	Tastecaseld	Varchar(2)	20	PK	-
2	CodeID	Varchar(2)	20	FK	CODINGPROBLEM
3	Input	Varchar(2)	50	-	-
4	Output	Varchar(2)	50	-	-

COMMENT					
SR NO	NAME	TYPE	SIZE	PK/FK	REFERENCE
1	CommentId	Varchar(2)	20	PK	-
2	Statement	Varchar(2)	25	-	-
3	CandidateID	Varchar(2)	20	FK	CANDIDATE

5. Implementation Details

Registration module:

This module is used to store user's data to the MongoDB and enables the user to login to the system. All the fields in this module contains required validations. User can also navigate to login page if he/she already registered.

Login module:

This module takes users credentials and then verifies it with registered users, if user is not registered the invalid credentials is shown else if they match with database then login user.

Code Editor module:

In this module candidate Can compile and run their code in our platform for this Jdoodle API is Used. And Ace Code Editor module is integrate in our system. Output is displayed based on custom input and memory and cputime also shown on page.

Add Event Module:

In this module Company employer First request for event and after acknowledgment given by Admin they can upload valid questions by software and with all necessary minor details also. For Kind Of good Problem statement We are using rich code editor, by this Employer can beautify the content for better understanding and appearance.

Event Conduct Module:

After Successfully registering for event On particular Event day candidate can attempt questions in given Time. After event system rating i.e. feedback give by candidate and at last leader-board is displayed .Whole event conducts by fully automated software,in which no need of any presence of any employee.

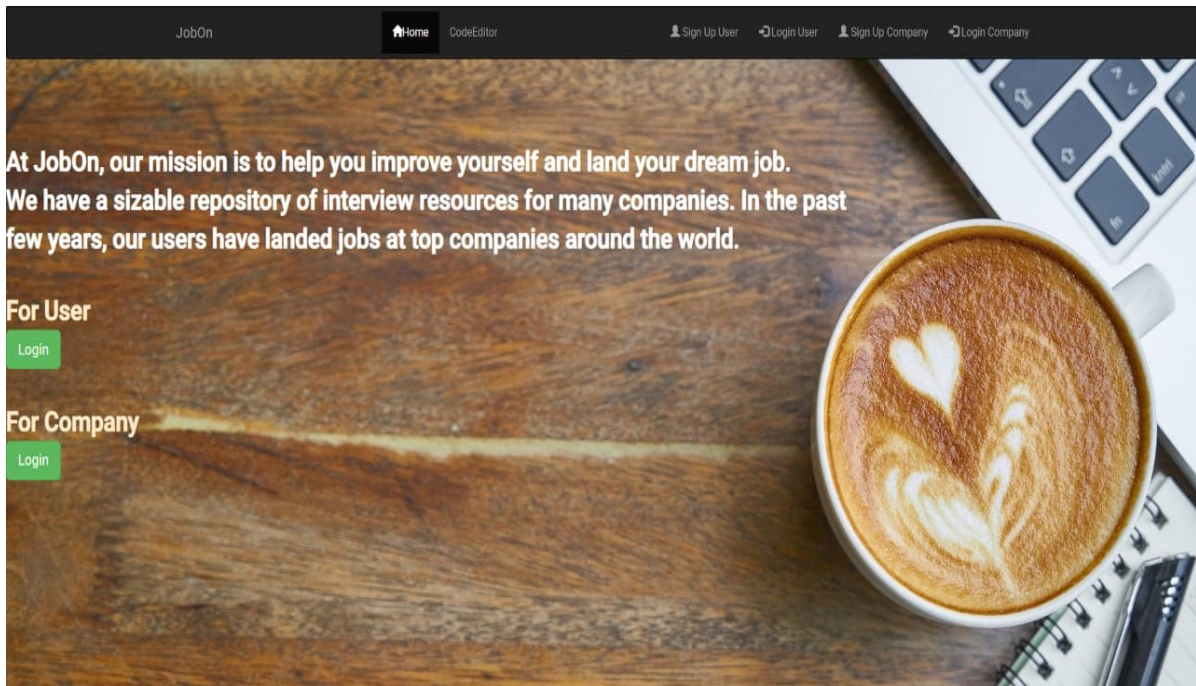
6. Testing

Testcases:

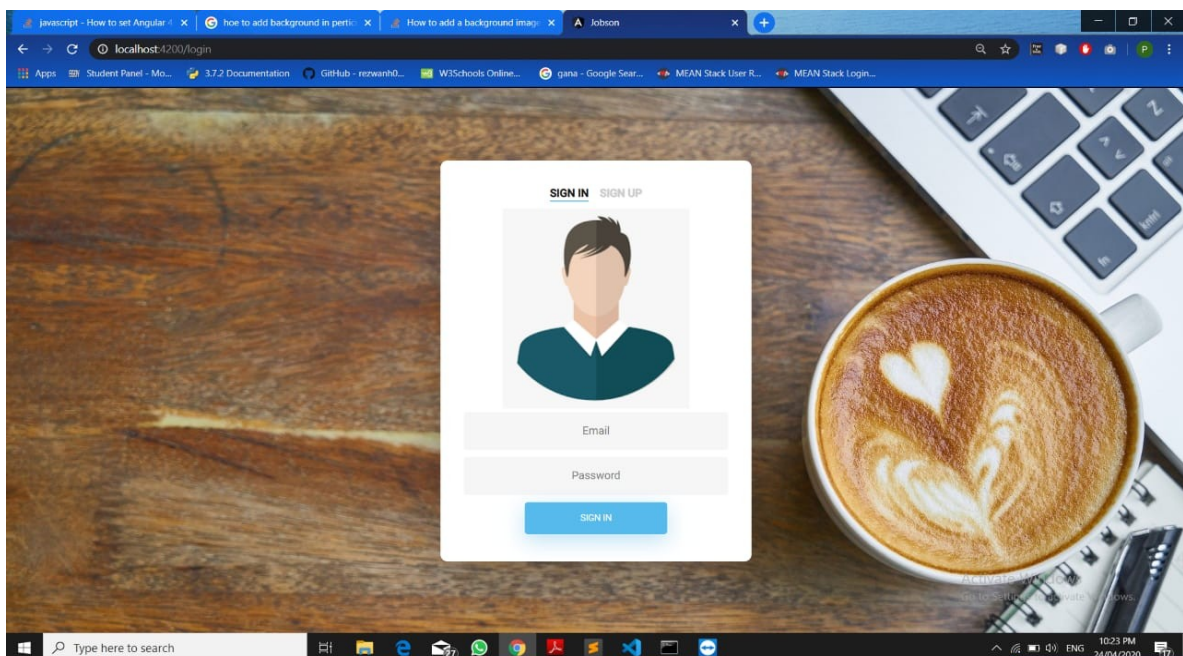
Module name	Field Input	Expected output	Actual output
Login	Username & Password (true input)	Redirect to Home page	Redirect to Home page
Code Editor Module	Code and custom input	Code output based on ip and all details	Code output based on ip and all details
Learner Registration	Email(email which Is already taken)	Warning message and stay to signup page	Warning message and stay to signup page
Add Event Module	Details of questions	Quiz Created is appear on screen	Quiz Created is appear on screen
Leader-board module	User Selection	Tabular fields in which all details are present	Tabular fields in which all details are present

7. screen shots

1.Home Page



2.Login Page




3. Event Request By Company Employer To Admin



Event Post Form

Event Name *	CodeVita
Must Be Unique	8/256
Strength *	500
	500
Registration Start Date *	24/04/2020
	2020-04-242020-03-25
Event On The Date *	27/04/2020
	2020-04-27
Description *	TCS events
	10/500

[Post Job](#)

4.Admin Can Either Acknowledge it or reject it

User Profile	
logo	
Name	Admin
Email	admin@gmail.com
LOGOUT	EDIT PROFILE

 CodeVita 5e5ca6970620d52b14a30a1f Registration Date:2020-04-24T00:00:00.000Z Event Date: 2020-04-27T00:00:00.000Z strength: 500 status: PENDING Accept Reject
 AMAZON PRFULKAKA Email:amazon@gmail.com Address: VANIYAVAD

5. After getting Acknowledgment Company Employer Can Add one by one Questions i.e. MCQ or Coding Questions By Interface. Demo Question Upload is shown hear. special appearance of rich Code editor For beautify the problem statement

Select Category

Question Editor

Revise 7 things

Your Title

Title

SOCK MERCHANT

Enter Title Properly 13 / 255

SOCK MERCHANT

Edit

Review Toughness of Question

Toughness Of Question *

Easy

You selected: Easy

Review Related topics

Related Topics

Array, Math

Edit

Your Problem Statment

Yo John works at a clothing store. He has a large pile of socks that he must pair them by color for sale. You will be given an array of integers representing the color of each sock. Determine how many pairs of socks with matching colors there are. John works at a clothing store and he's going through a pile of socks to find the number of matching pairs. More specifically, he has a pile of n loose socks where each sock is labeled with an integer, g_i denoting its color. He wants to sell as many socks as possible, but his customers will only buy them in matching pairs. Two socks i and j are a single matching pair if they have the same color ($g_i == g_j$).

Given n and the color of each sock, how many pairs of socks can John sell?

Input Format

The first line contains an integer n , the number of socks. The second line contains n space-separated integers describing the colors g_i of the socks in the pile.

Constraints:

$1 \leq n \leq 100$

$1 \leq g_i \leq 100$

Output Format

Return the total number of matching pairs of socks that John can sell.

Sample Input

```
6
10 20 20 10 10 30 50 10 20
```

Sample Output

```
3
```

Explanation

John can match three pairs of socks.

Show

Sample Input Otput

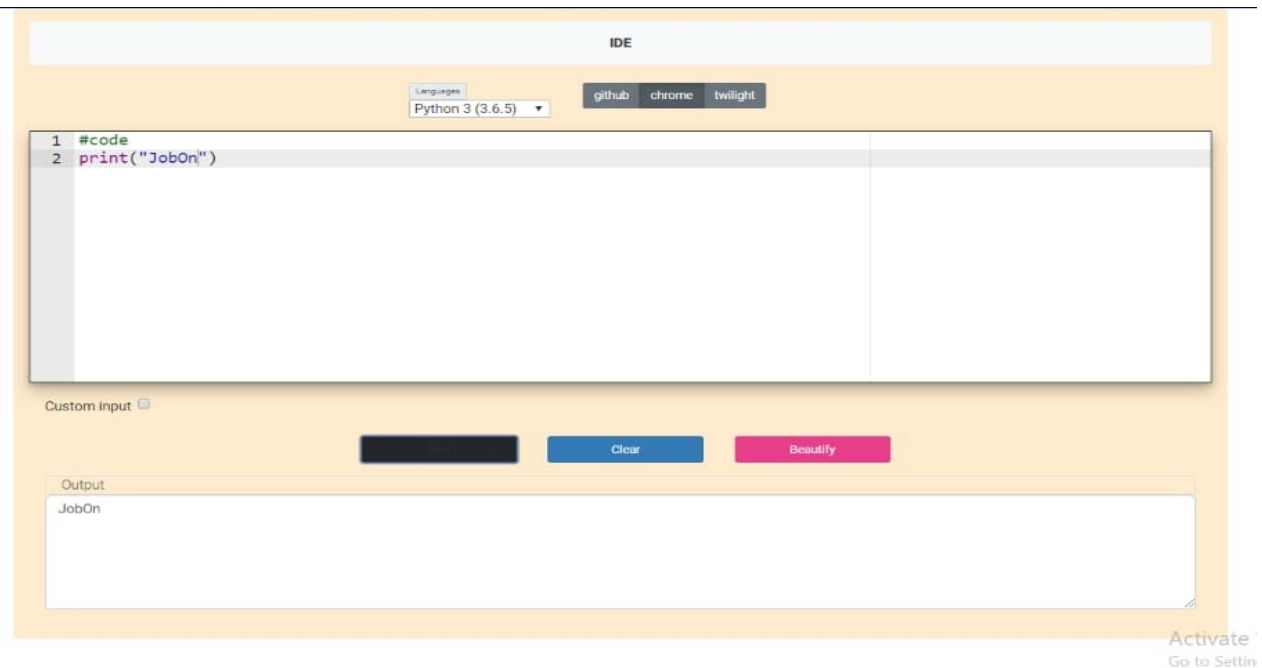
<p>Input</p> <p>10</p> <p>1 1 3 1 2 1 3 3 3 3</p>	<p>Output</p> <p>4</p>	<p>Explanation</p> <p>As per the image</p>	Edit
<p>Input</p> <p>6</p> <p>10 20 20 10 10 30 50</p>	<p>Output</p> <p>3</p>	<p>Explanation</p> <p>As per the image</p>	Edit

Test Cases

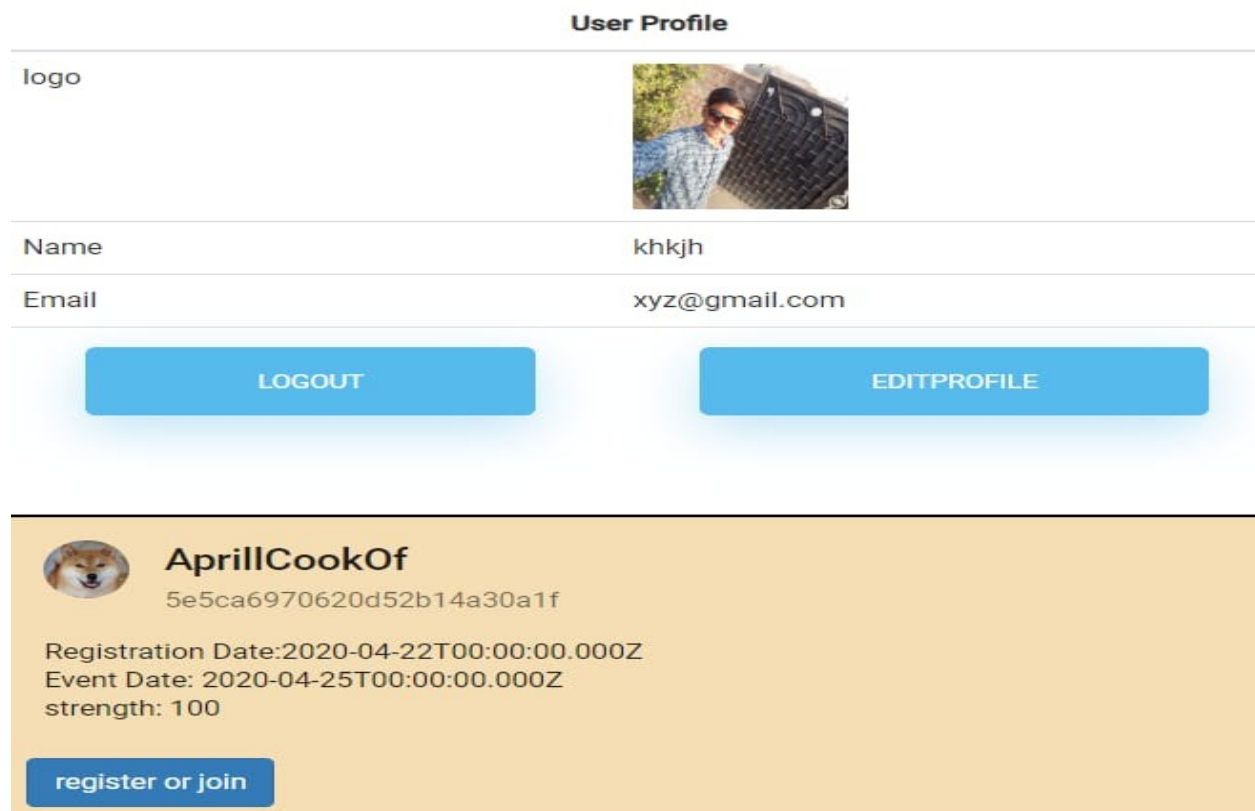
<p>Input</p> <p>6</p> <p>10 20 20 10 10 30 50</p>	<p>Output</p> <p>3</p>	<p>Explanation</p> <p>As per the image</p>	Edit
---	------------------------	--	------

Save And Next

6. Code Editor Module



7. in User Profile Event List Displayed And they Can register By clicking button



8. Event Participant Can Give compete in Contest On Given Time.

Time Left:2:30:49

submitTest

Mcq Question	1	Question:2 Statement: Which of the following is FALSE about abstract classes in Java Options: A.) IF WE DERIVE AN ABSTRACT CLASS AND DO NOT IMPLEMENT ALL THE ABSTRACT METHODS, THEN THE DERIVED CLASS SHOULD ALSO BE MARKED AS ABSTRACT USING 'ABSTRACT' KEYWORD B.) ABSTRACT CLASSES CAN HAVE CONSTRUCTORS C.) A CLASS CAN BE MADE ABSTRACT WITHOUT ANY ABSTRACT METHOD D.) A CLASS CAN INHERIT FROM MULTIPLE ABSTRACT CLASSES Your Ans: <div>Select an option *</div> <div>None</div>
Coding Questions	2	

SubmitAllMcq

Submit

next

9.After Finishing Contest System Rating Give By User

Rate Quality of Service

Rate System:

Submit

View Result

QOS Rating *

JobOn Rating *

1

2

3

4

5

10..Leader-board Of Event

Select eventname:
EventName *
AprillCookOf ▼

You selected: AprillCookOf

UserName	Result	Total
Jignesh	70	100
Ushank	100	100
Dhruvit	50	100

8. conclusion

The functionalities implemented in system after understanding all the system modules according to the requirements.

Functionalities That are successfully implemented in the system are :

- User registration containing all the necessary validation on field
- login
- user authentication
- logout
- Event Can be successfully Created With Valid MCQ and Coding Questions Uploaded By Employer by software interface.
- Candidate can successfully submit their answers i.e. multiple choice questions and code submit for given problem and validated against custom testcases.
- System rating i.e. feedback from User and leader-board for given contest.
- Admin side management

After the implementation and coding of system comprehensive testing was performed on the system to determine the errors and possible flaws in the system.

9. Limitations and Future Enhancement

The System has adequate scope for modification in future if it is necessary.

Refining existing services and adding more service, System security, data security and reliability are the main feature.

Currently Event is Organizing On Whole day but it can accommodated for given Particular Time ex. As at 22nd Jan. 2:00 P.M.

Notification Module is Remaining By which Admin Can send notification to User as well as to companies.

In the future Video/PDF like Resources can be also added for more guidance of Candidate to this platform.

10. Reference / Bibliography

Following links and websites were referred during the development of this project.

<https://www.google.co.in>

<http://www.wikipedia.org>

<http://www.w3schools.com>

<http://www.tutorialspoint.com>

<http://www.stackoverflow.com>

<https://docs.microsoft.com/en-us/dotnet/framework/winforms/>