

HCI Report

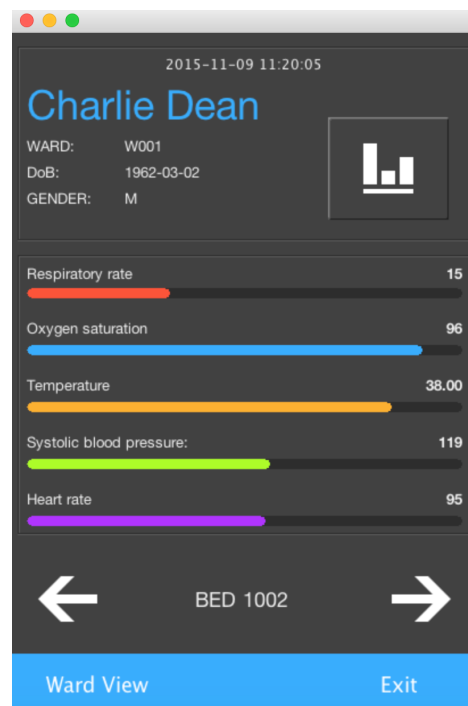
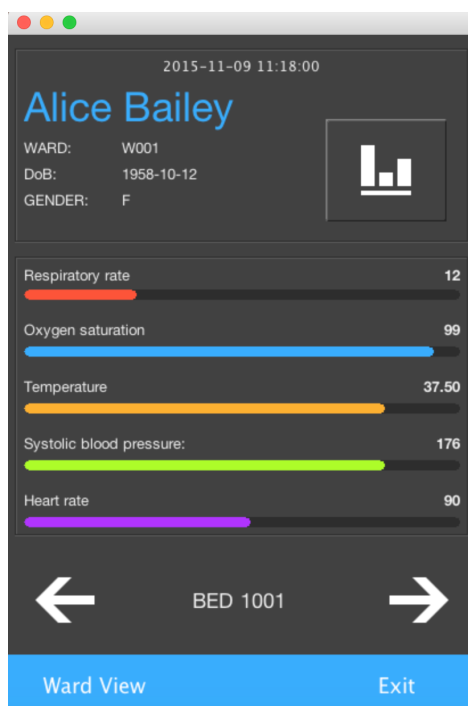
Task 1

The users of my interface will be the professional nurses and doctors who are working in the ward and my interface has been design to reflect that. The activities which are being carried out are mainly the monitoring of information about each patient individually. The basic information has been displayed at the top of the screen and the name is highlighted. This is so the user can easily identify which patient they are monitoring as this is usually the first thing they will want to see.

The real time data about the patients health is then displayed in the next section and has been designed in a way that allows sudden changes in values and salient information to be presented to the user. To do this I have used a different coloured bars for each attribute as well as the explicit value. Using coloured bars here means changes in the data can be monitored easily across a short time period.

Interaction with this interface involves switching between different patient in the ward. The buttons to change the patient have be located near the bottom of the screen. Since this is a tablet application this means the user can access these buttons with the minimum required movement for their fingers. Arrow icons have been used to give a visual metaphor to the user that they are moving between patients in the direction indicated by the arrow.

Interface metaphors exploit user's familiar knowledge, helping them to understand 'the unfamiliar'. To conceptualise what activities that the nurse or doctor would be using this for in a ward, the interface has been designed so that it resembles a clipboard.



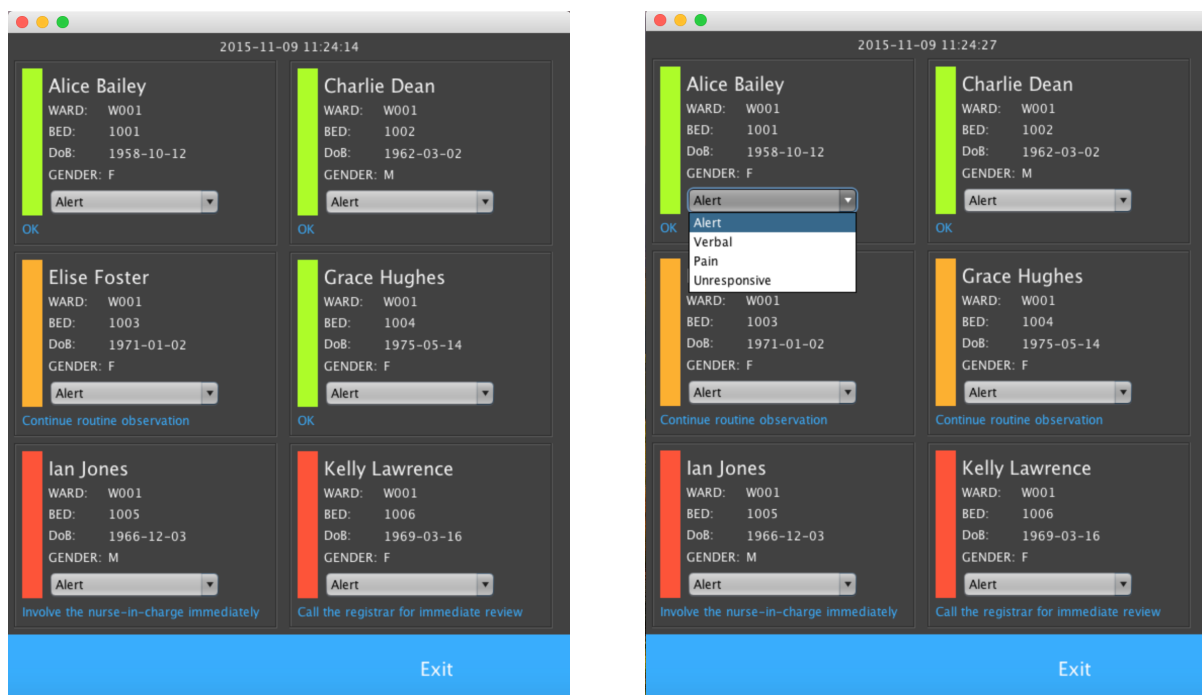
Task 2

The ward interface has been designed so that the users attention is guided to the information that is necessary to quickly find the health of a patient. By using a traffic light system for the health of the patient, patients that require aid jump out immediately. The colours do not need to be leaned since it is obvious that red means bad and green means good.

The most relevant information such as the patients name are in a larger font and the less important information such as a patients date of birth is in a smaller font. By providing the user with only the essential information in this kind of view, I have avoided cluttering the interface with too much information.

We can also see that the interface is consistent with the previous patient view so that the user who's that they are still in the correct application. The consistency is achieved by using the same font, sizes and colour scheme across the entire application.

The text which is used to warn the users about each patient is highlighted in blue but due to the limitations in terms of screen size, it was smaller than I intended it to be. In a real tablet application I would have used push notification to alert the user with sound, vibrations and text when a patient required immediate attention.

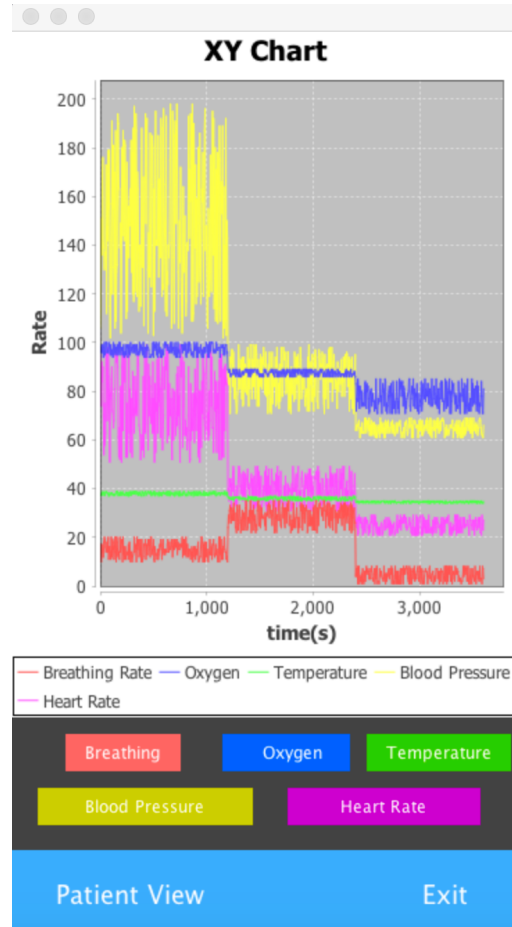
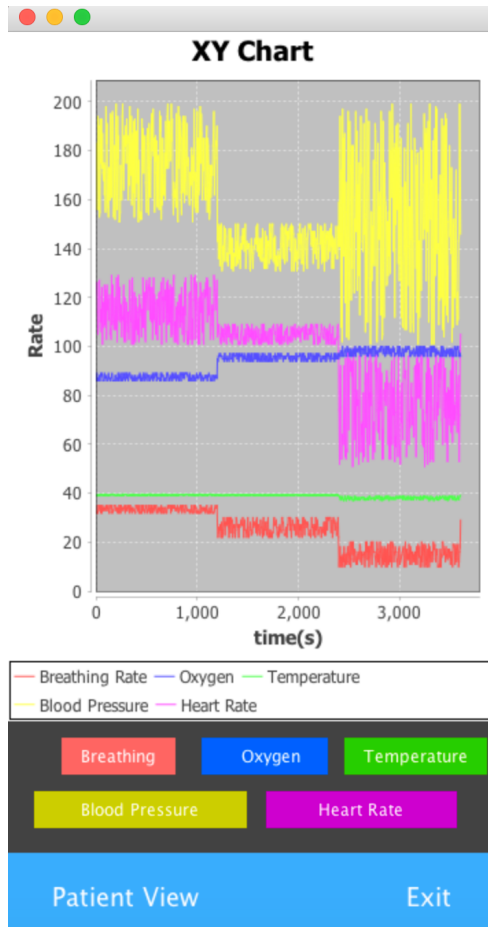


Task 3

Once again, the history view has an interface which is consistent with the rest of the application. It uses the same colour scheme and has the same blue bar at the bottom for navigation so the user does not need to learn how to move back to the patient or ward views.

The history graph takes up most of the screen since it is most relevant information to the user in this view. It is colour coded so that the user can easily see the patterns relating to each attribute.

The colour coded lines match the toggle buttons so that the user already know what they will happen when they press each button. The buttons will remove an attribute from the graph so that they can inspect any combination they want.



Task 4

The method I have chosen to evaluate the successfulness of my interface is Usability testing. I would first record the performance of nurses and doctors using the interface in a typical scenario where first they are shown the ward view where they must monitor a patient. A patient will then be entered into a critical state where the user will be able to move to the patient view and monitor the patient more closely.

The users will be observed and timed so that their performance can be evaluated later. Every time a user presses on the screen, the time and the location of the press will be recorded so that I could determine when they have pressed the screen incorrectly and how long it takes them to correctly learn how to use the interface.

The data gathered will be used to give a measure of the performance of each user and used to identify and explain where errors may have occurred.

The user satisfaction of the system can be evaluated further by providing the nurses and doctors with a questionnaire about various aspects of the system and ask them to rate how intuitive they found symbols such as the arrows which switch between users. Perhaps they will be able to suggest ways in which the links between parts of the system could be improved and which pieces of information they would like to see more/less highlighted.

This could then be fed back into the development process where a new version of the application can be prototyped and which can be used itself for another evaluation phase.