SIMPLIFY CV

Submitted by
Sandeep Sutradhar (2147130)

Under the guidance of

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&

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A Project report submitted in partial fulfillment of the requirements
for the award of the degree of Master of Computer Applications of
CHRIST (Deemed to be University)

April - 2023

CERTIFICATE

*This is to certify that the report titled **Simplify CV** is a bonafide record of work done by **Sandeep Sutradhar (2147130)** of CHRIST (Deemed to be University), Bengaluru, in partial fulfillment of the requirements of **VI** Trimester **MCA** during the year **2023**.*

Head of the Department
Dr. Ashok Immanuel

Project Guide
Dr. Thirunavukkarasu V

Valued- by:

Name :

1.

Register Number :
Examination Center :

2.

Date of Exam :

SIMPLIFYƎX

Letter of Internship

To
Mr. Sandeep Sutradhar   Date: 22nd November, 2022
Bangalore

Dear Sandeep,
The management is pleased to extend to you this offer of Internship with the designation as a **Software Engineer - Intern**. Your internship period will begin from **04th January 2023 and will end as on 31st May 2023.** During this period, you will have to work out of our office in Bangalore.

A net stipend amount of **INR 14,800/-** per month **(INR 15,000 – INR 200 PT),** will be paid to you during your internship period.

TRAINING/INTERNSHIP PERIOD
Once your internship period is over, the company may choose to make you a full-time employee offer, based on your work performance and vacancy.

SHIFT/WORK TIMING
You will be required to work for 9 hours a day, Monday to Friday and Saturday-Sunday will be considered as weekly-off. However, please note that in case of any business exigencies, your duty hours may vary. You will be notified beforehand on such ad-hoc duty hours, shifts, etc. Your weekly-off may also be determined by the management in the interest of business exigencies**.**

GENERAL RESPONSIBILITY
You will exercise overall responsibility of projects/trainings/assignments assigned to you and you will run it with utmost efficiency.

LEAVES/PUBLIC HOLIDAYS
You will be entitled to 1 day leave a month and public holidays as decided by the company.

NOTICE PERIOD
In case you wish to discontinue the internship, you are required to serve a notice of 15 days. Such a communication will have to be given in writing.

DISPUTE MANAGEMENT
In case of any disputes or differences arising in respect of interpretation or with the terms and conditions of your service or about any act or omission on your part, the decision of the management shall be final and binding on you.

We assure you of our support and wish you the very best.

Sincerely,

Urmila Manjunath
HR Manager

Simplify3X Software Private Limited   (CIN:U72900KA2016PTC092549)
📍1st Block, Plot No # 406, 2nd floor, 7th Main, Hennur Road, Hennur Bagalur Rd, Banaswadi, Bengaluru, Karnataka 560043
🌐**www.simplify3x.com**   ✉ info@simplify3x.com   📞 **+91 - 8041116728**

SiMPLiFYƎX

Date :- 24th April 2023

Letter Of Internship

This letter is to certify that **Mr. Sandeep Sutradhar** is currently interning with **Simplify3x Software Pvt (L)** from **04th January 2023**. He is working as a **Software Engineer - Intern**. The internship will end on **31st May 2023**.

He is actively & diligently involved in the projects and in all tasks assigned to him.

We wish him a bright future.

Sincerely,

Sowmick Raj
HR Executive
Simplify3x Software Pvt Ltd

SIMPLIFY3X SOFTWARE PVT LTD.
#406, 2nd Floor 1st Block
7th Main, Hennur Road,
Banaswadi, Bengaluru,-560043

YASHARTH SINGH

Simplify3x Software Private Limited (CIN:U7900KA2016PTC092549)

2nd Floor, 1st Block, Plot No # 406, 7th Main, Hennur Road Banasawadi, Bengaluru 560043, Karnataka.

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ACKNOWLEDGEMENT

ABSTRACT

Simplify3x is an IT service and IT consulting company. It was established in the year 2016. Their services are intended to expedite product development and testing to increase business agility. They offer sophisticated tech solutions to achieve performance optimization.

SimplifyMyCareer is a wing company that connects companies and academic institutions with comprehensive talent insights, helping them make more informed recruiting and development decisions.

Simplify CV is a Simplify3x home product. We are building a product for the world to ease the recruitment process. This initiative is created to assist our clients in achieving transformative results for hiring and those looking for a job. Pre-hiring screening, applicant skills evaluation, training and development programmes for employees/students, in all areas where we design bespoke assessments.

Assessment and Recruitment software is specifically developed to make user qualifications stand out during hiring. It holds commercial plans with various features. The finest assessment software allows the user not to have to do all of the work themselves, making it a quick and straightforward process of creating and scheduling tests and question papers for assessment.

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1. INTRODUCTION

SimplifyMyCareer is a wing firm that provides complete workforce insights to businesses and academic institutions, enabling them to make better-informed recruiting and development decisions.

Simplify CV is a simplified version of the Simplify3x home product. Here we are developing a product for the global market that can simplify the recruitment process. This programme is designed to aid our clients in attaining transformative results when it comes to hiring and job applicants. Pre-employment screening, applicant skill evaluation, and employee/student development programmes are all areas in which we provide bespoke exams. The product is intended to be used with invigilated tests to administer exams without causing delays or disturbances in assessment. To aid recruiters in evaluating and tracking the abilities of prospective hires.

The Assessment software was created with the express purpose of making user qualifications stand out during the employment process. It has a variety of commercial plans with a variety of features. The best assessment software eliminates the need for the user to do all of the work, making the process of screening a candidate's skills. The assessment tool showcases one's abilities and standing out in a crowd.

1.1   PROBLEM DESCRIPTION

A variety of characteristics distinguishes the current projects. The type of assessment is done physically and one-on-one with the candidate. It is based on a set of questions provided by the recruiting manager to the candidate who will be putting the procedure into action. It is not just a time-consuming and challenging task.

1.2   EXISTING SYSTEM

Different characteristics distinguish the existing projects. Assessment is done one- on-one physically, with a list of questions posed by a hiring employee to the person who is putting the process into action. It will now be a time-consuming and challenging process.

1.3   OBJECTIVES

The main objective is data-driven decision-making to provide an efficient and cost-effective means of creating and assessing topics and tests.To make the hiring process easier. To make the user experience better. To provide an accurate and timely evaluation of candidates performance. To allow admin to customize assessments. To provide an easy-to-use platform for creating and deploying assessments. To create a single platform for making the recruitment process easier for candidates as well as recruiters.

1.4   PURPOSE SCOPE AND APPLICABILITY

1.4.1   PURPOSE

The product is designed to use invigilated tests to perform exams without causing delays or disruptions in assessment. To assist recruiting managers in assessing and tracking the talents of potential hires. The software will provide users with the ability to create custom assessments, including both multiple choice and short answer questions. It will also allow for the administration of the assessment and generate a report of the scores.

1.4.2   SCOPE

Assessment is used to measure and evaluate performance, skills, and knowledge of individuals or groups. It typically includes features such as data collection, data analysis, report generation, and data storage. It is used to evaluate a variety of areas, including employee performance, training and development, customer satisfaction, and organizational processes. Recruitment is used to measure the candidates skills and areas where the candidate is lagging behind. Their activeness reports are useful to check the regularity. The scope of the entire application including Assessment and Recruitment is vast, as it can be used to assess any number of areas, including: Customer satisfaction and loyalty , Organizational processes , Learning and skill assessment , Recruitment and selection, Proctoring.

1.4.2   APPLICABILITY

BENEFITS FOR CANDIDATES: The candidate, whether a student or a user attempting to

utilize the product, can readily access it. The following do not need to travel physically to their tests; instead, they can take the examinations when they are scheduled utilizing the product. Additionally, they not only undergo a superficial examination but also have access to a tool that allows them to write their best professional bio in a matter of minutes.

BENEFITS FOR RECRUITERS: Cheating is a significant major stumbling block to recruiting professionals, teachers, and entrance exam proctors. Each year, high stakes examinations are administered; these examinations may be carried out once, twice, or even three times a year. Paying a test invigilator for each test will add to the physical difficulties. As a result, it's only reasonable that a tool like online proctoring would ease a significant strain on exam administrators.

BENEFITS FOR EXECUTIVES: More and better prospects will be attracted to the product, and the ability for recruiters to "discover" them in seconds, will result in more placements and increased income for the company.

BENEFITS FOR INVESTORS: Utilizing the product for recruiting or assessment demonstrates both intelligence and capability and the commitment to reducing time and friction in the recruiting process. Since 2006, almost 83 per cent of the money spent on acquisitions of recruitment technology companies has goneto Sovren Resume Parser clients. That is five times the amount of money Sovren customers spent than all other resume parsing suppliers combined.

1.5   OVERVIEW OF THE REPORT

Recruitment application is an application designed to assess and evaluate the performance of candidates for hiring purpose. It is used in corporate settings to measure the performance of candidates and to determine where interventions or additional help may be needed. This application typically includes tools to track performance, generate reports, and analyze data. It can also be used to deliver and manage tests like typing test, communication test, descriptive, mcq, pictorial. Assessment application can be used to measure a variety of skills and knowledge areas, including reading, writing, math, problem-solving, communication, and other cognitive abilities. It is an essential tool for recruitment teams and administrators who need to assess the skills of candidates in order to recruit them.

2. SYSTEM ANALYSIS AND REQUIREMENTS

Simplify CV's mission is to bring together those looking for work and those looking to recruit new employees for their organization. In addition to providing numerous modules such as assessment, the application, recruitment, learning certification, timesheet and others, the product is a full-featured platform. Depending on his requirements, the user can log in to a specific module or access the complete project.

2.1   PROBLEM DEFINITION

Recruitment is an application used to make the recruitment process easier by providing various options to recruiters to analyze candidates skills. Assessment is an application used to create, proctor and evaluate assessments. It is used by organizations to measure knowledge and skills, track candidates performance, and assess candidates skills. The goal of assessment is to provide a reliable and efficient way to measure and evaluate the knowledge and skills of candidates.

2.2   REQUIREMENTS SPECIFICATION

The product is designed to use invigilated tests to perform exams without causing delays or disruptions in assessment. To assist recruiting managers in assessing and tracking the talents of potential hires. Cheating is a major barrier to hiring professionals, professors, and proctors. Paying a test invigilator for each test adds to the physical challenges. That's why online proctoring fits. Exam administrators, instructors, and recruiters may now listen and see exam applicants from thousands of miles away. Simplifymycareer's Advanced Proctoring Feature provides exam administrators, instructors, and recruiters with the appropriate technologies.

2.3   FUNCTIONALITY SPECIFICATION

2.3.1   SIMPLIFY ASSESSMENT

Candidates' quality characteristics, along with acquired skills are assessed. The critical components of the product are

Assessing Candidate Skills Precisely: To eliminate human biases and judgments, use evidence-based assessments.

Reduce the Costs of Hiring: The processes allow customers to choose from a larger pool of pre-screened candidates based on their requirements.

Scaled to match the needs: The ability to build your tests.

Clients here can select an assessment from a pool of questions that have already been provided. Choose the test that best fits their needs. Get a set of questions and requirements that are unique to their requirements. Can send invites to candidates and the recruitment teams. Also, analyze and decide on the best candidates that fit the needs, as Simplify assessment allows real-time assessment outcomes. At a glance, you can see the status of each assessment. View statistics for each assessment, such as how many candidates have started or completed it and when the most recent action occurred. Examine each candidate in detail. Examine extensive reports to get a complete picture of the candidates. Examine a candidate's test scores and responses to the custom questions.

Simplify Assessment includes three types of proctoring: Live proctoring, remote proctoring and recorded proctoring. Online remote proctoring ensures high accountability levels

Monitoring test takers' behavior, Test taker's screen, test takers' environment, shameless cheat-proof examination process.

This online test software is ideal for a continually evolving world. It is already providing concrete solutions to bottlenecks by increasing online competency, apart from providing seamless advantages compared to traditional examination methods. Online remote proctoring solutions leverage proctoring technology to build a scalable, secure, and credible online examination solution and led them to mitigate some genuine challenges and concerns.

2.3.2 Recruitment

Recruitment software is specifically for managing all the processes including in recruitment process. Recruitment module is helpful in making Job Description, scheduling assessment and interviews, appointing recruiter and panelist and declaring the result of selection.

2.4   BLOCK DIAGRAM
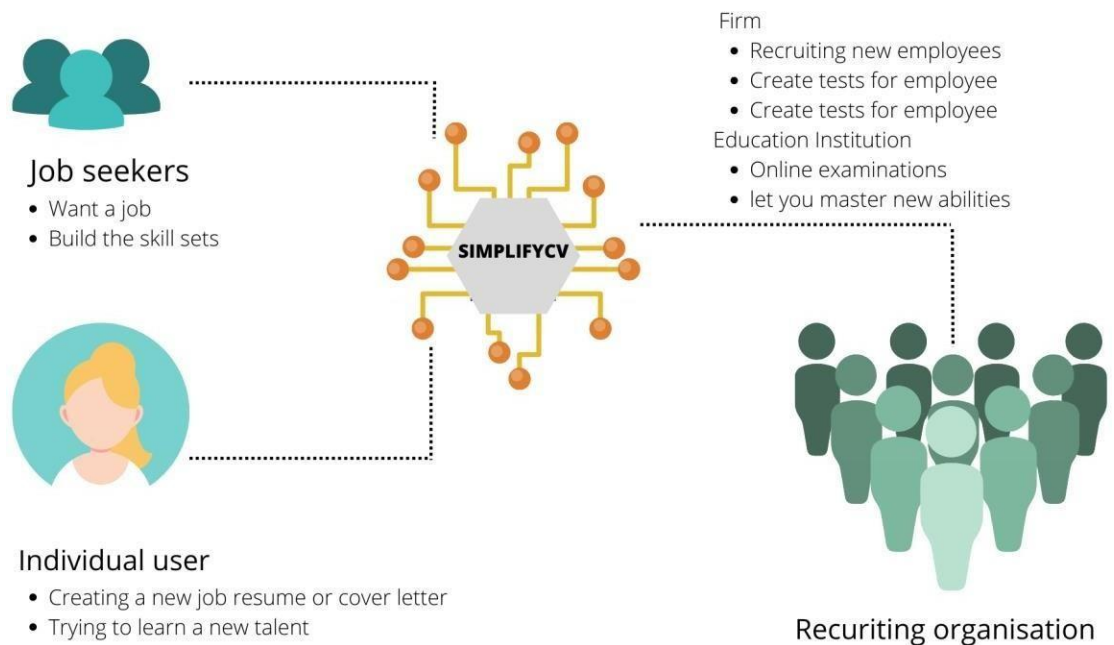
Fig 2.2 Block diagram

The block diagram depicts the overall structure of the product. It is competent to carry out the different aspects of what the product accomplishes and who it benefits.

2.5   SYSTEM REQUIREMENTS

The system requirements for the application to run, develop, and test are as follows; they are classified into two categories: hardware requirements and software requirements. These are the very minimal needs for the programme to run successfully; however, the application that includes the tools requires only a subset of these requirements.

2.5.1   VISUAL STUDIO CODE

It is a lightweight yet amazing source code editor which runs on the desktop and is accessible for Windows, macOS and Linux. It comes with inherent support for JavaScript, Typescript and Node.js and has a rich ecosystem of extensions for different languages (such as C++, C, Java, Python, PHP, Go) and runtimes (such as.NET and Unity). Visual Studio Code is a kind of tool that combines the simplicity of a code editor with what developers' requirements for their center alter construct investigation cycle. It provides comprehensive altering and debugging support, an

extensibility model, and lightweight mix with existing tools.

2.5.2   GITLAB

GitLab lnc is the open-core company that provides GitLab, the DevOps platform that combines the ability to develop, secure, and operate software in a single application.GitLab is a code hosting platform for version control and collaboration. It lets you and others work together on projects from anywhere.

2.5.3   HTML, CSS, BOOTSTARP

HTML is a markup language used to create static web pages and web applications. CSS is a style sheet language responsible for the presentation of documents written in a markup language. Bootstrap is a collection of CSS classes and JavaScript function and it is used for responsive design and building responsive, mobile-first site and application.

2.5.4   VUE-JS

Vue.js is an open-source model–view–viewmodel front end JavaScript framework for building user interfaces and single-page applications.It can also be applied to both desktop and mobile app development thanks to the HTML extensions and JS base working in tandem with an Electron framework – making it a heavily favored frontend tool.

2.5.5   POSTMAN

Postman is an application used for API testing. It is an HTTP client that tests HTTP requests, utilizing a graphical user interface, through which we obtain different types of responses that need to be subsequently validated.Postman is an API client that makes it easy for developers to create, share, test and document APIs. This is done by allowing users to create and save simple and complex HTTP/s requests, as well as read their responses. The result - more efficient and less tedious work.

2.5.6   D3JS

D3.js is a JavaScript library for manipulating documents based on data. D3 helps you bring data to life using HTML, SVG, and CSS. D3's emphasis on web standards gives you the full capabilities of modern browsers without tying yourself to a proprietary framework, combining powerful visualization components and a data-driven approach to DOM manipulation.

2.6   HARDWARE AND SOFTWARE REQUIREMENTS

Hardware Requirements:

Table 2.5 Hardware Requirements

RAM	2 GB
CPU	Intel Core i3 or Higher
Hard Disk Size	80 GB

Software Requirements:

Table 2.5 Software Requirements

Product	Simplify CV
Tool	Vuejs, javascript, html
Editor	Visual Studio Code
Testing Tool	Postman

2.7   FUNCTIONAL REQUIREMENTS

- The various functional requirements of the system are:
  - A login system.
  - An assessment creation module.
  - An assessment evaluating module.
  - An objective statistical calculator of marks, responses and engagement.
  - An inference drawing system.

Table 2.6 Functional Requirements

Requirement ID	Requirement	Description
M1_FR1	Account Creation	Feature of account creation should be available for candidates as well as recruiters with the option of different roles and access control.
M1_FR2	Assessment Creation	Recruiters should be able to create various tests under major topics. These tests will have sections and will have questions of various types.
M1_FR3	Assessment Marking	The option of auto-correction and marking will be available for the assessments with objective answer keys.
M1_FR4	Statistical calculator	Statistics based on the cumulative and individual scores of candidates appearing for assessments should be available.
M2_FR5	Engagement calculator	Responses received from users and tests and topics being created under a license should be tracked.
M2_FR6	Report Generation	Reports should be generated for both the recruiters and candidates based on the information collected from statistical and engagement calculating modules.

2.8 NON-FUNCTIONAL REQUIREMENTS

The system has the following non-functional requirements:

- Performance: The report generation system performs multiple CPU intensive as well as IO intensive tasks. Therefore multithreading and multiprocessing approaches have been used in the system and the requirement of a system compatible with the same is there for proper performance.

- Safety/Security: Security of the system is ensured from the developer's point of view. All data stored in the system is provided with proper identification tokens and therefore can't be accessed by unauthorized personnel. The code of retrieving information as well has been created with layers of security checks.

- Quality Assurance: The quality of the system should be assured by making sure the data being collected from the users is done in a convenient way and doesn't defeat the purpose of reducing redundancy and increasing efficiency. The reports generated using the information collected should also be accurate in its calculation and inferences.

Table 2.7 Non-Functional Requirements

Require ment ID	Requirement	Description
NF_R1	Performance	The report generation system performs multiple CPU intensive as well as IO intensive tasks. Therefore multithreading and multiprocessing approaches have been used in the system and the requirement of a system compatible with the same is there for proper performance.
NF_R2	Safety/Security	Security of the system is ensured from the developer's point of view. All data stored in the system is provided with proper identification tokens and therefore can't be accessed by unauthorized personnel. The code of retrieving information as well has been created with layers of security checks.
NF_R3	Quality Requirements	The quality of the system should be assured by making sure the data being collected from the users is done in a convenient way and doesn't defeat the purpose of reducing redundancy and increasing efficiency. The reports generated using the information collected should also be accurate in it's calculation and inferences.

3. SYSTEM DESIGN

The system designs the developers to design and plan the development of the application. The application wraps different tools for complex planning and design plans. Integration of the tools seems to be easy but is a complex task. The tools that the application integrates are written in a wide variety of languages and coding standards. However, the others who have less experience and ideas on the code and working face a huge challenge in running these codes. The system design depicts the system architecture, various modules, the database design and the system configuration.

3.1   MODULE DESIGN
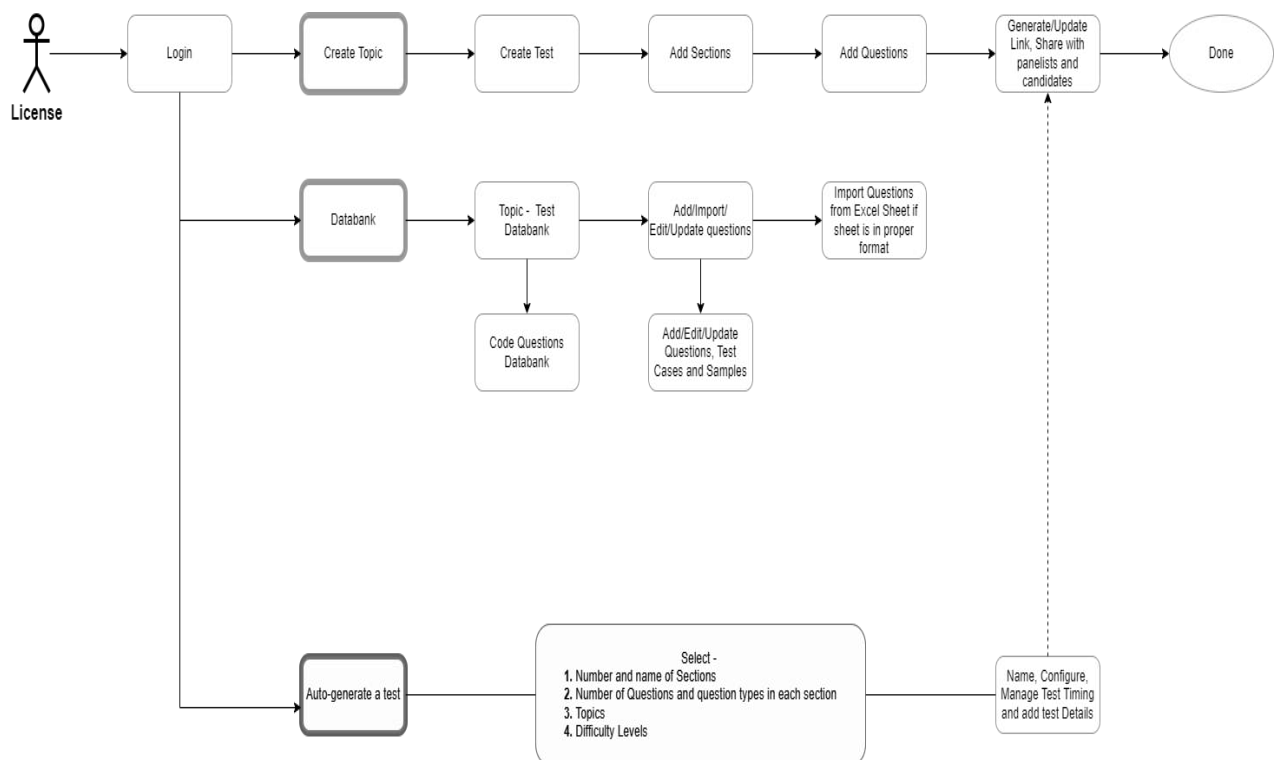
3.1.1   ASSESSMENT CLIENT SIDE

Fig 3.1.1 Assessment client side

The Figure 3.1.1 shows a block diagram which displays the work process of the client using the assessment tool. The Client can Create Topic, Create Test, Add section, Create questions and generate shareable test links. The Client has the access to the DataBank to choose from the given

set of questions or create their own question.

3.1.2   ASSESSMENT PANELIST AND CANDIDATE
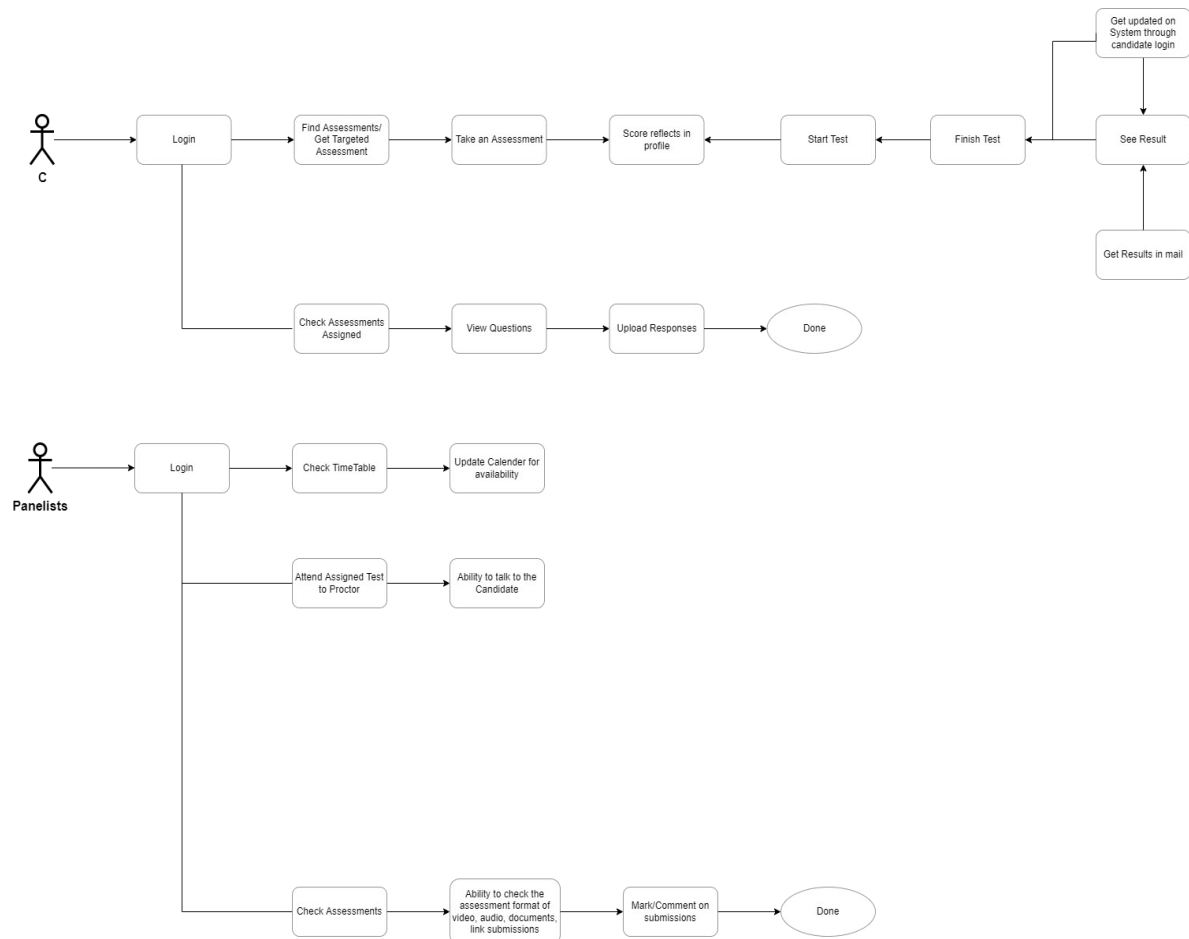
Fig 3.1.2 Assessment Candidate and Panelist

The Figure 3.2 depicts the process of the Candidate and the panelist in assessment. The Candidate can find or get targets assessments, Take an assessment, See the score on profile. He can also take test, upload answers and finish the test and view the score after the end of the test. The panelist here has the responsibility to check timetable or add it in the calendar slot, act as a proctor for the assigned test to view and speak to the candidate in case of any malpractice. Proctor live or using the recording add comments and submit the result.

3.1.3   Recruitment
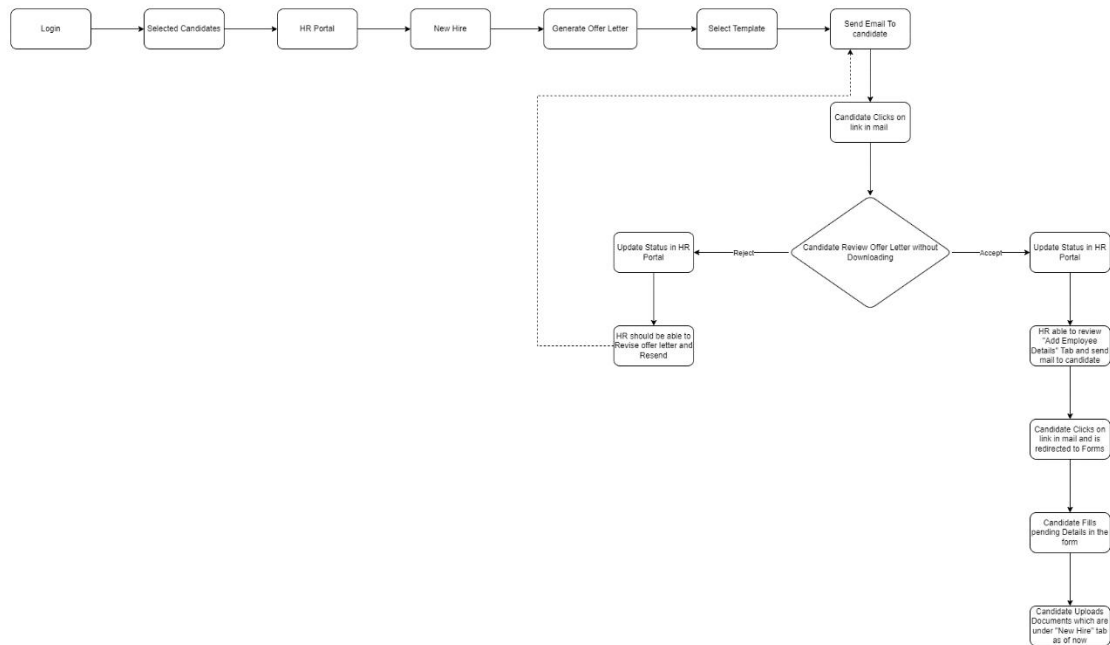
Fig 3.1.3 Recruitment Flow

Figure 3.1.3 depicts the process of Recruitment. The recruiter can be able to see the candidate's performance, set the test , able to organize the questions. The recruiter can also be able to set the candidate directly to some other component.

3.2   DATABASE DESIGN

The database design for the assessment module is primarily influenced by the structure of the tests as well as the distinct areas that must be taken into consideration when capturing candidate responses to the assessments in question.

As a result, the Topic Organizer, Test Organizer, Section Organizer, and Candidate Test Responses tables are the most important tables in the database.

3.2.1   TOPIC ORGANIZER TABLE

Table 3.2.1 Topic Organizer

S.No	Attribute name	Data Type	Description	Constraint
1	licenseKey	String Field	License Key of the purchased product.	Not null
2	topicIDs	List Field	List of topics under the License Key.	Not null
3	active	Boolean Field	Shows if the topic is active or not.	Not null
4	createdBy	String Field	User id of topic creator.	Not null
5	createdAt	Datetime Field	Time and date of topic creation.	Not null
6	updatedAt	Datetime Field	Time and date of topic modification.	Not null

3.2.2 TEST ORGANIZER TABLE

Table 3.2.2 Test Organizer

S.No	Attribute name	Data Type	Description	Constraint
1	licenseKey	String Field	License Key of the purchased product.	Not null
2	topicID	String Field	Topic ID for the tests	Not null

3	testIDs	List Field	List of tests under the topic.	Not null
4	active	Boolean Field	Shows if the test is active or not.	Not null
5	createdBy	String Field	User id of topic creator.	Not null
6	createdAt	Datetime Field	Time and date of topic creation.	Not null

3.2.3   SECTION ORGANIZER TABLE

Table 3.2.3 Section Organizer

S.No	Attribute name	Data Type	Description	Constraint
1	licenseKey	String Field	License Key of the purchased product.	Not null
2	testID	String Field	Test ID of the sections.	Not null
3	sectionIDs	List Field	List of sections under the test.	Not null
4	marks	Integer Field	Total marks of the test.	Not null
5	createdBy	String Field	User id of topic creator.	Not null
6	createdAt	Datetime Field	Time and date of topic creation.	Not null

3.2.4 CANDIDATE TEST RESPONSE TABLE

Table 3.2.4 Candidate Test Response

S.No	Attribute name	Data Type	Description	Constraint
1	licenseKey	String Field	License Key of the purchased product.	Not null
2	topicID	String Field	Topic ID of the attempted test.	Not null
3	testID	String Field	Test ID of the attempted test.	Not null
4	candidateID	String Field	User ID of the candidate.	Not null
5	candidateImage	String Field	Path to candidate's image stored in S3	
6	candidateImageWithID	String Field	Path to candidate's image with ID stored in S3	
7	testResponse	List Field	List of the candidate's responses in every section.	
8	isSubmitted	Boolean Field	Shows if the candidate has submitted their response or not.	
9	stats	Dict Field	Records the time of beginning of test, end of test and location of candidate.	
10.	createdAt	Datetime Field	Stored time of document creation.	

11.	marks	Integer Field	Shows marks scored in autocorrected tests.	

3.2.5   DATA DICTIONARY

3.2.5.1   TOPIC ORGANIZER

Table 3.2.5.1 Topic Organizer

S.No	Attribute name	Min Value	Max Value	Default
1	licenseKey	-	150	-
2	topicIDs	-	-	-
3	active	-	-	True
4	createdBy	-	150	-
5	createdAt	-	-	Current datetime
6	updatedAt	-	-	Current datetime

3.2.5.2   TEST ORGANIZER

Table 3.2.5.2 Test Organizer

S.No	Attribute name	Min Value	Max Value	Default
1	licenseKey	-	150	-
2	topicID	-	150	-
3	testIDs	-	-	-
4	active	-	-	True

5	createdBy	-	150	-
6	createdAt	-	-	Current datetime
7	updatedAt	-	-	Current datetime

3.2.5.3   SECTION ORGANIZER

Table 3.2.5.3 Section Organizer

S.No	Attribute name	Min Value	Max Value	Default
1	licenseKey	-	150.	-
2	testID	-	150	-
3	sectionIDs	-	-	-
4	marks	-	-	-
5	createdBy	-	150	-
6	createdAt	-	-	Current datetime
7	updatedAt	-	-	Current datetime

3.2.5.4   CANDIDATE TEST RESPONSE

Table 3.2.5.4 Candidate Test Response

S.No	Attribute name	Min Value	Max Value	Default
1	licenseKey	-	150	-

2	topicID	-	150	-
3	testID	-	150	-
4	candidateID	-	150	-
5	candidateImage	-	150	-
6	candidateImage WithID	-	150	-
7	testResponse	-	-	-
8	isSubmitted	-	-	False
9	stats	-	-	-
10.	createdAt	-	-	Current Datetime

4. IMPLEMENTATION

4.1   CODING STANDARDS

Coding conventions are style guidelines for programming. They typically cover: Naming and declaration rules for variables and functions, Rules for the use of white space, indentation, and comments and Programming practices and principles. The Coding conventions secure quality: Improves code readability and Make code maintenance easier. Coding conventions can be documented rules for teams to follow, or just be your individual coding practice.

4.1.1   VARIABLE NAMES

In the application we use camelCase for identifier names (variables and functions). All names start with a letter. At the bottom of this page, you will find a wider discussion about naming rules.

4.1.2   SPACES AROUND OPERATORS

Always put spaces around operators (= + - * /), and after commas.

4.1.3   STATEMENT RULES

General rules for simple statements: Always end a simple statement with a semicolon. General rules for complex (compound) statements: Put the opening bracket at the end of the first line, use one space before the opening bracket, Put the closing bracket on a new line, without leading spaces, and Do not end a complex statement with a semicolon.

4.1.4   OBJECT RULES

General rules for object definitions: Place the opening bracket on the same line as the object name. Use colon plus one space between each property and its value. Use quotes around string values, not around numeric values. Do not add a comma after the last property-value pair. Place the closing bracket on a new line, without leading spaces. and Always end an object definition with a semicolon.

4.1.5   LINE LENGTH

For readability, avoid lines longer than 80 characters. If a JavaScript statement does not fit on one line, the best place to break it is after an operator or a comma.

4.1.6   NAMING CONVENTIONS

Always use the same naming convention for all your code. For example: Variable and function names written as camelCase. Global variables written in UPPERCASE (We don't, but it's quite common), Constants (like PI) written in UPPERCASE. Hyphens in HTML and CSS: HTML5 attributes can start with data- (data-quantity, data-price). CSS uses hyphens in property-names (font-size). Hyphens can be mistaken as subtraction attempts.

Underscores: Many programmers prefer to use underscores (date_of_birth), especially in SQL databases. Underscores are often used in PHP documentation. PascalCase: PascalCase is often preferred by C programmers and camelCase: camelCase is used by JavaScript itself, by jQuery, and other JavaScript libraries. Do not start names with a $ sign. It will put you in conflict with many python library names.

4.1.7   PERFORMANCE

Coding conventions are not used by computers. Most rules have little impact on the execution of programs. Indentation and extra spaces are not significant in small scripts. For code in development, readability should be preferred. Larger production scripts should be minified.\
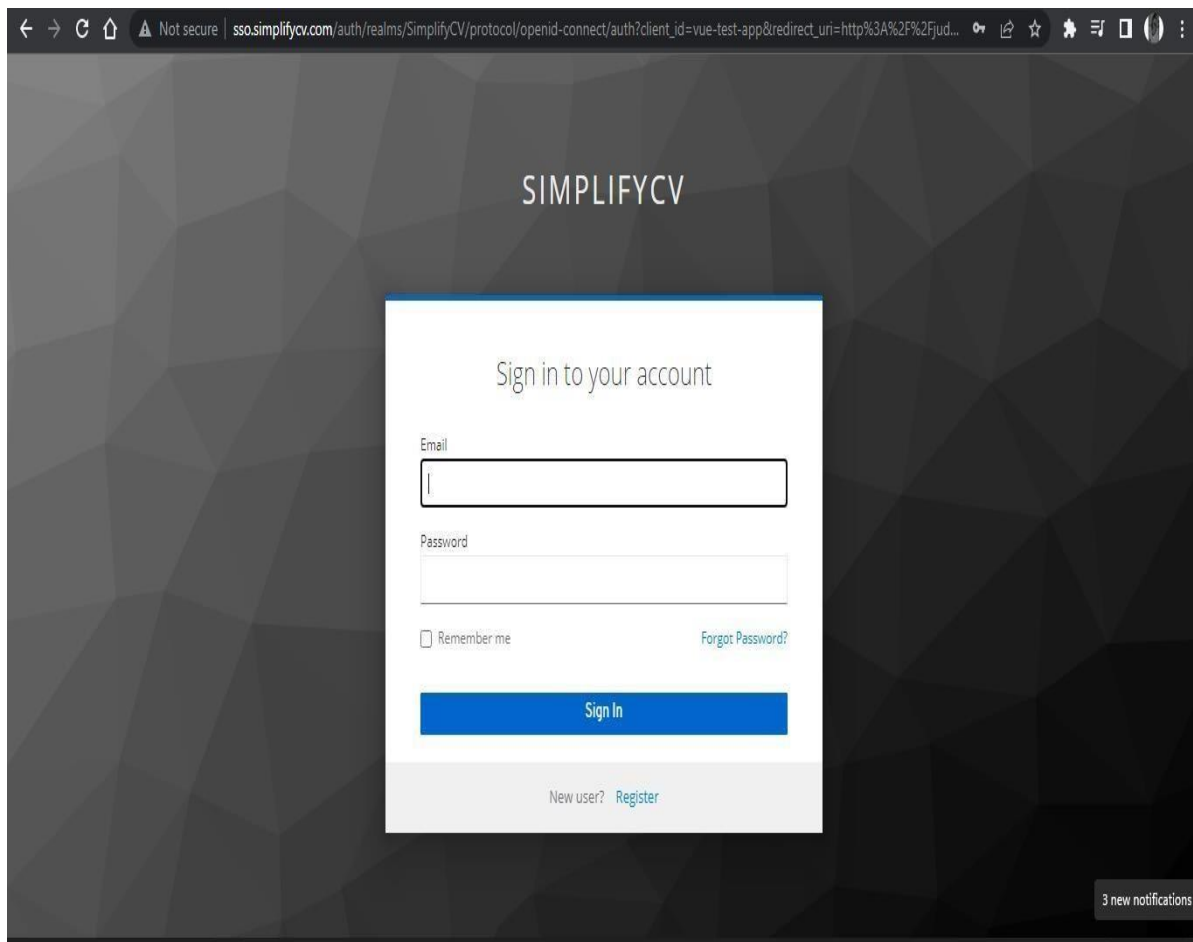
4.2   SCREENSHOTS ASSESSMENT

Fig 4.1 Login Screen for Assessment Client Side

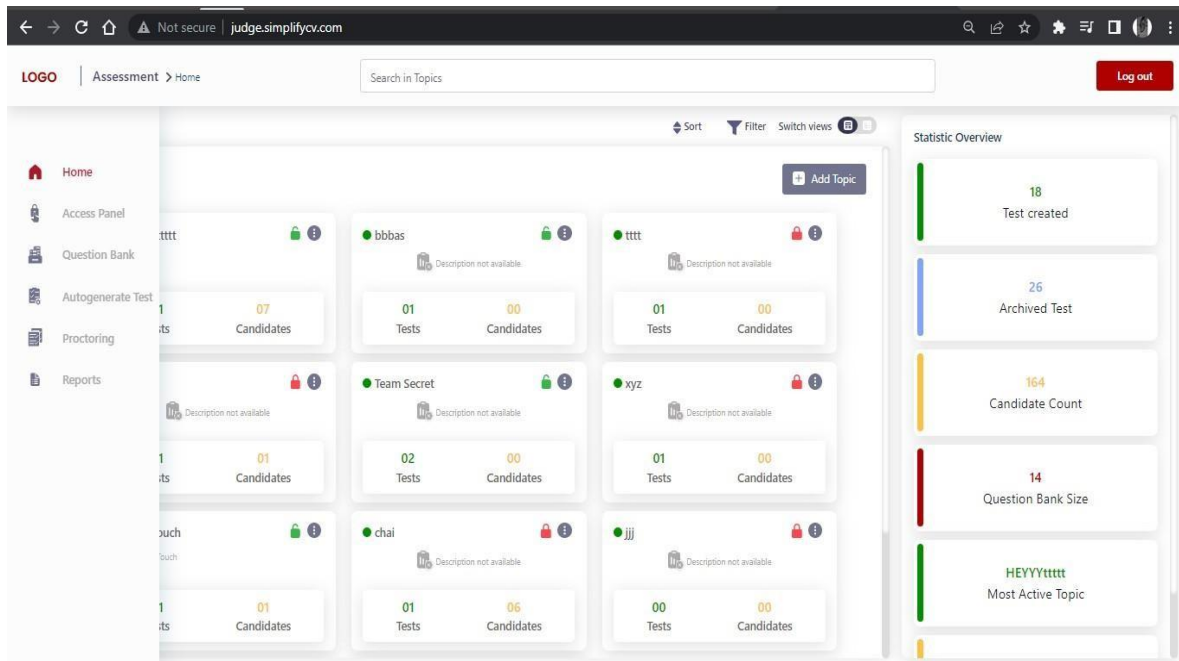The fig 4.1 shows the Login Screen for Assessment Client Side. This is the first screen of the Assessment Client Side Module.

Fig 4.2 Home Screen Assessment Client Side

The fig 4.2 shows the Home Screen of Assessment Client Side. It is the Home screen page of Assessment Client Side Module
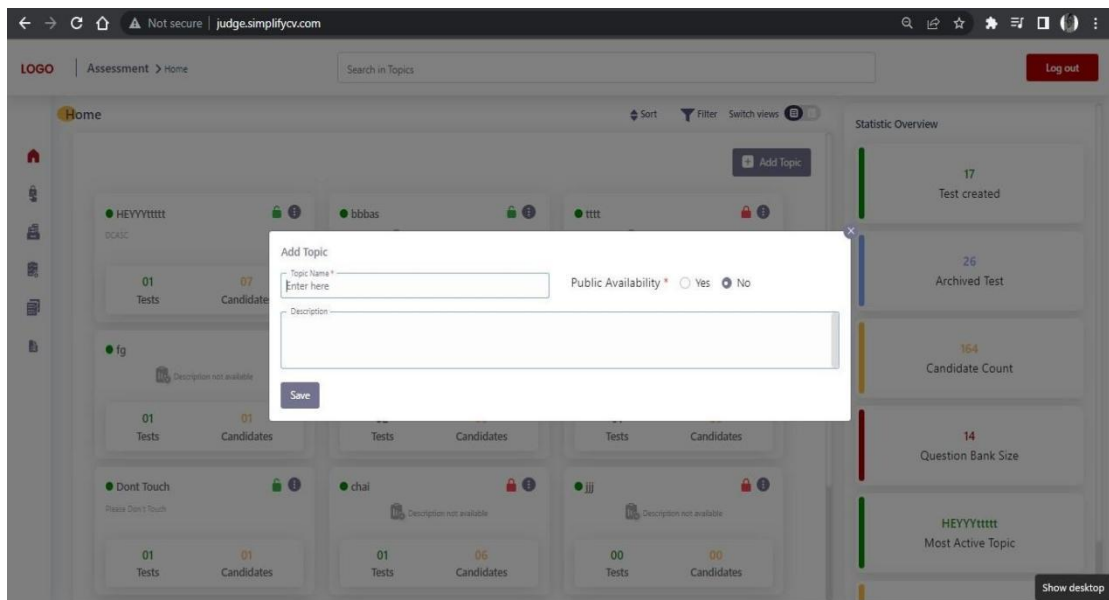
Fig 4.3 Create Topic Screen Assessment Client Side

The fig 4.3 shows the Topic Screen for Assessment Client Side. The Client can create new topic and have topic description and make the test public availability to everyone .
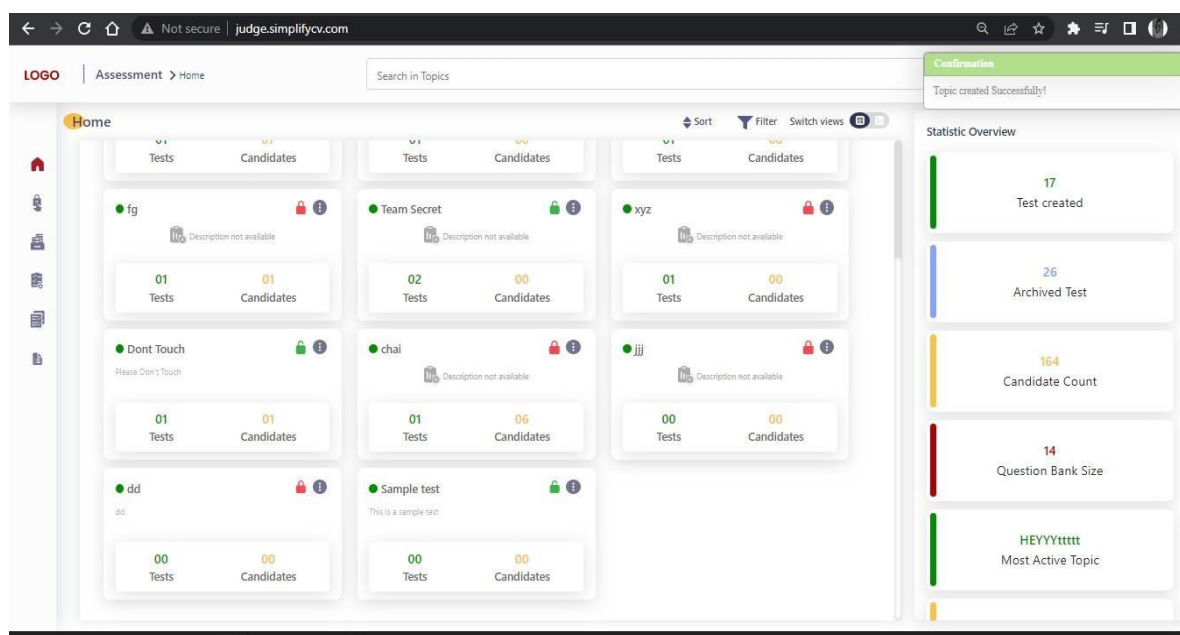
Fig 4.4 Topic created screen Assessment Client Side

The fig 4.4 shows the Topic created screen, after the client creates the topic he can view it here
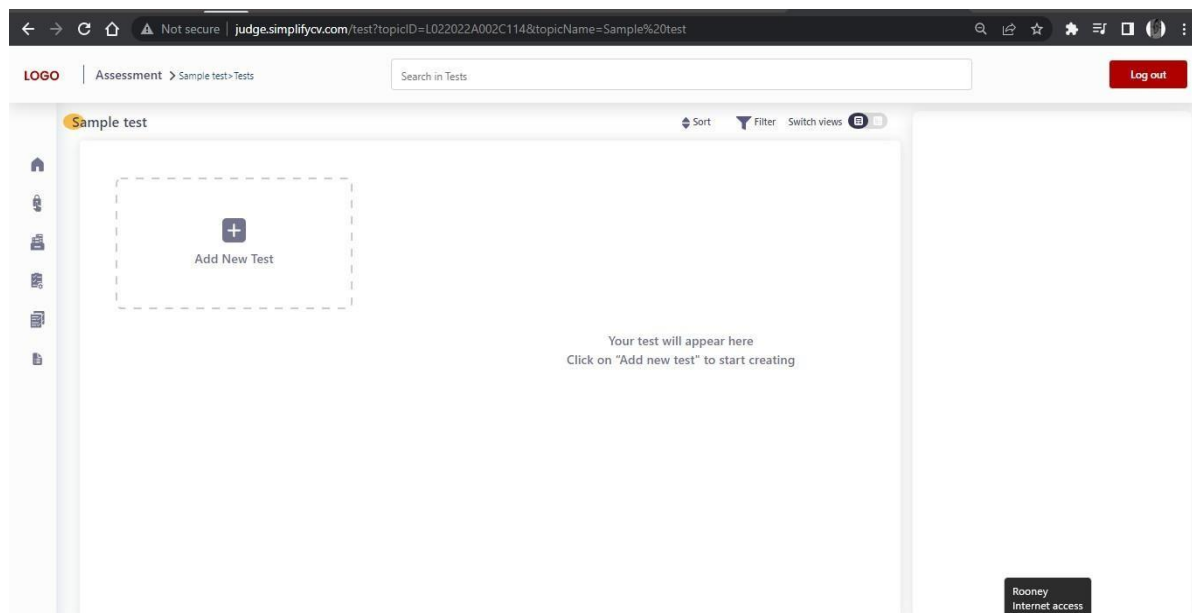
Fig 4.5 Test creation screen Assessment Client Side

The fig 4.5 shows the Test creation screen Assessment Client Side, within Topic Client can create Test.
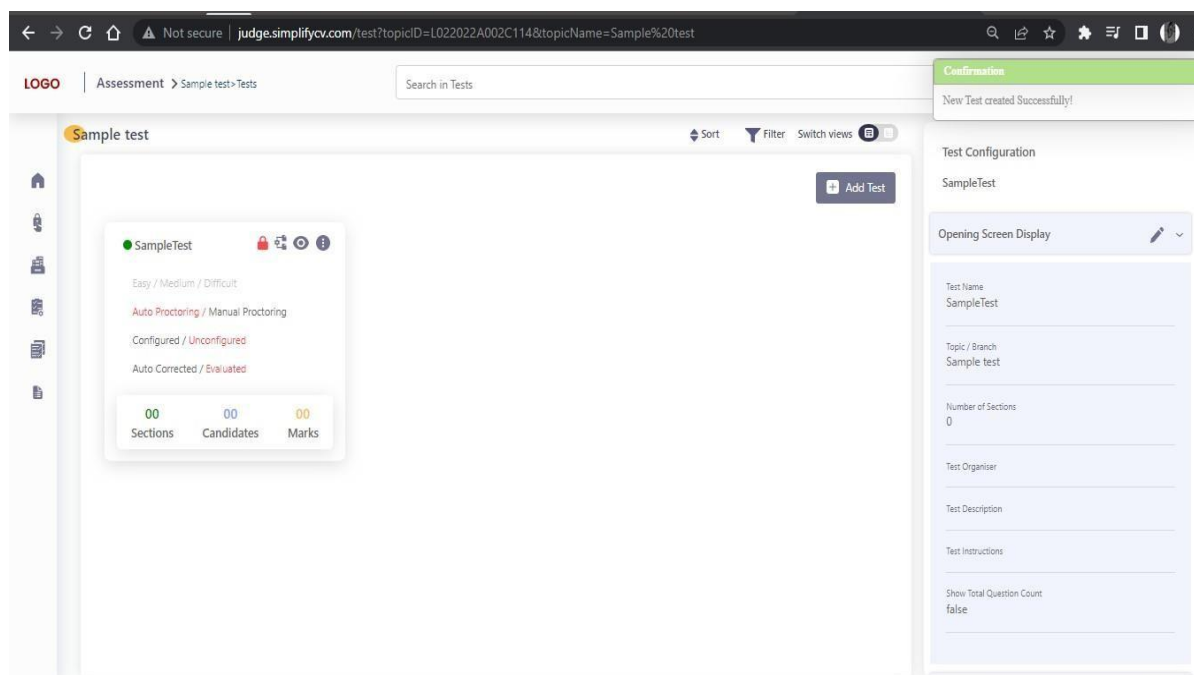
Fig 4.6 Test Created Screen Assessment Client Side.

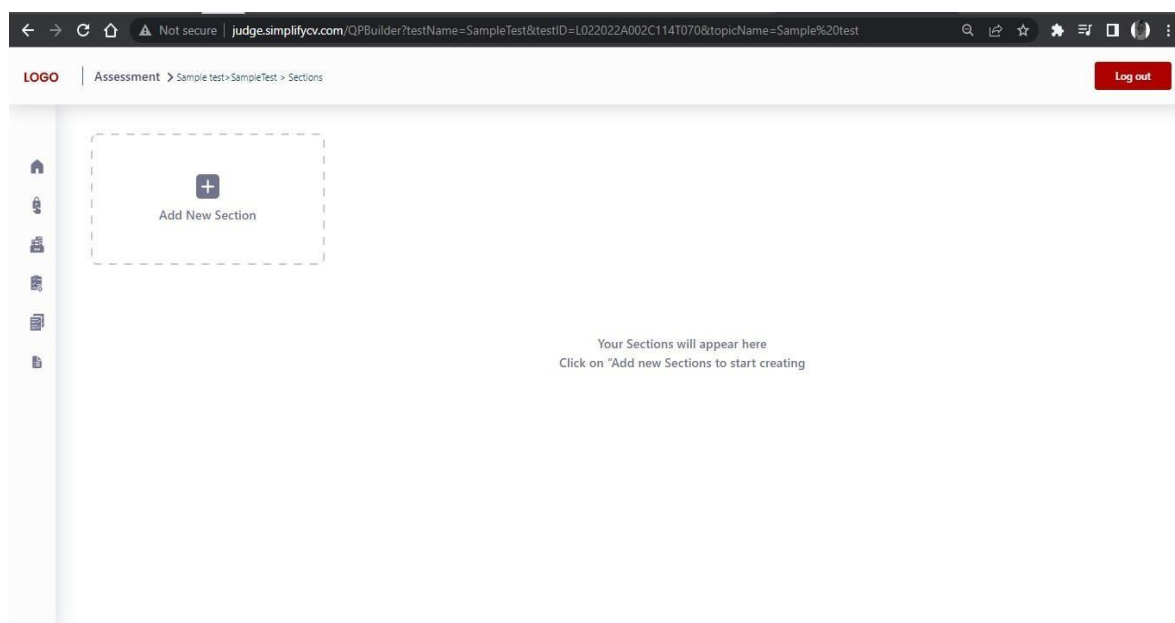The fig 4.6 shows the tests that are created by the Client

Fig 4.7 Section creation screen Assessment Clientside

The fig 4.7 shows the section created screen for Assessment Client Side Module, the sections are created within Tests in the module

Fig 4.8 Section creation screen Assessment Client side

The fig 4.8 shows the Section with question from question bank or client can his own questions, SectionCreated screen Assessment Client Side

Fig 4.9 Access Management Screen Assessment Client Side

The fig 4.9 shows the Access Management Screen Assessment Client Side. The Client choose roles as either User or have his own access roles for the tests that he creates
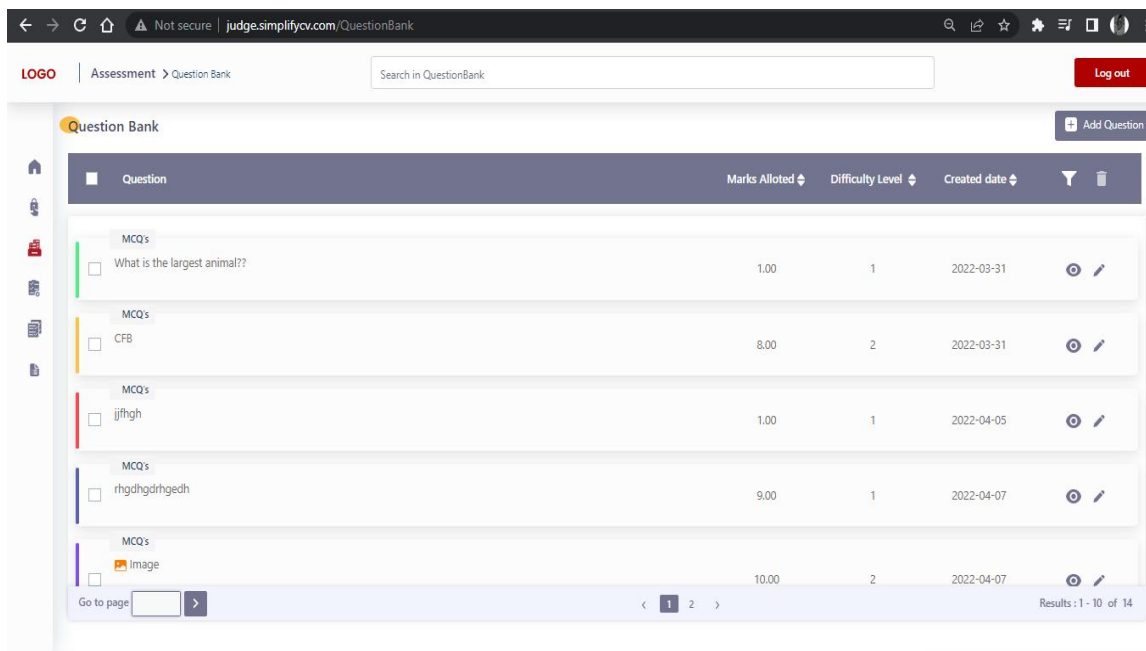
Fig 4.10 Question Bank Assessment Client Side

The fig 4.10 shows the Question Bank with predefined set of questions Assessment Client Side
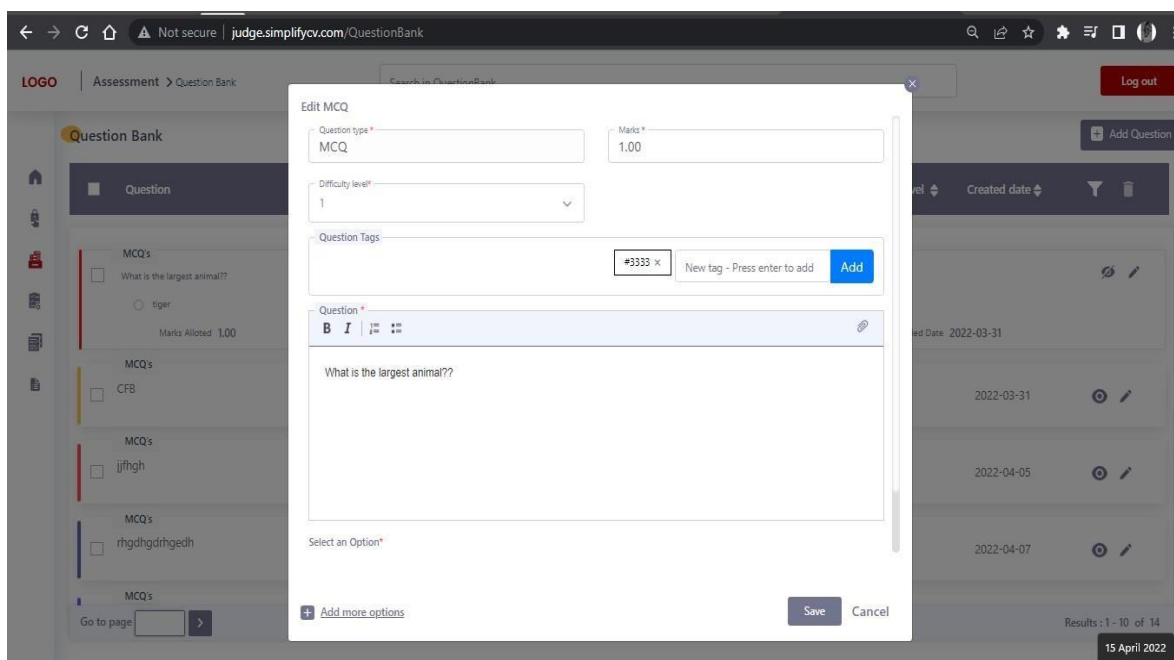

Fig 4.11 Edit Question - Question Bank Assessment Client Side

The fig 4.11 shows the question bank screen with the edit option the Client can add the existing question.
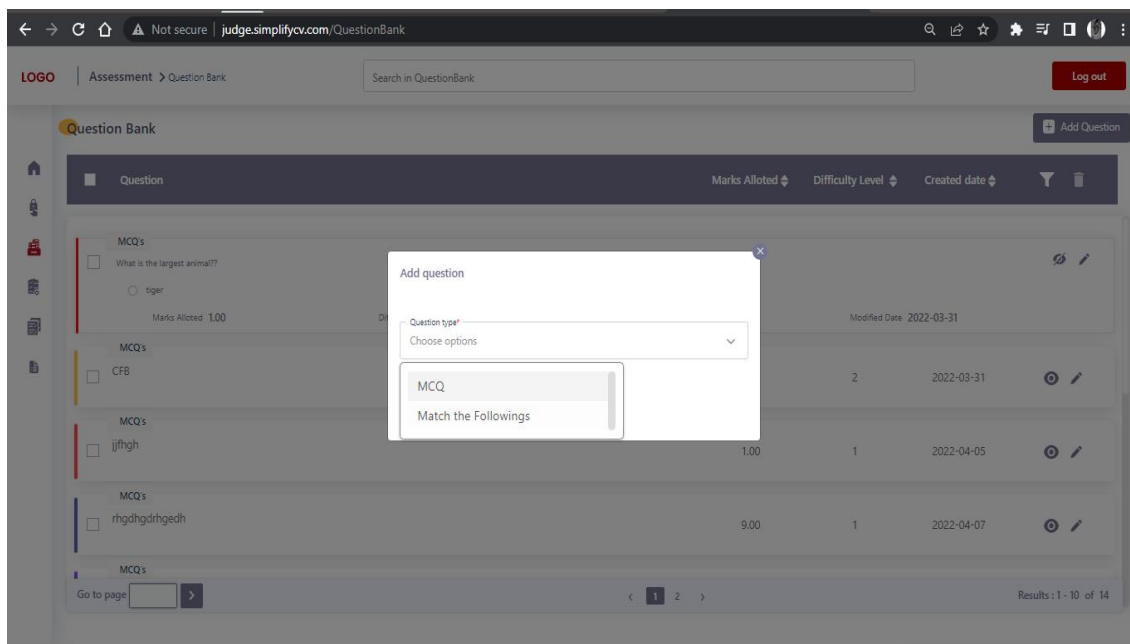
Fig 4.12 Add Question - Question Bank Assessment Client Side

The figure 4.12 shows the screen where the client can add new questions to the question bank.
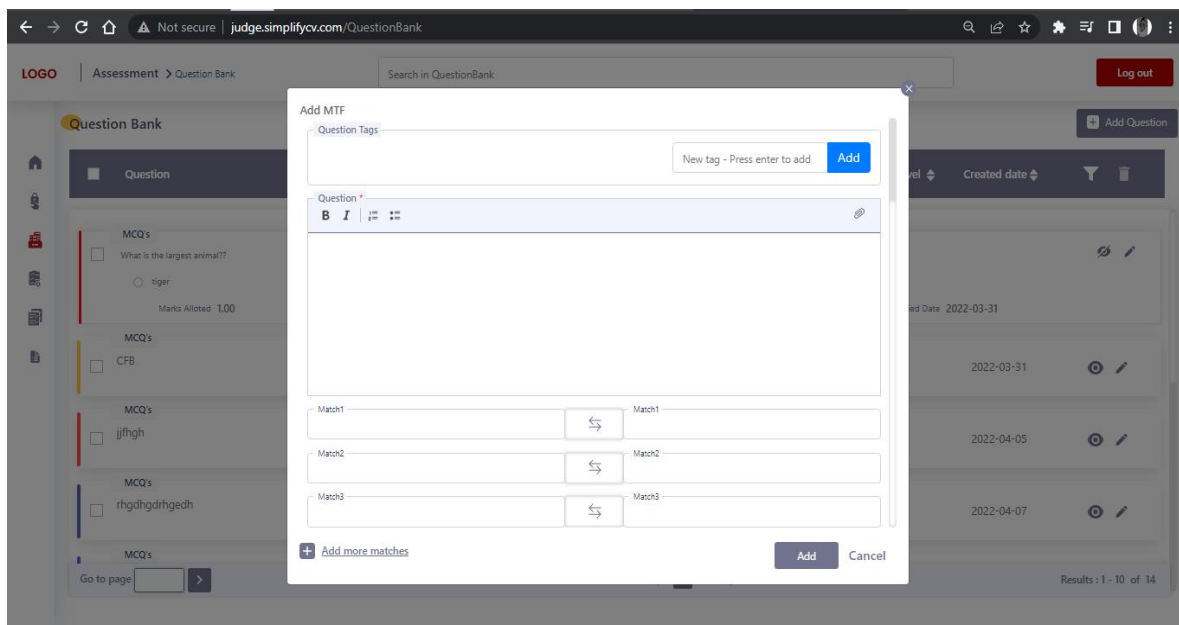

Fig 4.13 Add Question - Question Bank Assessment Client Side

The figure 4.13 shows the screen where the client can add new questions to the question bank.
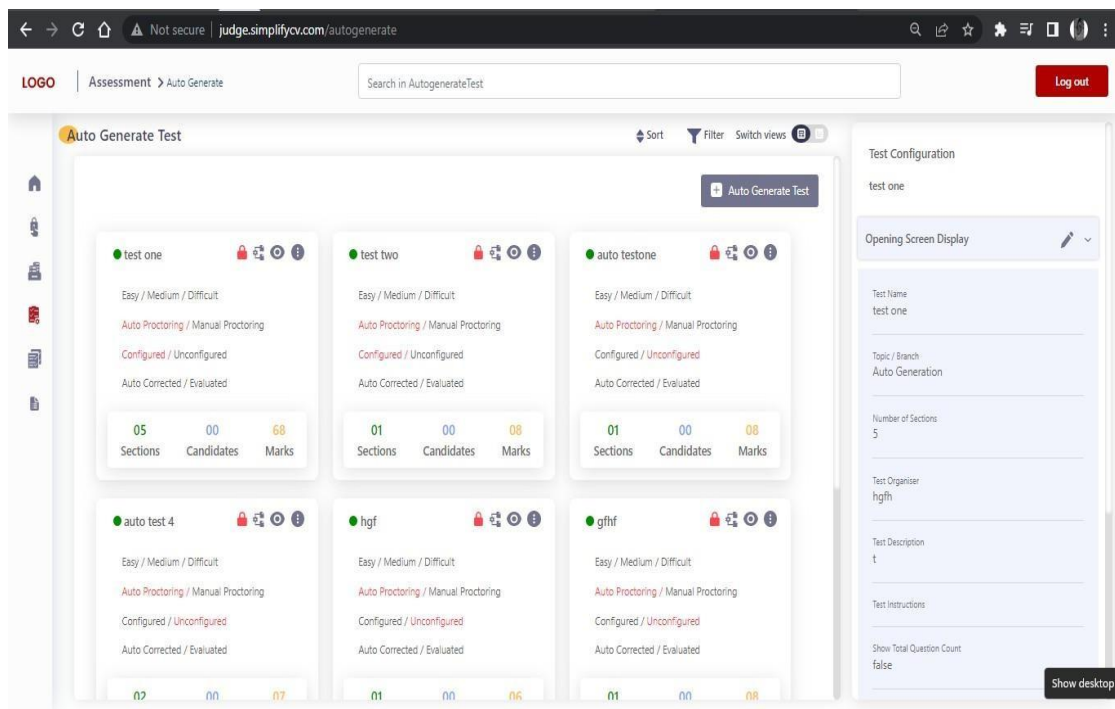
Fig 4.14 Auto Test Generate Screen

The fig 4.14 shows the Auto Test Generate Screen Client can create test, set access control and share testlink to the candidates Assessment Client Side
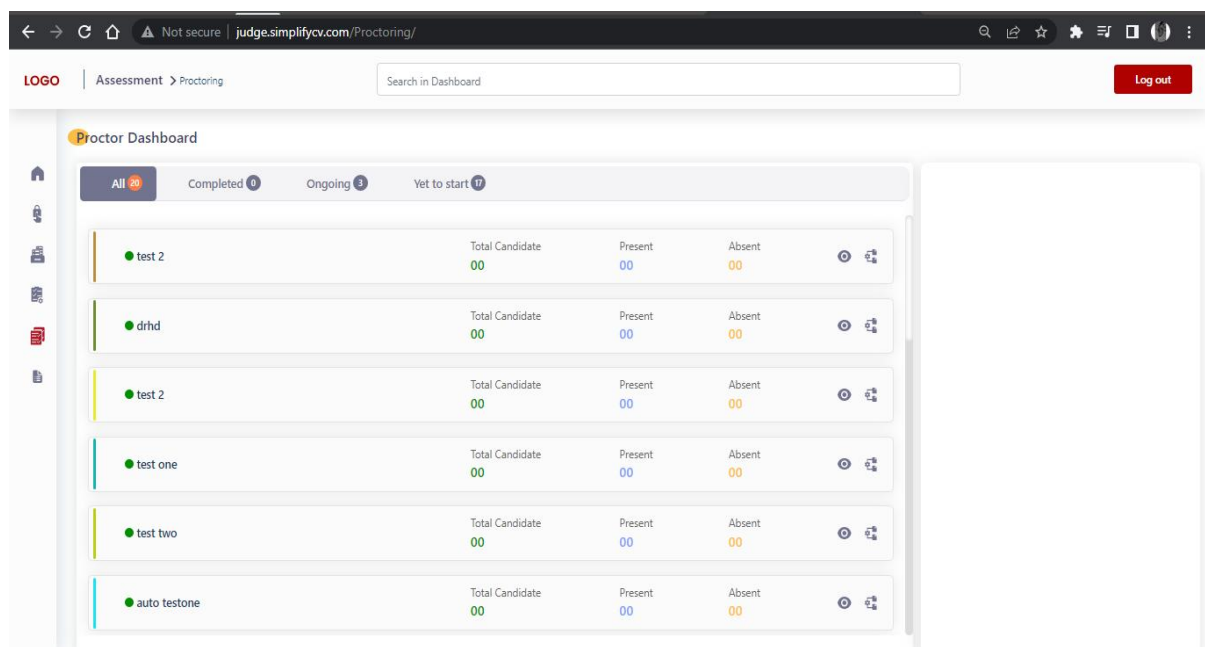

Fig 4.15 Proctoring Dashboard Assessment Client Side

The fig 4.15 shows the Auto Test Generate Screen Client can create test, set access control and share test link to the candidates Assessment Client Side
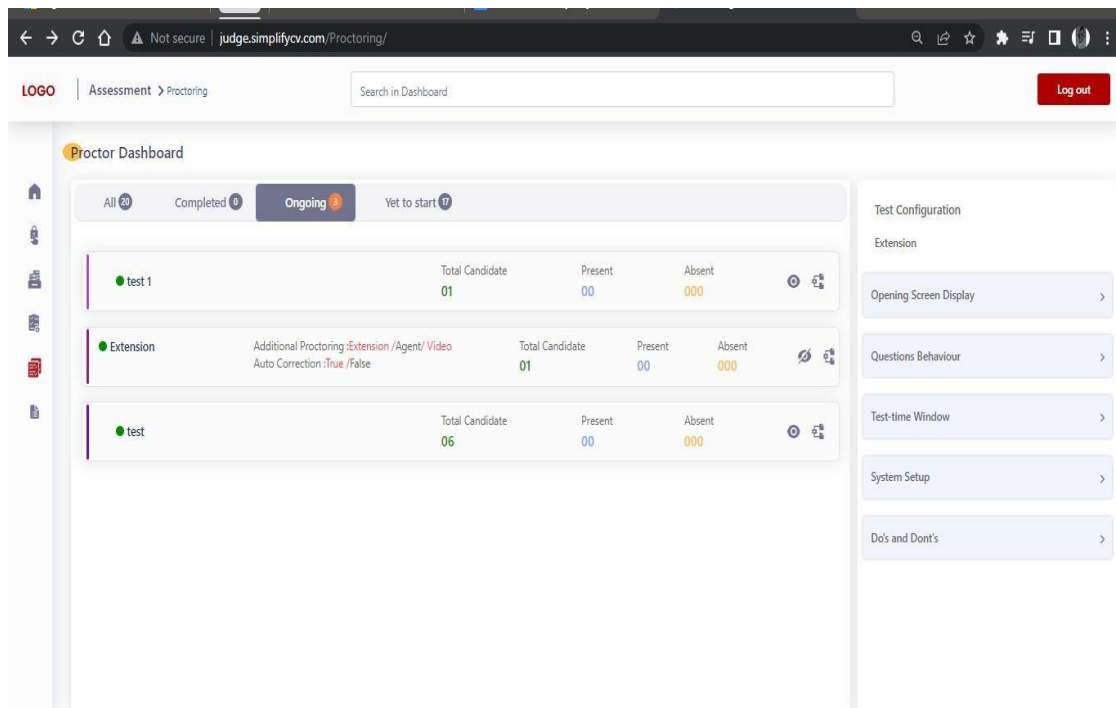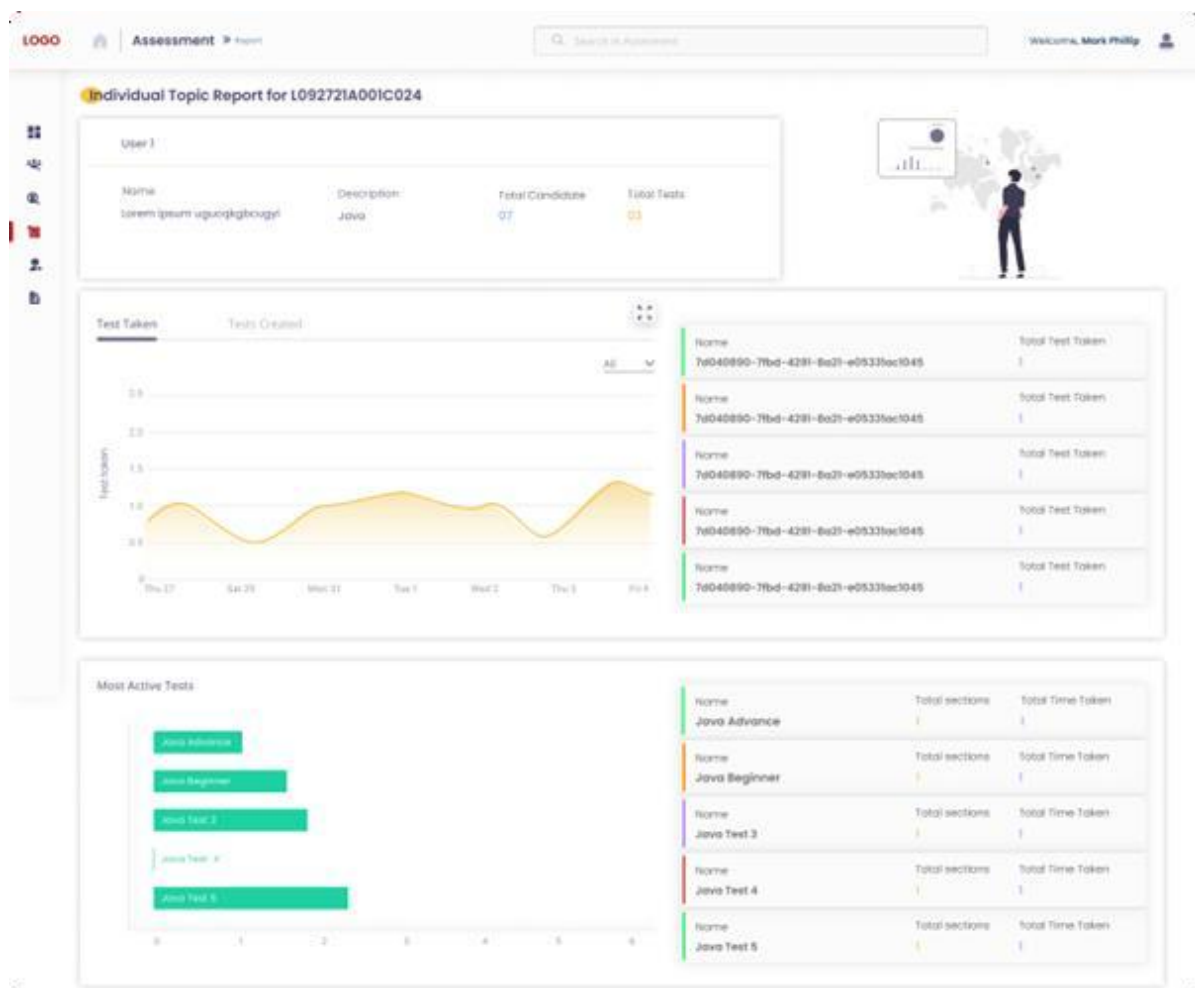
Fig 4.16 Individual Test Proctoring Screen Assessment Client Side

The fig 4.16 shows the Individual Test proctoring screen, the client has the access to view all users accessing the test, can check the users how has completed the test, ongoing and yet to start.

4.17 Individual Topic Report Screen Assessment Client Side

The fig 4.17 shows the client the users' individual report screen assessment client side.
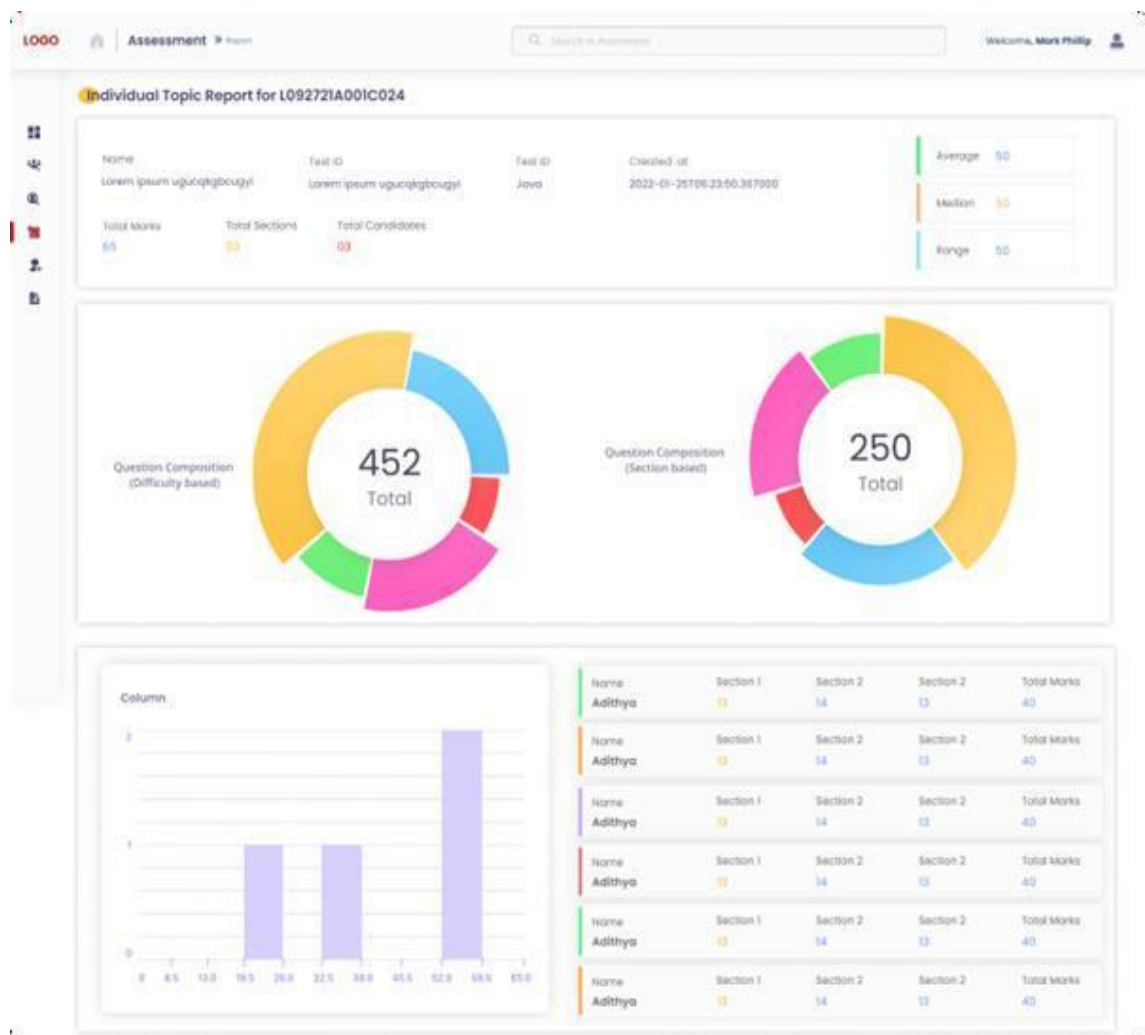
Fig 4.17 Individual Topic Report Screen Assessment Client Side

The fig 4.17 shows the client the Individual Topic Report Screen Assessment Client Side
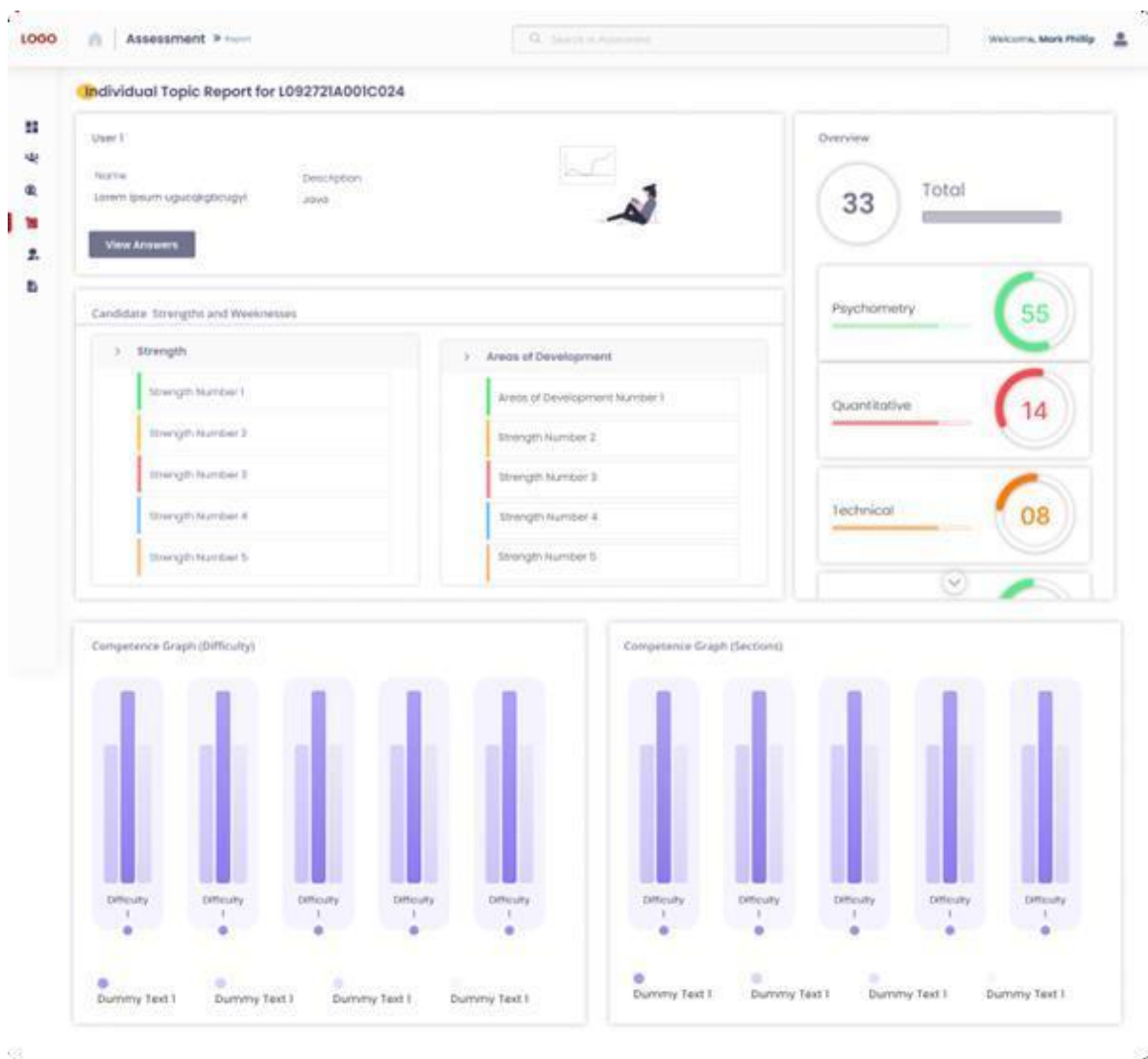
Fig 4.18 Individual Report screen Assessment Client Side

The fig 4.18 shows the client the Individual Report screen Assessment Client Side

CANDIDATE SIDE
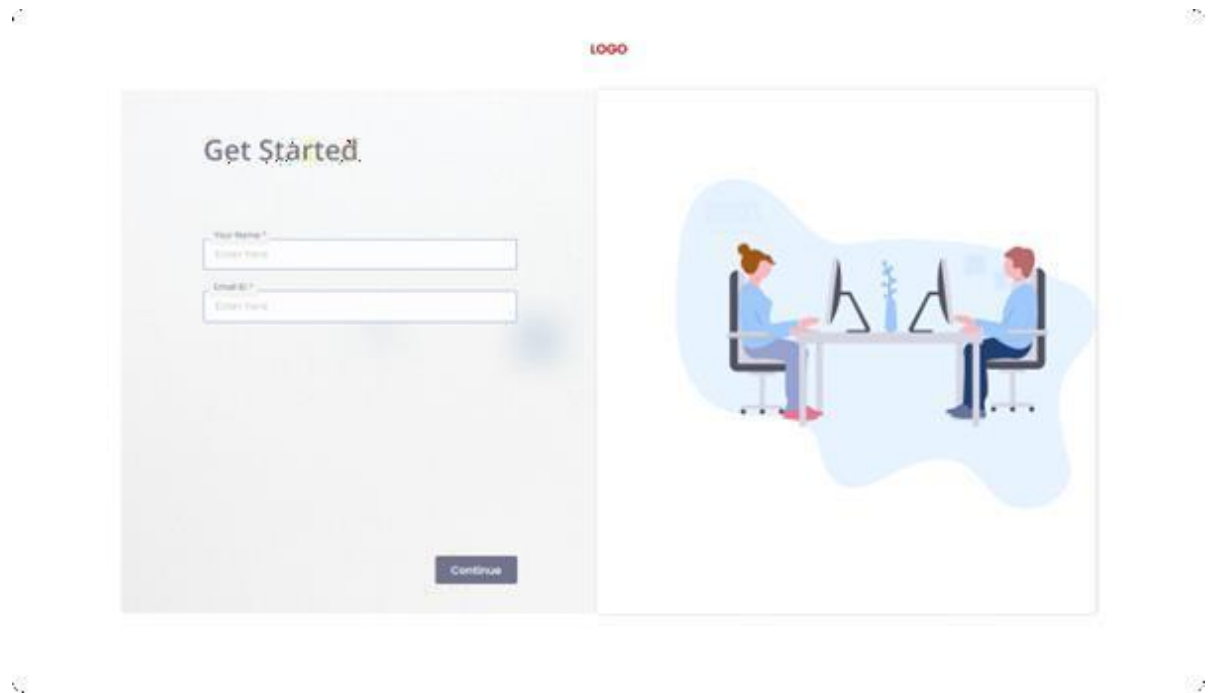
Fig 4.19 Candidate Login Screen Assessment Candidate Side

The fig 4.19 shows the Candidate Login Screen Assessment Candidate Side, this will be the opening screen for users accessing the candidate test
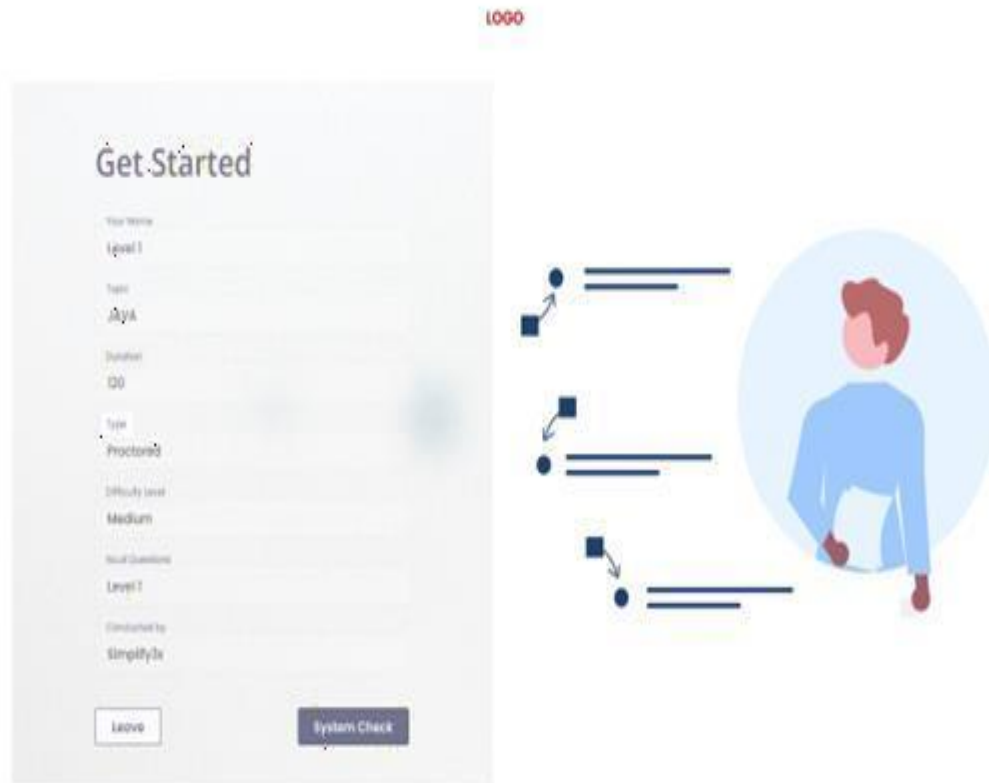
Fig 4.20 Candidate Test Information Screen Assessment Candidate Side

The fig 4.20 shows the Candidate Test Information Screen Assessment Candidate Side, this provides the information about the test that he is given access to.
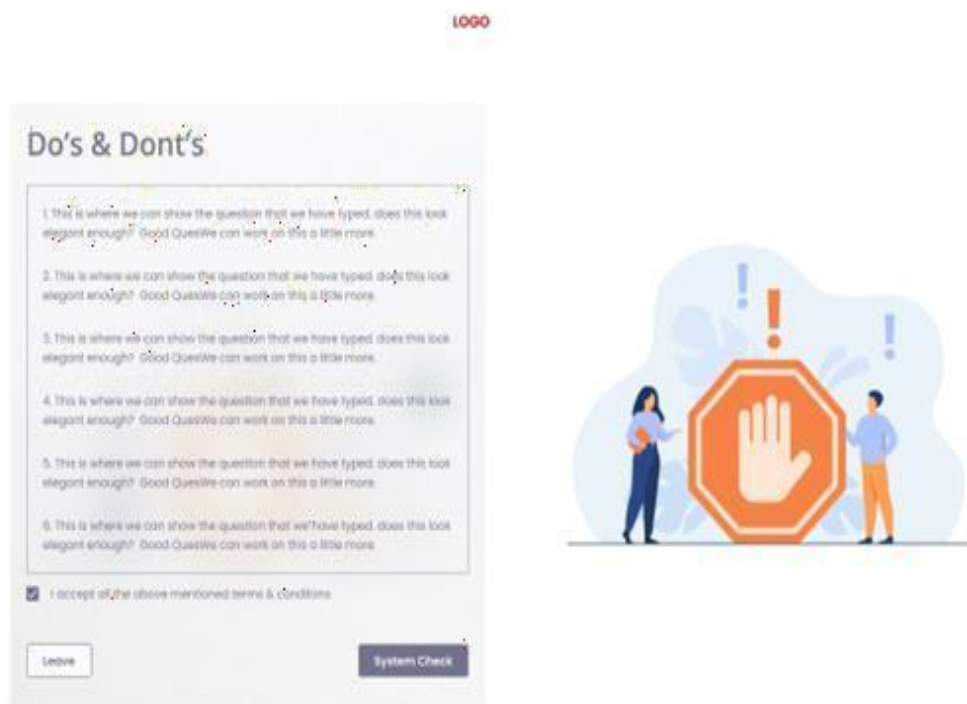
Fig 4.21 Candidate Do's and Dont's Screen Assessment Candidate Side

The fig 4.21 shows the Candidate Do's and Dont's Screen Assessment Candidate Side, this provides the information about the test rules and regulations.
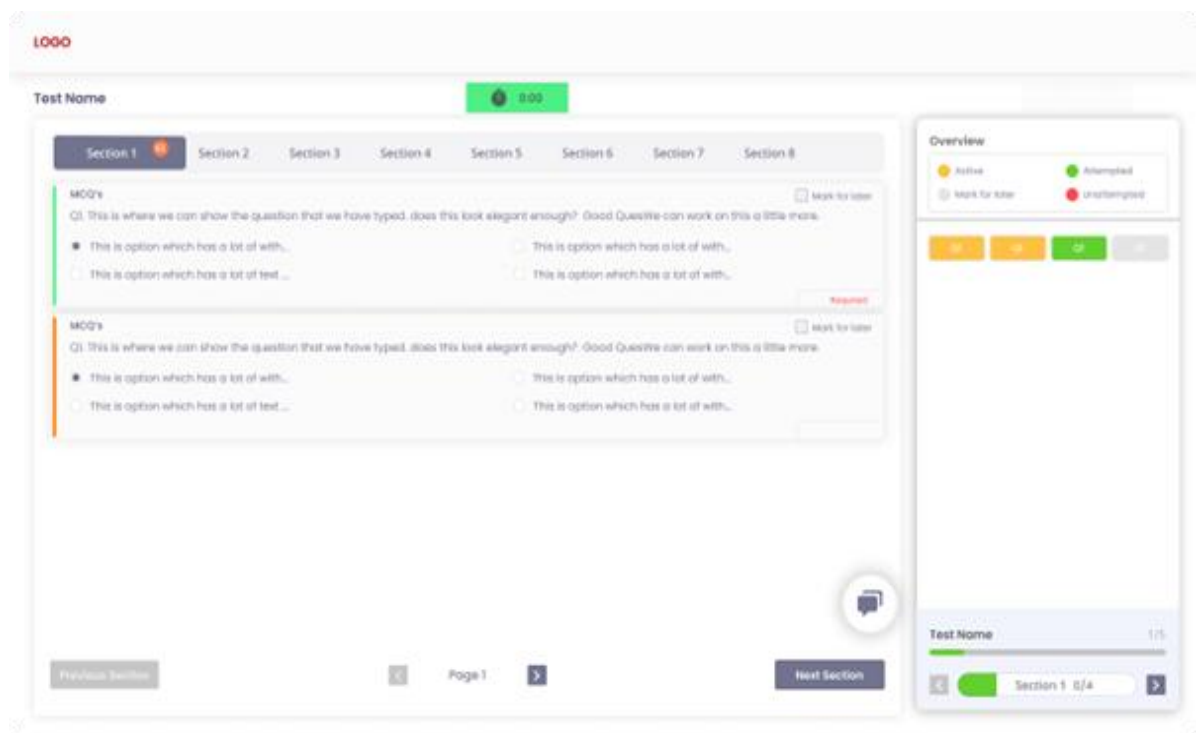
Fig 4.22 Candidate Test Screen Assessment Candidate Side

The fig 4.22 shows the Candidate Test Screen Assessment Candidate side.
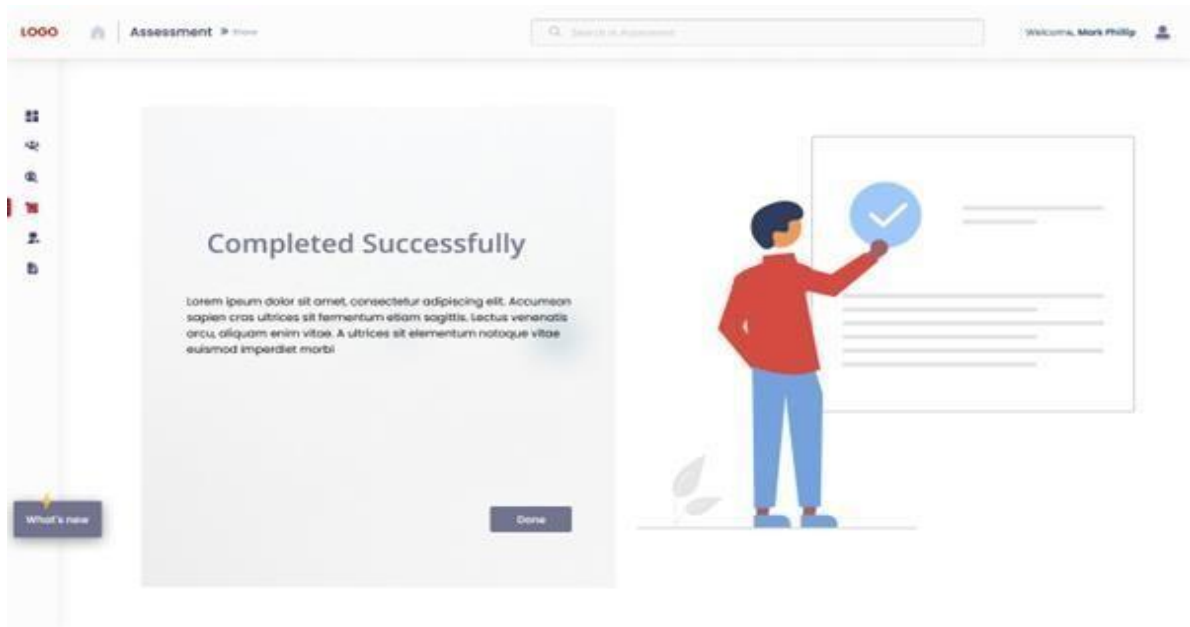
Fig 4.23 Candidate Test Completion Screen Assessment Candidate Side

The fig 4.23 shows the Candidate Test Completion Screen Assessment Candidate Side
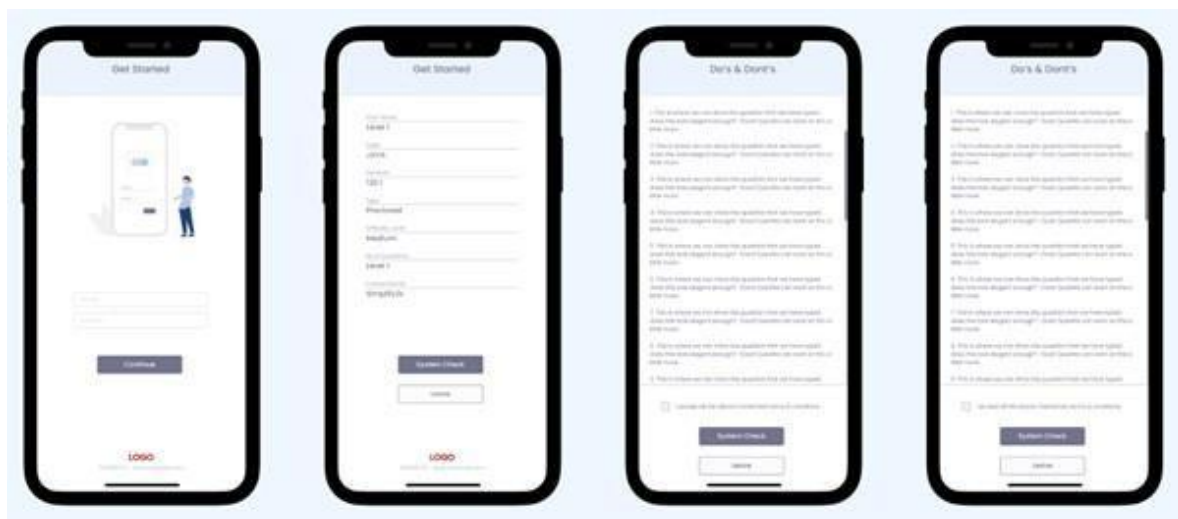
Fig 4.24 Candidate Mobile View Screens Assessment Candidate Side

Fig 4.25 Candidate Mobile View Screens Assessment Candidate Side
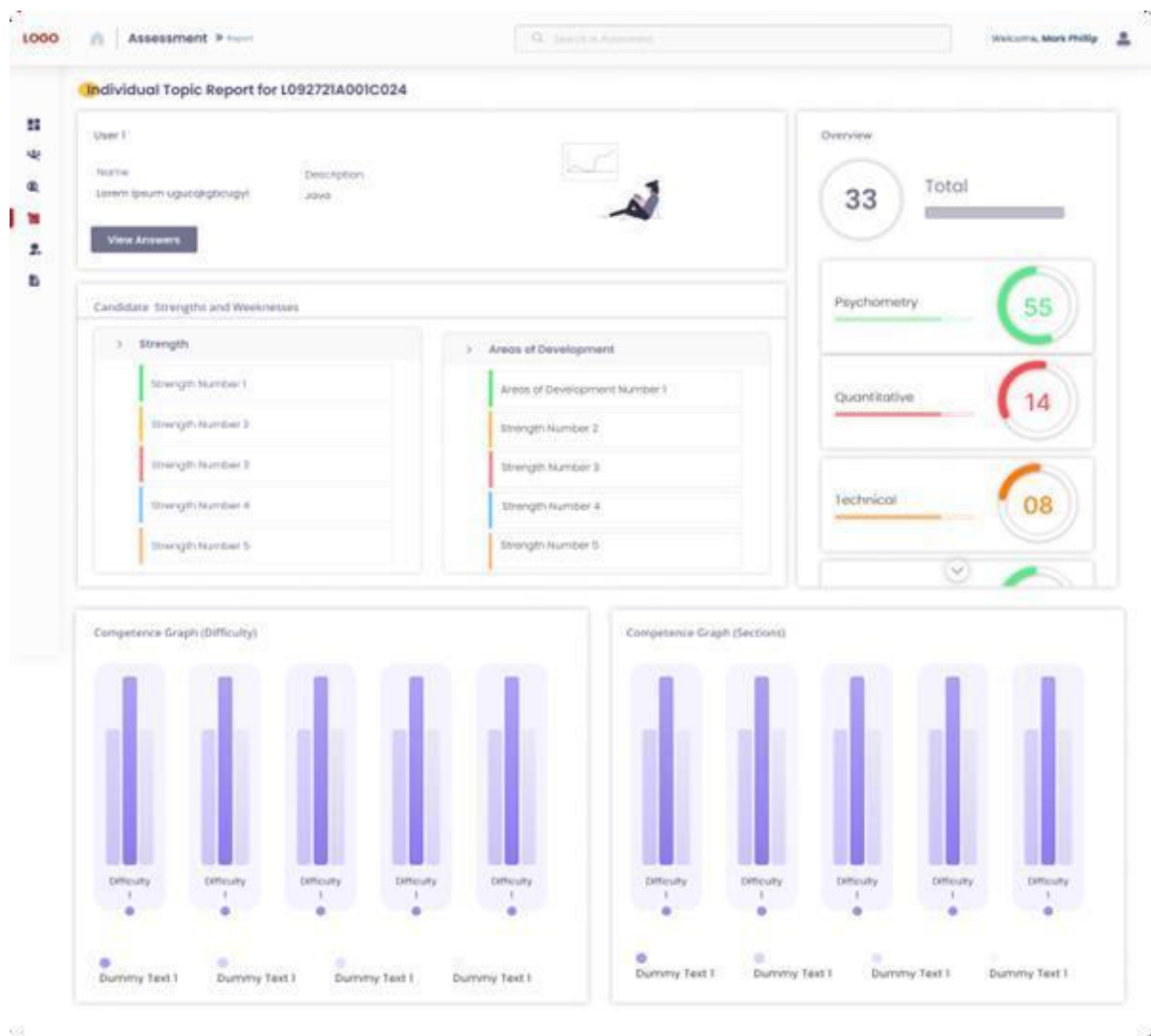
Fig 4.26 Individual Test report Screen Assessment Candidate Side

The fig 4.26 shows the Individual Test report Screen Assessment Candidate Side

Fig 4.27 Creation of JD in Recruitment side

Fig 4.27 gives us the idea of how JD can be set up from the recruiter's side. The number of rounds , types of question everything can be set up from their side.

Fig 4.28 Remarks for rejection of Candidate

Fig 4.28 Shows that recruiter has to give remarks if he/she is rejecting any candidate.

Fig 4.29 Showing the JD

Fig 4.29 A view of JD set up by recruiter

5. TESTING

Testing is the process of evaluating a system or its component(s) with the intent of determining whether or not the system or component(s) meets the specified requirements. Testing is the process of putting a system through its paces in order to identify any gaps, errors, or missing requirements that are in conflict with the actual desire or requirements. When testing is completed, the application is ready for deployment. Testing ensures that the application is functioning as intended and that the development process has been completed. There are various types of testing, and in this case, we test the application based on the various scenarios in which the application is expected to function.

Unit tests have been carried out on each module to ensure that there are no unknown bugs in the code.

5.1 TEST CASES

FOR AUTOMATION

A test case is a document that contains a set of test data, preconditions, expected results, and post conditions that has been written for a specific test scenario in order to verify compliance with a given requirement, such as a specification. Testing begins with the Test Case, and after applying a set of input values, the application has a final consequence and exits the system at an endpoint, which is also known as the execution post condition.

The test cases in this section comprise the following fields: the test case ID / serial number, the test case scenario, the test case description, the test steps, the expected outcome, the observed outcome, and the result of the test case.

5.1.1   APPLICATION INITIATION

Table 5.1.1 Application Initiation

Sl No	Test Scenario	Test Case Description	Test steps	Expected Outcome	Observed Outcome	Result
1	Launching the application	Check whether the application can start	Click on the application icon	The application window pops up	The application window pops up with all the details	Success

5.1.2   LAUNCHING THE DASHBOARD

Table 5.1.2 Launching Dashboard

Sl No	Test Scenario	Test Case Description	Test steps	Expected Outcome	Observed Outcome	Result

| 1 | Calling the API | Make sure the API responds with proper data. | Check if the data gets uploaded to S3 buckets and to mongo DB. | The process should haven within 4sec of time | The data from the back end is fetched correctly based on the request made. | Success |

5.1.3   CLOSING APPLICATION

Table 5.1.3 Closing Application

Sl. No.	Test Scenario	Test Case Description	Test Steps	Expected Outcome	Observed Outcome	Result
1	Closing the application	Close the application from the close button	Close the application from the close button	Application closes	Application closes	Success

5.1.4   MINIMIZING AND MAXIMIZING APPLICATION

Table 5.1.4 Minimizing and Maximizing Application

Sl. No.	Test Scenario	Test Case Description	Test Steps	Expected Outcome	Observed Outcome	Result

1	Minimizing the application	Minimize the application from the minimize button	Minimize the application from the minimize button	Application minimizes	Application minimizes	Success
2	Maximizing the application	Maximize the application from the maximize button	Maximize the application from the maximize button	Application minimizes	Application minimizes	Success

5.2 TESTING APPROACHES

Software testing is an investigation conducted to provide stakeholders with information about the quality of the product or service under test. Software testing can also provide an objective, independent view of the software to allow the business to appreciate and understand the risks of software implementation.

A test strategy is an outline that describes the testing approach of the software development cycle. It is created to inform project managers, testers, and developers about some key issues of the testing process. This includes the testing objective, methods of testing new functions, total time and resources required for the object, and the testing environment.

Test strategies describe how the product risks of the stakeholders are mitigated at the test level, which types of test are to be performed, and which entry and exit criteria apply.

System design documents are primarily used and occasionally conceptual design documents may be referred to. For every stage of development design, a corresponding test strategy should be created to test the new feature sets.

Software testing can be stated as the process of validating and verifying that a software product for the following:

i.   Meeting the requirements that guided its design and development.

ii.   Works as expected.

iii.   Is it possible to be implemented with the same characteristics

Software testing, depending on the testing method employed, can be implemented at any time in the development process. However, most of the test effort occurs after the requirements have been defined and the coding process has been completed. As such, the methodology of the test is governed by the software development methodology adopted. Following are the types of testing that are utilized popularly in the software industry.

5.2.1   WHITE BOX TESTING

It is conducted when the tester has access to the internal data structures and algorithms including the code that implements these. White-box testing methods can also be used to evaluate the completeness of a test suite that was created with black- box testing methods. This allows the software team to examine parts of a system that are rarely tested and ensures that the most important function points have been tested.

Two common forms of code coverage are:

i.   Function coverage, which reports on functions executed.
ii.   Statement coverage, which reports on the number of lines executed to complete the test.

They both return code coverage metric, measured as percentage.

5.2.2   BLACK-BOX TESTING

It treats the software as a "black box" without any knowledge of internal implementation. Black-box testing methods include: equivalence partitioning, boundary value analysis, all-pairs testing, fuzz testing, model-based testing, exploratory testing and specification- based testing.

5.2.3   SYSTEM TESTING

System testing is very vital. While integrating the system there might be certain errors in the system. The error needs to be detected and eliminated otherwise the system performance may go down drastically. The entire system when ready must be thoroughly checked for with the system requirement specification. Once this has been done the majority of the work in the phase is over.

5.2.4   STRESS TESTING

Stress testing implies testing the system under extreme conditions. I have made sure that the system works properly no matter how the user inputs data.

5.2.5   CONDITION TESTING

Condition testing is a test case design method that exercises the logical condition contained in a program module.

This testing method focuses on testing each condition in the program. The aim of conditional testing is not only to locate error to locate in the condition but also to locate the error in the program.

5.2.6   DATA FLOW TESTING

This method selects the test path of a program according to the location of the definition and uses of variables in the program. The flow of the data or the variable from one module to another has been checked.

5.3 TEST REPORTS

The test cases from table 5.1 to 5.4 are the various test cases designed to check whether the application is working fine or not was carried out based on the test cases. The test cases were successfully tested and the result was a success. Thus, we can conclude that the application passes the test and is ready for deployment.

The application is aimed to help the business persons to avoid the loss in their products or stakeholders. This helps in the development of new solutions for the various problems and issues that people face. This application has passed the required test cases and is ready for development.

6. CONCLUSION

6.1   CONCLUSION

Creating a resume that is entirely functional and integrates even the smallest of details is challenging to do well. Because the resume maker contains a Response code, consumers no longer have to bring their resumes along with them wherever they go. A wide range of qualities distinguishes the current projects. This form of assessment is done in person with the candidate and is one-on-one with them. In this case, the technique is based on a set of questions presented by the hiring manager to the candidate who would be tasked with putting it into action. Not only is it a time-consuming and challenging task, but it is also difficult.

When putting together a CV for a job application, people all around the world try to use various tools to create their professional bio. The great majority of resume generators are indeed restricted to making only a single type of resume, which is very common in today's economic environment. Summaries created by resume generators will only include information about the user's skill sets and personal information, and they will not include any other pieces of information. They will be the sole bits of information that are made available. These resumes will have tobe physically transferred from one location to another, depending on where they are required.

User qualifications should stand out during the hiring process, which is why the Assessment software was developed with that goal in mind. It offers a wide range of commercial plans with a wide range of options and features. The user does not have to complete all of the work when using the best resume generator software, making the process of generating a resume or cover letter for a job simple and straightforward. A resume maker is an excellent tool when it comes to presenting one's abilities and sticking out in a crowd. With the use of a assessment, one can create or update their professional bio to reflect the current state of the globe.

6.2   LIMITATIONS

- Freshmen and persons from remote counties who are eager to start a career are the primary target audience for this product.

- Timeline projects are still being completed as a whole; the project as a whole has not been completed.

6.3   FUTURE ENHANCEMENTS

When a company purchases this product, he gains the ability to recruit people who will search for candidates they want to hire, assess their company's talent pool, and develop deadlines based on individual performance, payroll, and the amount of working days available.As an added benefit, the firm may provide skill sets to its employees, which not only assists the company in generating competent personnel, but it can also aid an individual in growing his or her own talents.

As an individual who attempts to utilize this product will be able to search for employment opportunities, increase their knowledge through the set of courses and certifications supplied, and learn about their competition and where they stand in the industry. Changing one's job path is a simple option for someone who is considering doing so for a variety of reasons. If you want to change your job path, our platform can help you get started.

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APPENDIX A COMPANY PROFILE

Simplify3x is both a product and a consulting organization. Established in 2016, we are a young company with big ambitions. To promote business agility, we provide services to help companies accelerate the creation and testing of new technologies. For performance improvement, we provide cutting-edge technology solutions. The company has participated in numerous development projects and migration activities.

Professional service firms can benefit from Forecast solutions developed by our research and development team, which can help them improve the efficiency of their operations while also reducing their costs. Project predictability and profit are prioritised, with an emphasis on improving project profits. It addresses THREE important qualities in Software Test Engineering: people, process, and technology, and as a result, Simplify3X makes a substantial impact in the way software test engineering is conducted. SimplifyQAWeb, SimplifyQA mobile, SimplifyQA mainframe, SimplifyQA DB test, and SimplifyQA Desktop are some of the products that we provide.

Bangalore, Karnataka is the headquarters of the company, which employs 200-500 people. Also in the United States, it can be pointed in the directions of Orlando, Florida and Selangor, Malaysia