BTH545 Lab 7

Learning Outcomes

- To research and discover new UI design principles,
- To research and discover new UI design patterns,
- To solve a problem in UI design that demonstrates good use of the UI design principles and UI design patterns.

Description

You are writing an editor for computer code that should support syntactic highlighting as well as printing the code on a physical printer. Syntactic highlighting means that you can specify how variables, keywords, operators and syntactic sugar (brackets and parentheses) should appear on the screen. For each of these you can select a font where you select the font family (serif, sans-serif, cursive, symbol), font face (Times-Roman, Arial, etc.), font size (in points) (Times-Roman), and style (regular, bold, italic, underlined). Note that not all fonts will be available in all sizes and might not support all styles. Note also that some fonts will support multiple styles at once (can be bold, underlined and italic all at once). Syntactic elements can also be in different colours and the user can select any colour for each element in the code.

When the code is printed, you will be able to select the printable area on the paper. Most printers do not let you print closer than 5 mm to the edge of the page. Other than that, you should be able to specify the printable area of any size, located anywhere on the page. Different paper sizes need to be supported, including all the common paper sizes as well as custom sizes. Since colours will not appear correctly on black and white printers, you can specify an alternate font/size/style for use on black and white printers that will make the code easier to read on those printers.

In-Lab (60%)

You should look at the ui-patterns.com website for ideas on how to create a good interface to configure the syntactic highlighting for your application. You should then sketch the interface as one or more drawings showing how the interface will operate via a series of exemplar images showing various things being done with the interface. You should make navigation between various screens obvious to the reader.

Your interface will be judged by how well it follows UI principles, makes good use of UI design patterns and show some innovation which will make it superior to most configuration interfaces.

At-Home (40%)

You should reflect on why you made the decisions you did when you designed the interface. You should relate each decision to the associated UI principle or UI design pattern that influenced your decision. Explain why you made the decision and how it will contribute to a high quality user interface.

Submission

Submit one or more documents containing your sketches of the interface along with a list of the group members to Blackboard. The reflections are due by midnight 2 days after the lab. The reflections should include images of the interface to illustrate the points being discussed. The reflections should also include a list of the group members.