An activity diagram shows the flow from one activity to another in a system. It can be used to understand the system and its components. It shows how a user can interact with the system, and the flow of the interactions.

The user opens the application. From there, the user can continue as a guest or login. If the user logs in, the login is validated and the user continues. If the login is unable to validate, there is an error message. The guest can choose to register. If the registration credentials are valid, the user then becomes a registered user and continues. If the registration credentials are invalid, an error message is shown. From there, the user can choose their location. The location is validated. If the location is invalid, an error message is shown. If the location is valid, the user continues to the environmental information chooser.

From there, the user can choose to see air information. The system retrieves air information. If there is an error retrieving air information, an error message is shown. If no errors, the air information is shown. The user can choose to see water information. The system retrieves water information. If there is an error retrieving water information, an error message is shown. If no errors, the water information is shown. The user can choose to see forest information. The system retrieves forest information. If there is an error retrieving forest information, an error message is shown. If no errors, the forest information is shown.

The user can choose to see predictions. From there, the system retrieves air information. If there is an error retrieving air information, an error message is shown. If no errors, the air information is retrieved for the prediction generator. The system retrieves water information. If there is an error retrieving water information, an error message is shown. If no errors, the water information is retrieved for the prediction generator. The system retrieves forest information. If there is an error retrieving forest information, an error message is shown. If no errors, the forest information is retrieved for the prediction generator. From there, a prediction is generated. Once generated, the prediction is shown to the user.

After this, the user can return to the home screen. From there, the user can exit the application. The user can also logout. If there is an issue logging out, an error message is shown. If logout was successful, the user can then exit the application. Once exiting the application, the application is now closed.