



# JOE'S SQUAD

by Cube Crew

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Steve Tilus

# Table of Contents

Vision Statement.....	2
Group Members.....	3
Stakeholders.....	5
Statement on Developmental Model.....	6
System Architecture Model.....	7
User Requirements/ System Requirements.....	8
Use Case Diagrams.....	9
Sequence Diagrams.....	10
Class Diagrams.....	13
Activity Diagrams.....	14
User Interface Diagrams.....	15
Database Design Diagram.....	16
Statement on Distributed Model.....	17
Statement on Security.....	18
Glossary.....	19
Poster.....	23
Brochure with Team Picture.....	24
USER GUIDE.....	25
Team Members Resumes.....	30

# Vision Statement

Anyone can be affected by boredom, regardless of age. However, senior citizens are more sensitive to monotony than most. Depression caused by a sense of uselessness is a major factor that contributes to the number of suicide deaths in the United States. According to the National Institute of Mental Health (NIMH), groups of sixty-five (65) or older account for nearly 16% of suicide deaths in the country. Family members and caregivers can help to reduce the risks associated with boredom in older adults. However, better solutions may apply.

Introducing “Joe’s Squad” – an application that aims to reduce symptoms of depression and improve the overall quality of life for seniors. This app will help to fight boredom by matching senior citizens to their compatible partners by suggesting an activity that will fit their personalities and lifestyles.

The list of potential stakeholders includes senior citizens, their caregivers, friends and family members of senior citizens, and administrators of the service.

The app will come with intuitive design and accessibility features intended to create a user-friendly experience. Caregivers and family members also will be able to use this app to help to choose the best activity or the most compatible partner. The app features:

- The user will be able to sign up/sign in. Secure sign in/sign up will be implemented using Amazon Cognito, a service from AWS.
- The user will be able to take a psychological test to determine his/her personality traits and the best activities for him/her.
- The user will be able to see matching partners with similar interests nearby.
- The user will be able to connect to the partner of their choice and chat to the partner via the app.
- Together, they will be able to choose the activity from the list of activities offered.

We think that this app can significantly improve the quality of life for senior citizens by providing them with the tools to socialize and participate in activities with their perfect partner.

# Group Members



## Danielle Gray, Database Developer

I am a senior Computer Engineering student at Florida Atlantic University. I aspire to find a progressive company that will allow me to enhance my knowledge and skills. I'm the Vice-President of Society of Women Engineers and am currently in the University Honors Program and Innovation Leadership Honors Program at FAU. In my spare time, I prepare activities and lessons for my Sunday School class that I teach at my church.

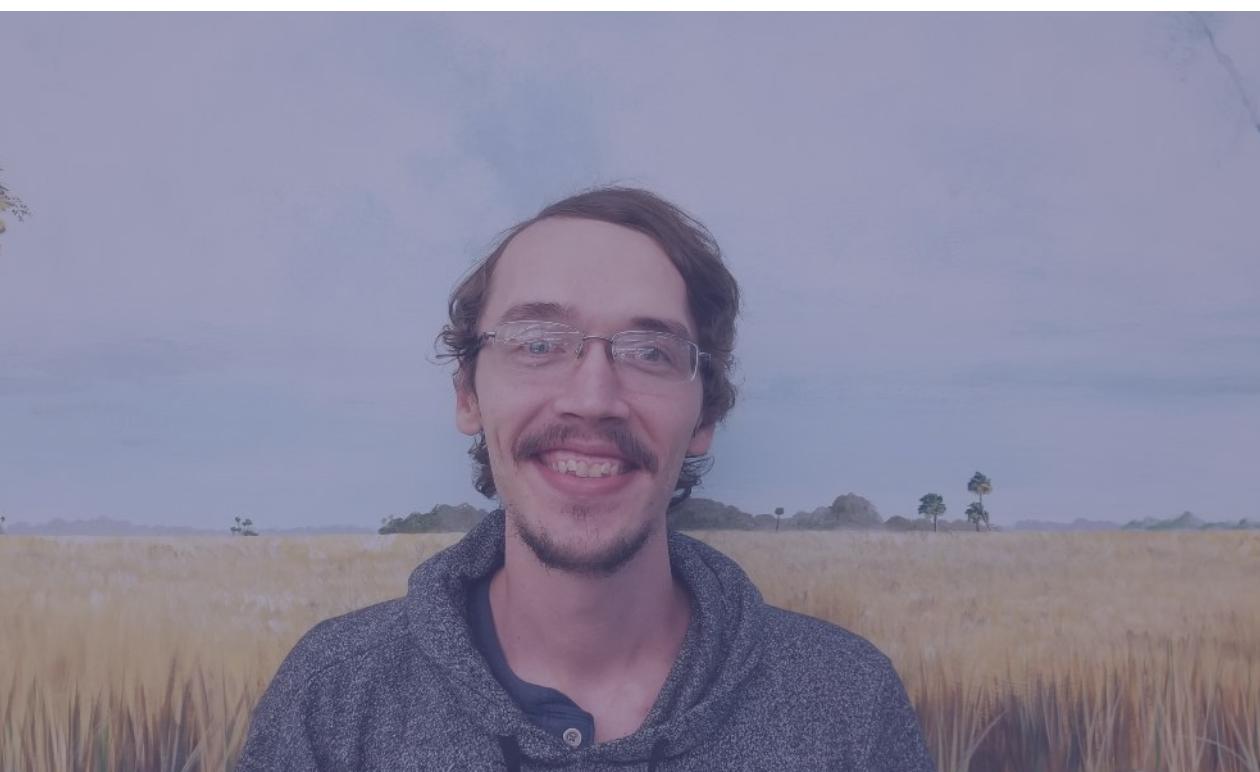


## Roberto Ferraresi, Backend Developer

My name is Roberto Ferraresi, I am an international student from Venezuela majoring in Computer Engineering and Computer Science. I have always liked math and jobs that require hands-on work. I worked as a jeweler for over 7 years before deciding to pursue a STEM career in the United States. Thanks to my math skills, interest in science and work ethics I secured a sponsorship to complete an associate degree at Broward College. I graduated with highest honors and completed various certificates for manufacturing and mechanical related jobs. While studying at FAU I acquired a lot of interest in the computer and electrical fields of study, so after graduation I'm looking for jobs where I can specialize in the development of hardware and software integrated solutions for marketable products.

## Jason Schilling, Backend Developer

I am a junior Computer Science major at FAU. My interests are in object-oriented design, clean coding, and backend development. I have developed projects in node.js, php, c++, and now have experience with Amazon Web Services! Sometimes I use computers to help create art (graphics programming and audio programming), as well use computer for fun (music production and video games). Make sure to work hard and have fun.



## Shree Majumder, Database Developer

I was born in Bangladesh. I came to the United States 9 years ago to pursue my american dream. Initially, I wanted to become a pharmacist, but then I got interested in programming, and I chose Computer Science as my major since every business need involves technology. This is my last semester at FAU, and I plan to pursue my Masters Degree in Computer Science.



# 4 Group Members



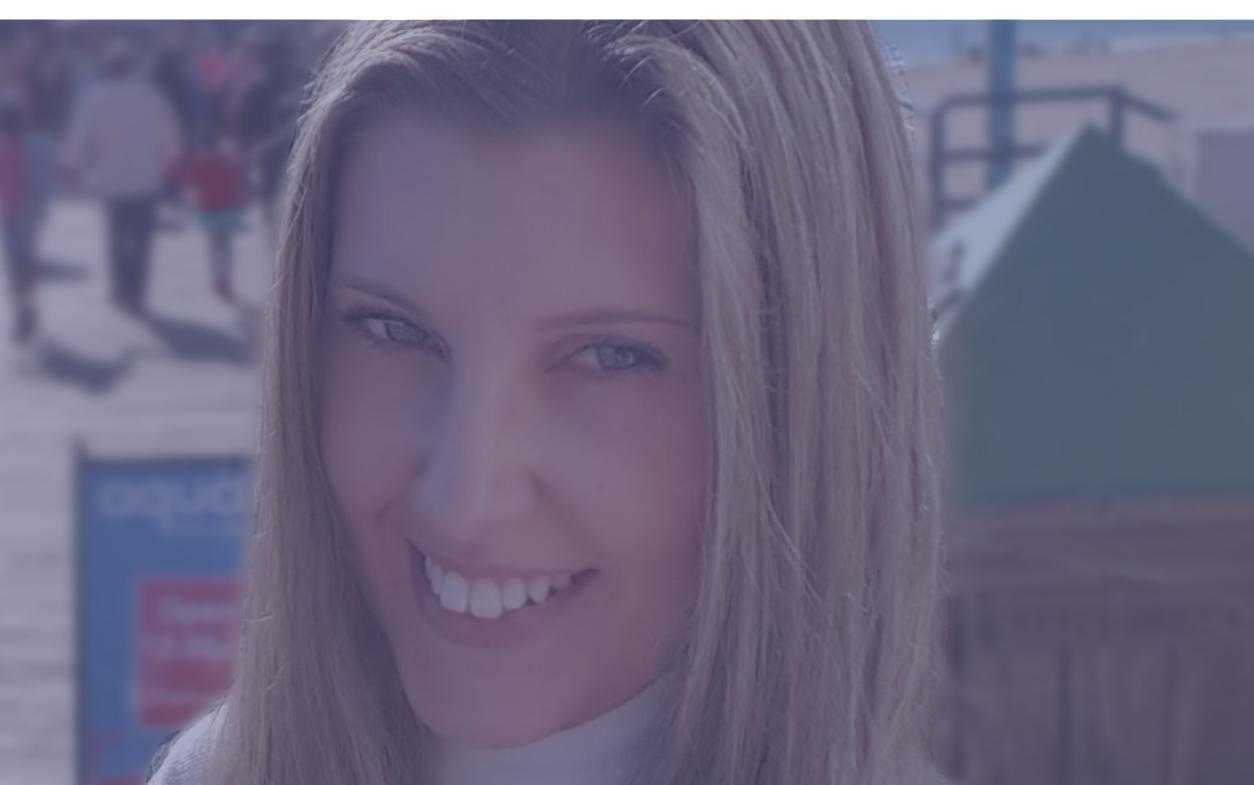
## Julian Posada, Frontend Developer

My name is Julian Posada. I was born in Medellin Colombia. I came to the US when I was about 10 years old. I love computers but focused mostly in the area of cyber security. I am a computer science major and expected graduation date is on May of 2019. I also love to play the drums and spend a lot of time with friends and Jesus.



## Steve Tilus, Frontend Developer

I am currently a senior at Florida Atlantic University studying computer science. I plan to use my degree in information technology and cyber security when I graduate. My interest includes watching sports, collecting sneakers and playing video games.



## Alona Basko, Frontend Developer, Project Leader

I am originally from Ukraine, but I moved to the United States when I was 18. I always had a dream to go to school in the US, and my dream came true when I became a student at FAU. I am a senior Computer Science student, and I am also a part of Innovation Leadership Honors Program at FAU. I will graduate in December 2019. I was always passionate about computers and programming, and I share my passion through my work as a Quality Assurance Intern at National Securities Corporation.

# Stakeholders

Potential Stakeholders of Joe's Squad service are:

**Senior Citizens**

1

Senior citizens can use the app to find people with compatible personality types, and also to explore the matching activities

**Caregivers**

2

Caregivers will be able to assist senior citizens to use Joe's Squad

**Friends and Family**

3

Friends and family members of senior citizens will be able to assist them to use the app

**System Administrators**

4

System administrators can use the system to assist with the technical issues

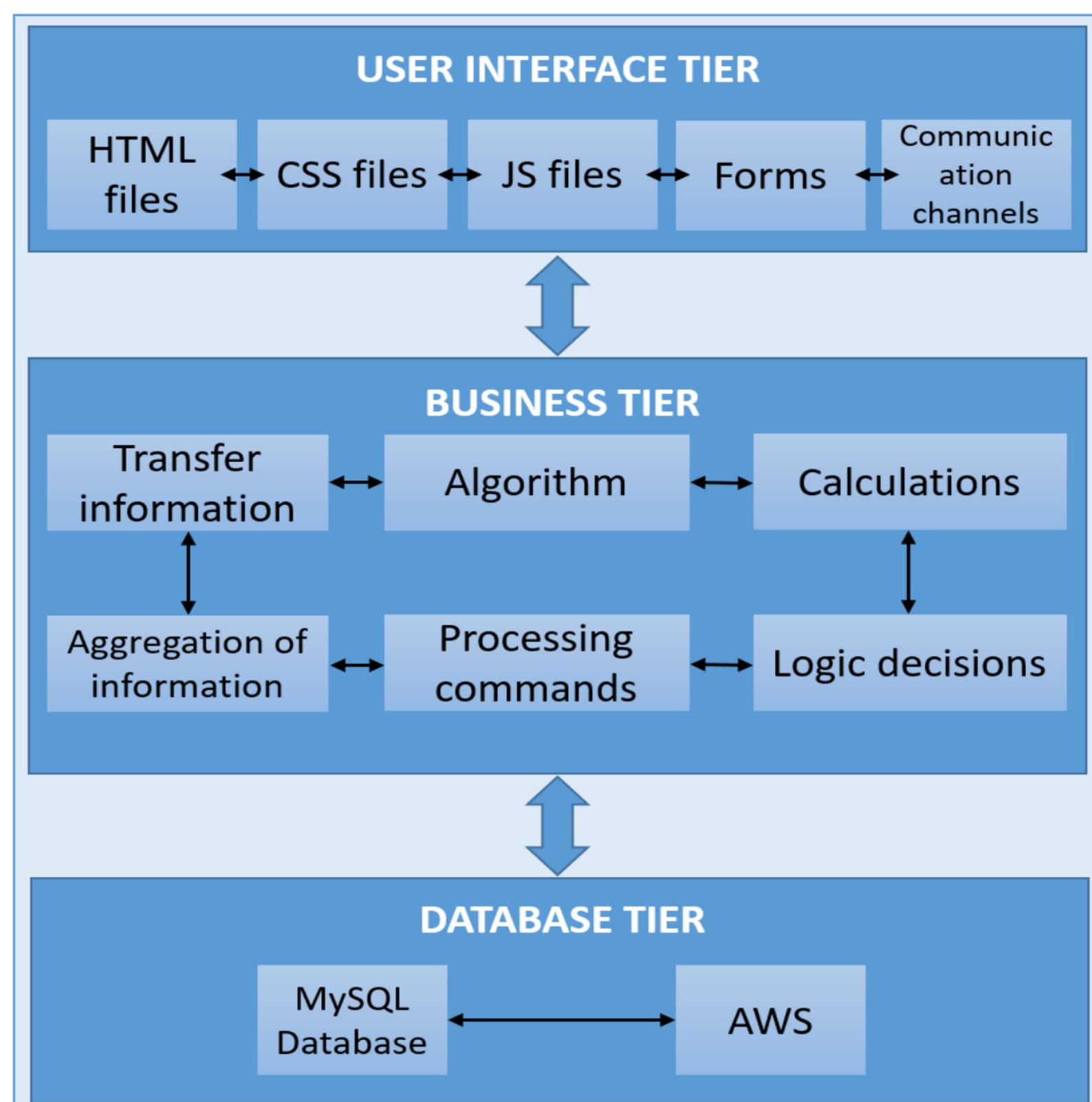
# Statement on Developmental Model

We have selected the Incremental Delivery process model because this approach provides some important advantages for us. First and foremost, it allows us to focus on the stakeholders' needs and goals. Moreover, each team member is familiar with the requirements for the product, and such familiarity allows creating better quality software. Another important benefit of using the Incremental Delivery model is its extreme simplicity. Since all of our team members are full-time students, we need to keep the software processes and the rules involved as simple as possible so that we can focus on our work and the value we create, and not on compliance with regulations and rules. Also, the incremental approach allows us to carry out work in small fixed-time intervals (two weeks), and, most importantly, at the end of each interval we have a small, trimmed, but working version of the product that can already be used. This will allow us getting immediate feedback from our stakeholders, and we can easily adjust the product to meet new requirements. Using Incremental delivery model implies that each team member is given authority to make decisions regarding the solution of a certain problem. Taking into account that we have limited time to work on this project, it speeds up the development process, and it cultivates leadership skills that are highly sought after at a future workplace. Last but not least, Incremental Delivery is a very popular way to organize work in the software development teams, and many employers prefer candidates with experience in Agile methodology. Therefore, it will be beneficial for us to have some hands-on experience with the Incremental Delivery process model.

# System Architecture Model

The system features 3-tier architecture. The User Interface Tier is a layer of user interaction. Business Tier consists of components that provide the business logic for the application. Business Tier interacts with the Database Tier that consists of the database driver and the database itself.

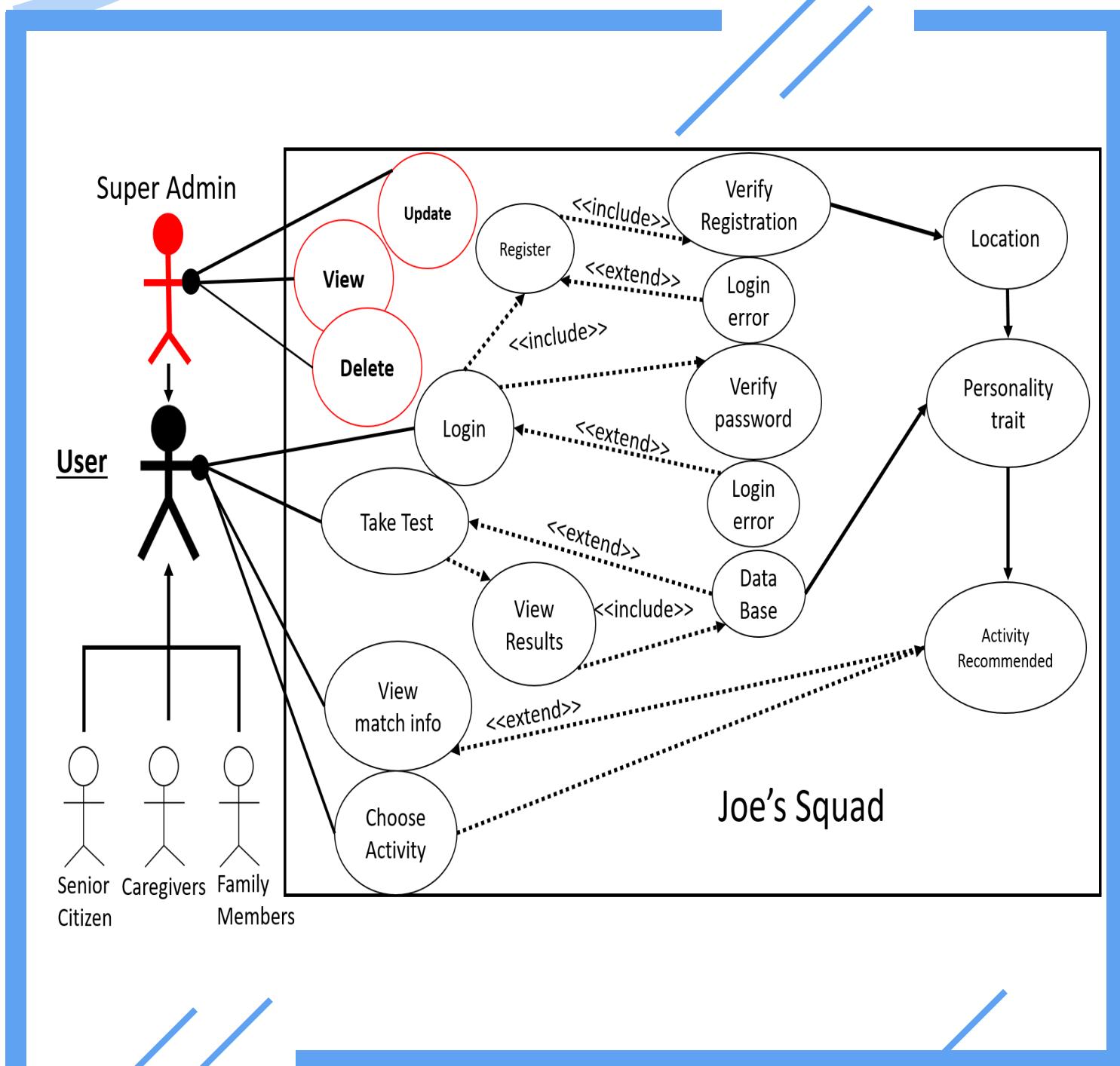
- User Interface Tier – this tier is responsible for presenting the data to the user. This is the layer of user interaction. It shall be implemented using HTML, CSS, and JavaScript to deliver the required functionality and satisfy the appearance requirements. This tier shall contain user forms such as Sign Up and Sign In forms. User interface layer shall provide communication channels between the user and the data stored in the database. User shall be able to view the data as a neat and structured arrangement.
- Business Tier – this tier is responsible for performing logical functions such as information transfers, calculations of safe ranges for the data, processing commands from the user, aggregation of information, and overall coordination of the application processes. This layer shall provide the functionality for the application. This tier shall manage communication between the User Interface Tier and the Database Tier.
- Database Tier – this tier is responsible for storing the information as well as managing reading/writing into the database. This layer is the base layer of the application since it provides core features for the application and is responsible for the security and safety of the information stored. Amazon Web Services and MySQL database shall be used to implement this tier.



# User Requirements/System Requirements

1. User shall be able to sign up for an account with the information which includes first name, last name, email address, age, and zip code.
  - 1.1 The system shall perform Sign Up and Sign in activity using Amazon Cognito service.
  - 1.2 The system shall send a verification code via email to the new user.
  - 1.3 The system shall securely store users' information such as email, first name, last name, age, zip code, bio, profile picture, personality type, suggested friends, and suggested activities in MySQL database.
2. User shall be able to change his/her password.
  - 2.1 The system shall be able to change user's password by using Amazon Cognito service.
3. User shall be able to retrieve his/her password in case he/she forgot it.
  - 3.1 The system shall be able to retrieve user's password using Amazon Cognito service.
4. User shall be able to take a personality test after signing up.
  - 4.1 The system shall provide a personality test consisting of 11 question with five possible choices.
  - 4.2 The system shall assign different points (from 1 to 5) for different test options and calculate the total points.
5. User shall be able to see the results of the personality test.
  - 5.1 The system shall assign one of five personality types based on the total points.
6. User shall be suggested matching partners and matching activities based on the results of the personality test.
  - 6.1 The system shall display the users' matching partners with similar personalities by comparing users' personality type to others' personality types in the database and finding matches.
7. User shall be able to edit his/her bio and upload the profile picture.
  - 7.1 The system shall create a user profile for each registered user with the ability to modify basic user information such as bio and profile picture.
8. User shall be able to contact the matching partners.
  - 8.1 The system shall display only top ten matching partners.
9. User shall be able to see matching available activities within 10 miles of his/her zip code.
  - 9.1 The system shall display suggested activities for each user based on his/her personality type by extracting the data from MySQL database's table containing personality types and top ten activities matching this personality type.
10. User shall be available to access his/her account from any device with proper authentication.
  - 10.1 The system shall be accessible via mobile devices as well as personal computers.
  - 10.2 The system shall be accessible via any browser.

# Use Cases



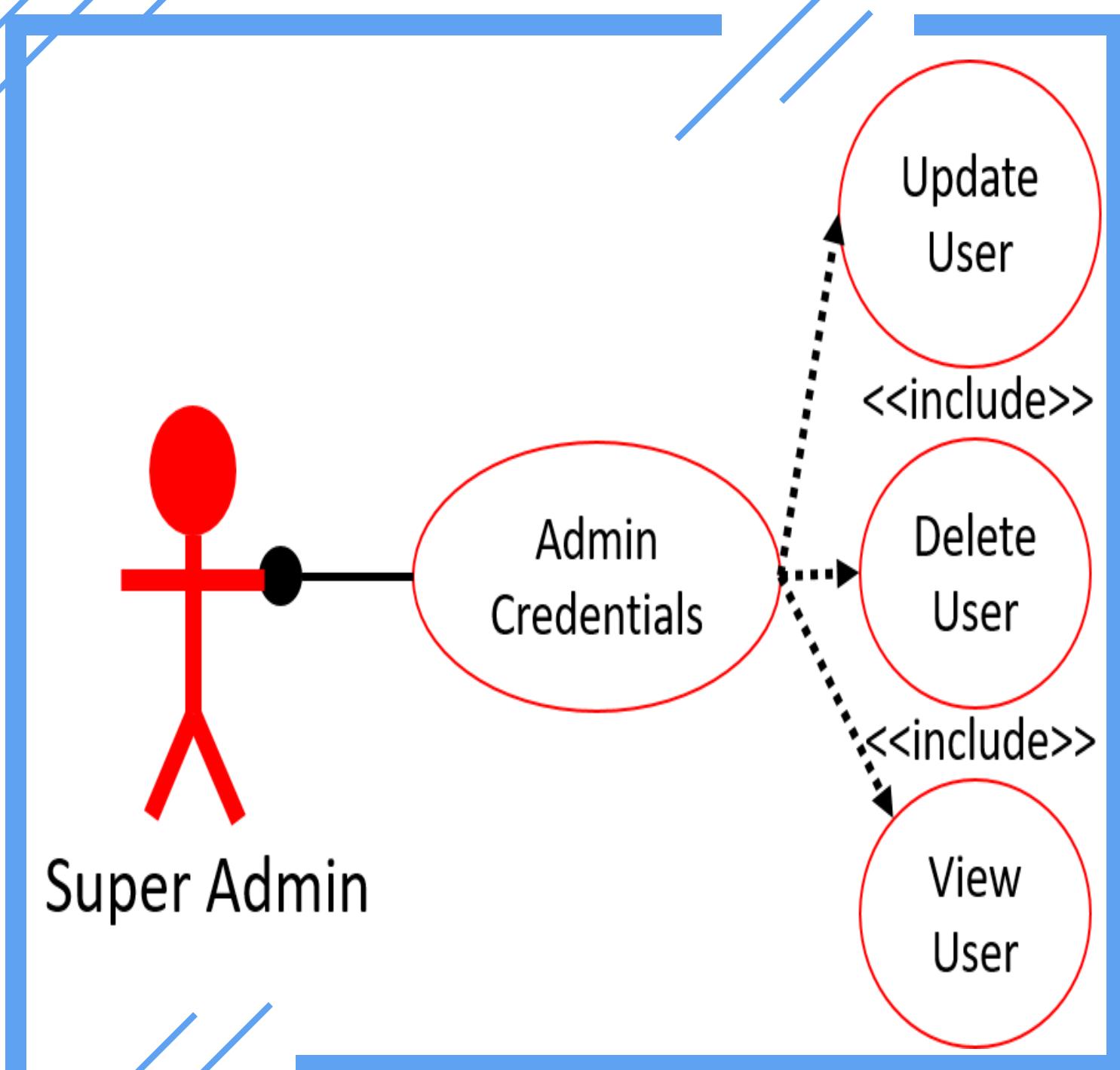
**Admin credentials:** The super user is able to view, update and delete any user information including test and matching results

**Login:** The user is able to gain access to its account as a regular User or a Super User. If credentials inserted are correct access is gained otherwise fail access attempt is displayed.

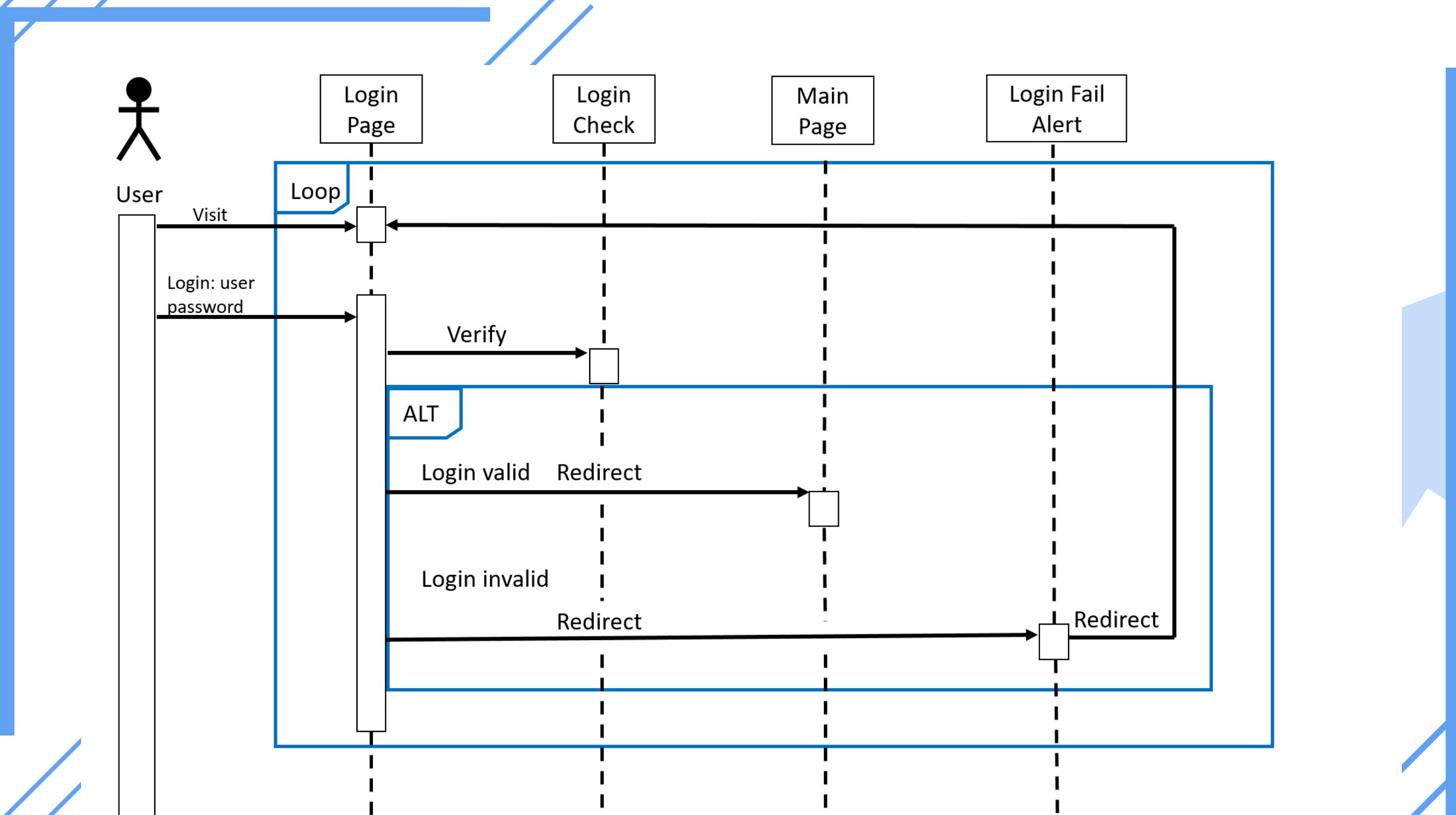
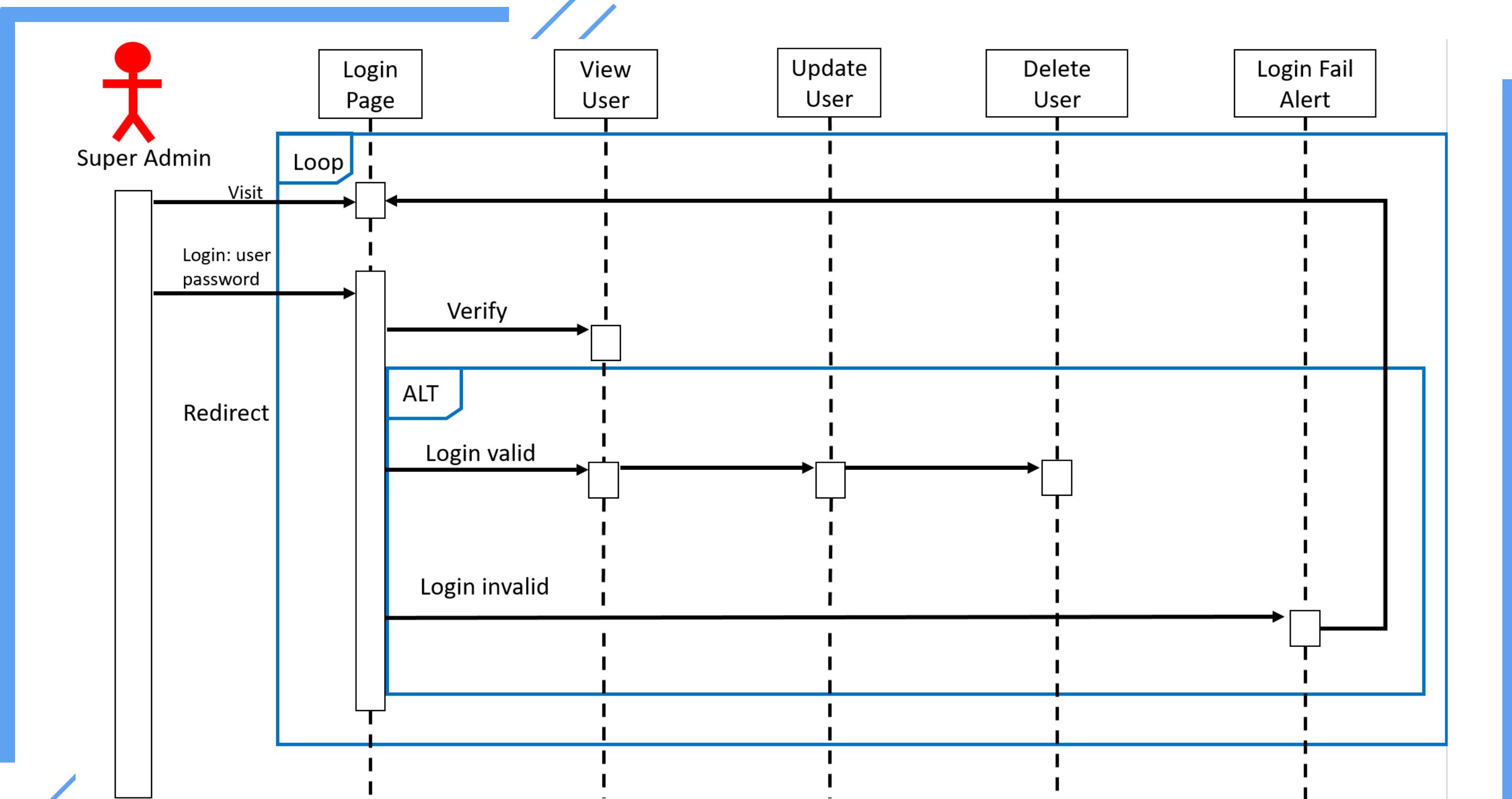
**Take Test:** Users are able to take a psychological test that will measure their personalities based on five major areas of analysis. Test results are displayed after the user has selected all choices and submitted the form.

**View match info:** User is able to see the match that the software selects based on other users personal test and the proximity with his own.

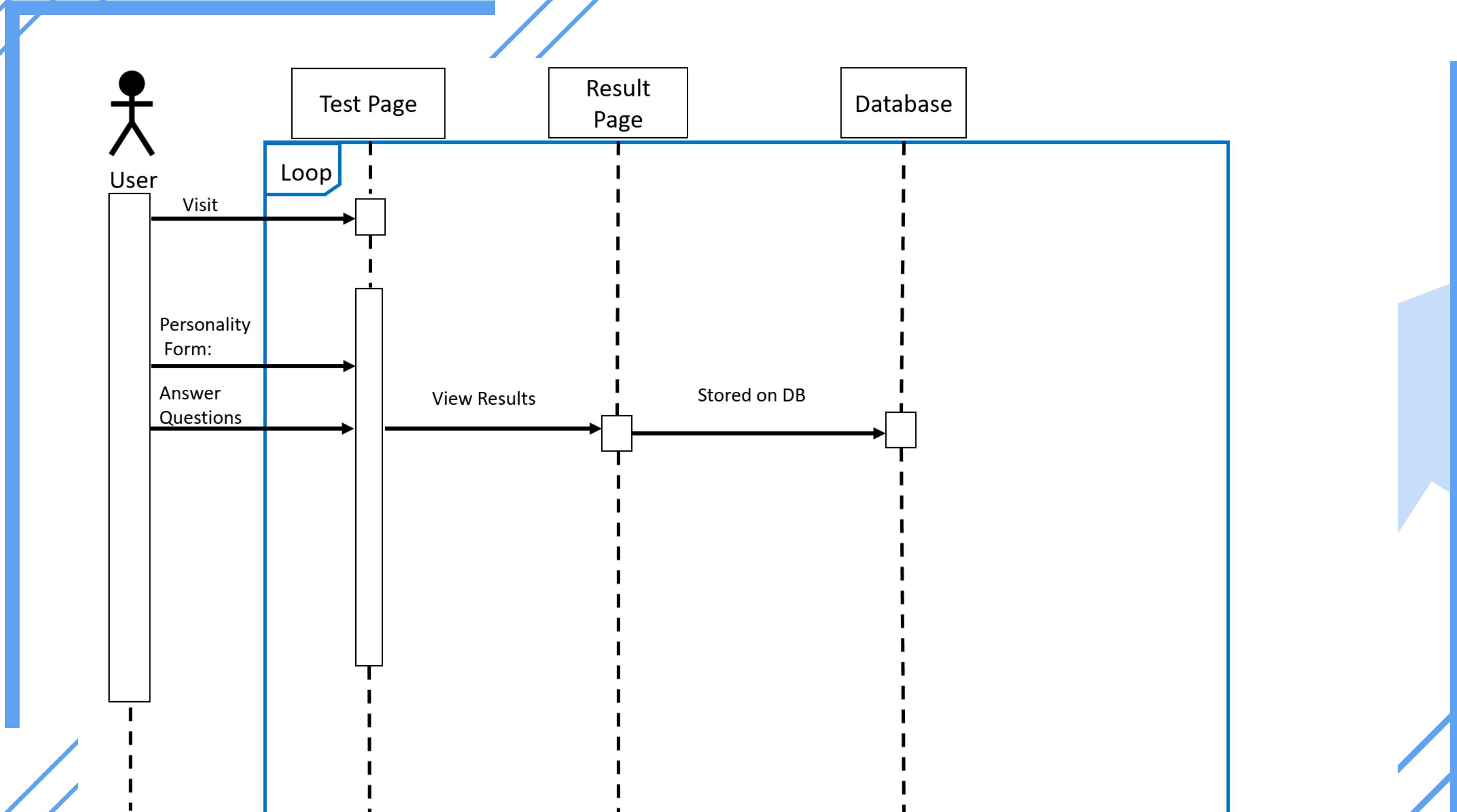
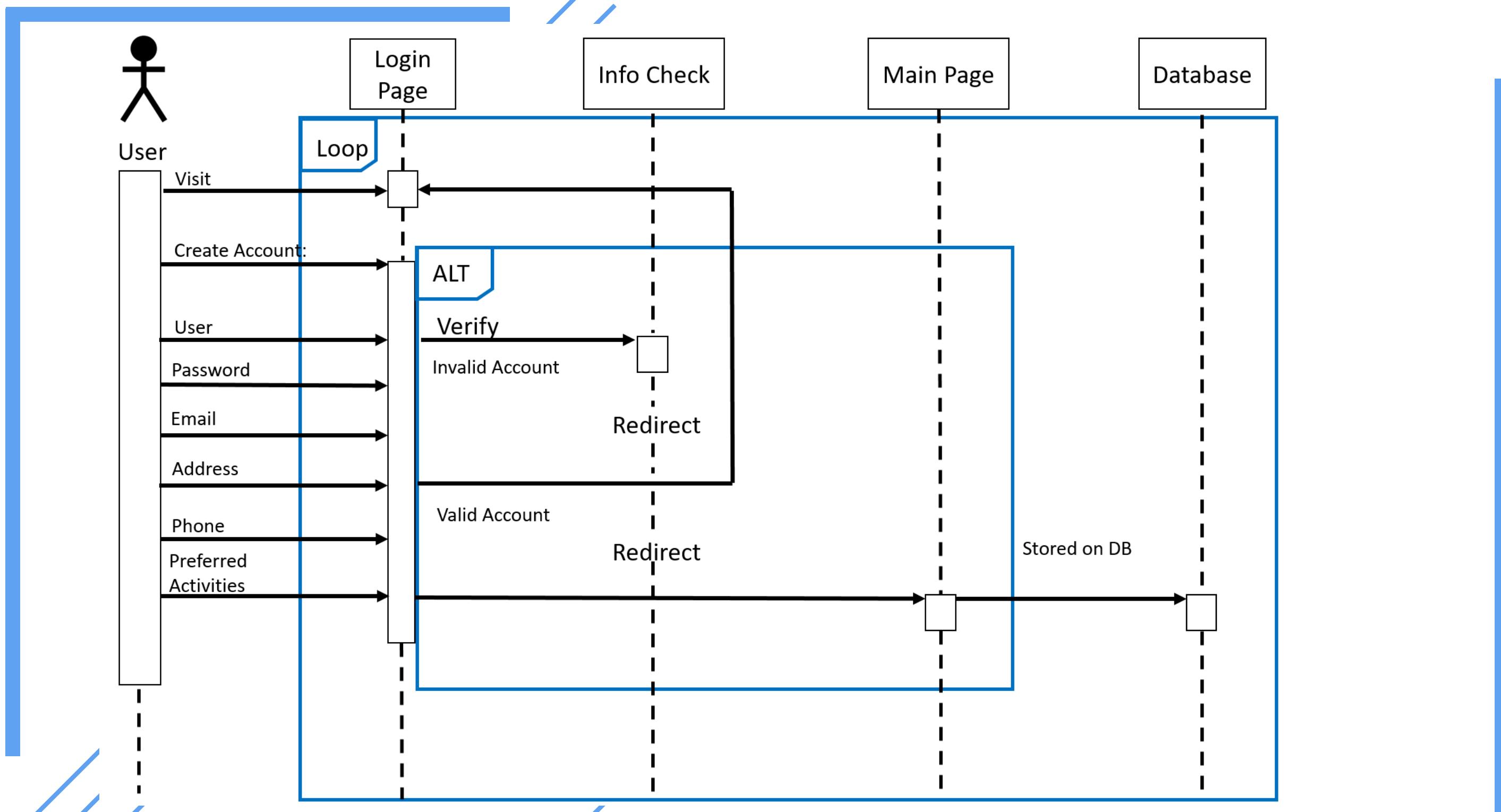
**Choose activity:** The user selects activities that he or she are interested in, for the system to make an appropriate match with other people who have also selected similar activities.



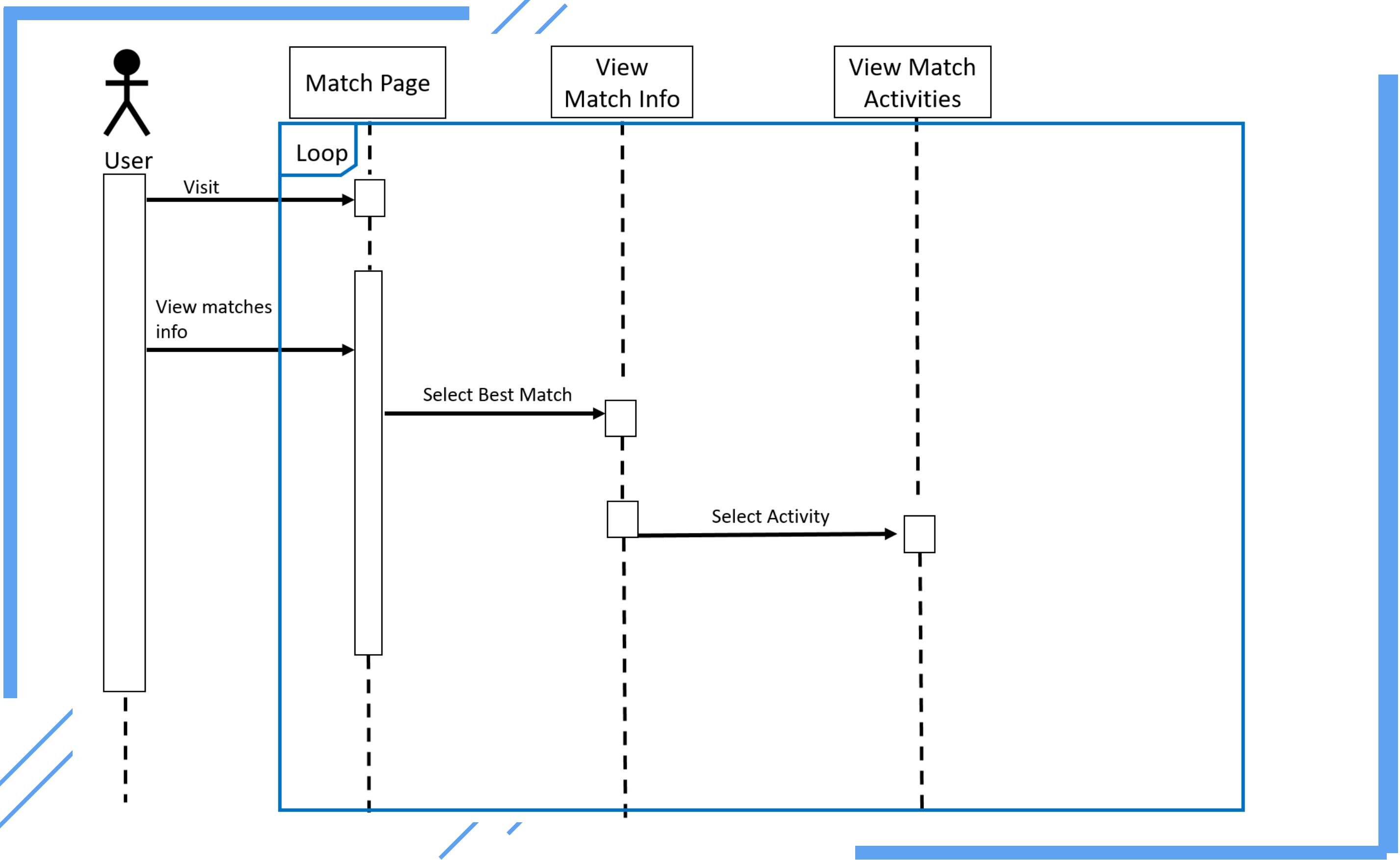
# Sequence Diagrams



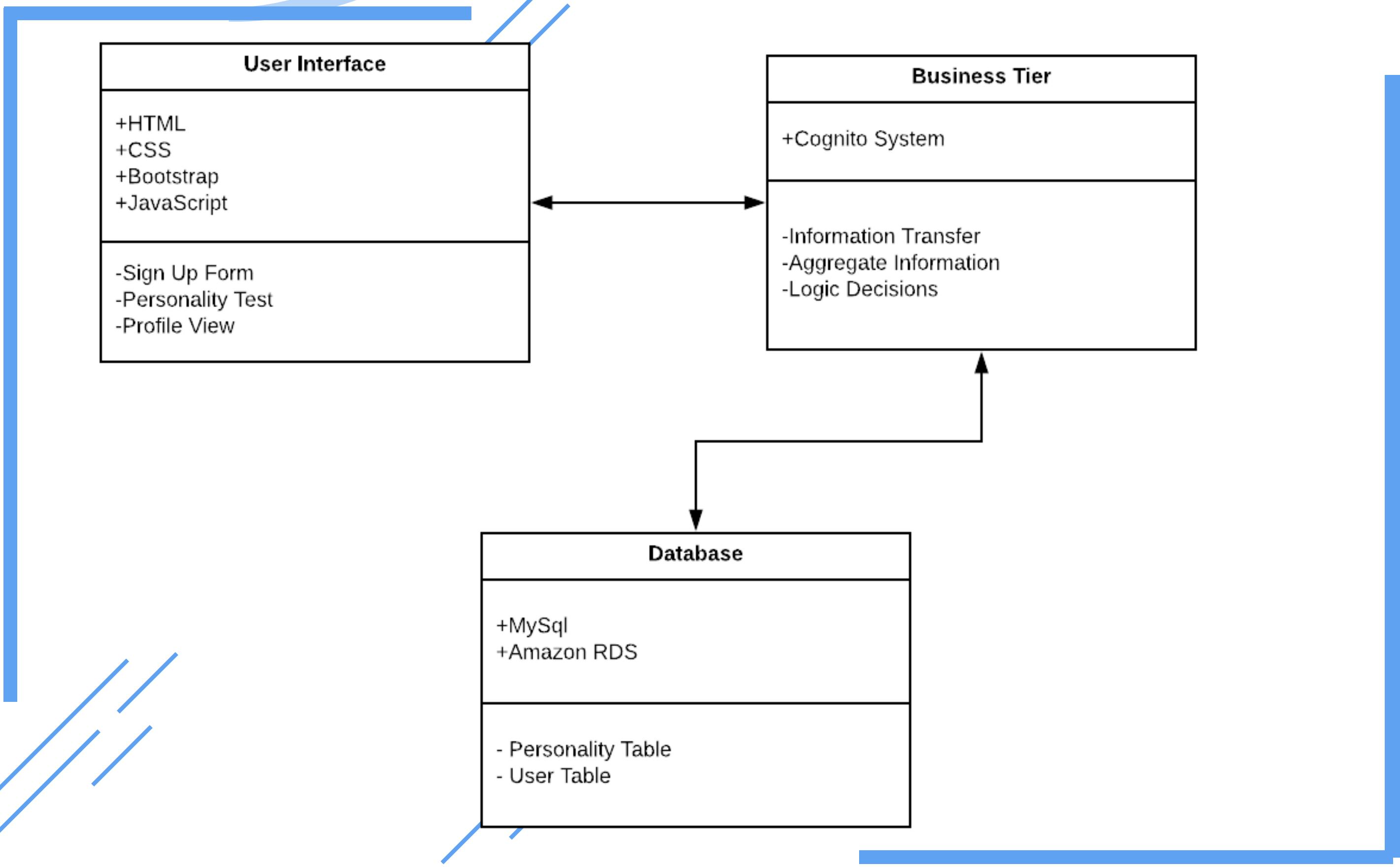
# Sequence Diagrams



# Sequence Diagrams



# Class Diagrams



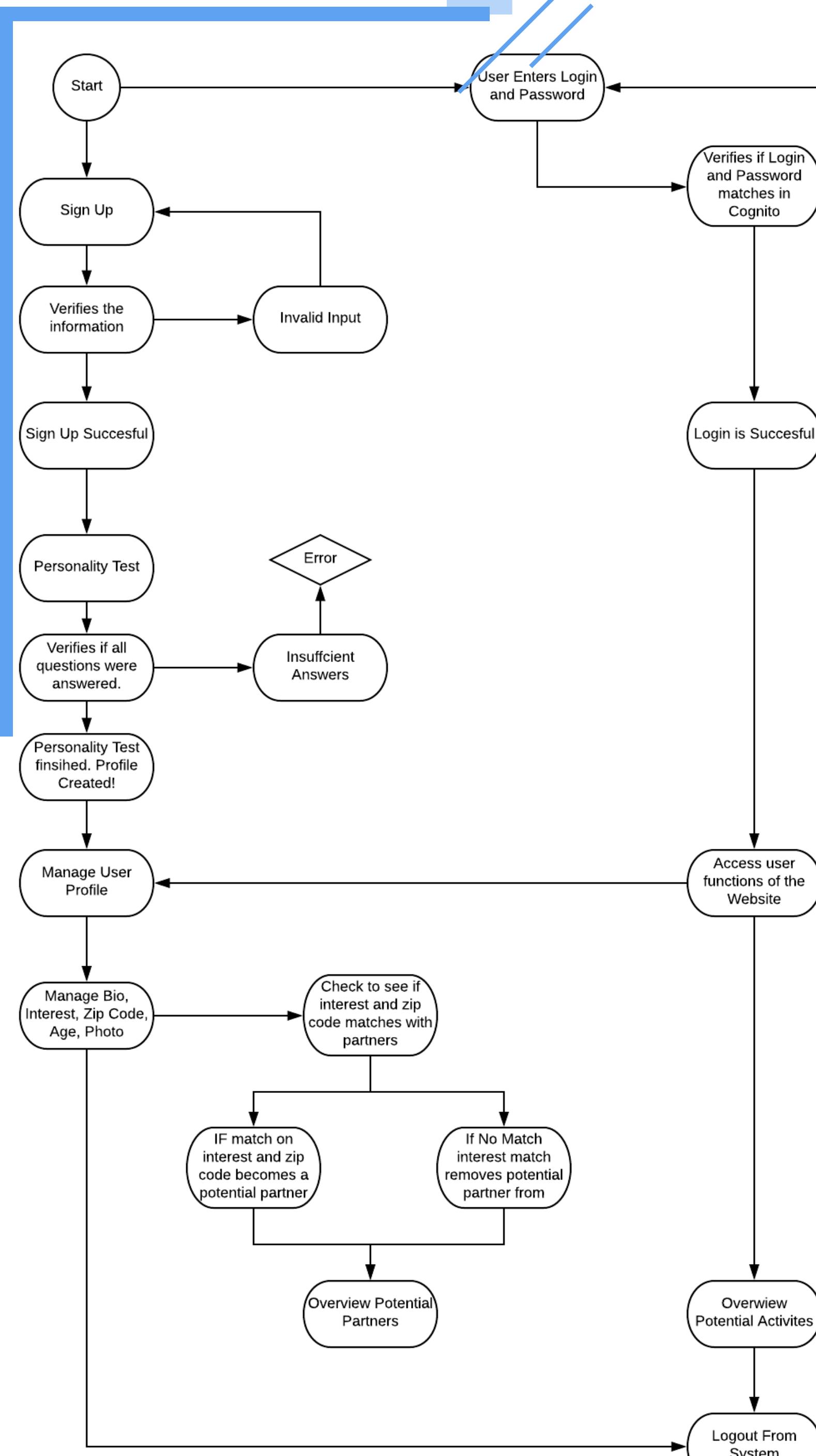
This diagram demonstrates the connection and interactions between the three main components of our project.

The first component is the User Interface which is everything that deals with the user interaction with our system. The user interface is constructed using HTML, Javascript, Bootstrap, and css. It involves the sign up form for our web application, the personality test, and the profile view to the user which gives the user best experience when using our application.

The second component is the Business Tier. This is where all of the logical aspects of our application take place. All of the information is processed and saved through the AWS and their Cognito system.

The third component is the database which stores the information given by the user when they register to the web application. It also stores in their respective personality tests results and it cross references with their respective user. The database component of our project is composed of MySQL and Amazon RDS systems.

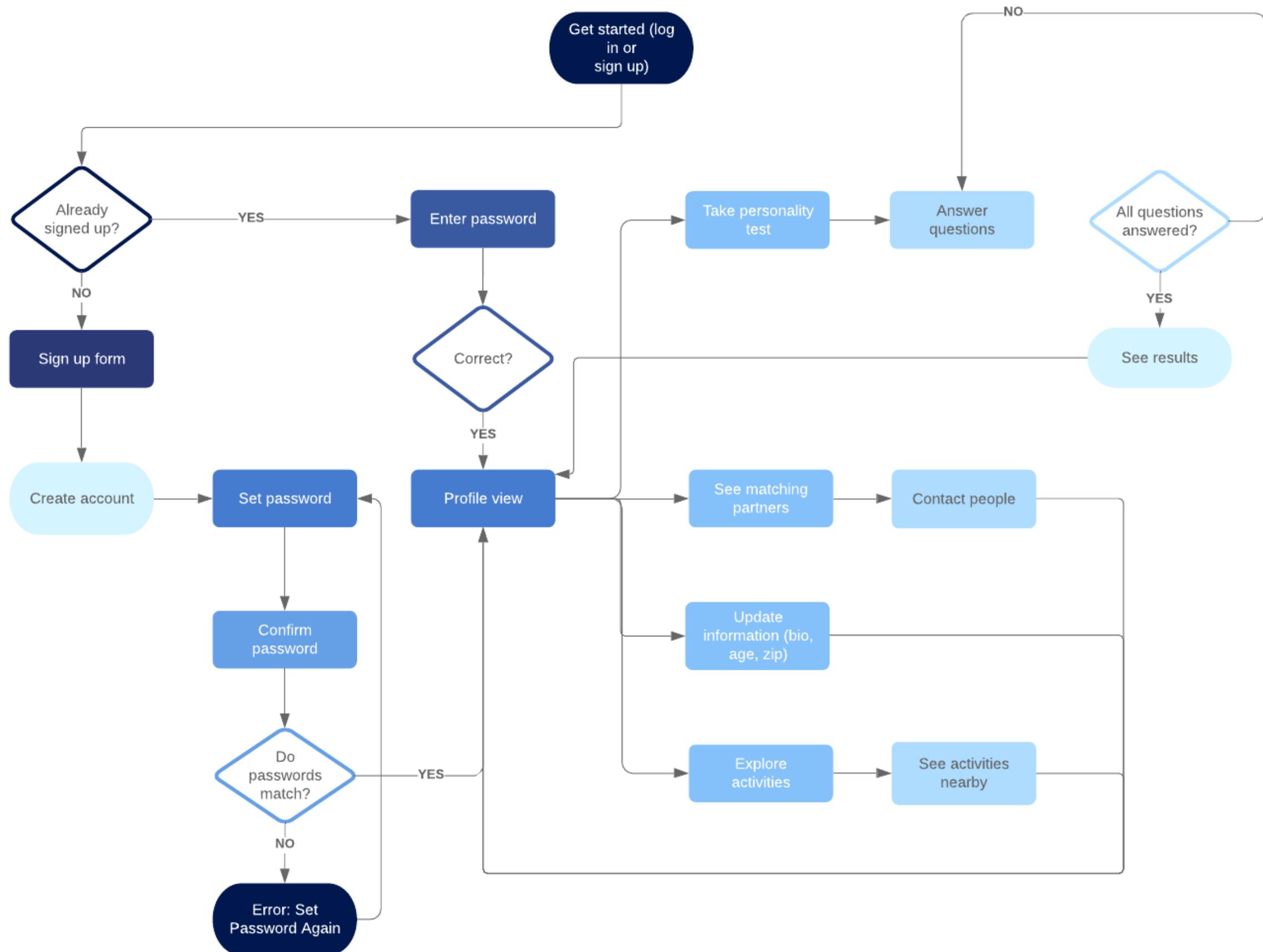
# Activity Diagram



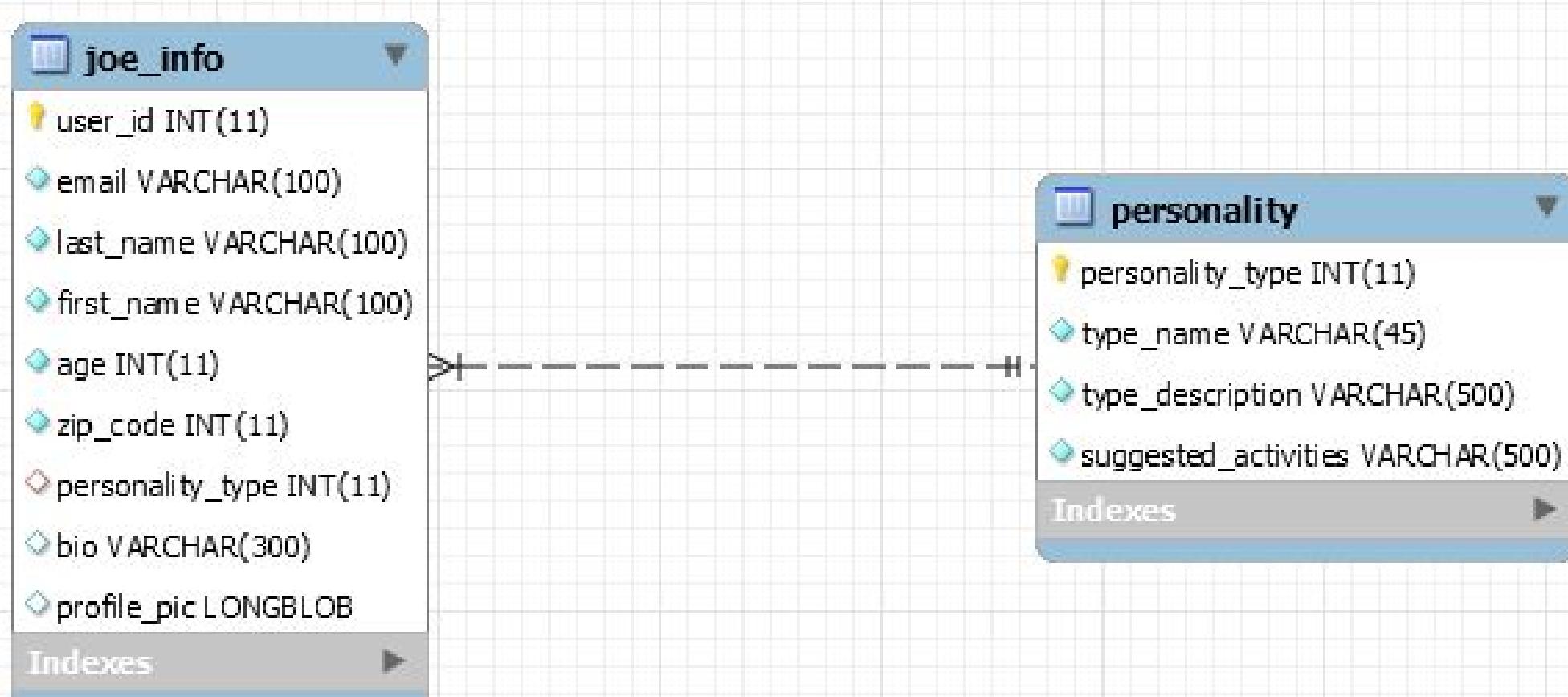
First you will Sign up on for Joe Squad. Entering your first name, last name email, password. If there is any invalid input you will not get pass the sign up page. If the input is valid you will have signed up successfully. Once Sign up is successful you will be taken to the personality test page. If you miss any questions you will get an error but if you answer all the questions correctly your profile will be created. From there you can manage your profile managing your age, zip code, interest, and photo. From there you will be able to see your potential partners. IF you already have an account you will have to input your login and password information and if it matches you will have full access to the profile as well. Viewing your potential partners and activities.

# User Interface Diagram

Joe's Squad User Interface Diagram



# 16 Database Design Diagram



In this EBDB, we use two tables `joe_info` and `personality`. In `joe_info` table, we store users id, email, last name, first name, age, address, bio, profile picture and personality type column. We use `User_id` as primary key for this table and users email, last name , first name, a short bio and personality type as string and age `zip_code` and `user_id` as integer value. In our `personality` table, we store `personality_type` as primary key which is integer value, `type_name`, `type_description` and `suggested_activities` as var characters. In `type_name` column we store user's personality type name and in `type_description`, we store a short description of people for that type of personality, and in `suggested_activities` column, we store some name of the activities that fit for that personality type people. `Personality_type` is the foreign key of `joe_info` table that connects `joe_info` table to the `personality_type` table.

# Statement on Distributed Model

*The purpose of this document is to outline the characteristics of the distributed system provided by the Joe's Squad system.*

## **Preliminary remarks:**

Joessquad.org is solely run on Amazon Web Services (AWS). The primary services used are Cognito, Beanstalk, and Relational Database Service(RDS). Beanstalk handles the deployment, from capacity provisioning, load balancing, auto-scaling to application health monitoring using a suite of secondary services.

### **1) Resource Sharing**

Elastic Compute Cloud (EC2) is one of the secondary services which provides joessquad.org with secure, resizable compute capacity in the cloud. The computation done for joessquad.org are done by AWS servers operating for many other systems.

### **2) Openness**

Joessquad.org provides services solely to end-users, and as such is not focused on being “open” or opening a channel for middleware capabilities.

### **3) Concurrency**

Many users can access joessquad.org at any time, and concurrent operations happen seamlessly. AWS allows a concurrency burst of up to 500 before auto-scaling operations take place.

### **4) Scalability**

For Scalability, Beanstalk uses AWS Auto Scaling behind the scenes, which handles the scaling of the system. This service even predicts when the system will likely have an influx of users and scale accordingly. EC2 is what is being scaled, and its capacity can be changed in seconds with the ability to commission up to a thousand server instances simultaneously.

### **5) Fault Tolerance**

For fault tolerance, AWS provides joessquad.org with their CloudWatch alarm which monitors EC2 instances and automatically recovers an instance if it becomes impaired due to a hardware failure or a problem that requires AWS. Beanstalk collects 40+ metrics to monitor the health of the system.

# Statement on Security

*The purpose of this document is to outline the security policies that are enforced within Joe's Squad service. The policies stated here apply to each user of the service.*

## **1. Identifying Information Assets**

### a) User Identification and Passwords.

Each user is allocated individual means of identification such as user email and password. All user accounts have the following password settings:

- Minimum password length of 7 characters
- A combination of alphabetic and numerical characters shall be used.

### b) Psychological Testing Analytics information

Personal psychological testing information is stored on the AWS server and is does not include any sensitive information.

## **2. Importance of Information Assets Protection**

Information security is our highest priority. The user's data shall be kept private to protect the users from the security breaches and unlawful use of personal information. Users shall be able to choose the information they are sharing with others while the sensitive data shall be hidden and protected from unlawful use.

## **3. Protecting Information Assets**

### a) Amazon Cognito is used for user identification purposes. Amazon Cognito supports multi-factor authentication and encryption of data-at-rest and in-transit. Amazon Cognito is [HIPAA eligible](#) and [PCI DSS, SOC, ISO/EIC 27001, ISO/EIC 27017, ISO/EIC 27018](#), and [ISO 9001](#) compliant.

### b) AWS Elastic Beanstalk, Amazon RDS, and Amazon S3 server are used to store user's data. AWS protects personal information using server-side encryption while in-transit (as it travels to and from Amazon S3) and at rest (while it is stored on disks in Amazon S3 data centers).

## **4. Security Policy**

We know that users care deeply about privacy and data security. That's why Joe's Squad gives the users ownership and control over their content through simple, powerful tools that allow them to determine which content will be displayed and stored. Joe's Squad will ensure the protection of all information assets within the custody of the Joe's Squad service. High standards of confidentiality, integrity, and availability of information will be maintained at all times.

# Glossary

Accessibility

Ability of a website to be used by people with disabilities, including visually impaired visitors using screen readers, hearing impaired visitors using no sound, color blind people, or those with other disabilities.

Backend

The back end of a website is the part hidden from view of regular website visitors. The back end generally includes the information structure, applications, and the CMS controlling content on the site.

Browser

Browser refers to the program a website visitor is using to view the web site. Examples include Safari, Firefox, Google Chrome, Opera, and Internet Explorer.

# Glossary

Client-side

Client-side refers to scripts that are run in a viewer's browser, instead of on a web server (as in server-side scripts). Client-side scripts are generally faster to interact with, though they can take longer to load initially.

Domain

The domain is the name by which a website is identified. The domain is associated with an IP address. Domains can be purchased with any combination of letters, hyphens (-), and numbers (though it can't start with a hyphen).

Frontend

All the components of a website that a visitor to the site can see (pages, images, content, etc.) Specifically, it's the interface that visitors use to access the site's content. It's also sometimes referred to as the User Interface.

# Glossary

**HTTP**  
Stands for HyperText Transfer Protocol. HTTP is a set of rules for transferring hypertext requests between a web browser and a web server.

**Landing Page**  
A landing page is the page where a visitor first enters a website. Oftentimes, a special landing page is created to elicit a specific action from the new visitor (usually in connection with an advertising or marketing campaign).

**Navigation**  
Navigation refers to the system that allows visitors to a website to move around that site.

# Glossary

Script

Generally refers to a portion of code on an HTML page that makes the page more dynamic and interactive. Scripts can be written in a variety of languages, including JavaScript.

Server-side

Server-side refers to scripts run on a web server, as opposed to in a user's browser. Server-side scripts often take a bit longer to run than a client-side script, as each page must reload when an action is taken.

Web server

A web server is a computer that has software installed and networking capabilities that allow it to host web sites and pages and make them available to internet users located elsewhere.



## WHAT IS JOE'S SQUAD?

"Joe's Squad" is an application that aims to reduce symptoms of depression and improve the overall quality of life for seniors. This app will help to fight boredom by matching senior citizens to their compatible partners by suggesting an activity that will fit their personalities and lifestyles.

### WITH JOE'S SQUAD YOU CAN...

- Take psychological test to determine personality traits
- Discover matching partners with similar personalities nearby
- Enjoy a fun activity that is suggested for your personality type!

### DEVELOPMENTAL APPROACH

Joe's Squad was created through the use of Agile methodology since this approach provided some important advantages. It allowed us to focus on the stakeholders' needs and goals. Moreover, each team member was familiar with the requirements for the product, and such familiarity allowed creating better quality product. Another important benefit of using the Agile methodology was its extreme simplicity.

### PRODUCT ARCHITECTURE

- Three-tier architecture was used
- User Interface Tier consists of HTML, CSS, and JavaScript files
- Business Tier consists of components that provide business logic to the application
- Database Tier consists of the database driver and the database itself

### TOOLS WE USED

- AWS
- HTML/CSS
- Javascript/jQuery
- MySQL
- PHP

Developed by Danielle Gray, Roberto Ferraresi, Jason Schilling, Shree Majumder, Julian Posada, Steve Tilus, Alona Basko (Project Leader)

# Brochure

**Project Name: Joe's Squad**

Anyone can be affected by boredom, regardless of age. However, senior citizens are more sensitive to monotony than most. Depression caused by a sense of uselessness is a major factor that contributes to the number of suicide deaths in the United States. According to the National Institute of Mental Health (NIMH), groups of sixty-five (65) or older account for nearly 16% of suicide deaths in the country. Family members and caregivers can help to reduce the risks associated with boredom in older adults. However, better solutions may apply.

Introducing "Joe's Squad" - an application that aims to reduce the symptoms of depression and improve the overall quality of life for senior citizens. This app will help to fight boredom by matching senior citizens to their compatible partners by suggesting an activity that will fit their personality and lifestyle.

This app comes with intuitive design and accessibility features intended to create a user-friendly experience. Caregivers and family members also will be able to use this app to help to choose the best activity or the most compatible partner.



From left to right:

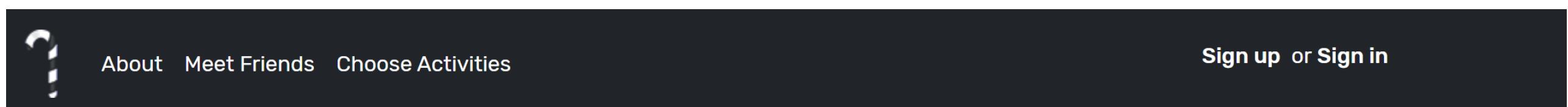
Bottom row: Danielle Gray, Alona Basko (project leader)

Top row: Shree Majumder, Steve Tilus, Jason Schilling, Roberto Ferraresi

Not in the picture: Julian Posada

# USER GUIDE

1. Open your browser and type in <http://joessquad.org>
2. You will see a Welcome page:



## Meet Joe's Squad

Match, Chat, and Interact with Seniors in your area. Take a leap and start living your life better than the average Joe.



[Get started now](#)

Designed by a group of inspired Florida Atlantic University students

3. Click green button "Get started now" and fill out the required information if you do not have an account

A screenshot of the 'Create account' form on the Joe's Squad website. The form is contained within a light gray box. At the top center is the heading 'Create account'. Below it is a sub-heading 'Start living your life better than average Joe'. There are four input fields: 'First Name' and 'Last Name' in separate boxes, followed by 'Email Address' and 'Password' in separate boxes. A note below the password field states: 'Password must be at least 7 characters and contain an uppercase letter and a symbol'. Below the password field is a 'Confirm Password' input field. At the bottom of the form is a large green button labeled 'Create Account'. At the very bottom of the page, outside the main form box, is a small note: 'By clicking 'Create Account' you agree to our [Terms](#), [Privacy Policy](#) and [Security Policy](#)'.

# 26 USER GUIDE

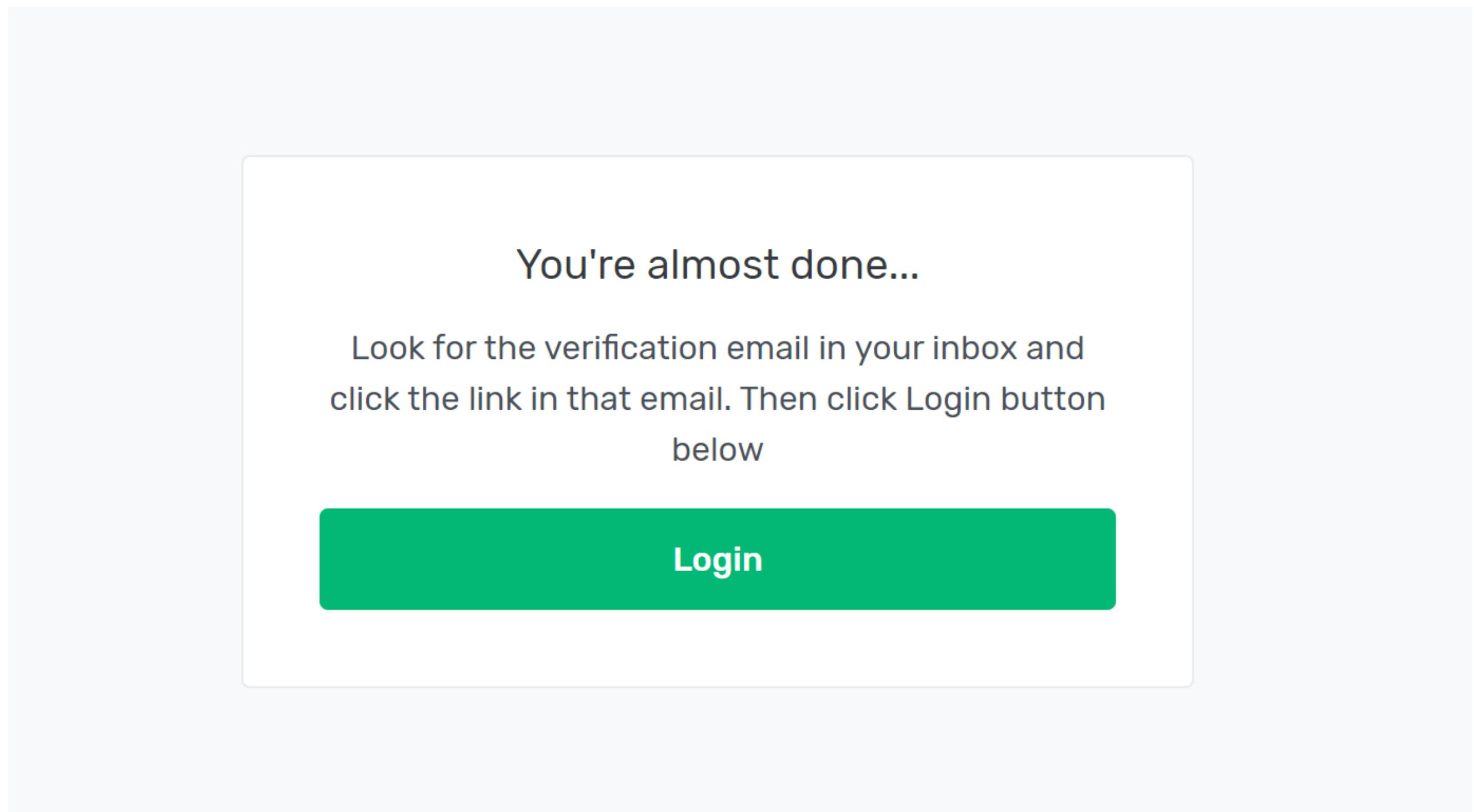
4. If you have an account already, simply click Sign In link in the top right corner of the page and enter sign in credentials.

The image shows a login interface with the following elements:

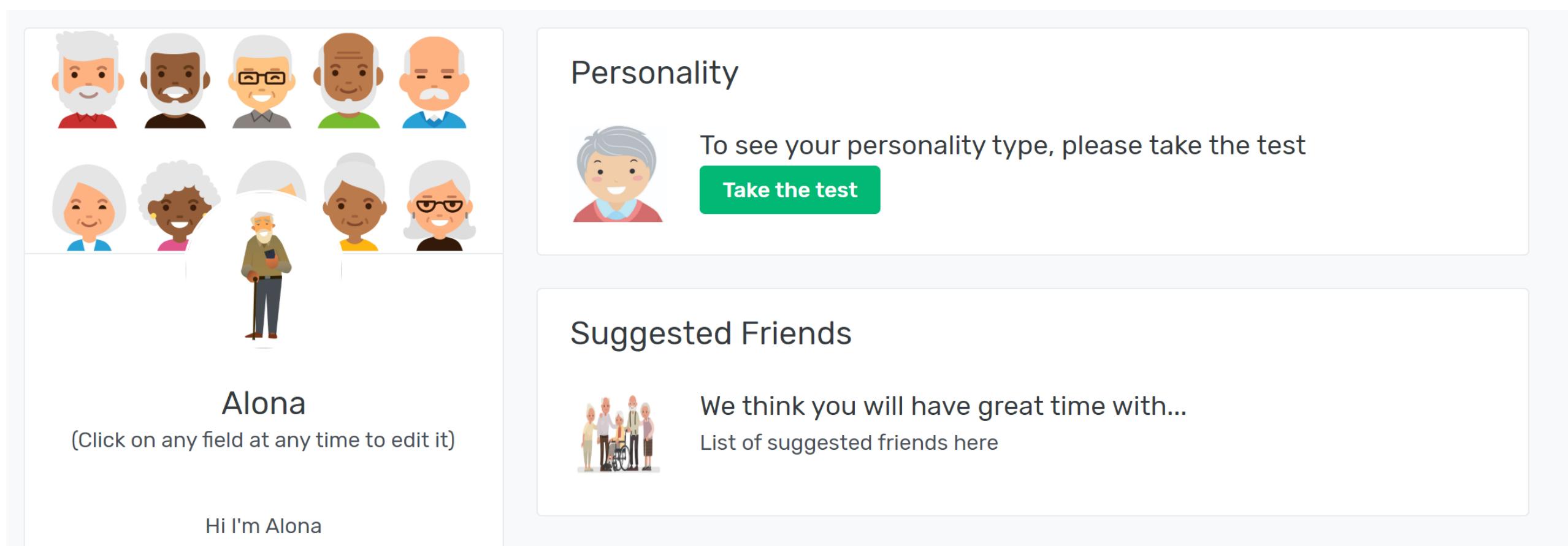
- Hello again**: The main title at the top center.
- Sign in to your account to continue**: A sub-instruction below the title.
- Email Address**: A label for the first input field.
- Email Address**: An input field where the user can enter their email address.
- Password**: A label for the second input field.
- Enter a password**: An input field where the user can enter their password.
- Forgot password? [Reset here](#)**: A link for users who have forgotten their password.
- Remember me next time**: A checkbox option for users to remember their login information.
- Login**: A large green button with the word "Login" in white text.

# USER GUIDE

5. Once you entered your information for Sign Up purposes, you will see this window asking you to check your email for the verification link.

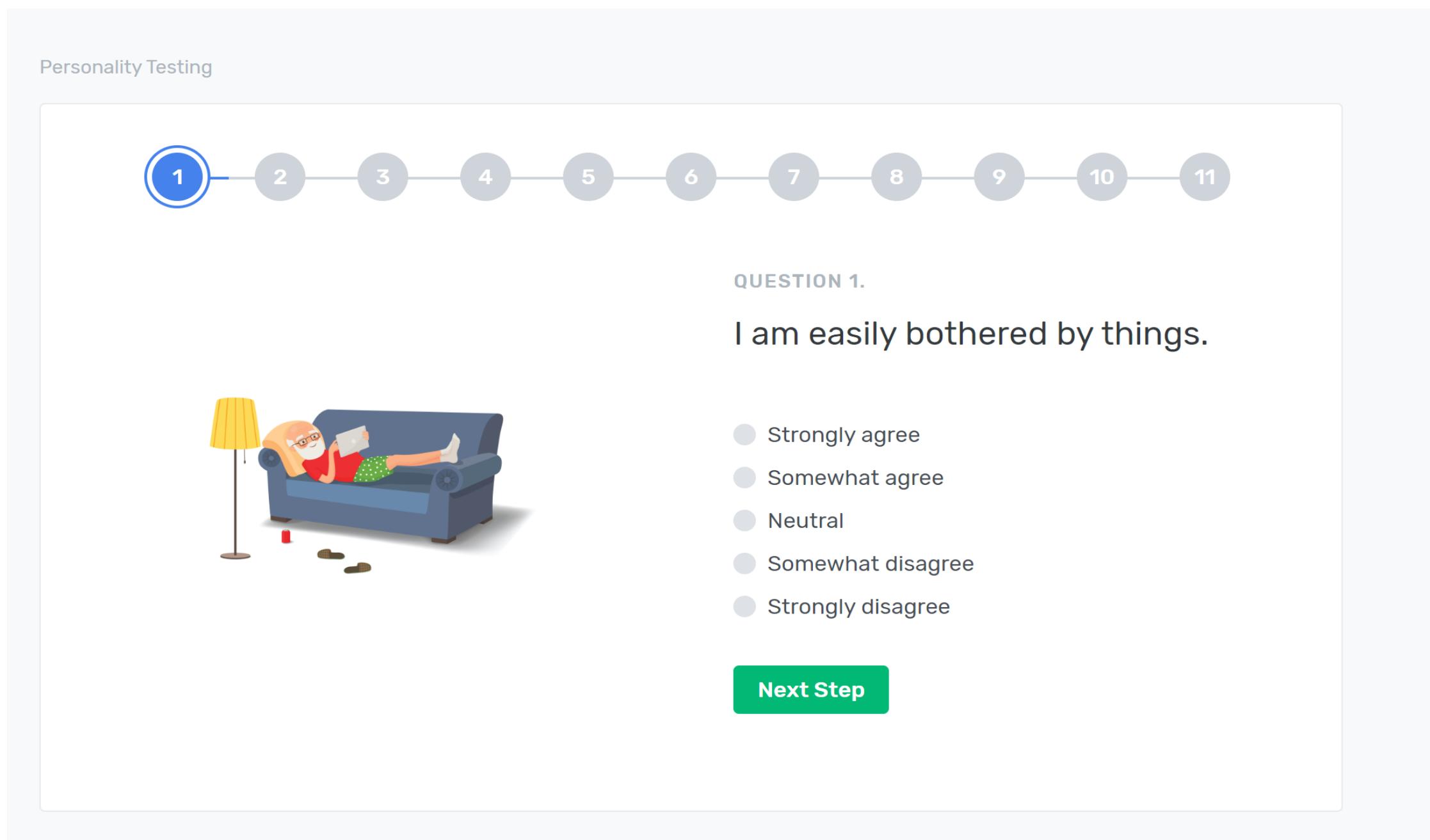


6. After verifying your account, please log in. You will be taken to the profile screen where you can take personality testing.

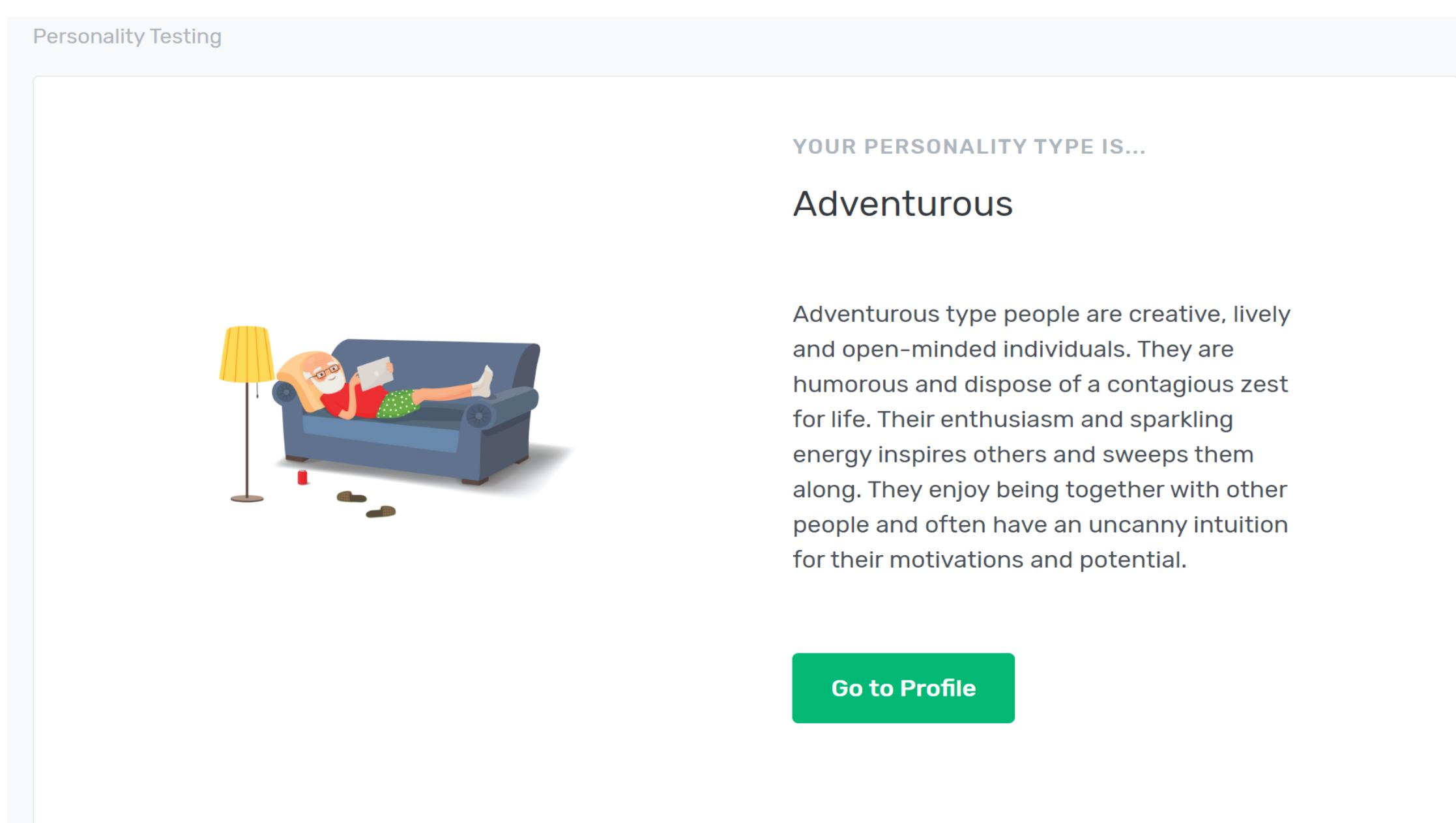


# USER GUIDE

7. On the profile screen, click the green button "Take the test". You will be able to take the personality test now.



8. After taking your test, you will see the results page.



# 209

# USER GUIDE

9. From the results page, you can navigate to the Profile page and see suggested friends and activities.

The screenshot shows a mobile application interface. At the top, there is a navigation bar with a person icon and the text "Personality Test". Below the navigation bar, there is a section titled "Personality" which displays a result: "Your personality type is: Adventurous". On the left side of the screen, there is a grid of icons representing different demographic groups. Below this grid, there is a note: "(Click on any field at any time to edit it)". Underneath the note, there is a text input field containing the placeholder "Hi! My name is Alona". Below the text input field, there are two fields: "Zipcode" (33130) and "Age" (29). There is also a green button labeled "Update my info!". Below these fields, there is a location input field with the placeholder "City, State". To the right of the profile information, there are two sections: "Suggested Friends" and "Suggested Activities". The "Suggested Friends" section shows a group of people and the text "We think you will have great time with... Roberto, Danielle, Jason, Shree, Julian, Steve". The "Suggested Activities" section shows two people and the text "We think you will enjoy doing this activities... Skydiving, ziplining, parachuting, bungy jumping".

10. Clicking on the activity will display Google Maps with the activities nearby your zip code.



11. Clicking on the suggested friend's name will display his/her email address for connection.

# 30 Resumes

PLEASE FIND OUR RESUMES ON THE NEXT PAGE!!

# Alona Basko

☎: 561-427-9927 Ⓛ: [linkedin.com/in/alonabasko](https://linkedin.com/in/alonabasko) Ⓨ: [abasko2017@fau.edu](mailto:abasko2017@fau.edu)

## PROFESSIONAL SUMMARY

Energetic and passionate about technology senior Computer Science student with sharp math and logic skills as well as proven ability in leadership. Seeking for an internship to utilize my development, communication, and collaboration skills.

## EDUCATION

### Florida Atlantic University, Boca Raton, FL

Expected Graduation Dec 2019

Bachelor of Science in Computer Science

**Related Coursework:** Data Structures/Algorithm Analysis, Stochastic Models for Computer Science, Design/Analysis of Algorithms, Internet Computing

**GPA:** 4.00/4.00

### Broward College

May 2017

Associate of Arts, **Major** Computer Science

**GPA:** 3.95/4.00

## SKILLS HIGHLIGHTS

- ◆ **Multilingual;** English, Russian, Ukrainian, and German. A proficient interpersonal communicator who is adept at speaking effectively, writing concisely, as well as expressing, transmitting, and interpreting knowledge and ideas
- ◆ Ability to multi-task, prioritize, work both independently or as part of a team
- ◆ Strong analytical, critical thinking and time management skills

## TECHNICAL SKILLS

**Languages:** C++, HTML, CSS, SQL, Javascript, Java, Python, PHP.

**Tools:** Adobe Photoshop, MS Office, Altera Quartus, Visual Studio, Code Composer Studio, MySQL, SQLite, IntelliJ IDEA

**Certifications:** SQL for Data Science from University of California, Davis

### Skills learned from coursework:

- Through Data Structures/Algorithm Analysis course, I have learned how to design, implement, and analyze the run-time of important data structures and algorithms. The data structures considered included sorted arrays, linked lists, stacks, queues, and binary trees. I have also learned to use recursion for algorithm design.
- Through Design/Analysis of Algorithms course, I have learned skills needed in the mathematical analysis of algorithm complexity including lower bounds, worst-case, and average-case behavior.
- Through Internet Computing course, I have learned how to design and develop websites and web-based applications using contemporary tools and standards. The link to see my projects: <http://lamp.cse.fau.edu/~abasko2017/>

## WORK EXPERIENCE

### HSI Mentor

Jan. 2018 – present

### Florida Atlantic University, Davie, FL

- ◆ Provided mentorship and tutored engineering/computer science students in College Algebra, Pre-Calculus, Trigonometry, Calculus I, and Introduction to Programming in C++.
- ◆ Increased student enrollment into HSI Grant Program by being actively involved in the classroom visits as well as events outside of the classroom.
- ◆ Increased student engagement with mentors by incorporating new ways of communication with the students.

## ACHIEVEMENTS

2016-2018 – President's List (Fall 2016, Spring 2017, Fall 2017, and Spring 2018 Semesters)

2017 – Admitted to the Innovation Leadership Honors Program at Florida Atlantic University

2017 – Became a member of Tau Sigma Honor Society

2017 – Member of IEEE (Institute of Electrical and Electronics Engineers) and SHPE (Society of Hispanic Professional Engineers)

2017 – Admitted to the CAPTURE program for outstanding academic achievements

2007 – 2nd place in National Science Projects Competition, and became a member of Minor Academy of Sciences in Ukraine.

# Danielle Gray

dgray2015@fau.edu • 9571 NW 24th Ct Coral Springs, FL 33065• 954-655-5149

## Education

### **Florida Atlantic University**

**August 2019**

Bachelor of Science in Computer Engineering

*University Honors Program and Innovation Leadership Honors Program*

**GPA:** 3.5/4.00

## Technical Skills

- **Languages:** C/C++, MySQL
- **Operating Systems:** Windows
- **Software:** PSPICE, Word, Excel, PowerPoint, Outlook

**Relevant Courses:** Computer Science fundamentals (e.g., algorithms, data structures), Circuits I, Electronics I, Embedded Systems, Intro to Database Structures

## Academic Projects

- **Line Tracking Car with an Obstacle Sensor** **Summer 2017**  
Worked with partner to build a line tracking car that would move if an obstacle was in its way.
  - **Tools Used:** MSP 430, Code Composer 7.0, Infrared Sensor (TCRT 5000), Micro Servo, Ultrasonic Sensor (HC -SR04)
- **Home Weather Station**  
Worked with partners on a handheld device that would display the temperature, pressure and Humidity in the room.
  - **Tools Used:** Arduino Uno, Arduino Computing platform, Temperature and Humidity sensor (DHT-11), Barometric Pressure sensor (BMP180), Two-line Liquid Crystal Display (LCD1602)

## Academic Presentations

- **Ilead: Student Leadership Conference** **Fall 2017**  
Presented on how to be a leader by stopping & thinking how to challenge the process as well as empower & motivate others
- **WeLead: Diversity Matters Leadership Symposium** **Spring 2017**  
Presented on Breaking the Glass Ceiling in a Male Dominant Society
- **FAU Undergraduate Research Symposium** **Spring 2016**  
Presented application of calculus in the real world; Calculus and Baseball

## Community Service

- Student Accessibility Services Volunteer Notetaker **March 2017-August 2017**
- Preparation of Files for Office of the City Clerk, Volunteer **June 2014-August 2014**

# Danielle Gray

dgray2015@fau.edu • 9571 NW 24th Ct Coral Springs, FL 33065• 954-655-5149

## Affiliations

- |   |                            |
|---|----------------------------|
| • Society of Women Engineers, VP        | <i>2018 - Present</i>      |
| • Innovation Leadership Honors Program  | <i>Fall 2017 - Present</i> |
| • FAU Honors Program                    | <i>2015 - Present</i>      |
| • Society of Women Engineers, Secretary | <i>2016-2018</i>           |

## Work Experience

- |  |                              |
|--|------------------------------|
| • Florida Atlantic University, Boca Raton, FL<br><i>Learning Assistant</i><br>Provide help in learning process for students taking Introduction to Math for Engineers with Applications course.  | <i>Jan. 2018 - Present</i>   |
| • Florida Atlantic University, Boca Raton, FL<br><i>Hispanic Serving Institution Mentor</i><br>Joint Program between Florida Atlantic University, Palm Beach State College, and Broward College to help low income or Hispanic students who are interested in engineering succeed in Math and Intro to programming course. | <i>Jan. 2018 - Aug. 2018</i> |
| • Florida Atlantic University, Boca Raton, FL<br><i>Math Learning Center Tutor</i><br>Provide help in learning process for students taking in math courses up to Calculus 1.   | <i>May 2018 - Aug. 2018</i>  |

## Awards

- |  |                  |
|--|------------------|
| • Dean's List  | <i>Fall 2016</i> |
| • 2nd Place, Prepared Speech for Business Professionals of America | <i>Jan. 2015</i> |

# Jason Schilling

## Local Address

N/A

## **Permanent Address**

2991 SW Murphy Road  
Palm City, FL 34990  
(772) 224-1555  
[jschilling2013@fau.edu](mailto:jschilling2013@fau.edu)

## **Education**

**Florida Atlantic University** – Boca Raton, FL  
2<sup>nd</sup> B.S. in Computer Science, Expected December 2019  
Institution GPA: 3.76

**University of Florida** – Gainesville, FL  
*B.S. in Microbiology and Cell Science*, December 2016  
GPA: 3.13  
Major GPA: 3.616

## **Relevant Courses**

Intro to C Programming, Foundations of Computer Science, Data Structure/Algorithm Analysis, Discrete Mathematics

## Skills

- Proficient in writing and debugging novice-level software
  - Works effectively with a team as well as independently
  - Excellent oral and written communication skills
  - Proficient in Microsoft Word, Excel, and PowerPoint

## Experience

**Part-time engraver** - Crown Trophy 2012 - 2014  
2016 - 2018

- Assist in production of orders with laser and rotary engravers
  - Communicate with customers about order details

### **Other Interests**

## Music production, guitar, and video games/e-sports

# Julian Posada

8105 NW 27<sup>th</sup> St. Apt 4. Coral Springs, FL 33065 | 954-204-8785 | julianposada22@gmail.com

## Objective

Committed to learning and expanding my knowledge and skillset for real life applications of Information Technology in the work place. By using the skills that I have learned such as communication and leadership, I hope to excel in the Information Technology Department.

## Education

### COMPUTER SCIENCE | 2014 – 2016 | FLORIDA POLYTECHNIC UNIVERSITY

- Minor: Information Assurance and Cyber Security
- GPA 3.2
- Related coursework:
  - Fundamentals of Computer Systems
  - Introduction to Computer Networks

### MANAGEMENT INFORMATION SYSTEMS | 2017 - 2018 | FLORIDA ATLANTIC UNIVERSITY

- Major: Computer Science
- Minor: Information Assurance and Cyber Security

## Skills & Abilities

- **LANGUAGES:** Proficient in oral and written communication in English and Spanish
- **COMPUTER PROGRAMMING:** Coursework related to computer programming and the foundations of python, java, and C++ languages.
- **COMMUNICATION:** Obtained valuable skills in communicating with clients through my job as an operator in Answering Service Care. Reinforced these skills in my work throughout other departments such as Billing, Professional Services, and Client Experience.
- **LEADERSHIP:** Engineering & Technology Project Management – A course dedicated to planning, controlling, and evaluating technology and engineering projects utilizing tools such as modeling, project organization and technical forecasting. Took role as project manager for the semester long group project which required focus, responsibility, organization, good delegating ability, and time management.

## Experience

### WAITER | EL BALCON DE LAS AMERICAS | 2011 - 2013

- Worked as a busboy for three months and then promoted to waiter which I performed for about a year and a half.
- Performed managerial duties such as scheduling and finalizing daily transactions.

### OPERATOR | ANSWERING SERVICE CARE | 2013 - 2014

- Phone operator assisting multiple companies as a virtual receptionist in their daily office activities.
- Assisted the Billing Department in a data clean up and audit project within the billing system.

### SYSTEMS ADMINISTRATOR | ANSWERING SERVICE CARE | 2015 - 2016

- Worked in the professional services department as an account administrator overseeing account updates, monitored account information, and upgrading medical accounts to our newly deployed secure system.
- Was trusted the opportunity to work in this position remotely while attending school in Lakeland.

### ACCOUNT MANAGER | ANSWERING SERVICE CARE | 2016 – PRESENT.

- Assisted clients in managing their account concerns. Formulated solutions to satisfy the needs of the clients and meet expectations.

ROBERTO FERRARESI  
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I am Roberto Ferraresi, an international student interested in engineering technologies to develop solutions for integrated software and hardware products.

## EDUCATION

### NOVEMBER 2018

**DEGREE TITLE**, BACHELOR'S IN COMPUTER ENGINEERING AND COMPUTER SCIENCE

GPA: 4.0.

**Dean's List**: Spring 2017, Fall 2017, Spring 2018.

**Presidents List**: Spring 2017, Fall 2017, Spring 2018.

### DECEMBER 2016

**DEGREE TITLE**, AA ASOCIATES IN ARTS, HIGHEST HONORS

GPA: 4.0.

**Dean's List**: Fall 2014, Spring 2015, Fall 2015, Spring 2016, Fall 2016.

**Presidents List**: Fall 2014, Spring 2015, Fall 2015, Spring 2016, Fall 2016.

### APRIL 2015

**CERTIFICATION**, MSSC

- Safety
- Quality Practice and Measurements
- Processes and Production
- Maintenance Awareness

### Relevant Engineering and Computer Science Courses:

- Microprocessors
- Embedded Systems
- Data Bases
- Complex Analysis
- Data Structures
- Java
- Electronics/Lab
- Matrix Theory

## SKILLS

**LANGUAGES**: C, C++, C#, Java, Assembly, JavaScript, HTML, CCS, PHP, SQL Oracle, Python.

**SOFTWARE**: Eclipse, PSpice, Altera Quartus, Visual Studio, AutoCAD, Eagle.

**HARDWARE**: Tektronix Oscilloscope, Digital Multimeter, Function Generator.

**MICROPROCESORS**: Arduino, Msp-430, Raspberry Pi.

**OTHER**: Soldering, PCB design, Circuit design.

## PROJECTS

**Web Portfolio:** A collection of various online based projects. [link](#)

**Hardware Portfolio:** Documentation of Electrical and Embedded systems projects. [link](#)

**Light Modulator:** An infrared sensor paired with a microprocesor used to detect hand signals and select various modes to control different light sources. [video](#)

**Operating System Scheduler:** Simulation program that applies different algorithms to running processes in order to optimize CPU throughput.

**Green Energy Power Optimization System:** Team oriented project that uses energy from photovoltaic cells, manages power by shunting loads in a hierarchical fashion and communicates with the user through IOT, LED display and voice commands.

**Joes Squad:** Team oriented software project using AWS resources to match senior citizens with similar personalities and preferred activities. [link](#)

## HONOR SOCIETIES AND ORGANIZATIONS

- Tau Beta Pi.
- Phi Kappa Phi.
- Solar Energy Society.
- Omicron Delta Kappa.
- Phi Theta Kappa.
- FAU Wave Competition Program.

## LANGUAGES

- Spanish (Native)
- English (Near native)
- Italian. (Intermediate)

# **SHREE P MAJUMDER**

4043 NW 16<sup>th</sup> St. Apt B 313, Lauderhill, FL-33313  
954-9073059, Smajumder2016@fau.edu

## **OBJECTIVE**

A highly self-motivated, dedicated and dependable student in seek of a challenging internship position to complement theory learned at the university level and will help succeed in real world.

## **EDUCATION**

### **Florida Atlantic University**

#### **Bachelor of Science in Computer Science**

Expected Graduation Fall 2018.

#### **FAU GPA: 3.87**

Overall GPA: 3.57

#### **Dean List: Fall-2016, Fall-2017**

#### **Related Coursework:**

Cutting Edge Web Technologies,  
Foundation Computer Science, Intro to  
Microprocessor, Stochastic Model, Intro to Internet  
computing, Data Structure, Design and Algorithm  
Analysis, Applied Database System. Principles of  
Software Engineering.

### **Broward College**

#### **Associate of Arts**

Graduated with high Honors, December 2015.

GPA: 3.933

#### **Related Coursework:**

Calculus-I, II and III.

## **COURSE PROJECT**

**Restaurant Management Database:** Built a Restaurant DB by using Oracle DB and MySQL.

**Online Shopping Cart:** A demo shopping cart built by using Python programming language.

## **TECHNICAL SKILLS**

### **Advanced**

Microsoft Office

Adobe Photoshop

Visual Studio

### **Intermediate**

C++, Embedded C

Python

Html, CSS, SQL, Bootstrap

### **Basic**

JavaScript, Angular.Js

PHP

jQuery, React

## **WORK EXPERIENCE**

### **HSI Mentor**

#### **Florida Atlantic University**

January 2018 – May 2018.

Mentoring and tutoring Computer Science students in Programming,

College Algebra, Pre-calculus, Trigonometry and Calculus-I.

## **KEY COMPETENCIES**

Bilingual- English and Bengali, Proficient Interpersonal Communicator, Time Management.

Problem solving, Ability to work in a fast-paced environment. Multitasking Abilities.

**Steve Tilus**  
954-839-5010  
[stilus2013@fau.edu](mailto:stilus2013@fau.edu)

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## **OBJECTIVE**

Aiding a company to achieve their goals, values, and brand as a whole as they help me develop my computer science and programming skills

## **EDUCATION**

Florida Atlantic University | Boca Raton, FL

**Associate Degree**

**Computer Science Major**

GPA: 2.93

Broward College 2016

Graduation Spring 2019

## **RELEVANT COURSEWORK**

Introduction to Programming Foundations of Computer Science, Introduction to Internet Computing, Data Structures Data Base Management Systems, Introduction to Logic Design  
Introduction Microprocessors, Algorithms and Data Analysis, Formal Languages & Automata

## **TECHNICAL SKILLS**

Languages: C/C++, JavaScript, PHP, SQL

WEB Development: HTML5, CSS3

Software: MS Office, Adobe

## **WORK EXPERIENCE**

Storage Post | Fort Lauderdale, FL

**Storage Specialist/2nd in Command for Property Management** 09/2014 - Present

- Proven skills in generating and closing sales, interacting effectively with potential and existing customers.
- Maintain the property to a high standard by cleaning the property, hiring contractors, and keeping customer touch points a clean as possible.
- 40 hours/week

Data Exchange | Fort Lauderdale, FL

**Customer Service Representative** 06/2012 - 04/2014

- Answered phones at a timely manner in a fast paced environment while entering data at high precision.
- 30 hours a week

## **STUDENT CLUBS**

- IEEE
  - a. WEB DESIGN TEAM SPRING 2018