ID	Requirement	Related Use Case	Fulfilled By	Test	Description
1	User Interface Design	N/A	mainwindow	The UI is visible when the program runs.	We replicated the interface of the AED plus device using Qt's graphical interface. We used labels for the display elements and buttons to represent both physical buttons and actions taken by the user.
2	Cardiac Arrhythmia Detection	4	mainwindow, AED	Start the program and attach the pads to the patient. The AED display will show that the heart rhythm is being analyzed and will display the result.	This is done via the analyzeHeartRhythm function. The function is called when the user clicks the attach pads button. The function takes the patient class as an argument and checks the heartRhythm variable. The function will then update the mainwindow accordingly.
3	Real Time CPR Feedback	7	mainwindow, User, AED	Run the program using any of the test cases. The system will guide you to performing CPR.	When the program determines that CPR is needed, the user can click the perform CPR button. The performCPR function in the User class will count the number of good compressions done, and will also update the AED to give prompts if the user is doing the compressions wrong.

4	Voice and Visual Prompts	5	mainwindow, AED, AEDspeaker	The program will deliver visual prompts on the AED display and “speaker” prompts in the terminal throughout the runtime of the program.	The various functions that are performed by the AED class include an updateAEDDisplay signal that is used to send various information to the display. In the mainwindow class, the on-screen elements are updated based on what information was received. Similarly, an AEDspeaker object is passed to the AED, and can call functions in that class that output similar prompts to the terminal to simulate the AED’s speaker system.
5	User Interaction	N/A	mainwindow, AED, User	The user interacts with the program mainly through buttons on the main window.	The visibility of all of the buttons on the display are controlled by the mainwindow class. It can receive information from the User and AED classes to update these buttons. Each of the buttons are also linked to various functions in the AED and User classes.

6	Simulated Scenarios	N/A	mainwindow, AED	In the mainwindow class, you can pass 1, 2, 3 or 4 to setTestCases() to see four different test scenarios.	The setTestCases function will change some of the patient's information for when the program is run, resulting in different scenarios happening during runtime.