| **Component to be tested** | **Type of test to be carried out** | **Purpose of the test** | **Prerequisites/Dependencies** |
| --- | --- | --- | --- |
| Weather Forecasting | Functional Testing | Verify that the weather forecasting functionality is working as expected | A representative sample of weather data from various locations |
| Air Quality Dashboard | Functional Testing | Verify that the air quality dashboard is accessible and displays accurate data | Air quality data from various sources |
| Personalized Health Advice | Functional Testing | Verify that the personalized health advice is provided based on the user's location | A representative sample of health data from various locations |
| Personal Health Tracking | Functional Testing | Verify that the personal health tracking functionality is working as expected | A representative sample of personal health data |
| Accessibility Features | Accessibility Testing | Verify that the solution is accessible and usable for users with disabilities | A representative sample of users with disabilities |
| Performance | Performance Testing | Verify that the solution performs as expected under various loads and conditions | Test data with different loads and conditions |
| Security | Security Testing | Verify that the solution is secure and protects user data | A representative sample of security threats |
| Compatibility | Compatibility Testing | Verify that the solution is compatible with different devices and operating systems | A representative sample of devices and operating systems |
| Regression Testing | Regression Testing | Verify that changes to the solution do not introduce new bugs or affect existing functionality | The previous version of the solution |