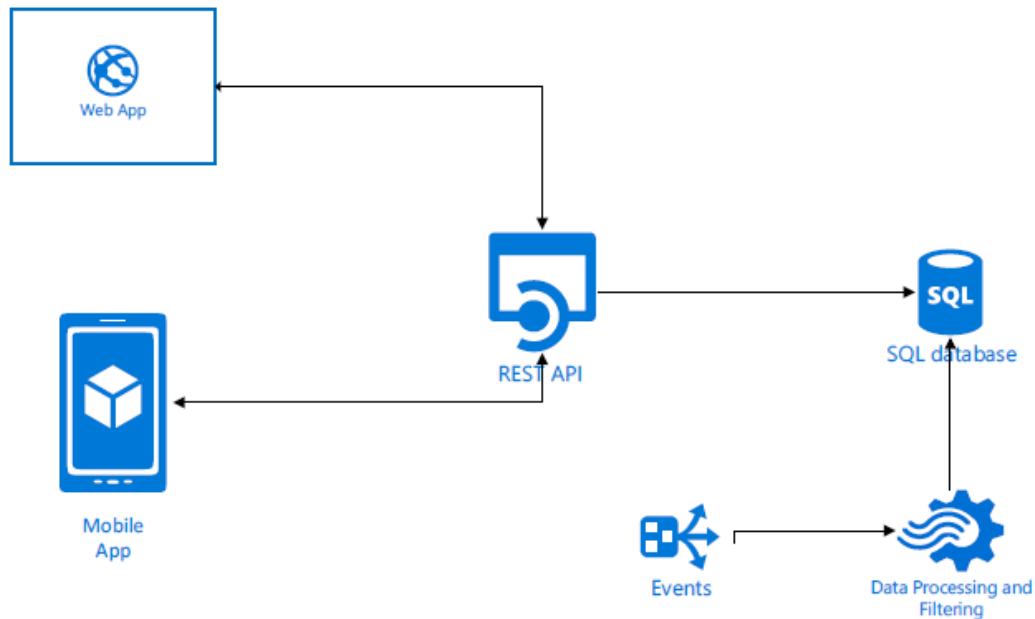**QA Challenge:**

In the above diagram we have the following system:

1. A web application that is retrieving and sending data to and from a REST API and displaying it to a user.

2. A mobile application that is retrieving and sending data to and from a REST API and displaying it to a user.

3. A SQL database that is populated with data from a continuously running application that is responsible for processing and filtering events that it receives.

4. The REST API retrieves all of the data that it requires from the SQL database.

5. Both the mobile and web applications require user login and are responsible for both displaying and updating information.

Given the following system setup, how would you go about testing it in terms of the following:

1. Testing Strategy i.e. A test plan that includes how the testing should be approached in each module or portion or the system

2. What Testing Tools would you use?

3. Testing Frequency – how often would you test the system?

4. What tests/monitoring would you aim to automate, and what would need to be tested manually?

5. Feel free to list any other thoughts or observations not covered by the above questions.

The technology used to create the system is not relevant in this situation. The goal of this exercise is to ascertain how you approach testing a generic system. Feel free to go into as much detail as you like.