MIS 44044: System Analysis II

Homework #2
Designing a Symptom Assessment Interface
Due October 3, 2005

This first project is designed to give you experience designing a user interface in Visual Basic. This assignment capitalizes on the ever-increasing use of computers in the medical field and allows you to design your own symptom assessment interface.

Background

"The aim of palliative care is to alleviate as many of the patient's symptoms as possible, and in that way, provide the best quality of life for patients and their families. To achieve this goal, the doctor must have precise knowledge about the patient's conditions and needs. If a symptom is not mentioned to the doctor, it is unlikely to be treated. Therefore, good symptom assessment is one of the most important components of delivering effective care to palliative patients." (Hallgren, 2002).

There are two typical ways doctors currently receive information about their patients. Usually, the doctor will learn about the symptoms when speaking to the patient, relatives or other caregivers. The second way to measure symptoms is to use an established symptom questionnaire. For this assignment, you will develop a novel third way: a computer interface that will allow the patient to submit his or her symptoms directly to the doctor.

Interface Requirements

As a part of the interface, there is a minimum amount of information you need to collect from the patient. You can decide how to collect this information in any manner you wish, provided that the interface is designed in accordance with the standards presented in the course text, *Designing the User Interface*. The information you should gather is:

> Patient Information
> Patients' Name
> Patient's Date of Birth
> Name of Patient's doctor
> The person using the interface (The only valid input for this question should be 'Patient' or 'Caregiver')

> Symptom Assessment
> The patient must answer the following three questions on a scale of zero to 10
> Wellbeing
> 0 = 'Best feeling of wellbeing',   10 = 'Worst feeling of wellbeing

> Tired
> 0 = 'Not tired',   10 = 'Worst possible tiredness

Pain

0 = 'No pain   10 = 'Worst possible pain'

Pain Assessment

Since many palliative patients have major problems with pain, specific pain assessment questions could be useful. You should allow the user to specify exactly where he or she is feeling pain. At the very least, pain should be able to be specified in the following places:

        Shoulders, left arm right arm, chest, stomach, right leg, left leg and back

You should also gather the following information about the pain:

- The time of day the pain hurts (i.e. morning, afternoon, night, all day, etc.)
- Does movement influence the pain(Yes/No)

Project Guidelines

1. You should be familiar with VB.net from previous classes. The intent of this assignment is to re-familiarize you with the basic components of the VB.net environment. All that is required is to drag and drop controls to enhance your interface and set a few options in the properties dialog. No coding is required. However, some obvious restrictions should be enforced when appropriate. For example, if you use groups of radio boxes, there should be one and only one item in each group that is selected
2. You should use only a single form. Your form should be **no larger** than 800x600.
3. The focus is on the interface, and the grading criterion is centered on your interface design. Select command-buttons, check boxes, images, color, labels, etc. to make an attractive and effective interface.
4. You must do this project individually.

Grading Criteria

The grading for this assignment will be based on three criteria:

1. Completeness
   Did you do everything that was listed in the interface requirements? Did you crate a screen shot of your interface with the correct name? Did you e-mail your assignment with the correct subject?
2. Graphic Design
   Did you make use of concepts such as alignment, group consistency, etc?
3. Aesthetics
   Did you create an appealing interface by using appropriate fonts, colors, images, etc.?

Submission Instructions

You will submit your assignments electronically. All that is required is a JPEG screenshot of the interface you designed. You should name your screenshot
'<lastname>-<first-initial>-HW2.jpg'

NOTE: refer to Appendix 1 for information instructions for creating s screenshot in Windows and naming your file

Once you have created your screenshot, e-mail it as an attachment to me (**missives@sharenbakke.com**). The subject to the e-mail should be:

MIS44044-<lastname>-<first initial>-HW2

This e-mail must be received by midnight on October 3rd, 2005.

Appendix 1: Capturing a Screenshot in Windows

Follow these steps to capturing a screenshot in Windows:

1. Run your Visual Basic.net project. Be sure no other windows are overlapping your interface.
2. Hit the 'Print Screen' key on your keyboard
3. Open up a graphics program such as Paint or Photoshop and select Paste from the Edit menu.
4. Save the pasted screenshot image as a JPEG with the following name: <lastname>-<first initial>-HW2.jpg. For example, if your name were Steve Jobs you would name your assignment**: jobs-s-HW2.jpg**