

ID	Requirement	Related Use Cases	Fulfilled By	Implemented By	Tested By
1	Profiles can be created in the UI	Use Case 1	mainwindow.h profile.h	mainwindow.cpp profile.cpp	Pressing the "Add Profile Button", then putting in info in the fields of the form, and pressing the "Create Profile Button"
2	Profiles can be deleted in the UI	Use Case 2	mainwindow.h profile.h	mainwindow.cpp profile.cpp	Select a profile to delete then pressing the "Delete Profile" button
3	Turning on the device	Use Case 3	mainwindow.h	mainwindow.cpp	Pressing the "Power On" button on the right side of the screen to turn on the device
4	Turning off the device	Use Case 4	mainwindow.h	mainwindow.cpp	Press the "Power Off" button on the right side of the screen to turn off the device
5	Taking Measurements of the 24 meridian points	Use Case 5	mainwindow.h measurement.h profile.h	mainwindow.cpp measurement.cpp profile.cpp	Login with a user profile, navigate to the main menu to the "Measurement" tab, and pressing the "Take Measurement" button on the right side 24 times to take a measurement. The 24 measurements, and the time the measurement began is stored into the DB. Viewing history by entering the history page will show the measurement and time it was measured.
6	Viewing history	Use Case 6	mainwindow.h history.h profile.h	mainwindow.cpp history.cpp profile.cpp	Login with a user profile, navigate to the main menu to the "History" tab, and view the past measurements in separate tabs.
7	Viewing summary	Use Case 7	mainwindow.h summarywindow.h profile.h	mainwindow.cpp summarywindow.cpp profile.cpp	Login with a user profile, navigate to the main menu to the "Summary" tab. A window will pop up showing a list of buttons that open windows to their respective measurements.
8	Viewing recommendations	Use Case 8	mainwindow.h	mainwindow.cpp	Login with a user profile, navigate to the main menu to the "Recommendations" tab, and a list will appear showing some recommendations the user can read to better understand their health data.
9	Interrupted measurement	Use Case 4 Use Case 9	mainwindow.h	mainwindow.cpp	When the device runs out of battery when the user is taking a measurement, the app will discard that unfinished measurement and prompt the user the next time they logged back that their previous measurement was not saved due to the device ran out of battery.
10	Historical data (data persistence)	Use Case 1 Use Case 2 Use Case 5 Use Case 6	history.h	history.cpp	When a profile is selected the measurements associated with the user is loaded into memory for viewing from raDoTech.db.
11	Variable number of profiles can be created (up to 5)	N/A	mainwindow.h	mainwindow.cpp	The app supports up to 5 profiles at once. If the user wishes to create more profiles but there were already 5, they had to delete one of the old ones to make room for a new one.

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12	The system can handle a growing number of measurements	N/A	history.h	history.cpp	In the main menu page, press the "Start Measurements" button. Follow the procedure, and a measurement is created, Exit back to the main menu and repeat multiple times.
13	The device shows its battery status	N/A	mainwindow.h	mainwindow.cpp	Run the simulator, the device battery charge is displayed in the GUI
14	Device battery charge depletes with time	N/A	mainwindow.h	mainwindow.cpp	Turn on the device by pressing the "Power On" button, and observe as the battery charge level depletes by 1% every 2 seconds
15	The device shows low power indication	N/A	mainwindow.h	mainwindow.cpp	Turn on the device by pressing the "Power On" button. Wait until the charge level reaches 10% and the level turns red and a notification to charge the device is displayed
16	The device shuts down gracefully once battery charge reaches 0%	N/A	mainwindow.h	mainwindow.cpp	Turn on the device by pressing the "Power On" button. Wait until the charge level reaches 0%
17	The application does not contain memory leaks	N/A	N/A	N/A	Run valgrind to check for memory leaks
18	Upon starting the application, all profiles and associated measurements are loaded	N/A	history.h	history.cpp	Create a profile, and create a measurement for the profile. Exit the application and reopen the application. The profiles and measurements are loaded from the SQL database.