

PROJECT REPORT

Online Survey Tool.

**Indian Institute of Information Technology,
Allahabad**

DBMS

GROUP - 4

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1. Introduction:

1.1. Introduction

The main objective of this project is to provide a platform where the surveys are created ,approved and are being conducted . This software helps to store the data collected through the survey in which the survey maker(Client) and the HR will be able to make the report of the surveyed survey by the Users.This software makes the Clients to fulfill their research purposes,opinion of the common people etc.Survey is the very common mode of people to get the information from others and the ideas about of people .

Since random surveys are not being accepted, the HR department checks the worth and quality of the survey and approves the survey to collect information through it or it rejects the survey.While the survey quality of approval or rejection is being notified to HR and survey Maker through an email from the system.User here has a simple role of attempting the survey and viewing his response for that survey and can update his details.

1.2. Scope

This project will help Universities/Organisations conduct Surveys very easily.By making it as a general project we can sell this project to many Universities.

Following are some of the in scope and out of scope functionalities that our web-application can or cannot perform -

In Scope :

- Users, Clients,Surveys can be added.
- Users can participate in the surveys conducted by the client..

Out of scope :

- It cannot update HR Details.

1.3. Purpose

The purpose of developing this project '**Online Survey Tool(OST)**' is to efficiently monitor and keep track of the surveys conducted in an organisation/University. This Web-Application can be easily accessible from any browser on any device such as android devices, PCs or laptops.

1.4. System Overview

Our application has following features and functionalities -

- For HR:
 1. HR should approve the client account and survey conducted by the client.
 2. HR can access the report of any survey conducted.
 3. HR can add a survey to the users and delete a survey if necessary.
 4. HR can add a question for any of the approved surveys.
 5. HR has also the flexibility of updating the details of Client and User.
- For Client:
 1. Only Clients approved by HR can successfully login in client login.
 2. Clients can add a new survey and should wait till the HR approves it.
 3. Clients will be able to update his/her details.
 4. Clients can also view the report, questions of the surveys he/she conducted.
 5. Clients can delete the survey or withdraw a survey if not yet approved by the HR.
- For User:
 1. User account has to be created using proper details.
 2. Users can check the available survey at this moment.
 3. Users can attempt the survey and contribute to the survey.
 4. Users can view their response for their contributed survey.

2. Normalization Techniques :

Table Survey

User name	Email	Survey Title	No . Of. Quest - ions	Status	Start time	End time	Ques tion	Option 1	Option 2	Option 3	Option 4	O1- count	O2- count	O3- count	O4- count

Let this be a tuple in the table Survey ,

We can observe that Survey Title is the primary key among all.

Let us convert this into 1NF :

1NF : Single values in each cell and each tuple has to be unique.

We can observe that , each tuple has unique values and no cell has multiple values from kind of the columns we have.

Hence , **1NF** form is :

User name	Email	Survey Title	No . Of. Quest - ions	Status	Start time	End time	Ques tion	Option 1	Option 2	Option 3	Option 4	O1- count	O2- count	O3- count	O4- count

Now , let us convert into **2NF** form :

2NF : Should be in 1NF and single column primary key.

Making the survey title as foreign key in table 2 , we can convert into 2NF form.

Table 1

Username	Email	Survey Title	No. of Questions	Status	Start Time	End Time

Table 2

Survey Title	Question	Option 1	Option 2	Option 3	Option 4	O1 Count	O2 Count	O3 Count	O4 Count

Hence, in table 2 the column Survey Title contains the foreign key to specify which survey that this question belongs too.

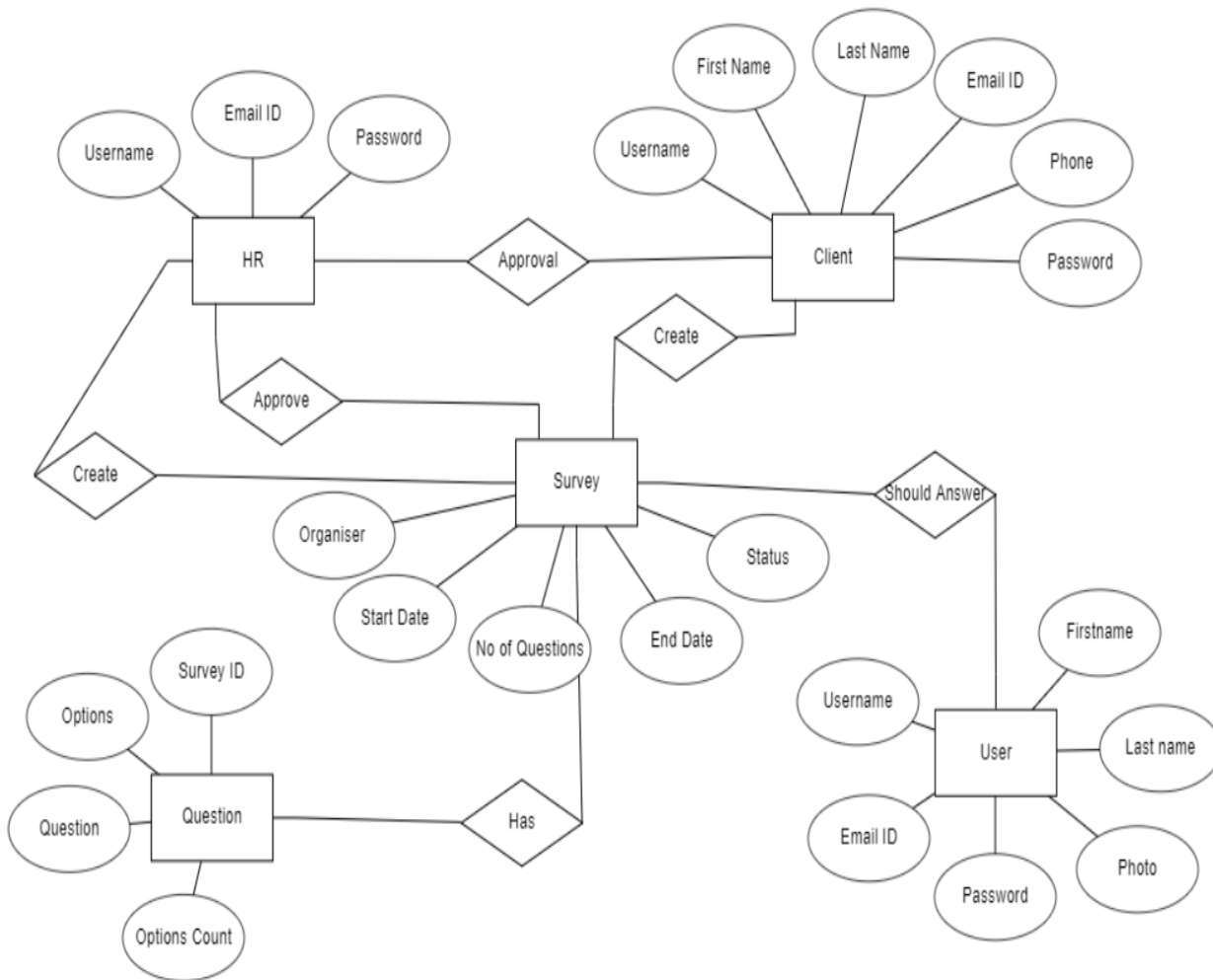
Now, let us convert this 2NF form to 3NF form.

3NF form : Should be in 2NF and should not have any transitive dependencies.

As we can observe there are no transitive dependencies , we can say that the above tables are in 3NF .

3. System Architecture Description:

- **ER diagram :**



Note for representation:

1. **Rectangular boxes: entities.**
2. **Ellipses: attributes**

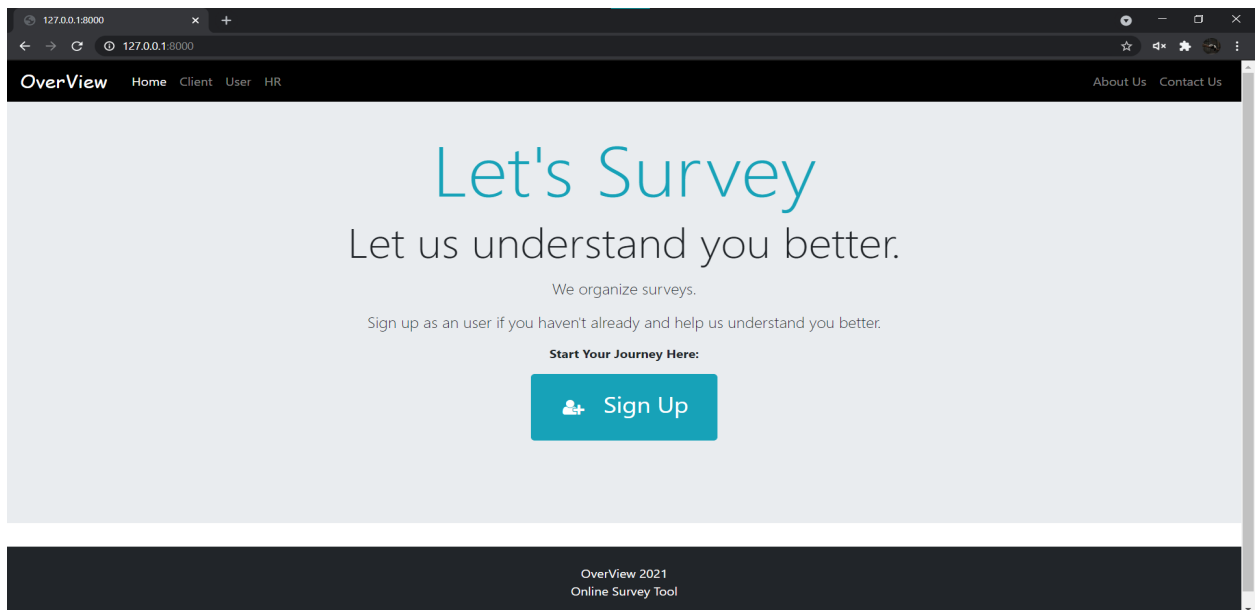
3. **Diamond: relationships between entities.**

- The project consists of five entities mainly :
 1. **HR** -
Attributes: username,password and emailId.
 2. **Client** -
Attributes:username,firstname,lastname,Email_Id,phone number and photo.
 3. **User**-
Attributes: username,password,firstname,lastname,phone number and photo.
 4. **Survey** -
Attributes: Client_Id,No. Of questions,status,start_date and end_date.
 5. **Question** -
Attributes: question,survey_id,option and option count.
- Relationships among entities :
 1. HR and Client - Approval
 2. HR and Survey - Approval
 3. HR and Survey - Create
 4. Client and Survey - Create
 5. Survey and Question - Create
 6. Survey and User - Should answer

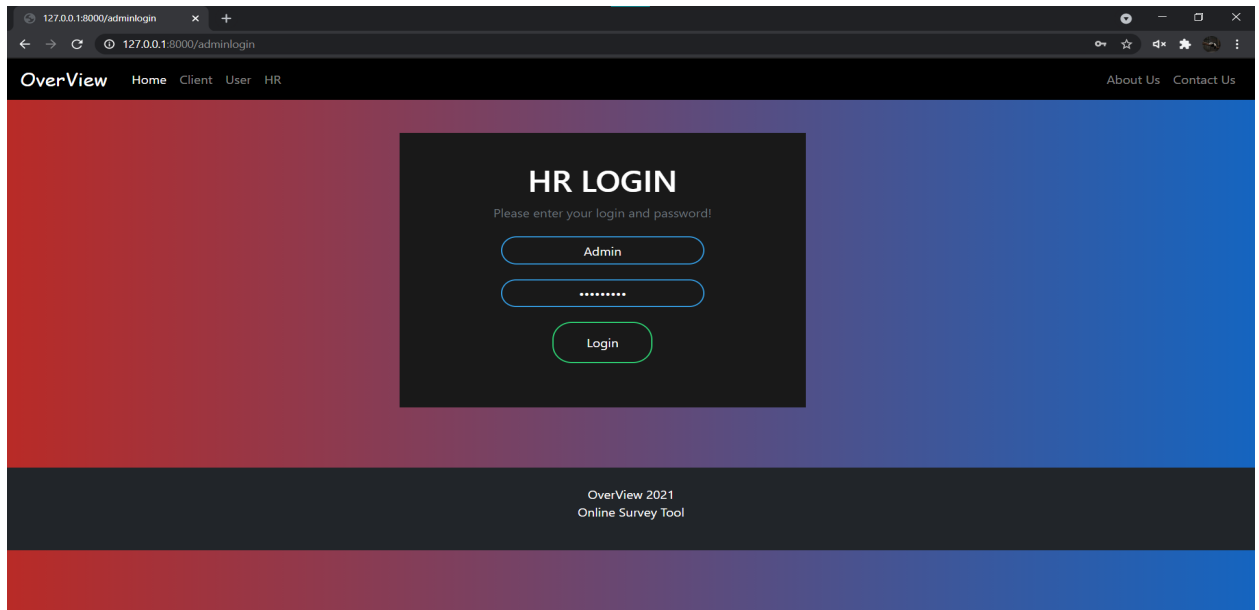
The above ER diagram is showing relationships among entity sets(i.e.,HR, Clients,User,Survey,Question).

4. Overview of Portal:

- 1. Home Page:**Page where a user can register by default but if a client wants to register he/she can navigate and register or login.Similarly , From the HR button , HR can login into the system.

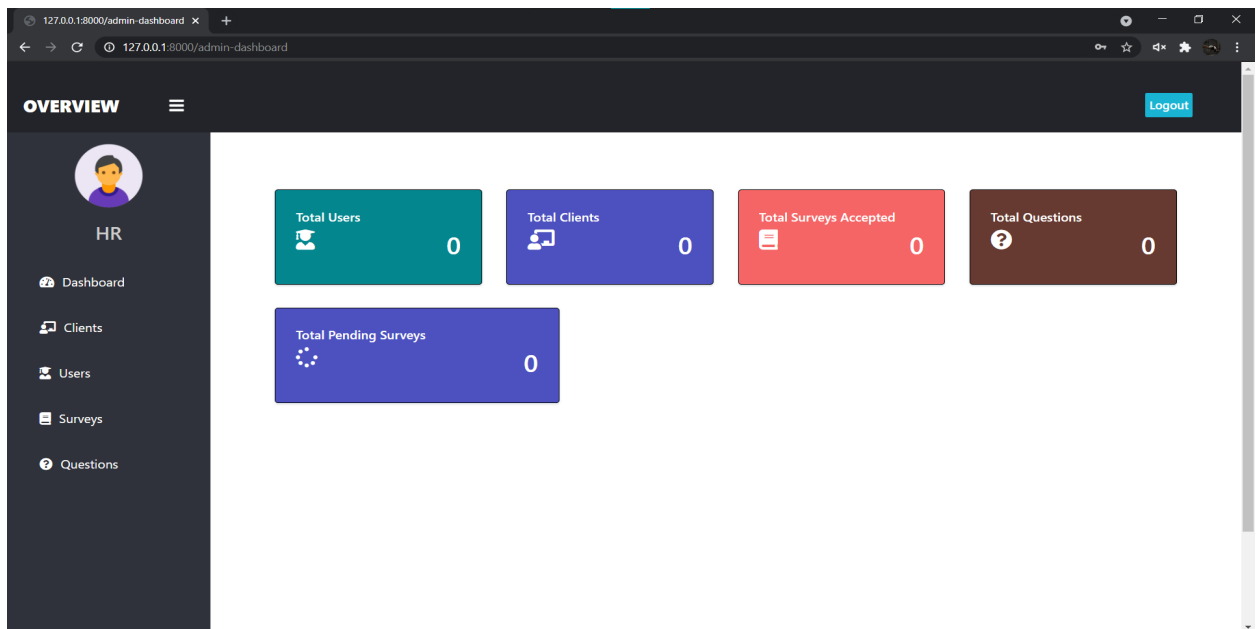


- 2. HR Login :** Only the HR can login here.HR can login into the system , he/she can't register and the account is created during building of the software.



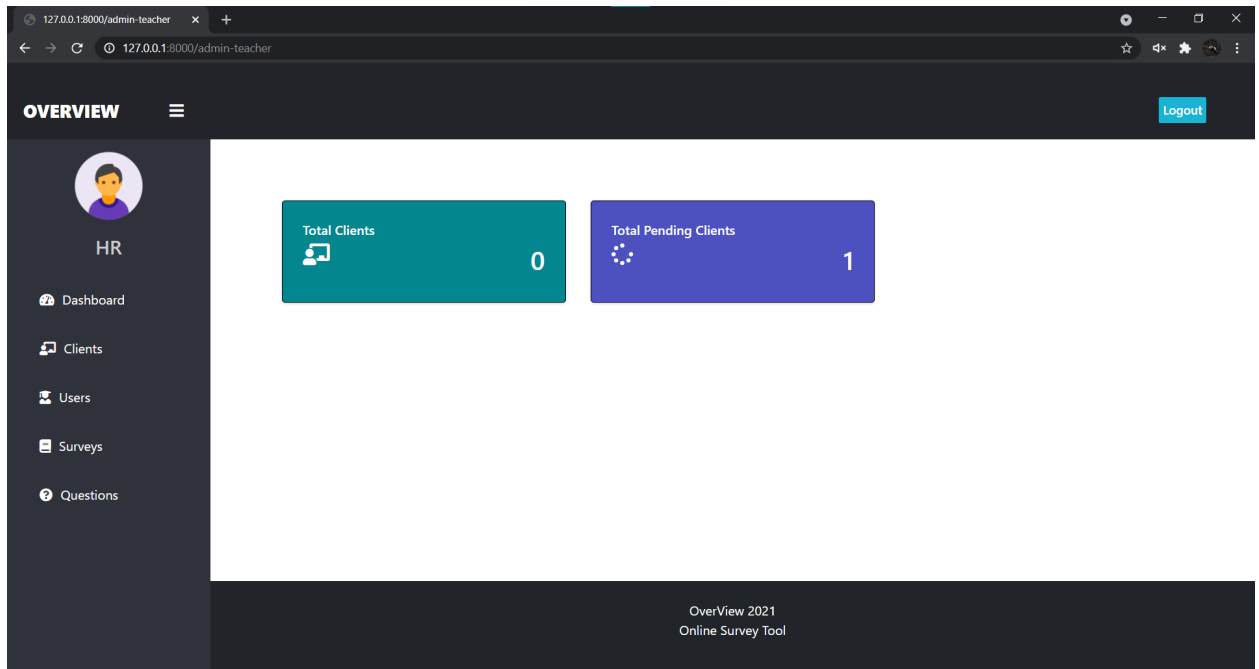
3. HR DashBoard :

Every function which can be done by HR is mentioned .This is the page from which HR can access anything in this system.



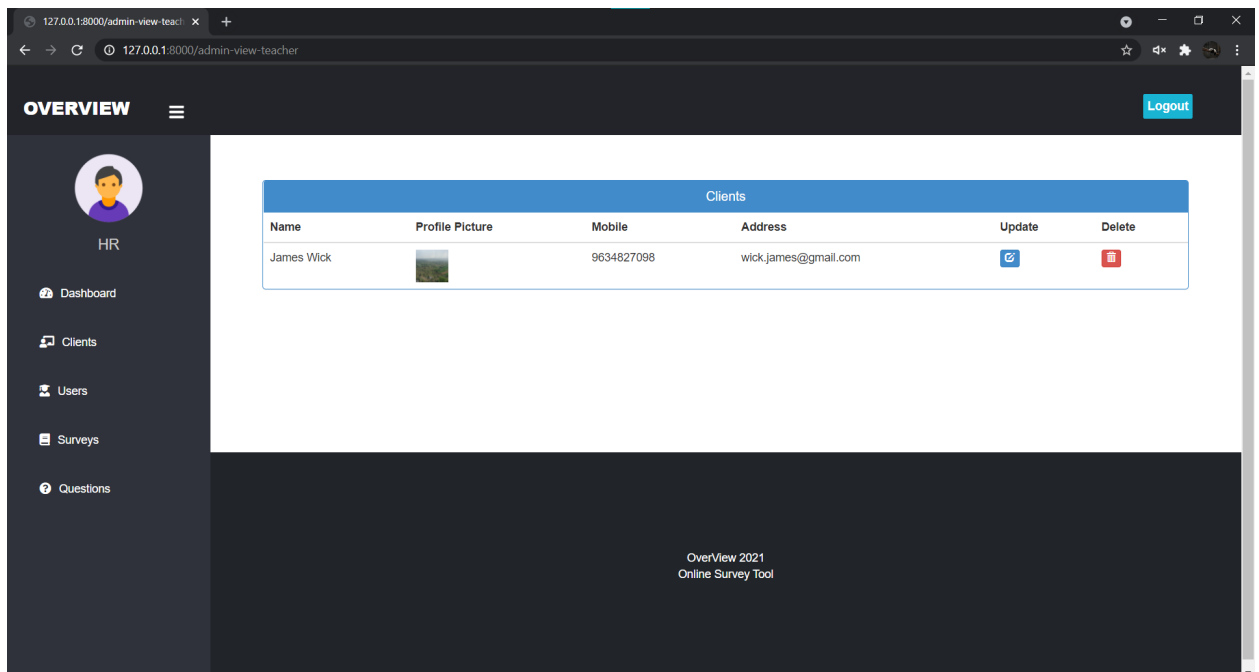
4. HR - Client View :

Navigation option - Clients , From here HR can check the total Clients and number of Clients Waiting for the approval.



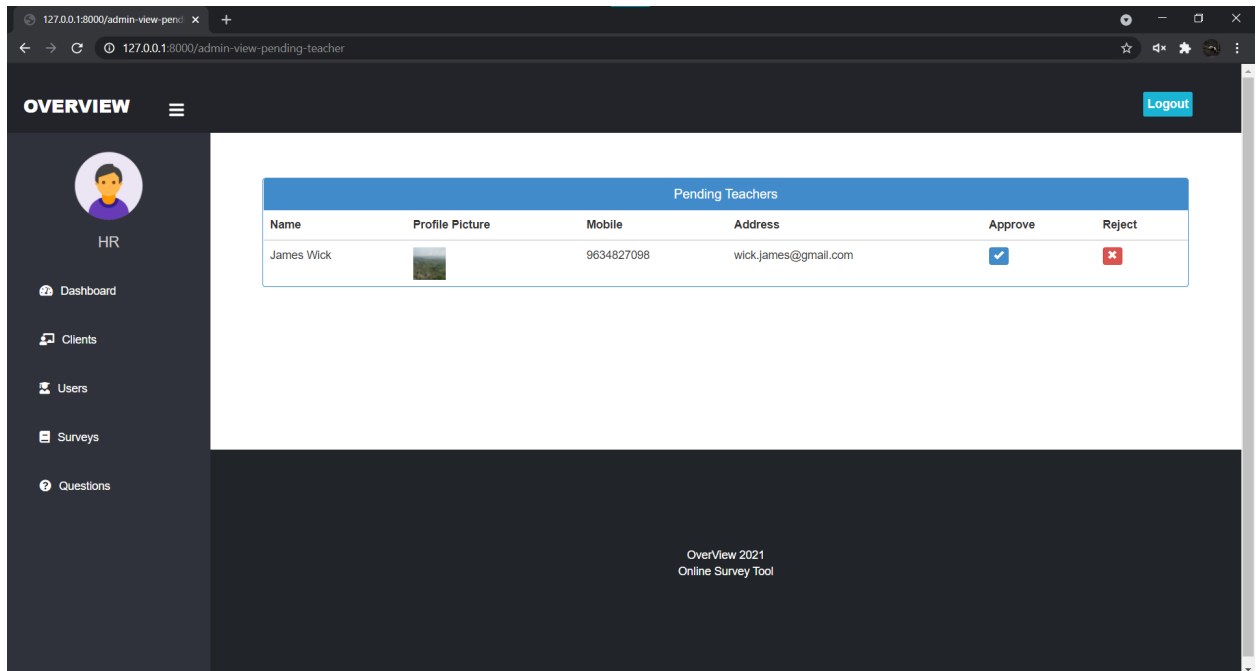
5. HR Total Clients :

HR can view the details of all the clients , HR can update Details or even if HR can delete as well.



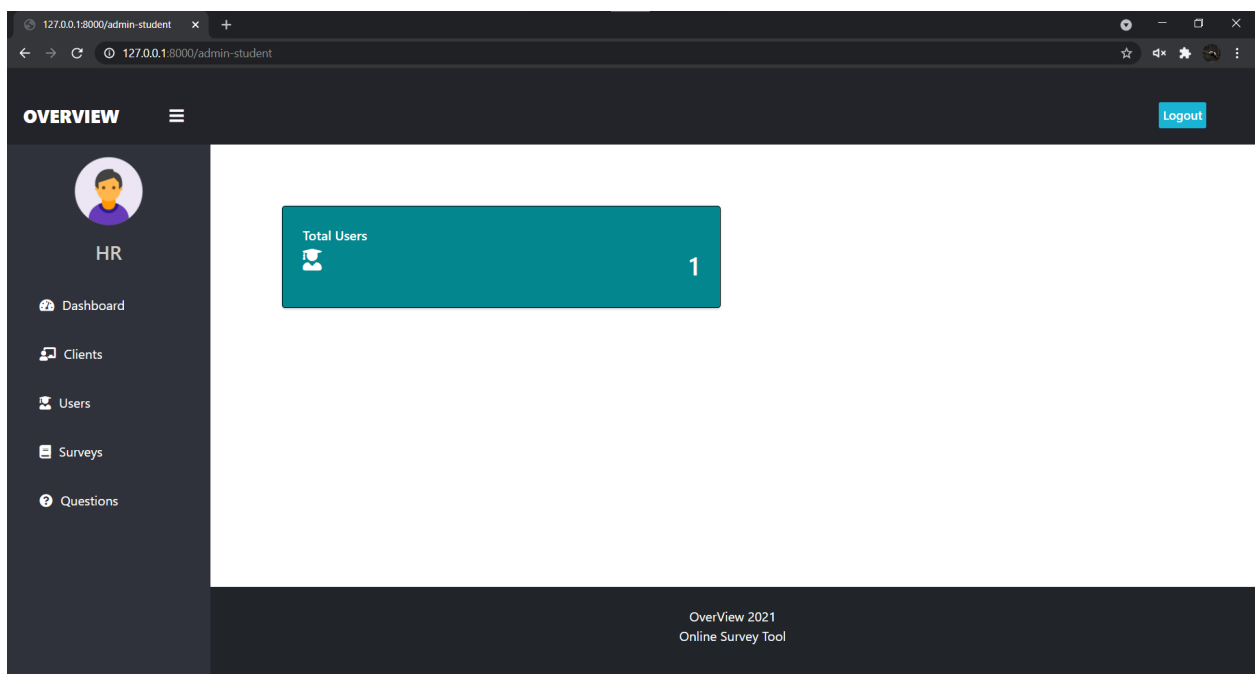
6. HR Pending Clients :

HR Can approve or disapprove the Clients accounts after verifying the details of the client.



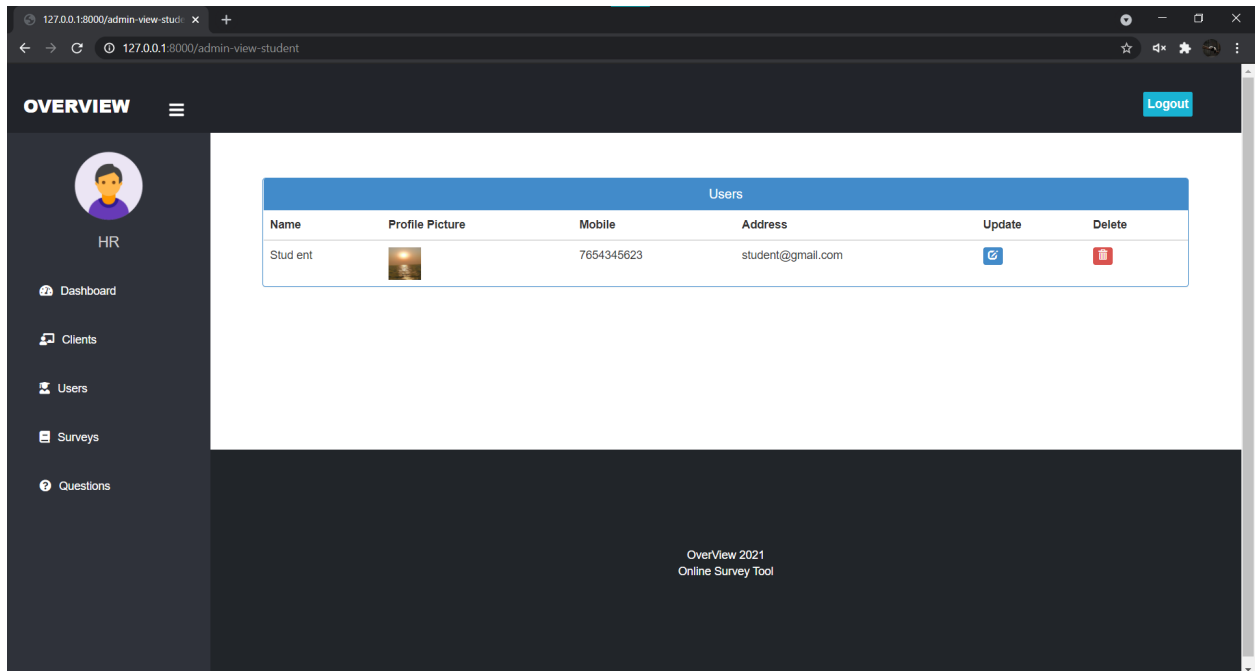
7. HR Users :

Navigation option - Users , From here HR can check the total Users.



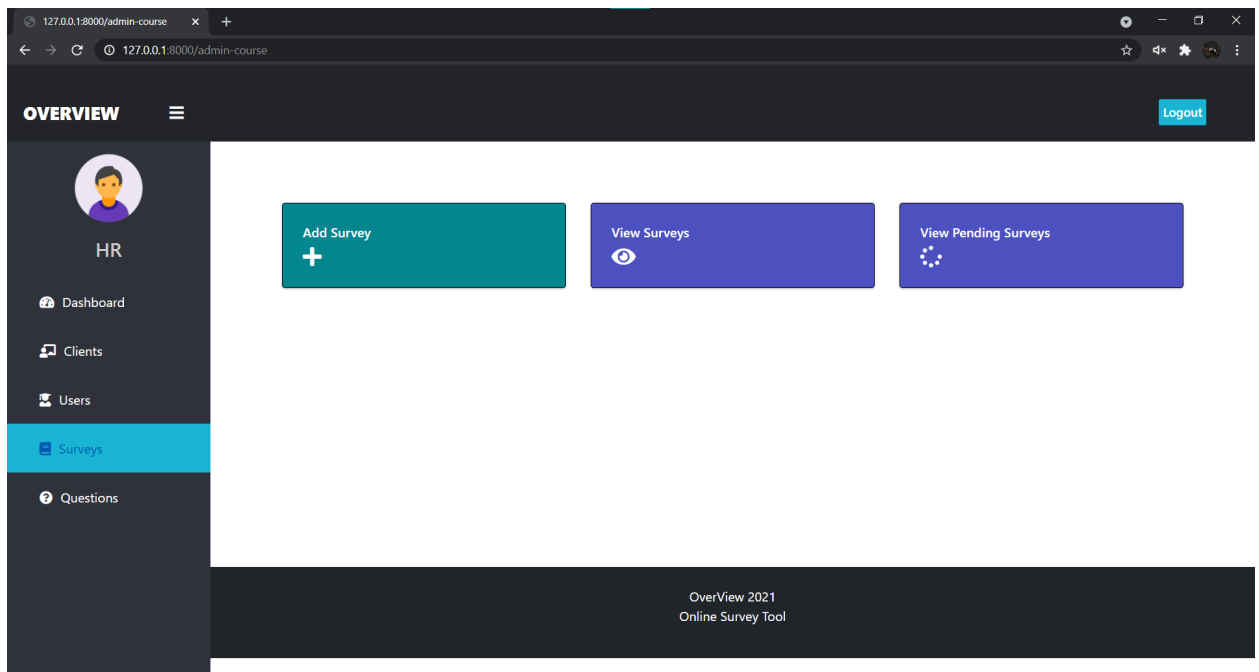
8. HR Total Users :

HR can view the details of the Users enrolled.



9. HR Surveys :

Navigation option - Surveys , From here HR can add surveys,view the available and approve or reject the pending surveys.



10. HR Add Survey :

HR while creating a survey , few details of the survey such as survey title, total number of questions , start and end time of survey are needed to be done.

The screenshot shows the 'ADD SURVEY' form in the HR dashboard. The form has four input fields: 'Survey Title' (containing 'City'), 'Total Question' (containing '1'), 'Start Date and Time' (containing '2021-05-11 18-00'), and 'End Date and Time' (containing '2021-05-13 18-00'). A blue 'ADD' button is at the bottom right of the form. The dashboard includes a sidebar with 'OVERVIEW' and a 'Logout' button in the top right corner.

Survey Title	Total Question	Start Date and Time	End Date and Time
City	1	2021-05-11 18-00	2021-05-13 18-00

11. HR View Survey :

HR can view all the surveys which are created.

The screenshot shows the 'Surveys' table in the HR dashboard. The table has columns for 'Survey Title', 'Total Question', 'Client', 'Start Time', 'End Time', 'Delete', 'Results', and 'Report PDF'. There is one row of data for a survey titled 'Fav City'. The dashboard includes a sidebar with 'OVERVIEW' and a 'Logout' button in the top right corner.

Survey Title	Total Question	Client	Start Time	End Time	Delete	Results	Report PDF
Fav City	1	Admin	May 12, 2021, midnight	May 14, 2021, midnight			

12. HR View Results :

HR can view the results of all the surveys if needed.

Question	Total Answers	Option 1 Count	Option 2 Count	Option 3 Count	Option 4 Count
Currency on demand?	1	0 - Rupees	1 - Dollar	0 - Taka	0 - Euro

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Online Survey Tool

13. HR View Report :

If needed HR can print the report of the survey.

Question	Total Answers	Option 1 Count	Option 2 Count	Option 3 Count	Option 4 Count
Currency on demand?	1	0 - Rupees	1 - Dollar	0 - Taka	0 - Euro

14. HR View Pending Surveys :

HR can check the pending surveys and approve or reject them based on the quality of questions.

The screenshot shows a web application interface for HR to view pending surveys. The browser address bar shows the URL `127.0.0.1:8000/admin-view-pending-survey`. The interface has a dark sidebar on the left with a user profile for 'HR' and navigation links: Dashboard, Clients, Users, Surveys, and Questions. The main content area has a header 'OVERVIEW' and a 'Logout' button. Below the header is a table titled 'Pending Surveys'.

Survey Name	Status	Number of Questions	Client	Start Time	End Time	Approve	Reject
Fav Food	False	1	James	June 1, 2021, midnight	June 2, 2021, midnight	<input checked="" type="checkbox"/>	<input type="checkbox"/>

At the bottom of the main content area, there is a footer that reads 'OverView 2021 Online Survey Tool'.

15. HR Questions :

Navigation option - Questions , From here HR can add the questions and view the questions of any approved or pending survey.

The screenshot shows the 'HR Questions' interface. The browser address bar shows the URL `127.0.0.1:8000/admin-question`. The interface has a dark sidebar on the left with a user profile for 'HR' and navigation links: Dashboard, Clients, Users, Surveys, and Questions. The main content area has a header 'OVERVIEW' and a 'Logout' button. Below the header are two large buttons: 'Add Question' (teal) and 'View Questions' (purple). At the bottom of the main content area, there is a footer that reads 'OverView 2021 Online Survey Tool'.

16. HR Add Questions :

When HR wants to add a question in a particular survey.

The screenshot shows the 'ADD QUESTION' form in the HR dashboard. The form is titled 'ADD QUESTION' in blue text. It includes a 'Course' dropdown menu with 'Fav City' selected. The 'Question' field contains the text 'What is your Favorite city in the following?'. The 'Marks' field is empty. There are four 'Option' fields: 'Option 1' with 'Banglore', 'Option 2' with 'Hyderabad', 'Option 3' with 'Chennai', and 'Option 4' with 'New Delhi'. An 'Answer' field is also present. A blue 'ADD' button is at the bottom right of the form. The left sidebar shows the user profile 'HR' and navigation links for Dashboard, Clients, Users, Surveys, and Questions. The top right corner has a 'Logout' button.

Course
Fav City

Question

What is your Favorite city in the following?

Marks

Option 1

Banglore

Option 2

Hyderabad

Option 3

Chennai

Option 4

New Delhi

Answer

ADD

17. HR View Questions :

When HR wants to view a question from any survey,he/she has to select a survey.

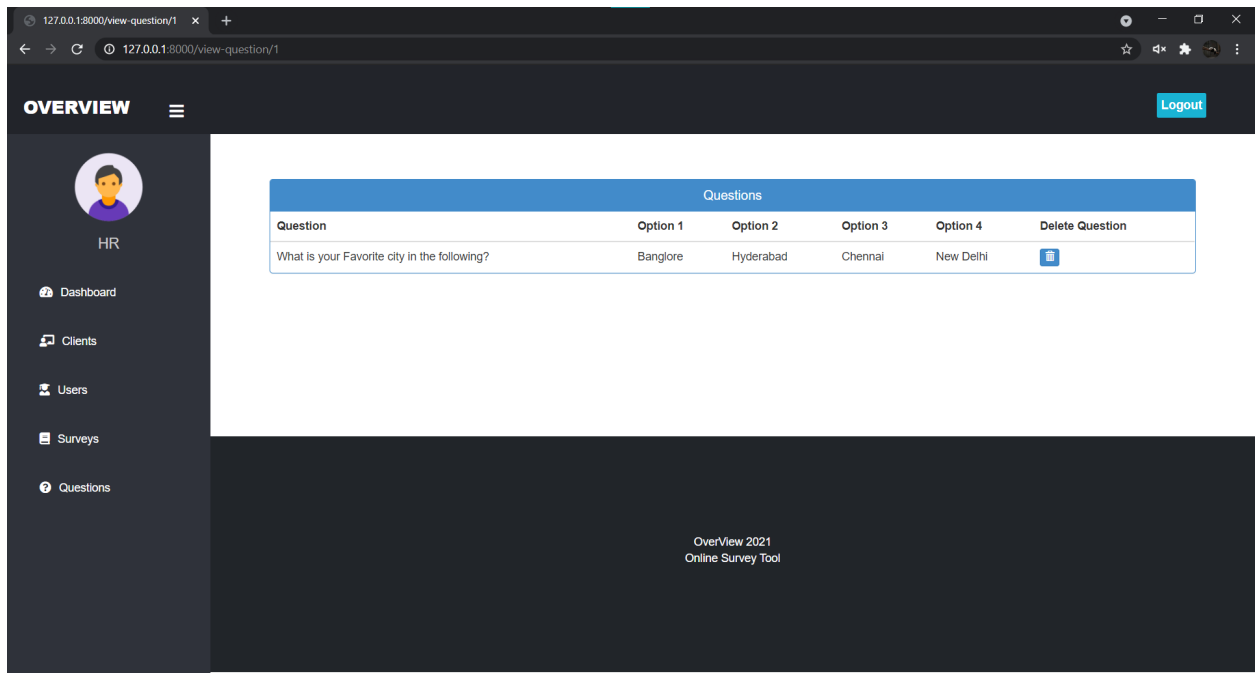
The screenshot shows the 'Select Survey To View Questions' table in the HR dashboard. The table has three columns: 'Survey Title', 'Total Question', and 'View Question'. It lists two surveys: 'Fav City' with 1 total question and 'Fav Food' with 1 total question. Each row has a 'View Question' button. The left sidebar shows the user profile 'HR' and navigation links for Dashboard, Clients, Users, Surveys, and Questions. The top right corner has a 'Logout' button.

Survey Title	Total Question	View Question
Fav City	1	View Question
Fav Food	1	View Question

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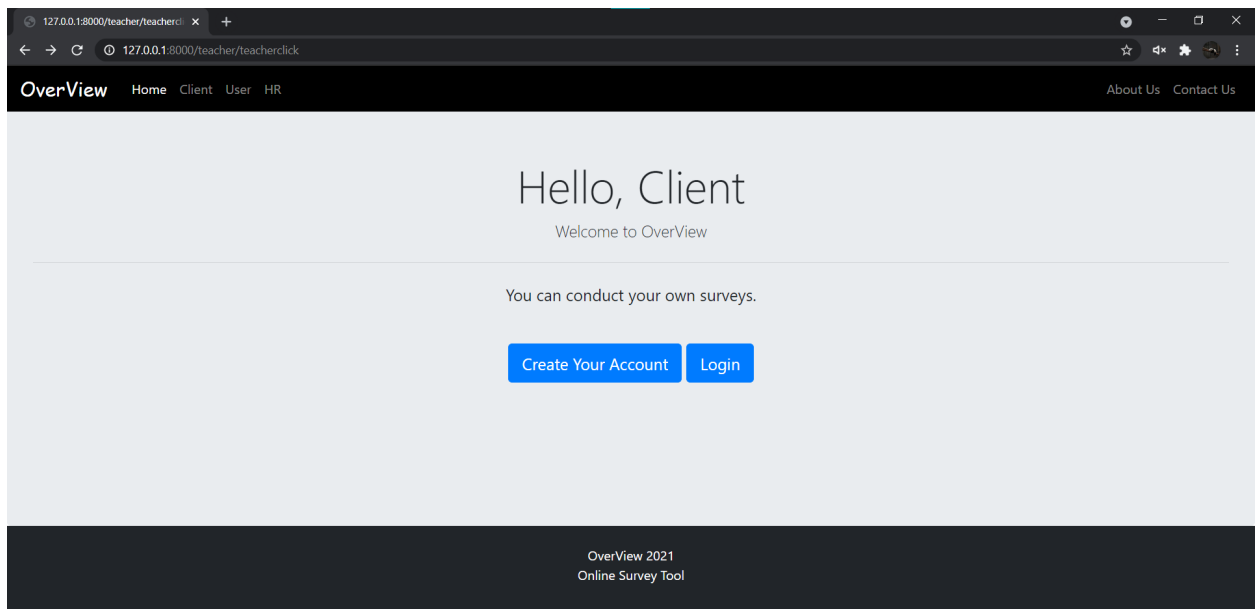
18. HR Select Survey to View Question:

After selecting a survey HR can view the question and options and if wants can delete the question.



19. Client Page :

Client can login into account if created and approved , else she/he can create one and wait for the approval.



20. Client SignUp :

Client Fills up his/her Details for the verification from the HR side.

127.0.0.1:8000/teacher/teachersignup

Overview Home Client User HR About Us Contact Us

CLIENT SIGNUP

Username: James Password: *****

First Name: James Last Name: Wick

Mobile: 9634827098 Email Address: wick.james@gmail.com

Profile Picture: Choose File IMG_0864.JPG

Sign Up

Overview 2021
Online Survey Tool

21. Client Waiting :

After Client fills out the details , he/she will be waiting for the approval from the HR side.This page appears when the client tries to login , but not yet approved.

127.0.0.1:8000/afterlogin

Overview Home Client User HR About Us Contact Us

Hello James

Your Account is not approved till now

Our Team is checking your profile

Soon Your Account Will Be Approved

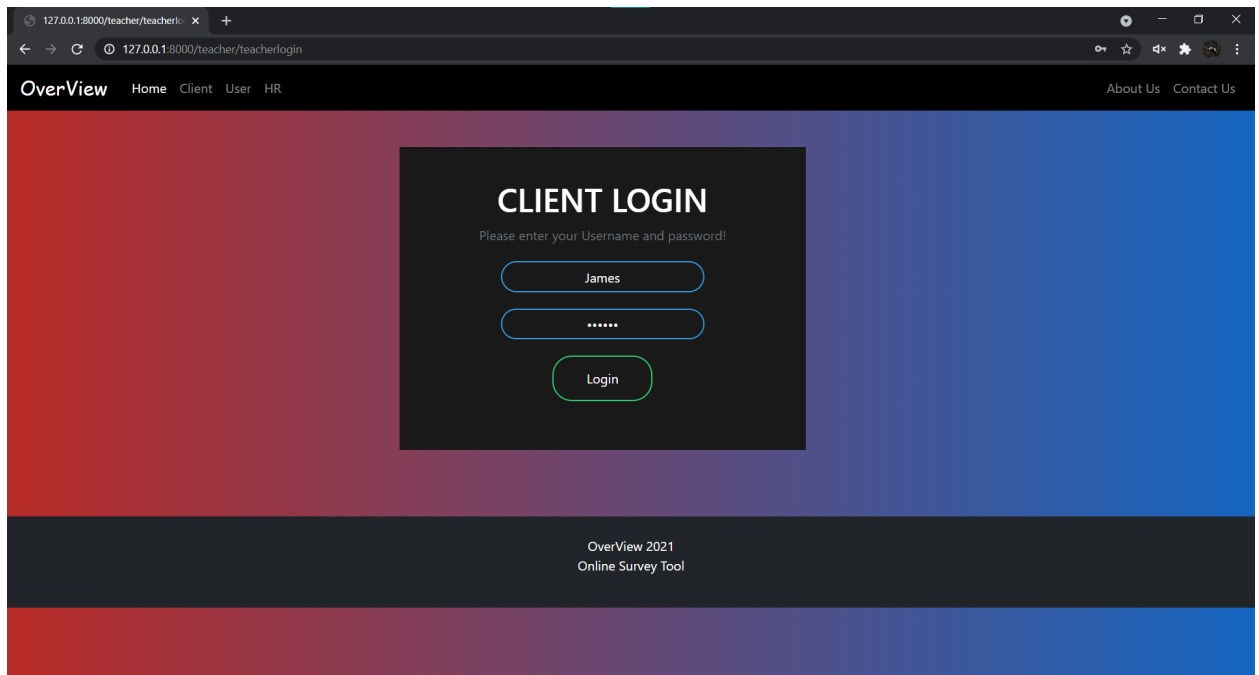
Check Later

Logout For Now

Overview 2021
Online Survey Tool

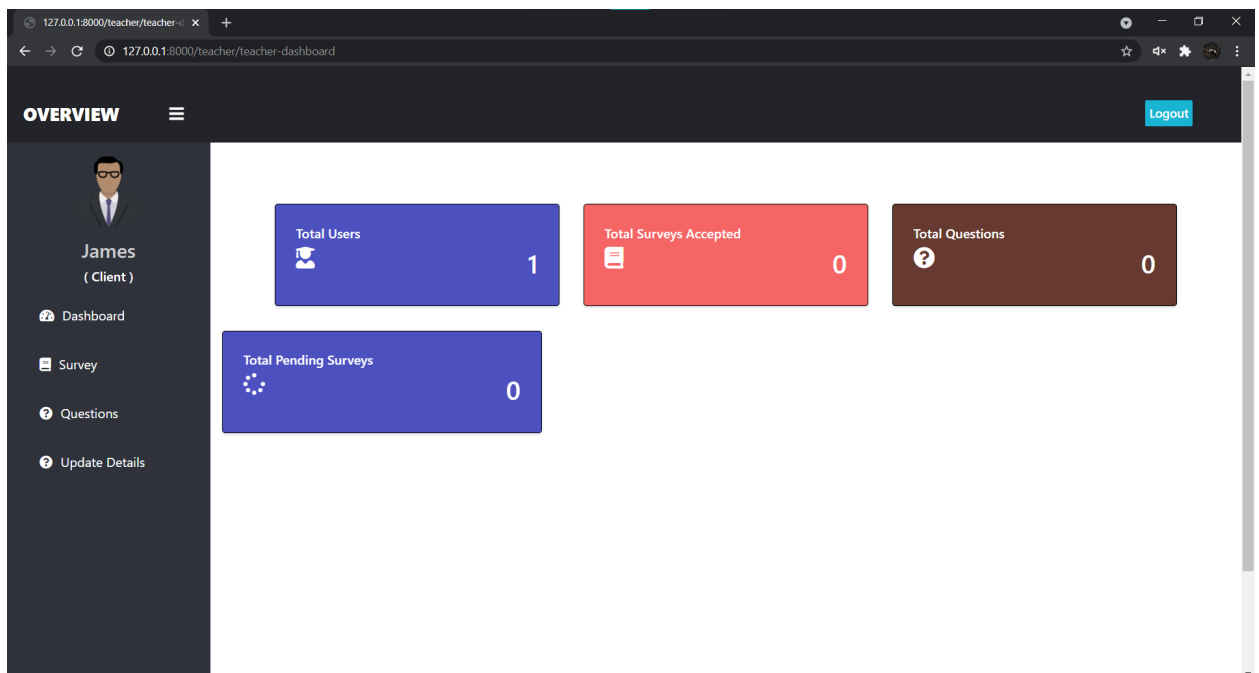
22. Client Login :

After HR approves the client , then the client can login into the system.



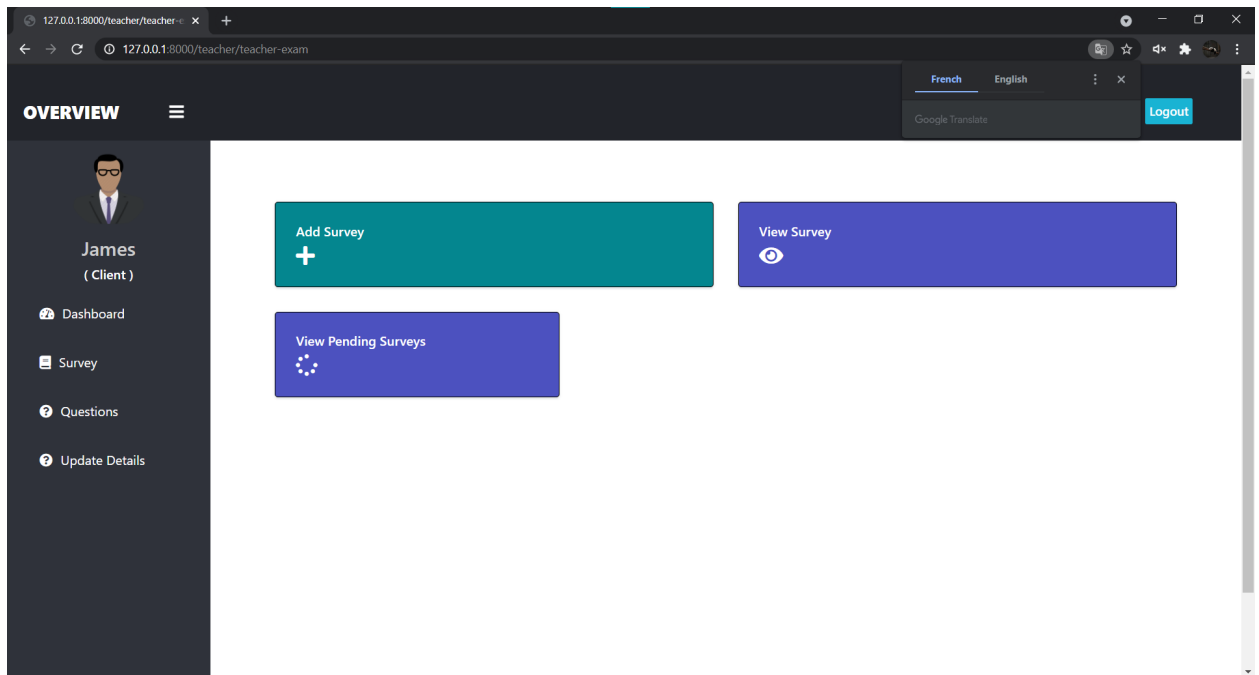
23. Client DashBoard :

Every function which can be done by a Client is mentioned .This is the page from which Client can access anything in this system.



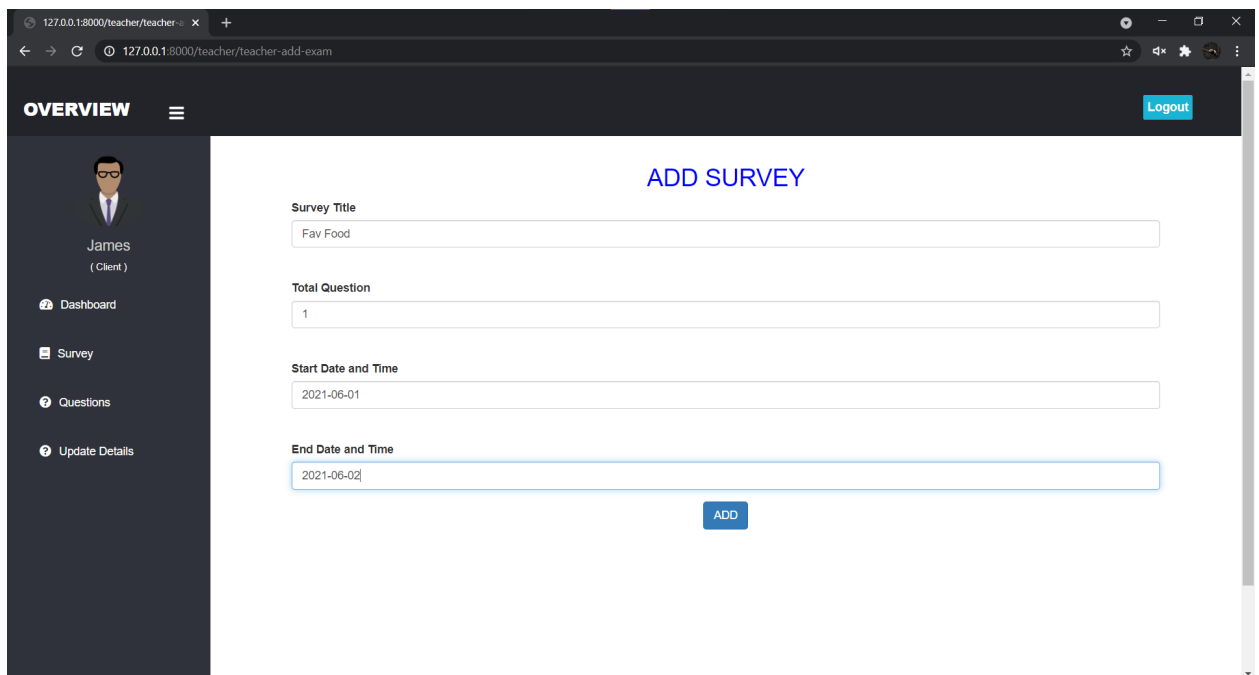
24. Client Survey:

Navigation option - Surveys , From here Client can add surveys,view the available surveys which are made by him.



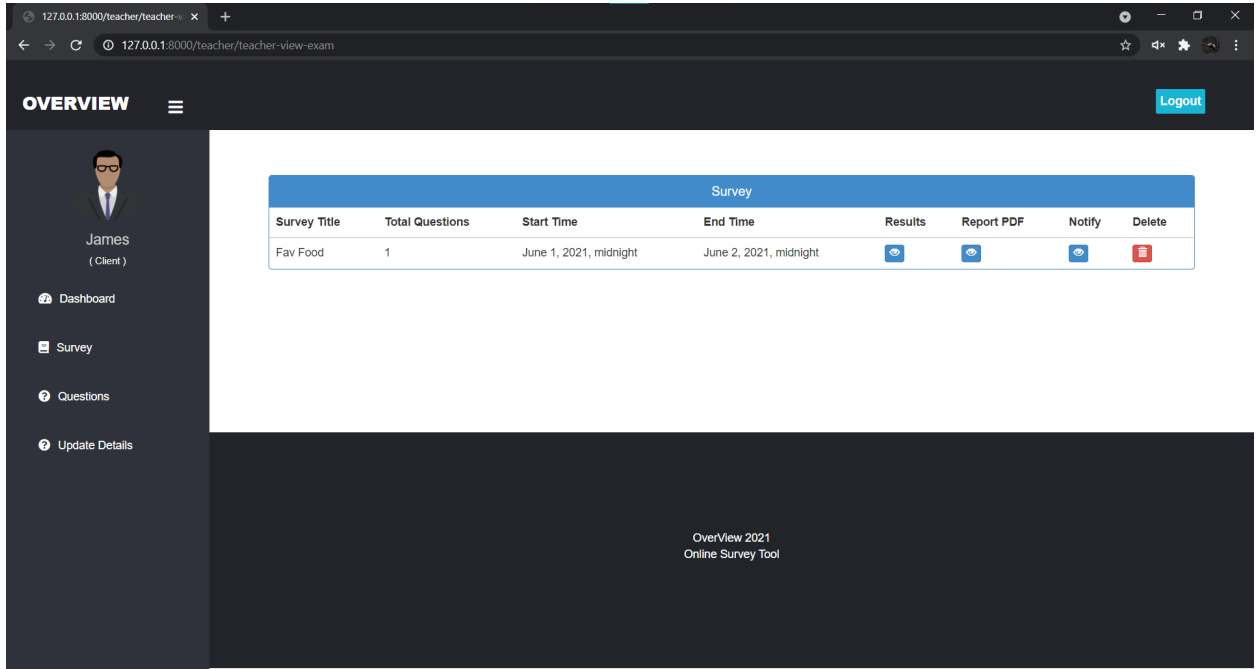
25. Client Add Survey :

This is where clients can add surveys into the system.



26. Client View Survey:

Clients can view the survey where he/she can make a few operations such as printing the report, notify the presence of mail etc.



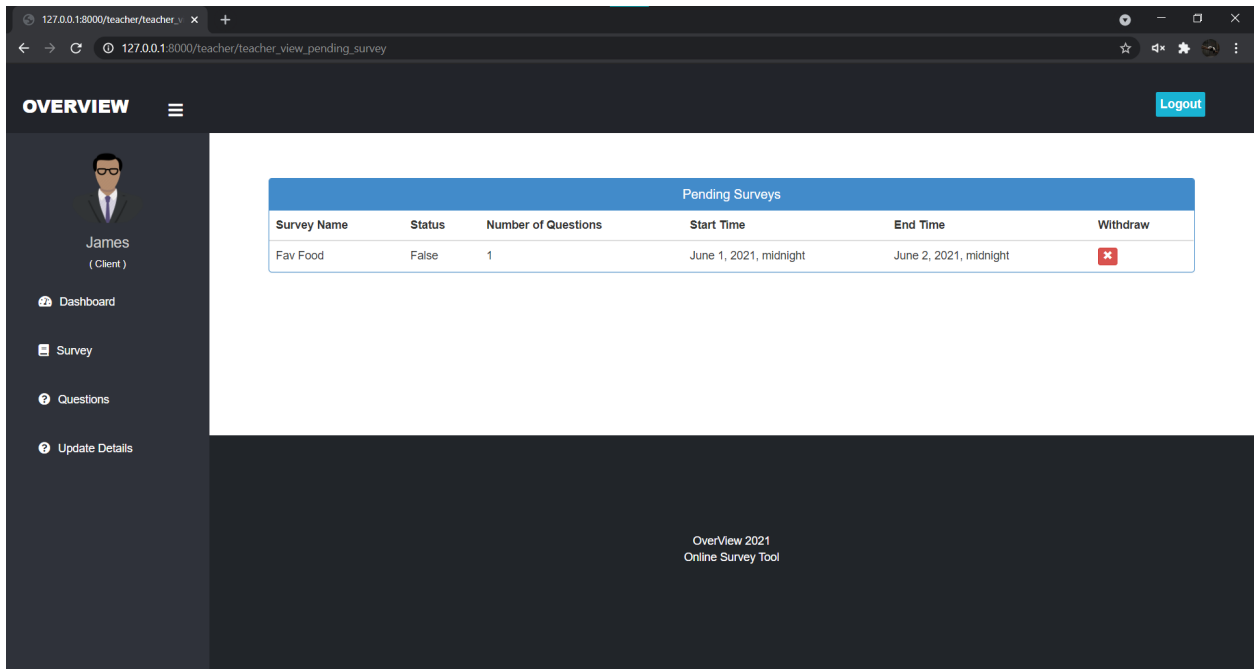
The screenshot shows a web application interface for a teacher. The top navigation bar includes the text 'OVERVIEW' and a 'Logout' button. A sidebar on the left displays the user's profile 'James (Client)' and a list of menu items: Dashboard, Survey, Questions, and Update Details. The main content area features a table titled 'Survey' with the following data:

Survey Title	Total Questions	Start Time	End Time	Results	Report PDF	Notify	Delete
Fav Food	1	June 1, 2021, midnight	June 2, 2021, midnight				

At the bottom of the main content area, the text 'OverView 2021 Online Survey Tool' is displayed.

27. Client Pending Survey :

After creating a new survey , for the quality check of the survey HR needs to approve it till then the survey is not available to participate.



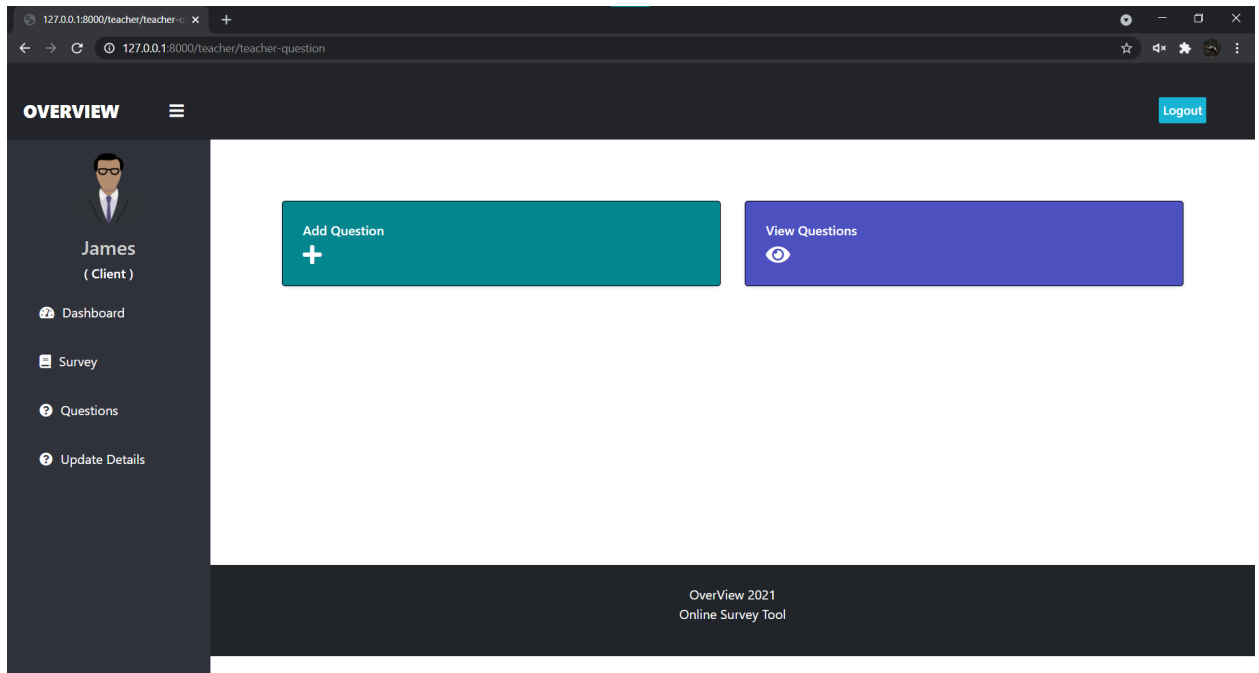
The screenshot shows the same web application interface as before, but the URL in the browser is '127.0.0.1:8000/teacher/teacher_view_pending_survey'. The main content area now displays a table titled 'Pending Surveys' with the following data:

Survey Name	Status	Number of Questions	Start Time	End Time	Withdraw
Fav Food	False	1	June 1, 2021, midnight	June 2, 2021, midnight	

The text 'OverView 2021 Online Survey Tool' remains at the bottom of the main content area.

28. Client Questions :

Navigation option - Questions , From here Client can add questions to the approved survey of him/her , and can view questions of all his/her created surveys.



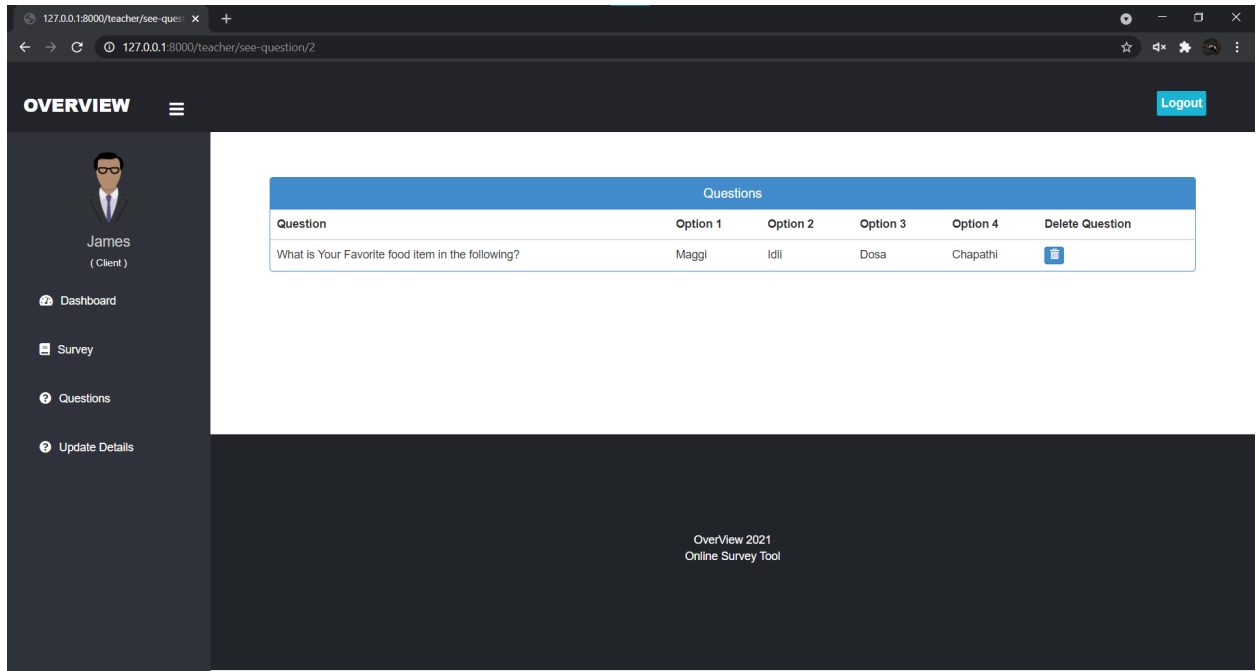
29. Client Add Questions :

Where Clients can add questions of a particular survey along with the options .

A screenshot of the 'ADD QUESTION' page in the same web application. The sidebar is identical. The main area has a title 'ADD QUESTION' in blue. Below it is a form with several input fields: a dropdown for 'Survey' (currently showing 'Fav Food'), a text field for 'Question' (containing 'What is Your Favorite food item in the following?'), and four text fields for 'Option 1' through 'Option 4' (containing 'Maggi', 'Idli', 'Dosa', and 'Chapathi' respectively). A green circular icon with a plus sign is next to the question field. At the bottom right, there is a blue 'ADD' button.

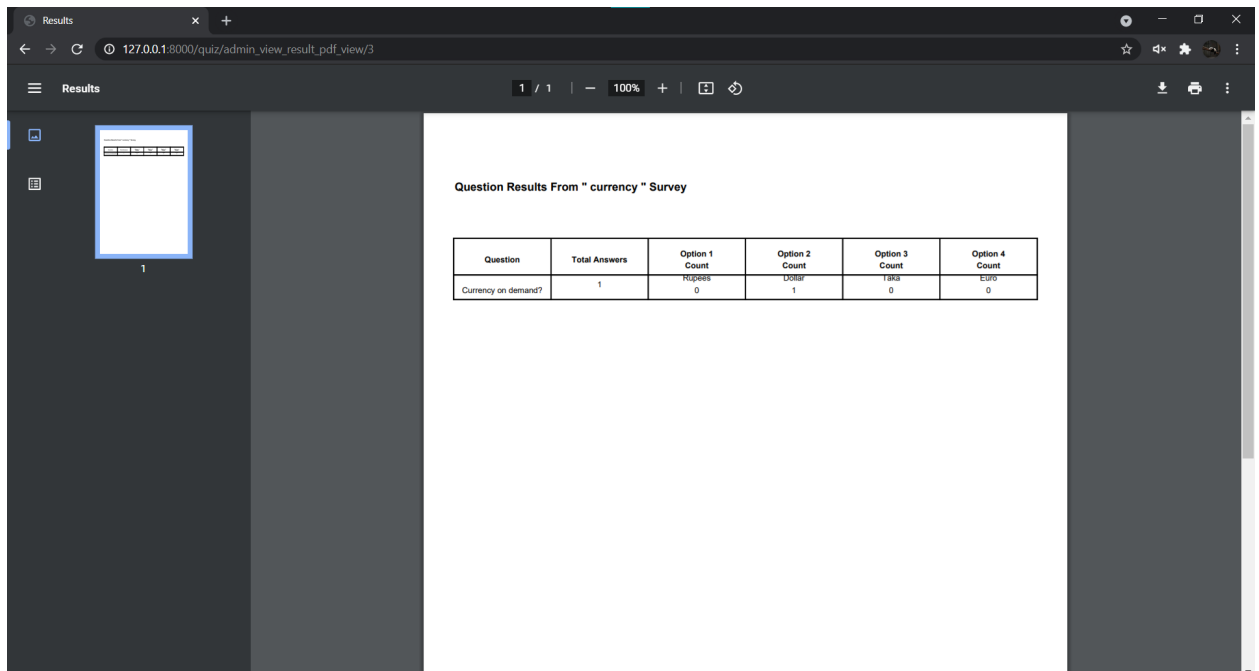
30. Client View Questions :

Where Clients can view the questions from the surveys he/she has made.



31. Client View Report :

If Client requires to get the data made through the survey , he/she can print the report of the selected survey.



32. Client Update Details :

Clients can update details of him/her if needed.

The screenshot shows a web browser window with the URL `127.0.0.1:8000/teacher/teacher_update`. The page has a dark sidebar on the left with the 'OVERVIEW' logo and a 'Logout' button. The sidebar menu includes: James (Client), Dashboard, Survey, Questions, and Update Details. The main content area is titled 'UPDATE CLIENT' and contains the following form fields: First Name (James), Last Name (Wick), Mobile (Mobile), Email Address (Email Address), Username (James), and Password (Password). Below these fields is a section for the profile picture, showing the current image as `profile_pic/Teacher/IMG_0864.JPG` with a 'Clear' button and a 'Choose File' button. At the bottom of the form is a green 'Update' button.

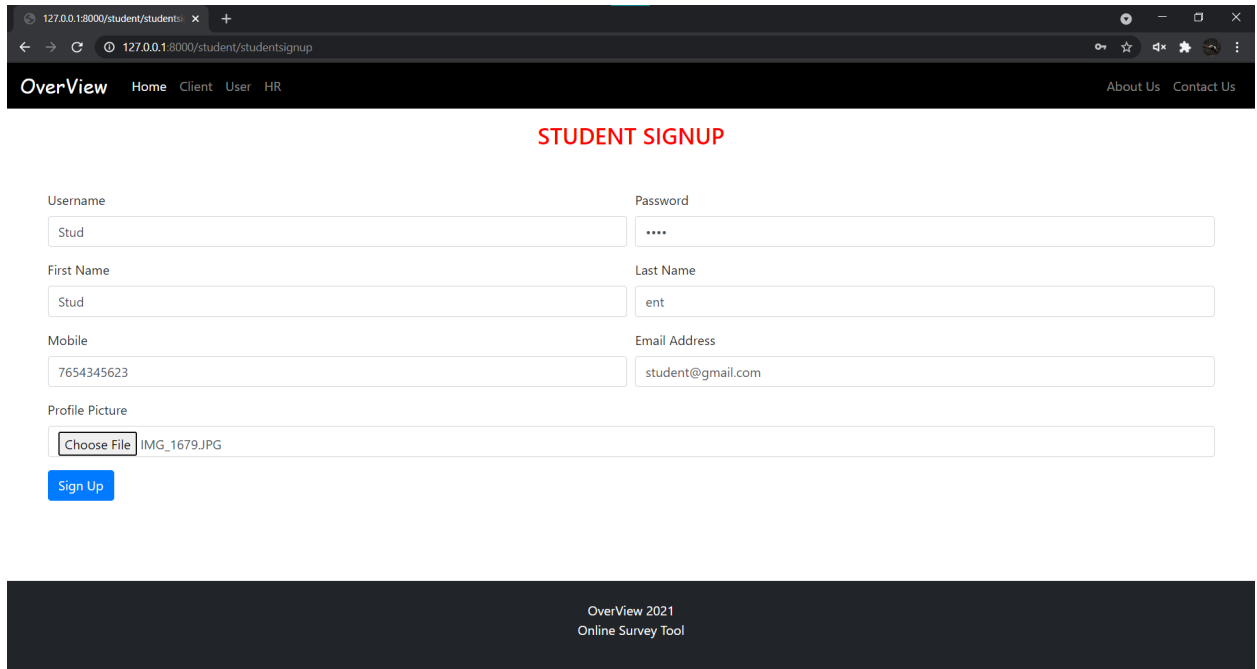
33. User Home Page :

Users who take the survey have to either he/she can create a new account if not already existed, else he/she can login .

The screenshot shows a web browser window with the URL `127.0.0.1:8000/student/studentclick`. The page has a dark header with the 'OverView' logo and navigation links: Home, Client, User, HR, About Us, and Contact Us. The main content area has a light gray background and features the text 'Hello, User' and 'Welcome to OverView'. Below this is a message 'Keep going and keep participating :)' and two blue buttons: 'Create Your Account' and 'Login'. The footer is dark and contains the text 'OverView 2021 Online Survey Tool'.

34. User SignUp :

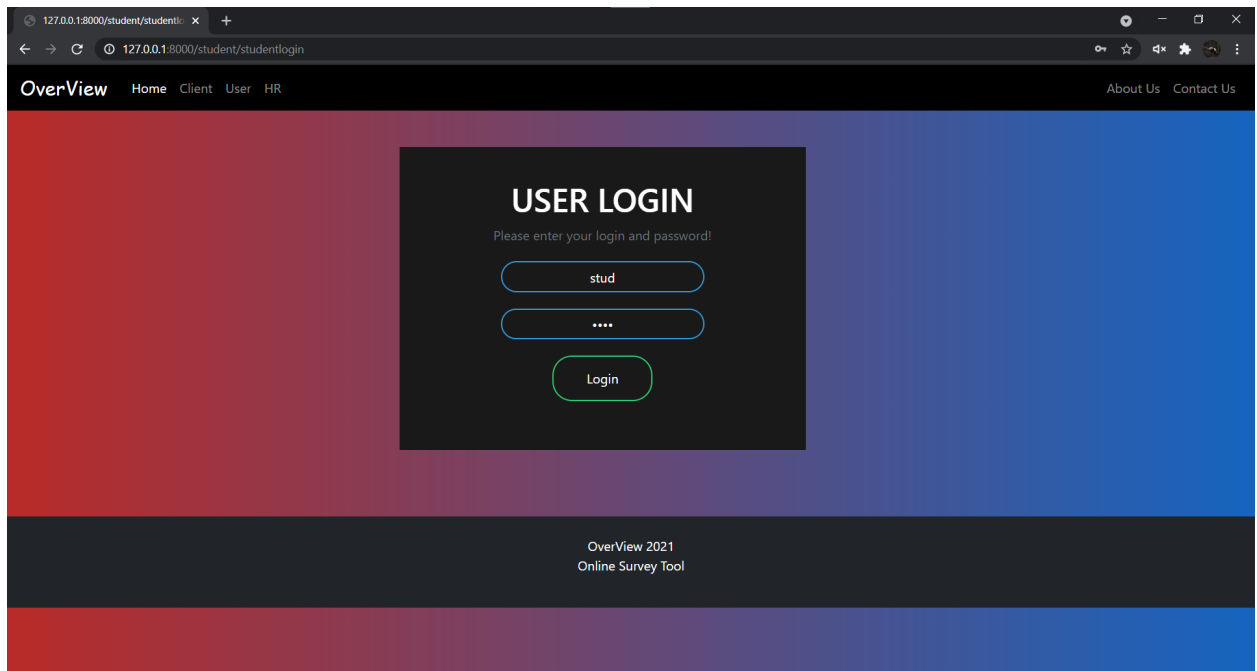
If User has no account then he/she has to fill up the details and SignUp into the System to undergo a Survey.



The screenshot shows a web browser window with the URL `127.0.0.1:8000/student/student/signup`. The page has a dark header with navigation links: **OverView**, Home, Client, User, HR, and links for About Us and Contact Us. The main content area is titled **STUDENT SIGNUP** in red. It contains a form with the following fields: Username (filled with 'Stud'), Password (filled with '****'), First Name (filled with 'Stud'), Last Name (filled with 'ent'), Mobile (filled with '7654345623'), Email Address (filled with 'student@gmail.com'), and Profile Picture (with a 'Choose File' button and the filename 'IMG_1679.JPG'). A blue 'Sign Up' button is at the bottom of the form. The footer is dark and contains the text 'OverView 2021 Online Survey Tool'.

35. User Login :

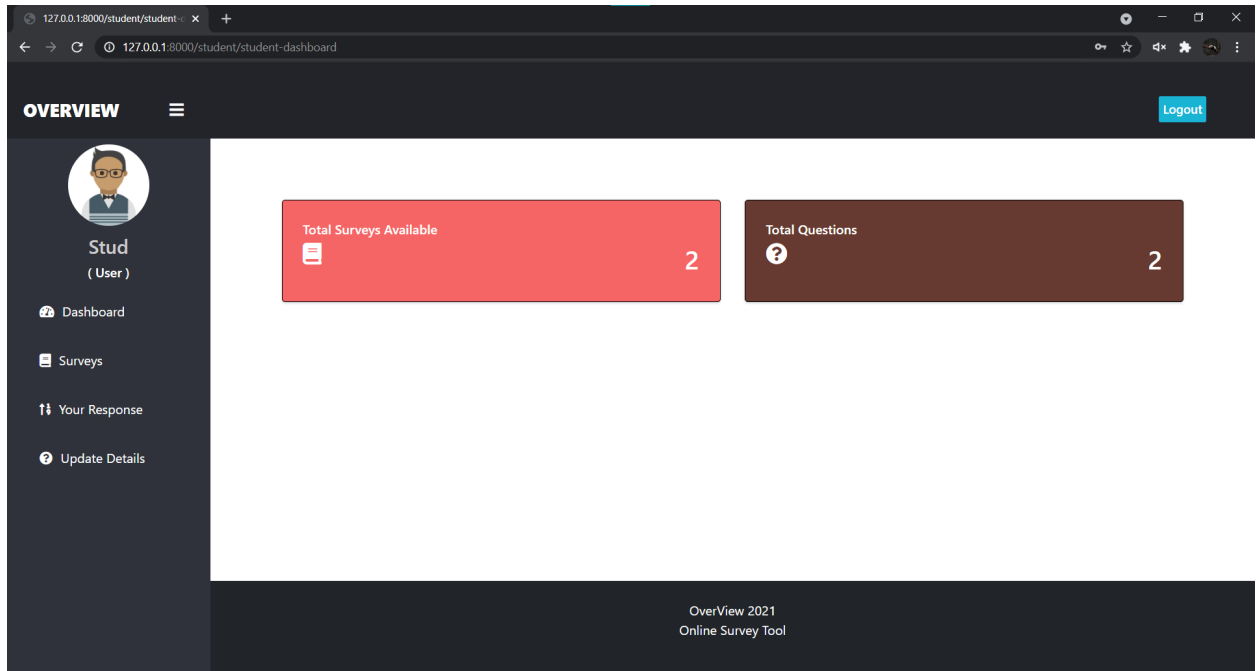
If User already has an account then he/she can enter his credentials and Login to the system.



The screenshot shows a web browser window with the URL `127.0.0.1:8000/student/student/login`. The page has a dark header with navigation links: **OverView**, Home, Client, User, HR, and links for About Us and Contact Us. The main content area features a large background image with a red-to-blue gradient. In the center is a dark box titled **USER LOGIN** with the instruction 'Please enter your login and password!'. Inside this box are two input fields: the first contains 'stud' and the second contains '****'. Below these is a green-outlined 'Login' button. The footer is dark and contains the text 'OverView 2021 Online Survey Tool'.

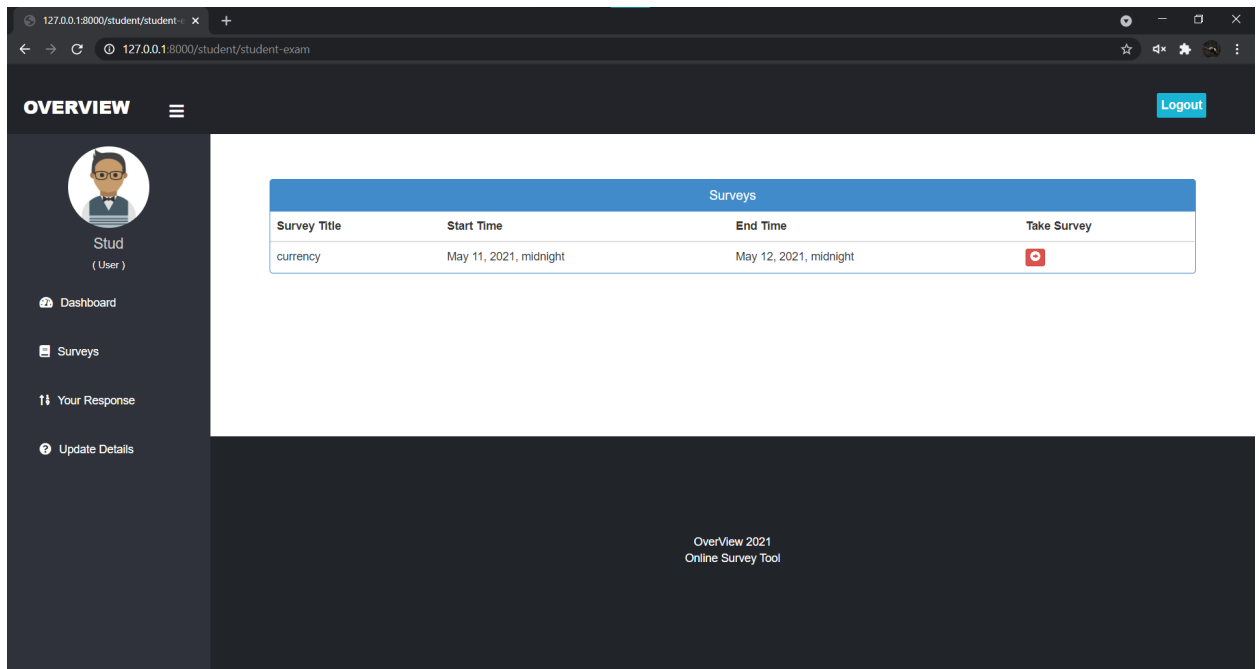
36. User DashBoard:

Every function which can be done by a user is mentioned .This is the page from which Users can access anything in this system.



37. User Surveys:

Navigation option - Surveys , From here User can check the available surveys to undergo.



38. User Take Survey :

User selects a survey and starts given the needed data.

The screenshot shows a web browser window with the URL `127.0.0.1:8000/student/start-exam/3`. The application has a dark sidebar with the 'OVERVIEW' menu and a user profile for 'Stud (User)'. The main content area is titled 'currency' and contains a survey question: '1. Currency on demand?'. Below the question are three radio button options: 'Rupees', 'Dollar' (which is selected), and 'Taka'. There is also an 'Euro' option. A blue 'Submit' button is at the bottom of the form. A 'Logout' button is in the top right corner.

39. User View Response :

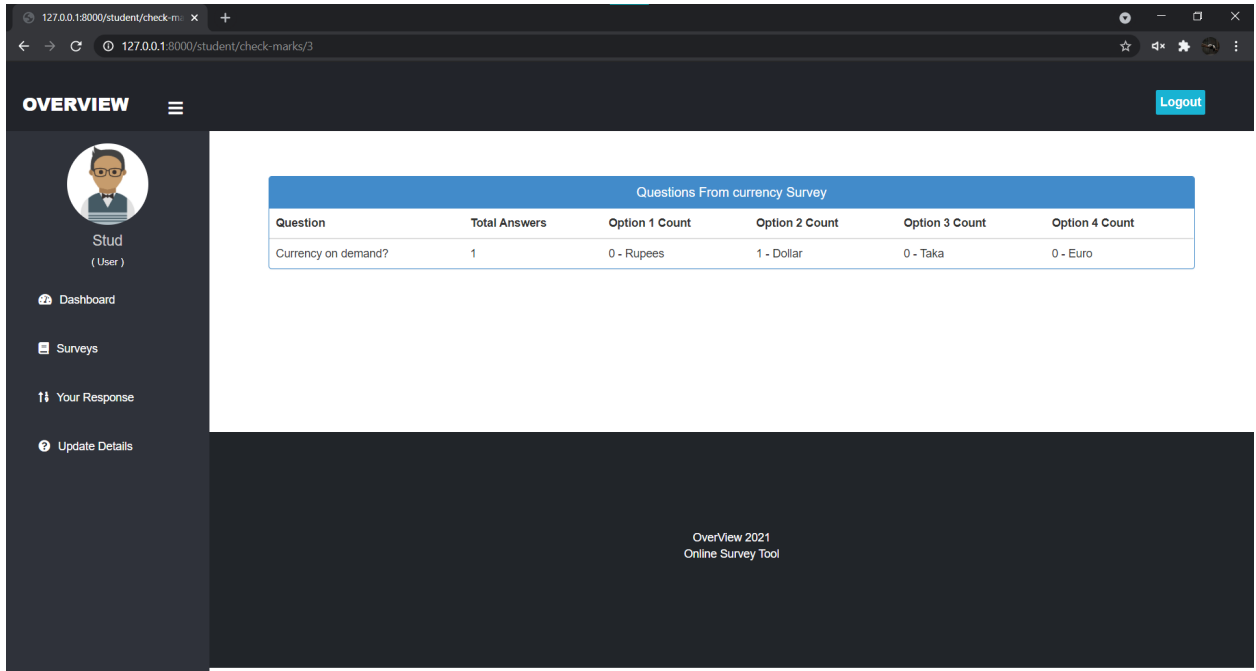
Navigation option - View Response , From here User can select a survey for which he/she wants to check response given.

The screenshot shows a web browser window with the URL `127.0.0.1:8000/student/student-marks`. The application has a dark sidebar with the 'OVERVIEW' menu and a user profile for 'Stud (User)'. The main content area displays a table titled 'Review' with two columns: 'Survey Title' and 'Review'. The table contains three rows of data. At the bottom of the page, there is a footer that reads 'OverView 2021 Online Survey Tool'. A 'Logout' button is in the top right corner.

Review	
Survey Title	Review
Fav City	
Fav Food	
currency	

40. User Response :

The count of selected options is made 1 if the user opts that option.



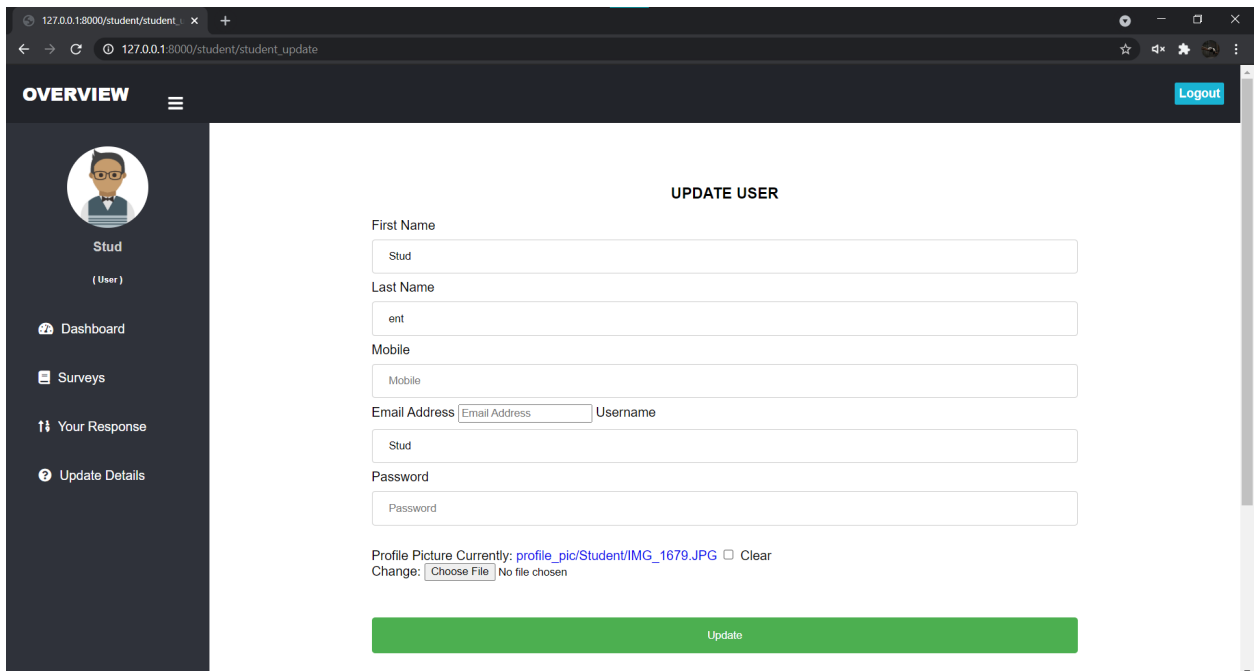
The screenshot shows a web application interface with a dark sidebar and a main content area. The sidebar contains a user profile for 'Stud (User)' and navigation links: Dashboard, Surveys, Your Response, and Update Details. The main content area displays a table titled 'Questions From currency Survey'.

Question	Total Answers	Option 1 Count	Option 2 Count	Option 3 Count	Option 4 Count
Currency on demand?	1	0 - Rupees	1 - Dollar	0 - Taka	0 - Euro

At the bottom of the main content area, it says 'OverView 2021 Online Survey Tool'.

41. User Update Details :

Navigation option - Update Details , From here User can update his/her details,if needed.



The screenshot shows the 'Update User' form in the same web application. The sidebar is identical. The main content area has a title 'UPDATE USER' and a form with the following fields:

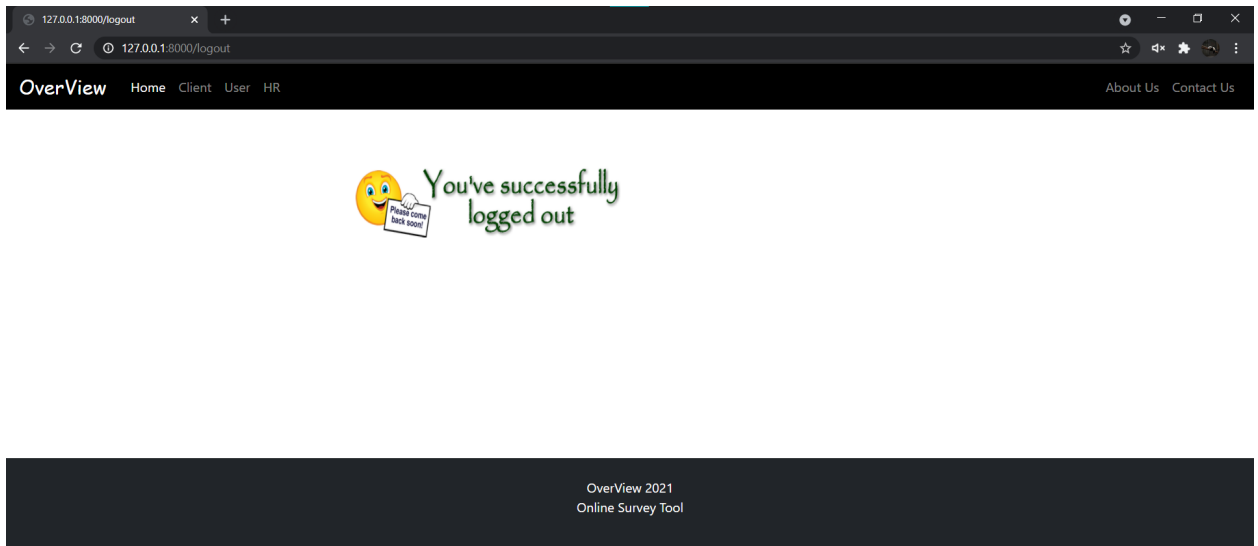
- First Name: Input field with 'Stud'.
- Last Name: Input field with 'ent'.
- Mobile: Input field with 'Mobile'.
- Email Address: Input field with 'Stud'.
- Username: Input field with 'Stud'.
- Password: Input field with 'Password'.

Below the form, there is a section for the profile picture: 'Profile Picture Currently: profile_pic/Student/IMG_1679.JPG' with a 'Clear' button. Below that is a 'Change:' section with a 'Choose File' button and the text 'No file chosen'.

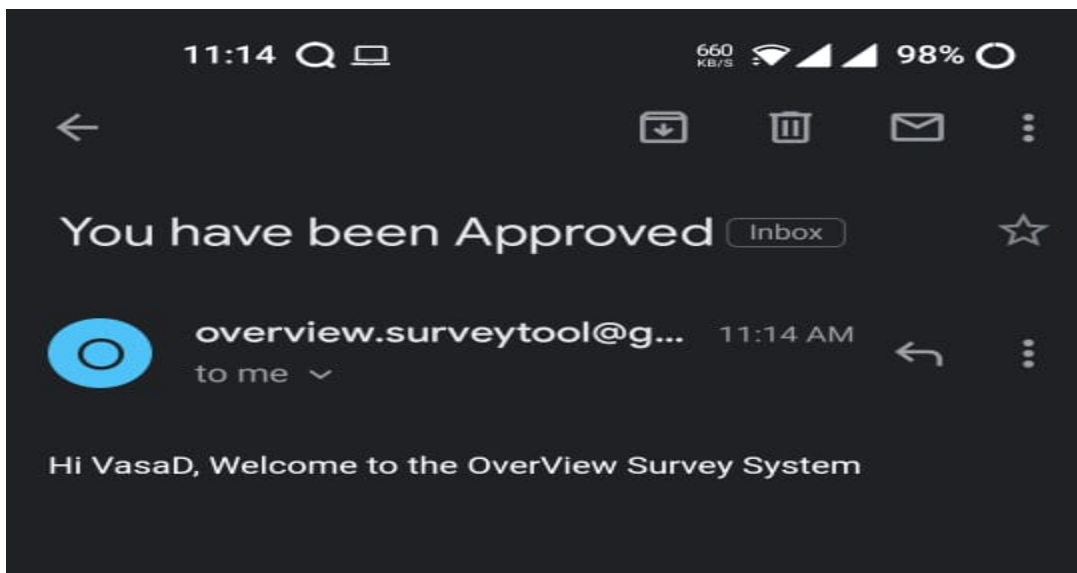
At the bottom of the form is a green 'Update' button.

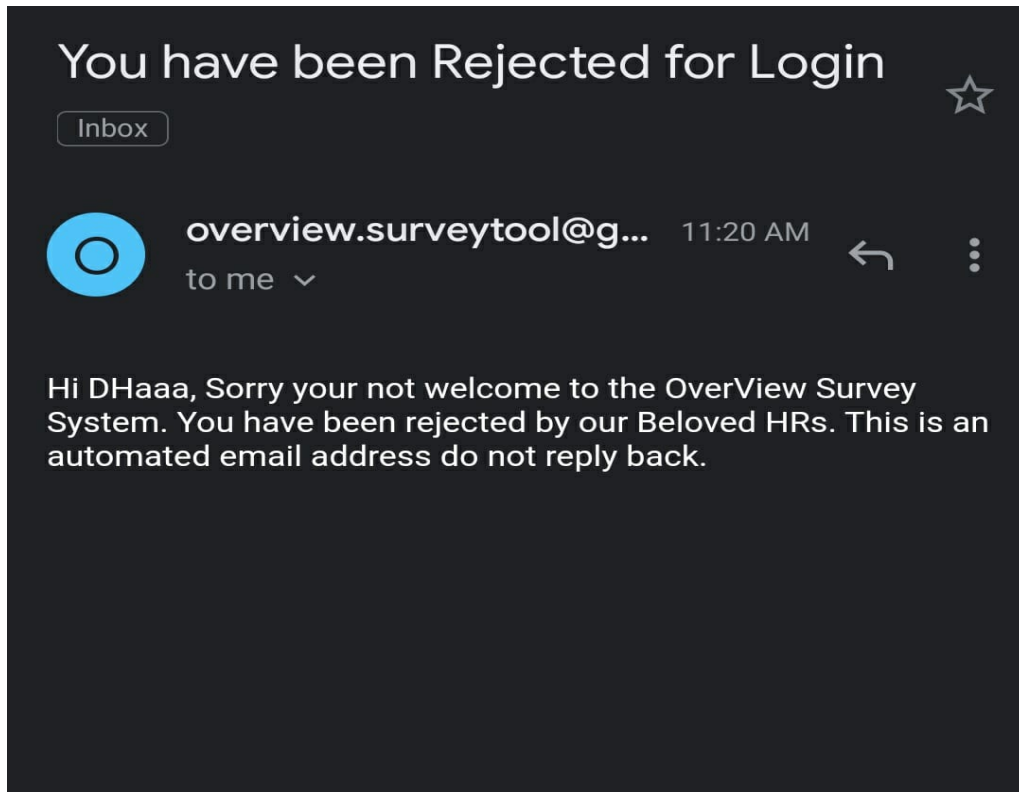
42. LogOut:

The LogOut response for HR,Client and User.



43 . Notifications through Mails:





5. Design Considerations:

5.1 Assumptions and dependencies

- We are assuming that the Client email_ID registered (for all Clients) is unique.
- We are assuming that the User email_ID registered (for all Users) is unique.
- Before Logging into account, the Client should be approved by HR in order to proceed into their user account. Similarly, the Survey conducted by the client should also be approved by the HR in order to proceed the survey.

5.2 General Constraints

- Any Device (Android/PCs/Laptops) can be used as long as it supports stable internet connection.

- All types of Users must have correct login credentials at the time of login.

5.3 Goals and Guidelines

- We have made our interface user-friendly so that even a new user can access it without any instructions.
- This Web-Application Project can be used to keep details of Survey ,Clients ,Users . All the details in a one place site and only details related to that particular user are accessible to the user.

5.4 Technologies Used

- For Frontend : We have used HTML, CSS, Javascript.
- For Backend : We have used Django
- Development Software - Visual Studio Code.
- For Database : We have used SQLite language.

6. Hardware and Software requirement:

6.1 Hardware Requirement

- **Processor** : Intel Core Duo 2.0 GHz or more
- **RAM** : 2GB or More
- **Harddisk** : 2GB or more
- **Monitor** : 15" CRT, or LCD monitor, or any android screen
- **Keyboard** : Normal or Multimedia
- **Mouse** : Compatible mouse

6.2 Software Requirement

- **Front End** : HTML,CSS,Javascript.
- **Back End** : Django Framework - Python.
- **Software Required** : Visual Studio or Atom or any IDE with Anaconda.
- **Operation System** : Windows XP with server pack
Or
Windows Vista
Or
Android Browser

7. Bibliography :

- <https://www.tutorialspoint.com/django/index.html>
- <https://www.youtube.com/watch?v=JT80XhYJdBw>
- https://www.youtube.com/watch?v=xv_bwpA_aEA&list=PL-51WBLyFTg2vW-6XBoUpE7vpmoR3ztO (Parts - 5,6 and 7 for Database Management).
- Database System Concepts, Silberschatz, Korth, McGraw hill, Sixth Edition.
- <https://www.guru99.com/database-normalization.html>