**Title**

Term Project for Human Factors - Spring 2020

**Due**

May 10, 2020 11:55 pm

**Number of resubmissions allowed**

1

**Accept Resubmission Until**

May 10, 2020 11:55 pm

**Status**

In progress

**Instructions**

Term Project for Human Factors Spring 2020

To demonstrate your knowledge and understanding of the materials presented this semester in your textbook, *Interactive Design,* you are to complete the following project that is like the ticket ordering system described in the textbook.  The project is accomplished in four discrete steps.  Assume that you are developing a program to remotely place orders for a particular product.

**You may discuss or confer with other participants in the class and use their comments, suggestions, and evaluations of your project.  However, you must submit your own individually developed project for each of the four parts to the total assignment.** Please be reasonable with the scope of what you include in your project.  (For example, don’t include detailed information on who is ordering and how the food is to be purchased etc.)

**Part 1 of 4:  Design and Evaluation**

For this part of the assignment, you should:

-Identify the needs for this product.

-Based on your system requirements, create user profiles and produce one persona and one main scenario, explaining how a user is expected to interact with the product.  Remember to keep the requirements to a minimum.

-Perform a task analysis on the activities associated with the use of the interactive product.

-Based on this analysis, produce a use case for the interactive product

- Using the data gathered and your subsequent analysis, identify different kinds of requirements for the product based on the topics introduced relevant topics identified in the Volere Requirements Specification Template.  (The Volere Requirements Specification Template is a comprehensive elaboration of ALL of the issues that are relevant to the design of an interactive system.  You need to consider each issue identified by the template and be very selective in choosing the particular issue that needs to be considered by your product.  It is neither required nor necessary to address all of the issues listed,)

-Product:

Prepare the requirements in the style of Volere template as edited from the total list for the material provided on the course Resources section of the class website.  Copies of the Volere Requirements Template Sample, Complete Requirements Template and various other useful tools associated with the Volere template are included in the Resources section of this TRACS site.

**Part 2 of 4:  Design, Prototype and Construction of an Interactive Product**

-Based on the information gleaned from part 1, suggest conceptual models for this system.  You should consider each of the aspects of the conceptual model discussed in chapter 11 of the text:  interface metaphor, interaction type, interface type, activities to support, functions, relationships between functions and information requirements.

-Produce the following prototypes for your chosen conceptual model:

Using the scenarios generated for the product, produce a storyboard for the task for your conceptual model.  Show it to potential users and get some informal feedback.

Develop a card-based prototype from the use case for the task, also incorporating feedback.  Show this new prototype to potential users and obtain informal feedback.

Consider your product's concrete design.  Sketch out the systems main screens.  Consider the layout, use of colors, navigation, audio, animation, etc.  While doing this, use the three main questions introduced in chapter 6 as guidance:

(1) Where am I?  (2) What's here? (3) Where can I go?  Write one or two sentences explaining the choices and consider whether the choice is a usability consideration or a user experience consideration.

-Sketch out an experience map for your system.  Use the scenarios and personas you have already generated to explore the user's experience.  Identify any new interaction issues that you had not previously considered and suggest what you could do to address them.

The final product of this step should be the design of the prototype for the Interactive Product.

Part 3 of 4:  Create a Mock-up

-Using one of the mock-up tools introduced in chapter 12 or any other mock-up tools to generate a mock-up of your product's main pages, as developed in the previous portion of your product from part 2 of 4.

-Using one of the development sites discussed in chapter 12, to identify suitable interaction patterns for elements of your product. Develop a software-based prototype that incorporates all the feedback and the results of the user experience mapping achieved at the end of chapter 11.  If you do not have experience in using any of these, create a few HTML web pages to represent the basic structure of your interactive product.

The result of the third part of the four parts should be the HTML or similar web pages for your interactive product.

Part 4 of 4: Evaluation of an Interactive Product.

-Based on your knowledge of the requirements for this system, develop a standard or typical task for a typical user to performed.

-Select three typical users and ask them to do the task using your prototype.

-Note the problems that each user encounters.   Note their vocalizations, movements, posture, time to complete each of the tasks or sub-tasks, and their reactions after completing the task.  If you can, time their performances to the nearest second.  Document their performance using an available device (smartphone, camera, etc.).

At the end of this session you have the data to be used to evaluation of your interactive system.  Make use of the examples shown in the evaluation chapter 14 to produce statistics.  (Use the statistical measures available through Microsoft Excel or similar system.)

Write a summary of your evaluation and conclusions regarding the entire system as it currently exists.

**Submit the four parts of the project as a single word processor file readable by Open Office or Word via the class website.**