User Manual

Jargon Sentiment Analysis

Developers: Team Syntactic Sugar
Client: Compiax

October 7, 2019

Contents

1 System Overview

The goal of the project is to give researchers, especially market-researchers, the ability to determine common public opinions on different topics. It achieves this by streaming social media data on a platform such as Twitter for a set period of time, before analyzing this data and presenting it in a way where the user can see which percentages of users have positive, neutral or negative opinions on a certain subject. This data can also be used to further drill-down on aggregated data, showing insights such as opinion divided into geographical location. Users are able to organize their searches into projects, which can be run on regular intervals, and include white-listed words to combine searches for different topics, as well as black-listed words, to exclude certain terms and concepts from the analysis.

2 System Configuration

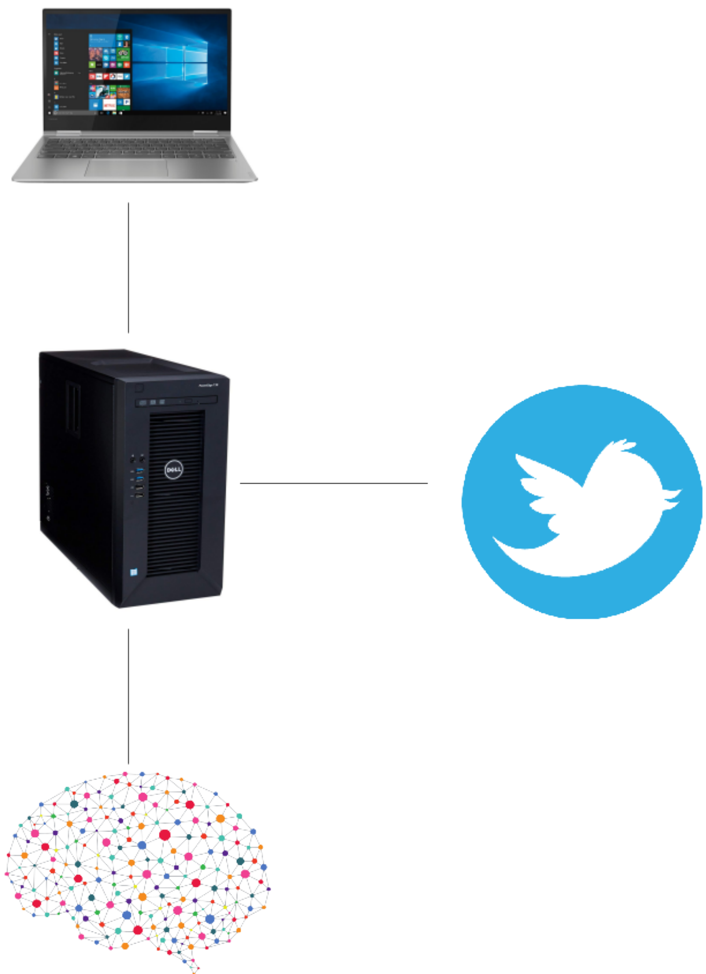

Figure 1: System Configuration Diagram

The website connects to the controller server to retrieve data about users and projects. When the website requests a project to be run, the controller server creates a listener, which aggregates data from an external social platform such as Twitter. It then sends the streamed data to the neural network, which analyses and classifies it, before sending it back to the controller to be displayed on the website. An Internet connection is needed to load the user's data and projects on the web application. The latest version of Internet Explorer, Brave Browser, Google Chrome or Mozilla Firefox is recommended.

3 Installation

Website: The website is installed and hosted on a server, along with all back-end services that help the website run. Source code for all services can be found on Github.

4 Getting Started

To access the system for the first time, a user can access the system's registration page, where they can enter their credentials, before submitting before creating a new profile for themselves. See section 5.1 below for more info.

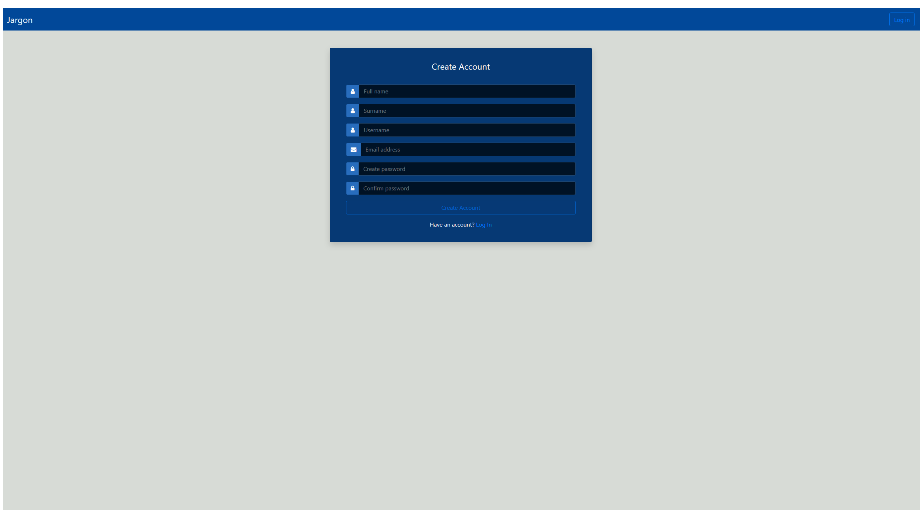

Figure 2: Registration Screen

If a user has already registered, they can use the login page to enter their login details and gain access to the system.

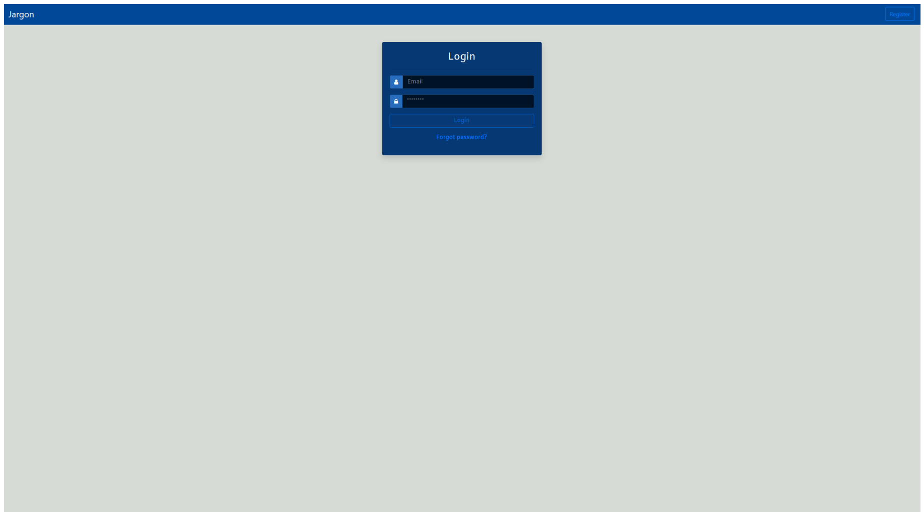

Figure 3: Login Screen

After a user has registered or logged in, they can create new projects containing white-listed words they want to search, as well as black-listed words that must not appear in results. Other configuration settings can also be set per project. Users can also edit or remove their already created projects. Once a user has created a project, they can start it. Starting a project causes it to run for the time specified, before sending its data to the neural network. This process happens in the background while the user waits. After the data has been analyzed, it is displayed in a useful form on the user's dashboard. The user can exit the system by simply closing the browser tab.

5 Using the System

Once the website has been opened, the user will be greeted with the login screen shown above in Figure 2.

5.1 Register

The user must register with the system the first time they want to use it. To get to the registration screen from the welcoming/login screen, press the "Register" button in the top right corner. This will take you to the registration screen. Here, please enter your credentials into the following fields:

- Full Name
- Surname
- Username

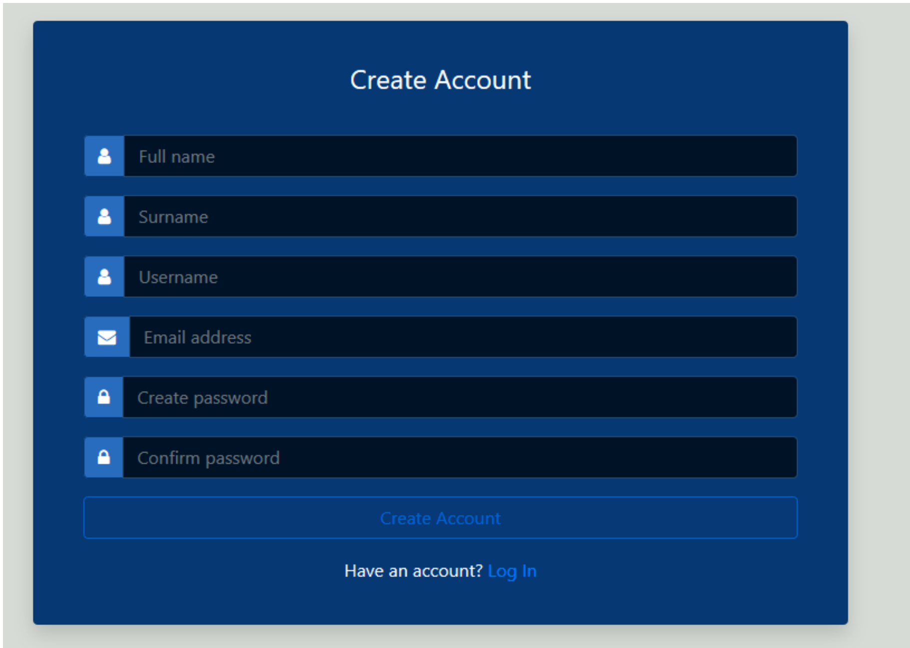

Figure 4: Register Screen Form

- Email
- Password
- Confirm Password

The user must enter his/her password twice to ensure that they do not save a typo. After a user's details have been entered, they click on the Register button to register. A message will show that the user has successfully registered and can now use the website. If they receive an error, see the troubleshooting section.

5.2 Login

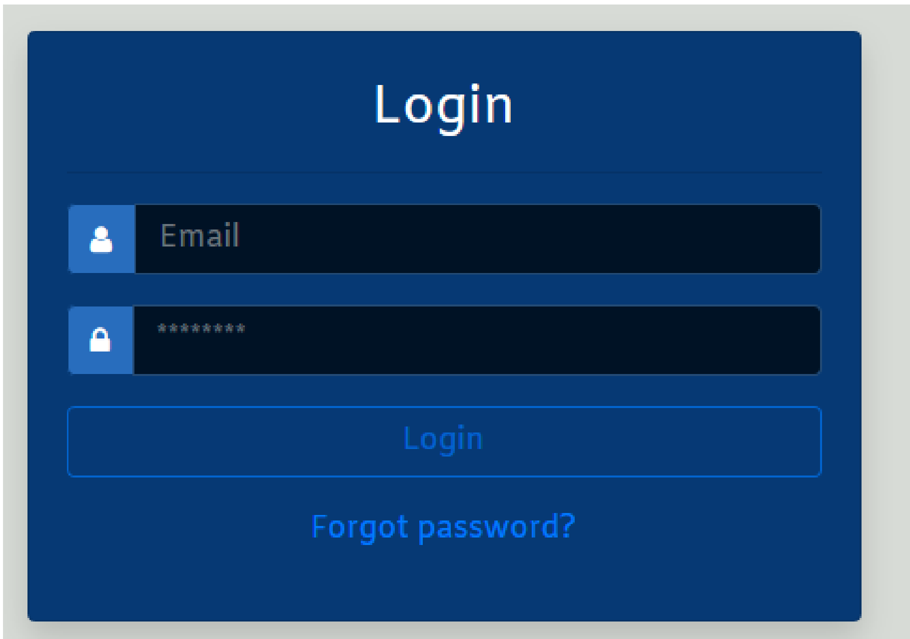

Figure 5: Login Screen Form

After you have successfully registered, you can now login. From the welcoming/login screen enter the same Email and Password that you registered with, click on the Login button to login. As seen in figure 3. If the details are correct, you will be logged in. You can now use the website to analyse social media data. You will see the home dashboard.

5.3 View Overview Dashboard

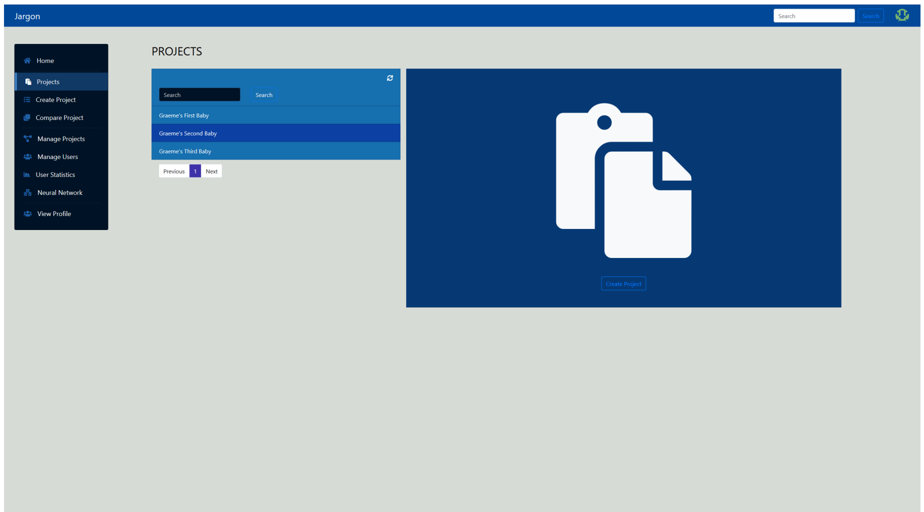

Figure 6: Dashboard Screen

After logging in, users can view their dashboard overview. All further use cases can be reached from this screen.

5.4 Create Project

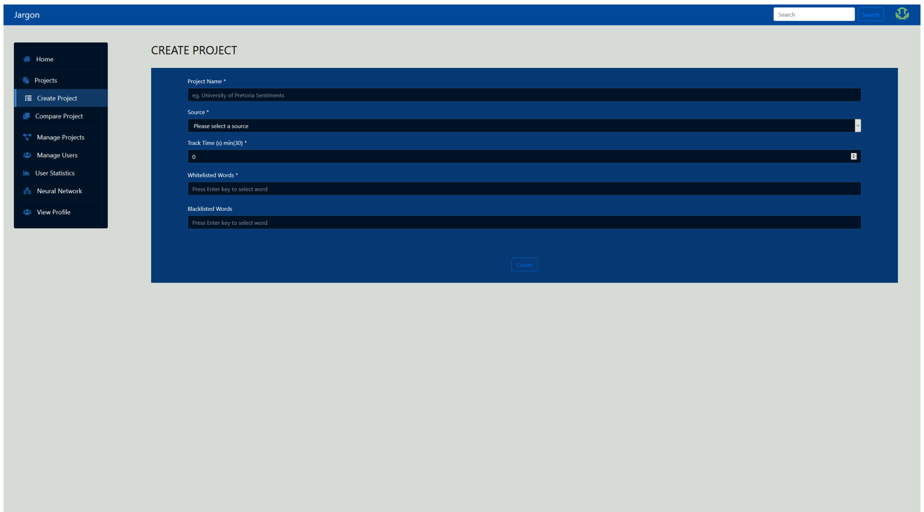

Figure 7: Create Project Screen Form

After accessing the home screen, the user can create a project that can then stream social media data and have it analysed. Users can click on the "Create Project" tab on the left-side menu. This will take the user to the screen shown in Figure 5. The user will then enter the following values into the corresponding field:

- Project Name
- Source
- Track Time
- White-listed Word(s)
- Optional Black-listed Word(s)

Lastly, press the "Create" button to create and save the project. This will only be possible if all necessary fields are entered correctly.

5.5 View All Projects

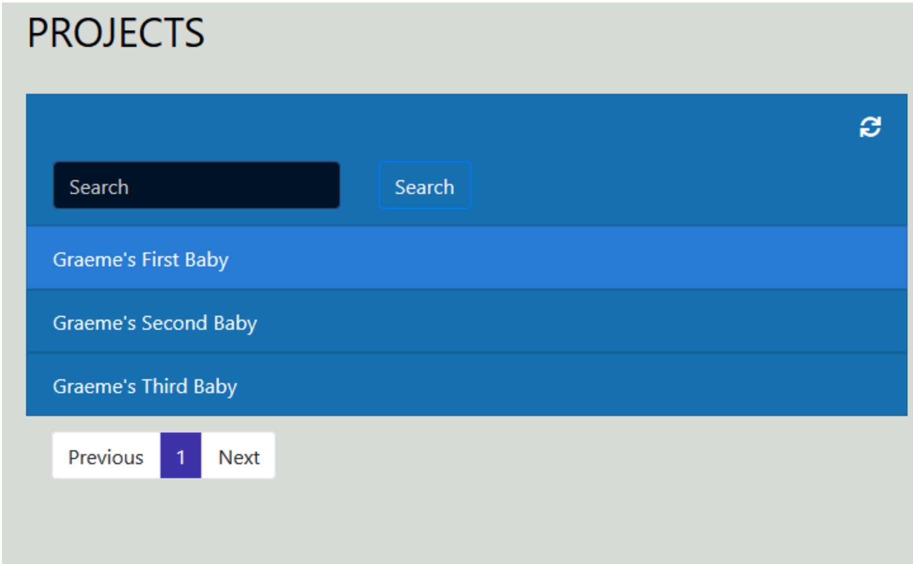

Figure 8: View All Projects Screen

After accessing the home screen, the user's projects are automatically loaded. If users click off to another screen, users can click on the "Projects" tab on the left to display all projects again. This will list all their projects as seen in Figure 6.

5.6 View Project Details

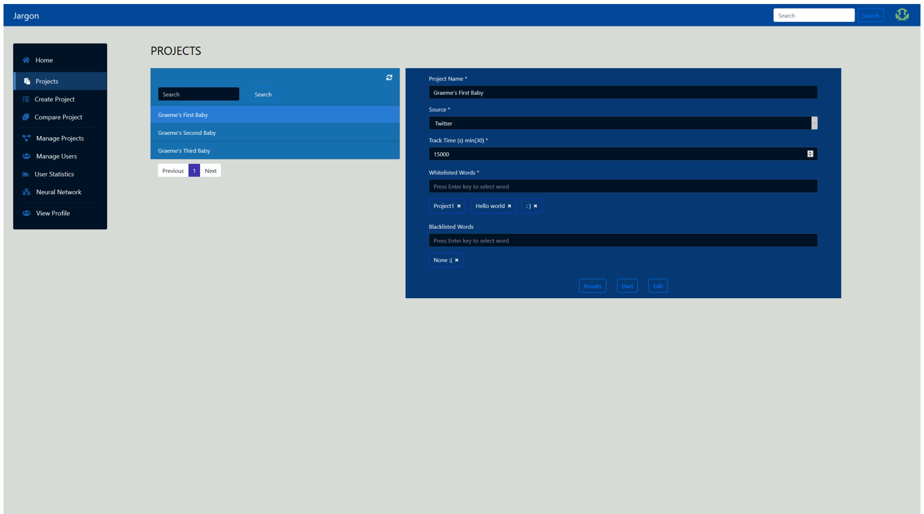

Figure 9: View Project Details

After viewing all projects, the user can expand any single project to view more details and further options for that project. They can do this by simply clicking on the project. This will open as seen in Figure 7.

5.7 Edit Project Details

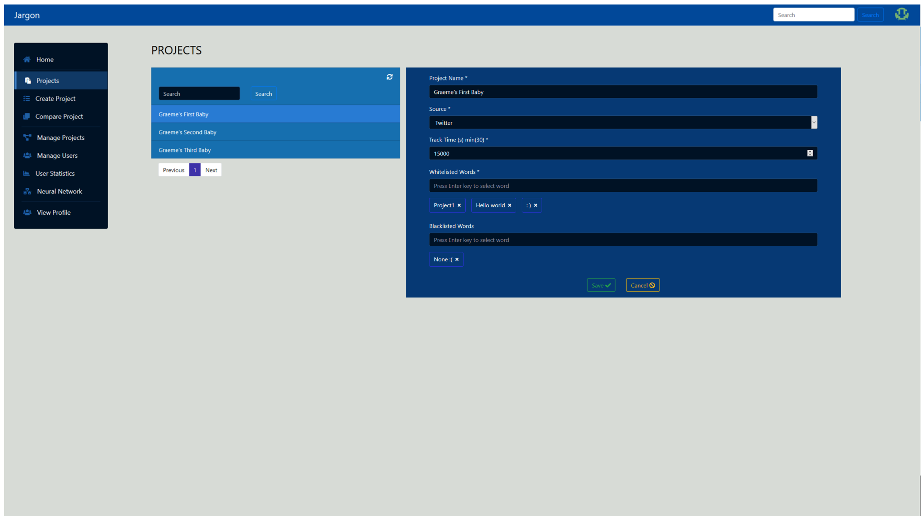

Figure 10: Edit Project Details

After viewing detailed information about a single project, a user can choose to edit a project's details by clicking on the white gear icon in top right of that project's expanded screen. This will take them to the screen seen in Figure 8. Here, they will be able to edit the following details in their corresponding fields:

- Project Name
- Source
- Track Time
- White-listed Word(s)
- Black-listed Word(s)

They will then be able to save the edited changes by clicking the green "Save" button.

5.8 Start Project

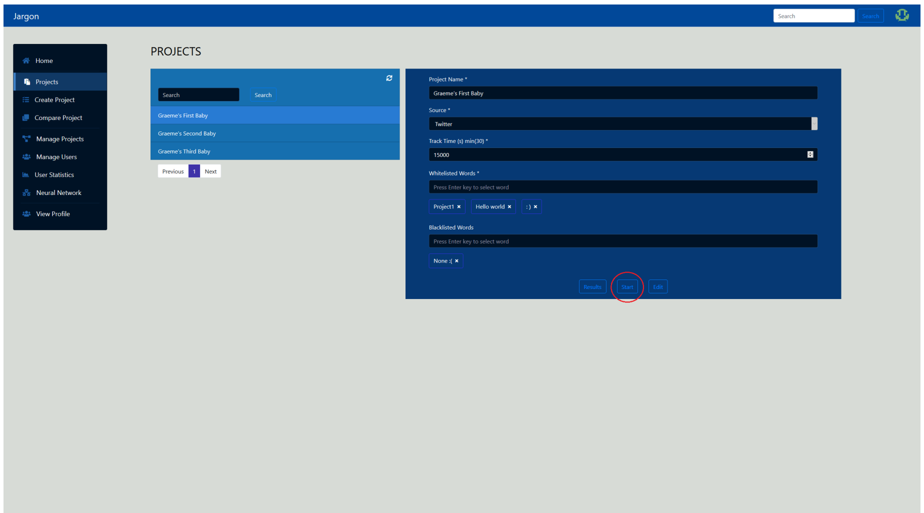

Figure 11: Start Project Details

After viewing detailed information about a single project, a user can choose to start a specific project by clicking on the yellow "Start" button in that project's expanded screen. Starting a project involves running a twitter listener which collects tweets which are the passed to a neural network to get analysed.

5.9 View Project Results

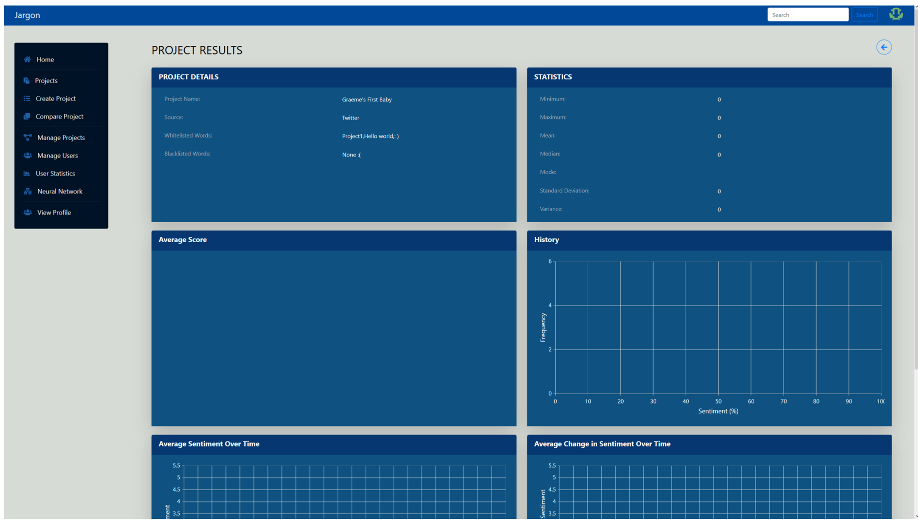

Figure 12: View Project Results

After starting a project, a user can click on the "Result" button to view the current and all previous runs for the current project.

5.10 Flag Incorrect Tweets

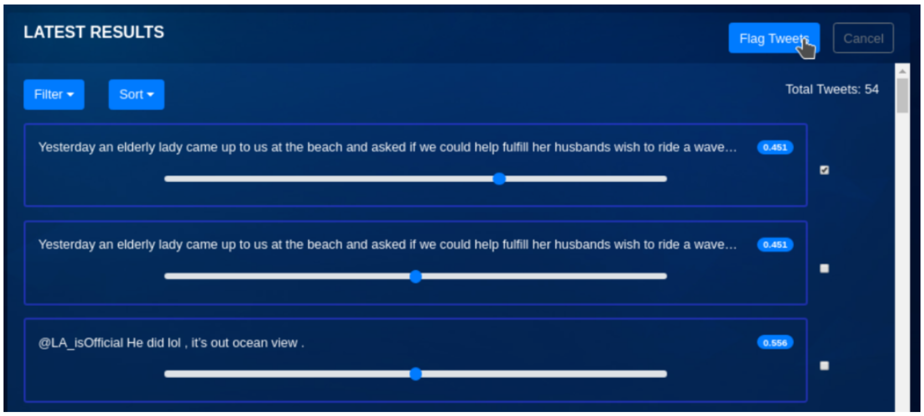

Figure 13: Flag Incorrect Tweets

After viewing a project's results, a user can scroll down to see all captured tweets. If they see incorrect tweets, they can flag them with the checkboxes on the right hand side, as well as selecting the appropriate positivity score using the slider, before clicking on the "Flag Tweets" button.

5.11 Compare Projects

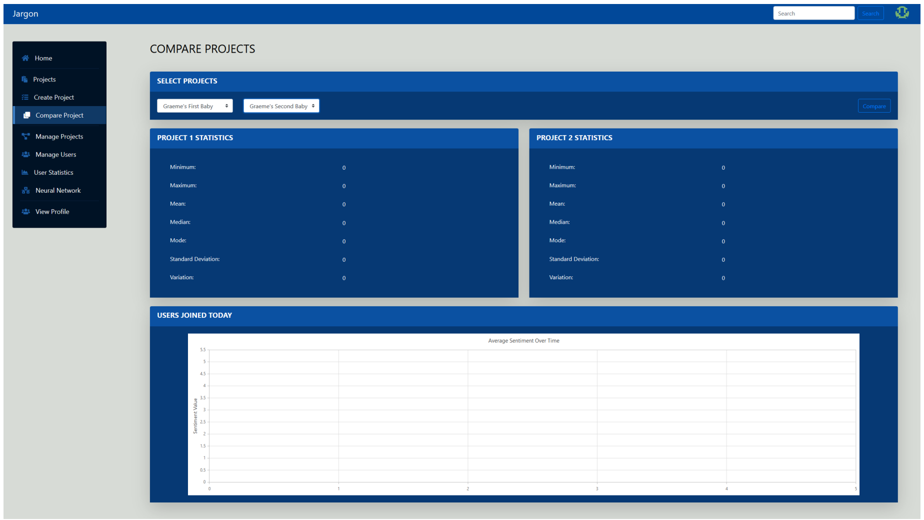

Figure 14: Compare Projects

A user is able to select two projects from their own list of projects which will then be directly compared. An analysis will be done with the majority of differences of the projects and be shown in either graphs or regular data. There are two drop downs where the user is required to select a project after which the ”compare” button is pressed.

5.12 Manage Projects

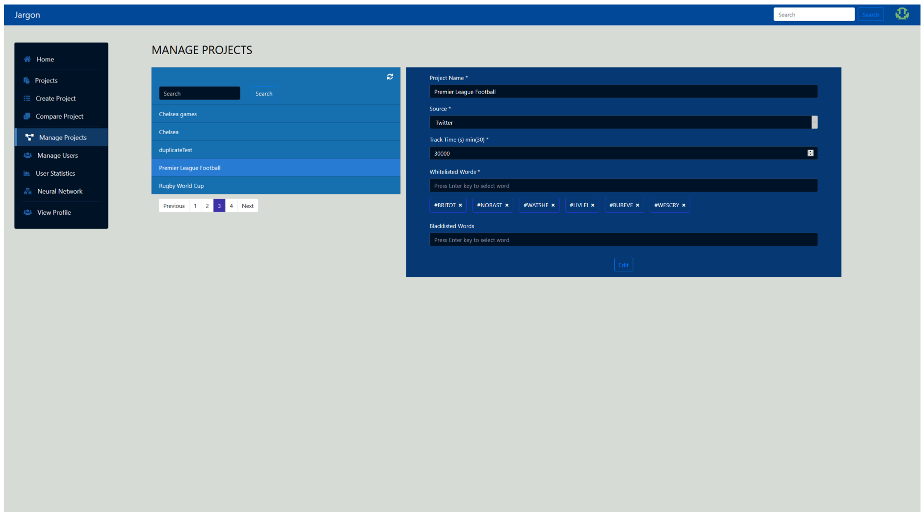

Figure 15: Manage All Projects

This is a feature made available to all admin users. This feature allows the admin user to view every project created by all users. Admin have the authority to edit and remove any projects they see necessary.

5.13 Manage Users

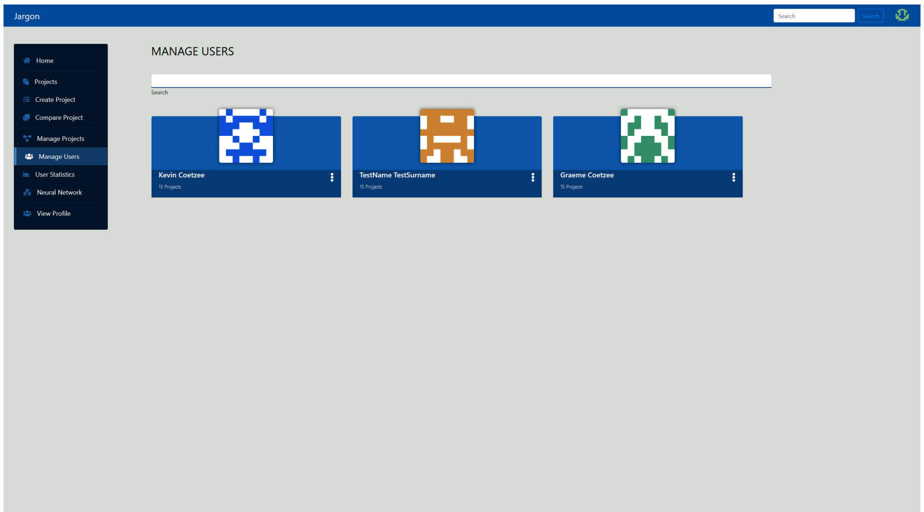

Figure 16: View All Users

This is a feature made available to all admin users. Here a list of all registered users is displayed. The admin is able to search through the list of users by username or email.

5.14 User Options

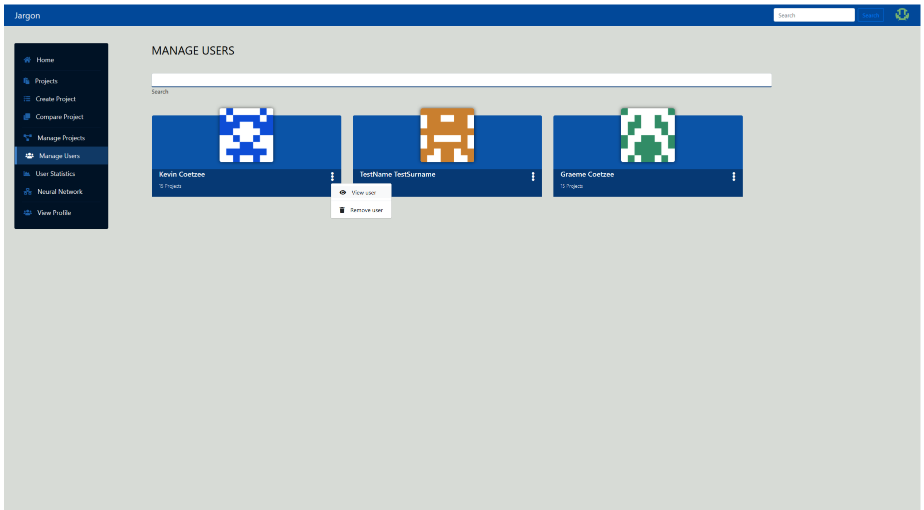

Figure 17: Additional User Options

Admin users have the authority to view accounts and remove them if necessary. In order to do this the ellipsis icon is clicked which brings a drop down menu proving the user with additional user options such as "view user" and "remove user"

5.15 User Details

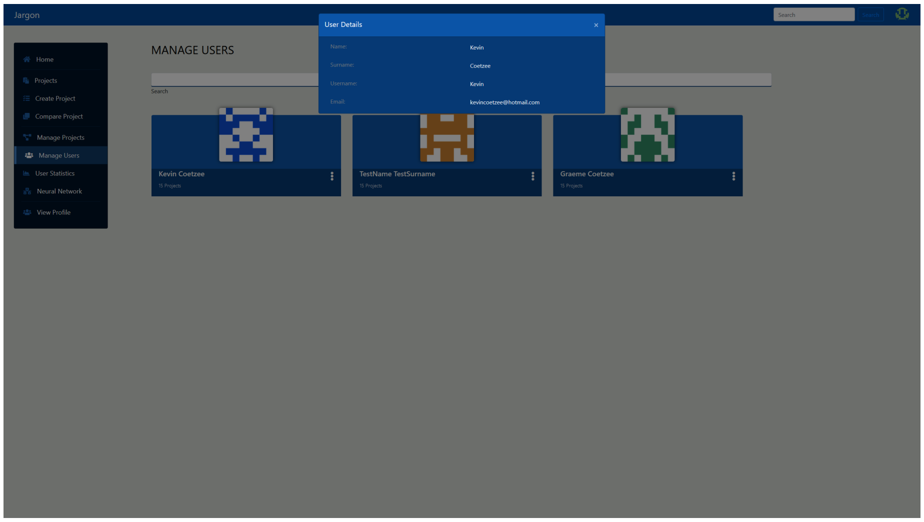

Figure 18: User Details

One of the additional options of the admin regarding all of the user accounts is to view the user's details. Once the option is selected a modal is presented with additional user information.

5.16 View Profile

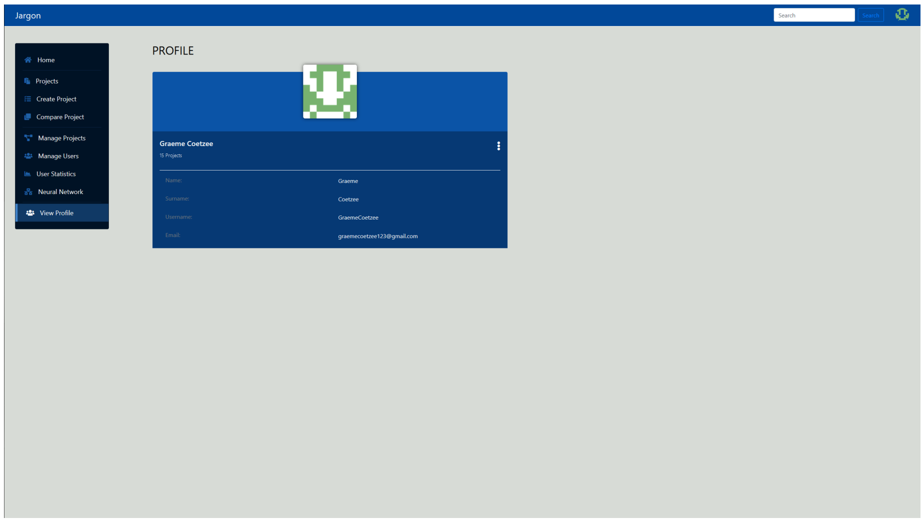

Figure 19: View Profile

Any user will have the capability to view their own account details by selecting the "View profile" option in either the side-navbar or in the navbar user icon dropdown menu.

5.17 Edit Profile

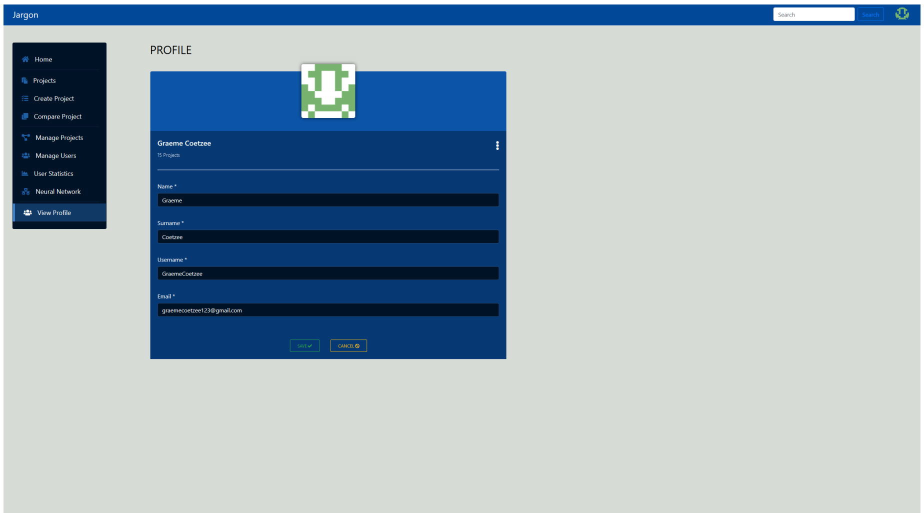

Figure 20: Edit Profile

When a user is in the "View profile" section they have the capability to modify their details. This can be done by selecting the ellipsis icon which brings down a drop down menu. This menu allows them to either edit their account details or remove their account entirely.

5.18 Logout

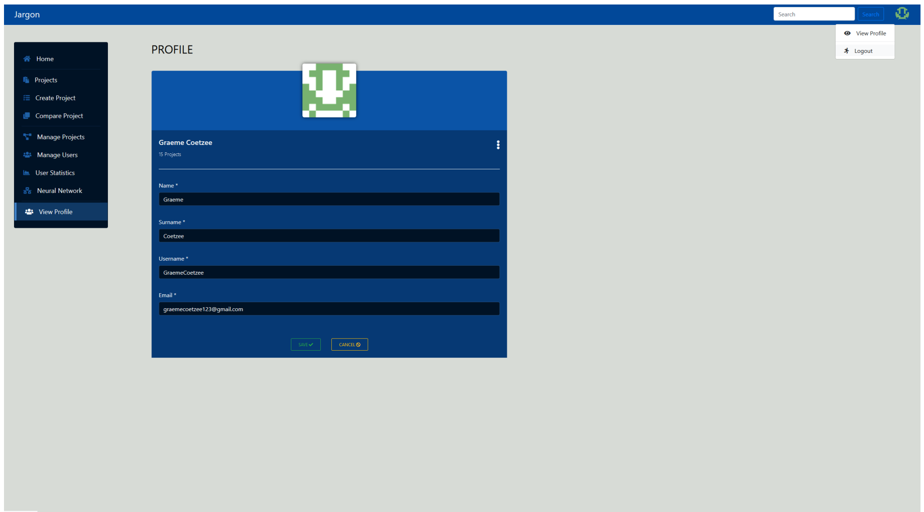

Figure 21: Logout

The user can view their profile or logout based on which option is selected from the dropdown found when clicking the user icon in the top right corner of the screen. Should the user select the "logout" option, the user's session will be terminated and the user will be redirected to the login screen seen in figure 3.

6 Troubleshooting

Q: Why is the registration screen showing errors instead of registering me?
A: Read the errors to determine which details were entered incorrectly. Make sure you enter a valid email address and repeat your password correctly.

Q: Why is the button allowing me to save a new project or edit a project greyed out?
A: Make sure the project's track-time is large enough and that at least one white-listed word is included.