Emergency Room Scheduler

Write a GUI based program that uses a priority queue to place patients in a waiting line as they arrive at the emergency room. More serious patients will be given a higher priority and will be placed in line ahead of less serious patients. Rate each patient as Fair, Serious, or Critical as they are entered into the queue.

Include the following elements in your GUI:

- A textbox to enter the patient’s name
- Radio buttons to rate the patient as fair, serious, or critical
- A button to schedule the patient (enqueue them in a priority queue)
- A button to treat the next patient in line (dequeue them)
- A button to treat all remaining patients (dequeue them)
- A textarea with a scrollbar to display messages including when a patient is added to the waiting list and when a patient is being treated. Use the patient name(s) in these messages.

Below is an example of how to code radio buttons:

1. Declare private objects for the group of radio buttons and for each individual radio button...
   ```java
   private ButtonGroup gender = new ButtonGroup();
   private JRadioButton male = new JRadioButton("Male");
   private JRadioButton female = new JRadioButton("Female");
   ```
2. In the constructor, add the radio buttons to the button group as well as to a panel. (Adding the buttons to the group will assure that they function together. Without the group you could choose all of the radio buttons at the same time.)
   ```java
   gender.add(male);
   gender.add(female);
   ```
3. In the action method for a JButton, use the isSelected method on a radio button to determine if it has been chosen.
   ```java
   if (male.isSelected())
     //do something
   ```

Below is an example of how to add scroll bars to a text area:

1. Add a JTextArea to a JScrollPane
   ```java
   JScrollPane scrollPane = new JScrollPane(mytext); //mytext is a JTextArea
   ```
2. Add the JScrollPane to a panel
   ```java
   outputpanel.add(scrollPane); //outputpanel is a JPanel
   ```