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| Component | Responsible for | Test options |
| User | User Interactions | Testing buttons, inputs, menus with manual testing and automated UI tests such as Espresso |
|  | User Data Entry | Unit Tests for edge cases, invalid inputs etc. And the response of the app to these cases |
|  | Editing Profile | Manual and Unit tests for editing the user’s data and checking if the data is updated accordingly |
|  | Setting Goals | Unit Tests for setting and deleting goals, multiple goals selection, Integration tests with the goals component |
| Goals | Show Goals | Ui rendering tests to ensure that the data is shown correctly, Ui tests to ensure the UI elements are responding correctly to user inputs. |
|  | Give Program suggestions | Integration tests with program component to ensure correct programs are given with the set of goals |
|  | Start/end programs | Unit tests to ensure the data manipulation works correctly such as starting, deleting, updating etc. |
| Achievements | Give Achievements on program/goal/challenge completion | Unit tests to ensure correct achievements are given at the correct time, edge cases..  Integration tests to verify that achievements are given on completion of programs/challenges/goals |
|  | Show the achievements | UI tests to verify displaying of achievements and scrolling through them (maybe a details screen explaining the achievement rarity etc.) |
| Programs | A set of programs in categories | Ui tests for loading of programs.  Integration tests to ensure the programs are saved in categories on the database or in the API |
|  | Starting / ending / updating programs | Unit tests to start end update programs.  Integrations tests with the other parts of the app |

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| Component | Responsible for | Test options |
| Steps | Showing step counter |  |
|  | Counting steps |  |
|  | Showing steps goal for the day |  |
| Sleep | Showing sleep duration |  |
|  | Detecting sleep duration |  |
| Workout Tracker | Tracking workout |  |
|  | Showing workout details (duration, burnt calories etc.) |  |
| BPM | Track BPM |  |
|  | Show BPM |  |

Communication between user’s mobile phone and the smartwatch

1. Mock tests for Bluetooth interactions -> Mocking Bluetooth connectivity to test responds for different scenarios (successful/unsuccessful data transfer, connection failures, timeouts etc.)
2. Unit Tests to ensure the received data is handled correctly.
3. Real device testing (manual) connecting 2 devices and sending and receiving data and checking in manually.
4. Performance testing for transfer speed in different distances interference etc.

Communication between devices and server

1. Mocking server connection and the devices response to this (ex. not sharing the data over Bluetooth and getting it directly from the server)
2. Mocking successful/unsuccessful data transfers
3. End to End tests to validate data transfers verifying data transfer etc.
4. Real device testing -> connecting to the server and test server communication over different mediums such as wifi / mobile data. Manual testing of the app
5. Performance testing for transfer speed in different distances interference etc