



Career Counseling for Students and Professionals

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1. Product Description

1.1 Purpose

Students in India always face a lack of industry readiness when they go through the transition between their college life and professional life. This lack is mainly because of the curriculum being taught failing to mitigate industry needs, outdated technologies being used doesn't add industry level knowledge growth, lack of exposure to current industry and market scenarios. And every year millions of students especially in Tier3 colleges face this. This lack affects their overall knowledge growth; they face problems in preparing for interviews and even at the initial stage of their professional life.

To bridge this gap we propose a solution to prepare students for industry. We will provide a platform where students can directly interact with industry professionals of different companies and technologies and gain valuable insight about what they need to study, how they need to study and various other industry information.

1.2 Scope

To achieve the objective of our project, we'll be using the latest technology to provide the platforms to students and early professionals who want guidance, referrals and study materials for interview and test preparation of reputed companies.

1.3 Stakeholders and Users

The users of this application will be Students and professionals who want Systematic guidance and counseling to up skill themselves to keep pace with current industry and market needs and get through the interview process of reputed companies. Professionals from reputed companies and experienced in different technologies will also be users of this application. They will be designated as mentors.

1.4 Assumptions

1. A database and server is set with all necessary information.
2. Every mentee and mentor has an active internet connection.
3. Every Mentee and Mentor has a working webcam and microphone enabled system.
4. Everyone is registered to the online platform. Mentors have submitted documents supporting their employment status.

1.5 Constraints

1. Technical Constraints - Our system is mostly a local system (proof of concept) rather than a real production level application in the sense that it's not optimized for large traffic . There is no load balancer or database sharding involved. Neither is the involvement of AWS pipeline which can automatically scale horizontally. In our case, with an increase in traffic server response will become slow because of the monolithic architecture.

2. Price Constraints - Our application is a paid service. So Many Students may be reluctant to use this application. As such, there should be a lot of marketing management and advertisement involvement which further increases the maintenance cost of the system.

3. A minimum number of students must register for a session to take place to cover up the server cost.

4. Payment Portal is subjected to multiple errors which include phishing, refund issues, server problems, etc.

2. Functional Requirements

This Section provides a requirement overview of the system. Various functional modules that can be implemented by the system will be --

2.1. Login

2.1.1. Validation: System will validate the username and password entered by the mentee/mentor while starting the application. Mentee/Mentor clicks Login/Register.

2.1.2. Invalid: If username and password does not exist in the database System will display an error message and take the user to the signup page.

2.1.3. Signup: System will validate all the details entered by the new user and open the application.

2.1.4 Authenticate Mentor : System will validate the mentor documents and provide login credentials if the documents are valid.

2.2 Register for Session

2.2.1. Get Charge: System will calculate and display the charge for the session based on Mentee's preference of session type and Mentor's charge for the same.

2.2.2 Pay for Session: System will accept the payment from the Mentee and it will verify with the bank. If all validates then the system will send a confirmation mail to the mentee's email id.

2.2.3 Payment Error: If validation fails System will display an error and redirect to the RegisterforSession page.

2.3 Login Into Session

2.3.1 Check Payment Status: The System will verify the payment status of the mentee.

2.3.2 Give Session Access: If the Payment Status is valid the System will give access to the session to the mentee and connect to live socket for browser to browser interaction.

2.3.3 Payment Error: If validation fails System will redirect to the RegisterforSession Page.

2.4 Organize Session

2.4.1 Fill Session Details: The System will display the type of session available and store the mentor preference, session time and session charge of the mentor for the same.

2.5 Start Session

2.5.1 Start Video Communication: If a minimum number of students and the mentor logged in the System will redirect to a web socket enabled page with video communication along with a white board.

2.5.2 Check Referral: The System will check if the session is with Referral or without Referral.

2.5.3 Post Session with Referral: If the session is with Referral the system will schedule a time for the interview or the test based on mentor's choice and availability.

2.6 Check Session Success

2.6.1 Check Login Time: System will check the login duration for every mentee and system will generate the success flag if the duration is equal or above a preset duration.

2.6.2 Send Certificate: If the session is successful the System will send a certificate to the mentees via Email.

2.6.3 Refund Money: If there is a failure of a joining session due to technical fault the System will generate a refund ticket and notify the corresponding mentee.

2.7 Conduct Test

2.7.1 Validate Mentee: The System will validate the credentials of the mentees if they registered for the session with referral.

2.7.2 Start Test: If the validation is successful then the system will redirect to the test platform enabled page.

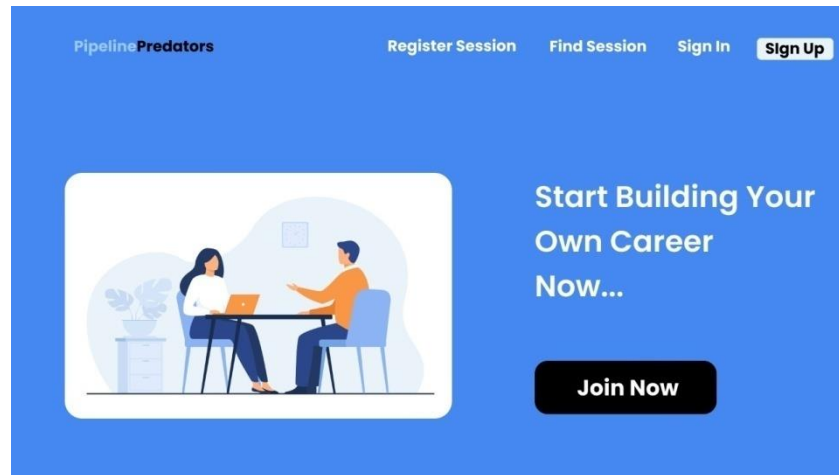
2.7.3 Invalid: If the validation fails then the system will show an error message and redirect to the Home page.

2.7.4 Email Result: After successful completion of the test System will email the test result to the mentees.

3. Interface Requirements

3.1 User Interfaces

3.1.1 Home Page



3.1.2 Sign Up/Login

Sign Up

Register As a :

[Mentee](#)

or

[Mentor](#)

Already have an account?

[Log in](#)

Log In

Username :

Password :

[Log In](#)

Don't have an account?

[Click Here](#)

3.1.3 User Interface for Mentee

3.1.3.1 Mentee Registration

Mentee

Name :

Email :

Phone :

Institute or company :

Enrollment or employee id (if any) :

Continue

Mentee

Gender :

Address :

City :

State :

Country :

Sign Up

3.1.3.2 Find Session

PipelinePredatorRegister SessionFind SessionSign InSign Up

Find a Sessions:Filter

"Blockchain"
Mentor Name: Mr. Suvrneel
Date: 05.08.2021
Time: 11:30 Am IST
Session DetailsBook Now

"Internet OF Things"
Mentor Name: Mr. Wittam
Date: 24.08.2021
Time: 10:00 Am IST
Session DetailsBook Now

Find a Sessions:

Filter

"The Future of Javascript"

Mentor Name: Mr. Das

Date: 15.09.2021

Time: 10 Am IST

Session Details

Book Now

"Machine Learning"

Mentor Name: Mr. Sujo Seal

Date: 19.07.2021

Time: 10:30 Am IST

Session Details

Book Now

Session Details:

Session Name: **Machine Learning**

Mentor Details

Mentor Name: Mr. A

Designation : **Software Engineer**Company Name : **Google**

Session:

Date: 24.08.2021

Time: 10:30 AM IST

Enrollment Price: INR 300

Session Duration : 2 Hours

3.1.3.3 Register for Session

Register for a session
Session mentor is : **Shuvro Das**
Session Name is : **MERN Stack**
Name :

Email :

Phone :

Mentee ID :

3.1.3.4 Payment Successful

Mentee

Your Order ID is : " "
Payment Succesfull for Deep Learning session.
Deep Learning Session ID is: " "
Thank You

3.1.4 User Interface for Mentor

3.1.4.1 Mentor Registration

Mentor
Name :

Email :

Phone :

Company Name :

Enrollment or employee id no :

Mentor
Gender :

Address :

City :

State :

Country :

3.1.4.2 Authenticate Mentor

Mentor
Upload Following Documents :
Employee or Company Id Card

Govt. Approved Identity Card

Mentor

Thank You For Joining Sir/Madam.
We will contact you soon after the verification is done.

3.1.4.3 Organize Session

Create a session
Mentor name is : **Shuvro Das**
Session Name/Topic :

Session Type :

Session starting date :

Session starting time :

3.2 Hardware Interfaces

Webcam enabled System (Mobile or Laptop/Desktop)

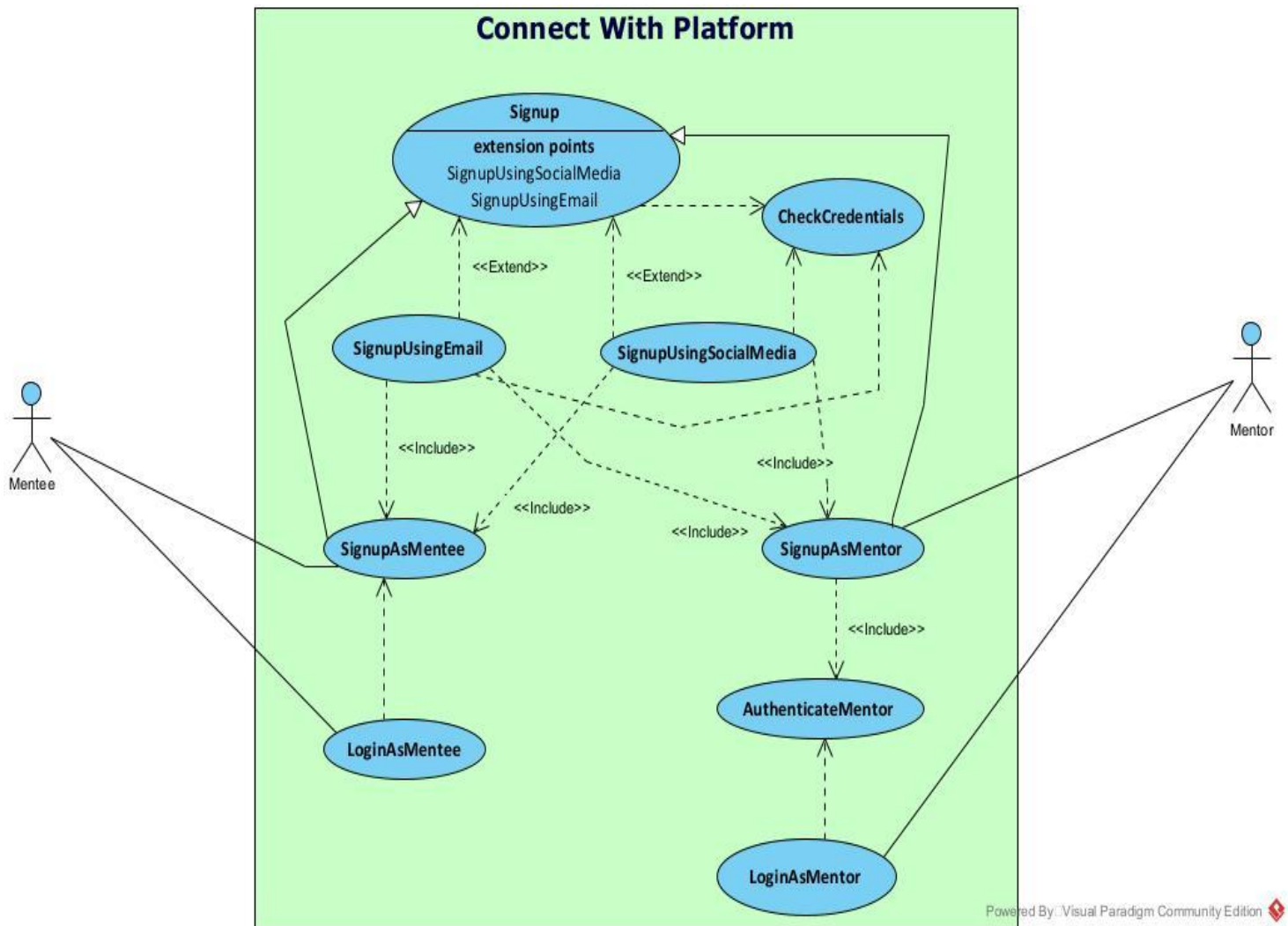
3.3 Software Interfaces

1. Payment Gateway RazorPay for accepting Payment
2. MongoDB Cloud Service
3. Linux Server
4. Web socket for Video Communication between Mentors and Mentee.

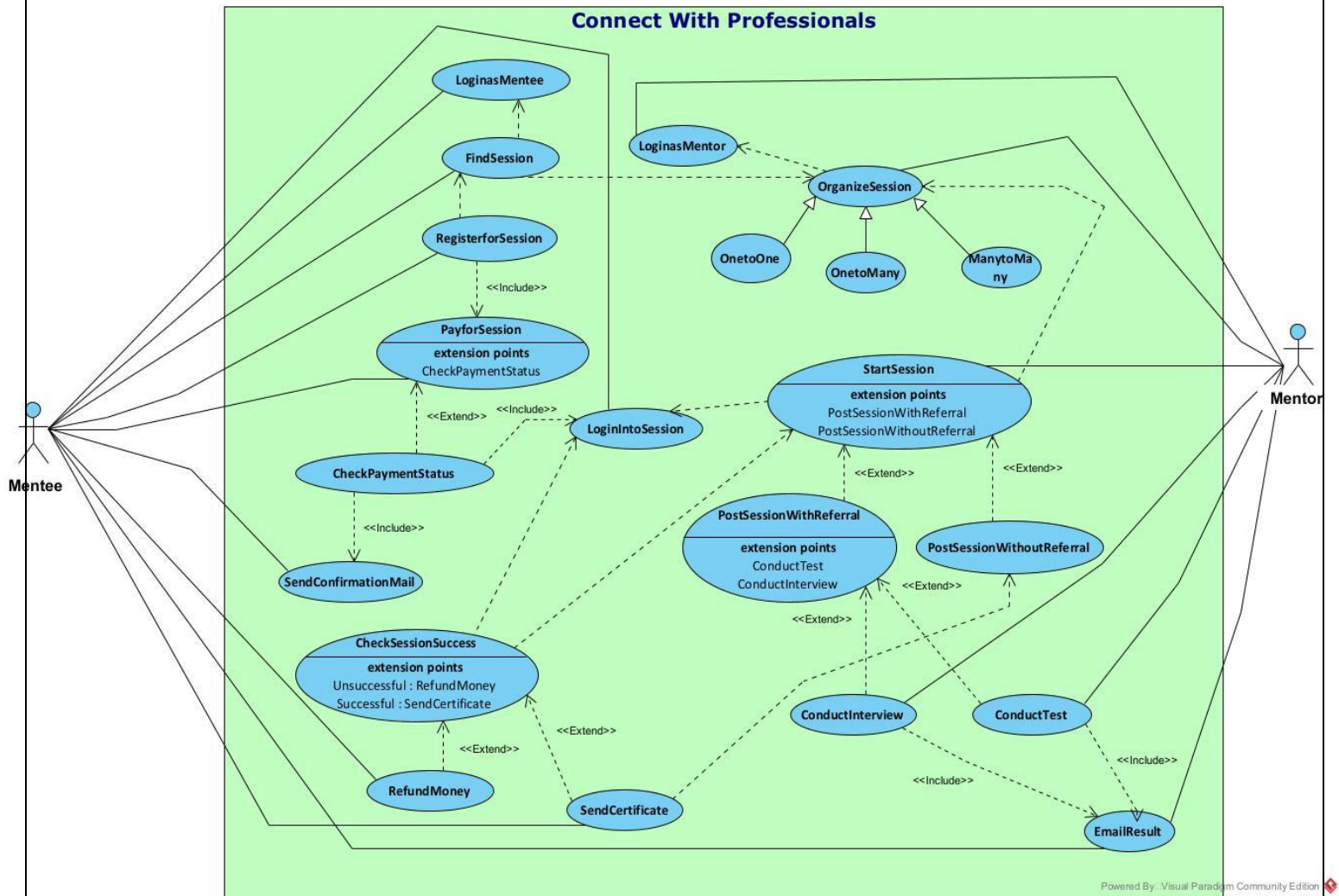
4. Use Case Model

4.1. Use Case Diagram

4.1.1 Connect With Platform



4.1.2 Connect With Professionals



4.2 Use Case Description

4.2.1 Use Case Description : LoginasMentee

Use Case ID:	1.0		
Use Case Name:	LoginasMentee		
Created By:	Writam Mallik	Last Updated By:	Writam Mallik
Date Created:	05.05.2021	Date Last Updated:	09.05.2021

Actor:	Mentee
Description:	Login into the Platform as Mentee
Preconditions:	Mentee must be signed up on the platform successfully..
Postconditions:	Mentee is logged into the platform.
Trigger:	Clicking on the “ Login as Mentee ” button on the Home page.
Basic Flow :	<ul style="list-style-type: none">▪ Mentee clicks the Login button on the Home Page.▪ System will validate the username and password entered by the mentee while starting the application.
Alternative Flow:	If username and password does not exist in the database System will display an error message and redirect the user to the signup page.

4.2.2 Use Case Description : LoginasMentor

Use Case ID:	2.0		
Use Case Name:	LoginasMentor		
Created By:	Writam Mallik	Last Updated By:	Writam Mallik
Date Created:	05.05.2021	Date Last Updated:	09.05.2021

Actor:	Mentor
Description:	Login into the platform as Mentor
Preconditions:	Mentor must be signed up on the platform and Documents are verified .
Postconditions:	Mentor is logged in into the platform.
Trigger:	Clicking on the “ Login as Mentor ” button on the Home page.
Basic Flow :	<ul style="list-style-type: none">▪ System will validate the mentor documents and provide login credentials if the documents are valid.▪ After getting the credentials Mentor clicks the login Button on the Home Page.
Alternative Flow:	<ul style="list-style-type: none">▪ If the Documents are found invalid Mentor will receive a regret mail.▪ If username and password does not exist in the database System will display an error message and redirect the user to the signup page.

4.2.3 Use Case Description : RegisterforSession

Use Case ID:	1.1		
Use Case Name:	RegisterforSession		
Created By:	Writam Mallik	Last Updated By:	Writam Mallik
Date Created:	05.05.2021	Date Last Updated:	09.05.2021

Actor:	Mentee
Description:	Registering for a specific session organised by a mentor.
Preconditions:	Mentee must be registered, verified and logged in to the application
Postconditions:	On successful capturing of values and acceptance of terms and conditions redirect to payment page
Trigger:	Clicking on “ Register ” button of a Session
Basic Flow:	<ul style="list-style-type: none">▪ System will calculate and display the charge for the session based on Mentee’s preference of session type and Mentor’s charge for the same.▪ Mentee clicks the Pay Now and the system will redirect to the payment page.
Alternative Flow:	If not logged in, redirect to login page

4.2.4 Use Case Description : CheckPaymentStatus

Use Case ID:	1.2		
Use Case Name:	CheckPaymentStatus		
Created By:	Ipshita Nandy	Last Updated By:	Writam Mallik
Date Created:	05.05.2021	Date Last Updated:	09.05.2021

Actor:	System
Description:	Checking the Payment Status of a mentee for a session
Preconditions:	Mentee must be registered, verified and logged in to the application
Postconditions:	On successful payment mentee will receive a confirmation mail.
Trigger:	Initialization of a payment procedure
Basic Flow:	<ul style="list-style-type: none">▪ System will accept the payment from the Mentee and it will verify with the bank.▪ If all validates then the system will send a confirmation mail to the mentee's email id.
Alternative Flow:	If validation fails System will display an error and redirect to the RegisterforSession page.

4.2.5 Use Case Description : LoginIntoSession

Use Case ID:	1.3		
Use Case Name:	LoginIntoSession		
Created By:	Ipshita Nandy	Last Updated By:	Writam Mallik
Date Created:	05.05.2021	Date Last Updated:	09.05.2021

Actor:	Mentee
Description:	Participating in a Session
Preconditions:	Mentee must be registered and complete the payment successfully.
Postconditions:	Mentee can Participate into the session seamlessly.
Trigger:	Clicking on the Join Session button of a session.
Basic Flow :	<ul style="list-style-type: none">▪ The System will verify the payment status of the mentee.▪ If the PaymentStatus is valid the System will give access to the session to the mentee.
Alternative Flows:	If validation fails System will redirect to the RegisterforSession Page.

4.2.6 Use Case Description : OrganizeSession

Use Case ID:	2.1		
Use Case Name:	OrganizeSession		
Created By:	Aishiki Mukherjee	Last Updated By:	Suvraneel Chatterjee
Date Created:	05.05.2021	Date Last Updated:	09.05.2021

Actor:	Mentor
Description:	Organize a particular session
Preconditions:	Mentor must be registered, verified and logged in to the application
Postconditions:	A Session is organized successfully based on mentor preference.
Trigger:	Clicking on “ Organize a Session ” button of a Session
Flow of Events:	<ul style="list-style-type: none">▪ The System will display the type of session available and store the mentor preference, session time and session charge of the mentor for the same.▪ Mentor will choose the session type and fill the sections of time slot and charge.▪ If the time is free the system will show a message “Session Organized Successfully”.
Alternative Flows:	If not logged in, redirect to login page

4.2.7 Use Case Description : StartSession

Use Case ID:	2.2		
Use Case Name:	StartSession		
Created By:	Suvraneel Chatterjee	Last Updated By:	Suvraneel Chatterjee
Date Created:	05.05.2021	Date Last Updated:	09.05.2021

Actor:	Mentor
Description:	Starting a session
Preconditions:	A minimum number of candidates must have registered for a session, the mentor must be logged in and the time must be correct.
Postconditions:	The System will check if the session is with Referral or without Referral.
Trigger:	Clicking on “ Start Session ” button of a Session in the dashboard page
Basic Flow :	<ul style="list-style-type: none">▪ The System will redirect to a websocket enabled page with video communication along with a white board.▪ Mentor starts to take the session.▪ The System will check if the session is with Referral or without Referral.▪ If the session is with Referral the system will schedule a time for the interview or the test based on mentor’s choice and availability.
Alternative Flow:	If not logged in, redirect to the login page, If minimum candidates criteria is not fulfilled initiate refunds to the registered candidates.

4.2.8 Use Case Description : ConductTest

Use Case ID:	2.3		
Use Case Name:	ConductTest		
Created By:	Shuvro Das	Last Updated By:	Suvraneel Chatterjee
Date Created:	05.05.2021	Date Last Updated:	09.05.2021

Actor:	Mentor
Description:	Conducting a test for a referral included session
Preconditions:	Mentor must have completed the session.
Postconditions:	Mentee will receive the test result via email.
Trigger:	Clicking on “Conduct Test” button of a Session
Basic Flow:	<ul style="list-style-type: none">▪ Mentor initiates the Test Conduct process at the declared time.▪ Registered Mentee join the test session according to the schedule.▪ The System will validate the credentials of the mentees if they registered for the session with referral.▪ If the validation is successful then the system will redirect to the test platform enabled page.▪ After successful completion of the test System will email the test result to the mentees.
Alternative Flow:	<ul style="list-style-type: none">▪ If the validation fails then the system will show an error message and redirect to the Home page.▪ If there is a failure of joining session due to technical faults, a refund ticket is generated and the candidate is notified.

4.2.9 Use Case Description : CheckSessionSuccess

Use Case ID:	2.4		
Use Case Name:	CheckSessionSuccess		
Created By:	Sujoy Seal	Last Updated By:	Suvraneel Chatterjee
Date Created:	05.05.2021	Date Last Updated:	09.05.2021

Actor:	System
Description:	Check if the Session is completed successfully
Preconditions:	Mentee must have been logged in a session for a maximum period of time.
Postconditions:	The mentee will receive certificate via email or the certificate is made available to him/her in his dashboard
Trigger:	Clicking on “Complete Session” button of a Session
Basic Flow :	<ul style="list-style-type: none">▪ System will check the login duration for every mentee and the system will generate the success flag if the duration is equal or above a preset duration.▪ If the session is successful the System will send a certificate to the mentees via Email.
Alternative Flow:	If there is a failure of joining session due to technical faults, a refund ticket is generated and the candidate is notified

5. Glossary

Domain Dictionary

Terms Used	Description
Mentee	Mentee represents Students or Professionals who will attend sessions in the platform.
Mentor	Mentor represents Professionals who will hold sessions in the platform.
Authenticate Mentor	Mentor authentication includes verification of mentor documents. On successful completion System generates login credentials for Mentor.
Session	A session includes video communication between mentors and mentees through live socket.
Conduct Test	Conducting a test will happen for filtering students after sessions which includes referral opportunities.
Conduct Interview	Conducting an interview will happen for filtering students after sessions which includes referral opportunities. Interview will be set by Mentor.