Practicing Creativity, App Design Principles, Marvel UI Design App, Critical Feedback and Thinking

The goal of this assignment is to practice idea creation, and to learn how to use an app user interface design package, and practice in gaining feedback from users.

1   Basics of Marvel User Interface Design App

Marvel is an online software package that allows you to design the look and feel of the activity of a smartphone app.   It gives you the ability to 'draw' the different screens (or capture sketches of them) of your planned app, and make actual screen transitions.

Go to this website: https://marvelapp.com/ Click on 'Sign up free' button on the upper right, and create an account for yourself. **Also**, download the **Marvel Design and Prototype** app to your smartphone – either https://play.google.com/store/apps/details?id=com.marvelapp&hl=en   for Android or https://itunes.apple.com/us/app/marvel-design-and-prototype/id765801658?mt=8 for iOS.

Next, watch the two videos that give you a quick introduction to using both the desktop/web app and the smartphone app, by going to **Dashboard->Learn-> Tutorials** link at the top of the page and watch "Learn Marvel in Minutes" and all of the other videos there, which are very short and helpful.

Next, spend an hour learning how to use the tool, either by doing what the first page suggests, or reading the help FAQ. Note the two modes of the tool: 1)The design/edit mode where you can create a fresh screen and draw things on it and 2) The 'prototype' mode where you can create buttons/regions that, when touched, cause the 'prototype' to jump to a different image/screen. Be sure to learn the following:
- To create a new page; to duplicate a page
- To place squares, circles, lines and text boxes on the image
- To set the size (and resize) of the text appropriately
- To change the colour and border of any square, circle line or other object
- To add icons from the wide selection provided
- How to resize objects
- **How to make a button (or anything else) link to another page**
- **How to make a 'hover' response**
- How to use the smartphone app to take pictures of hand sketches (or other things) to use as a basis for the images that you add links to. (Requires downloading the app, signing in, connecting to the same project, and taking pictures)
- How to preview your design to see how it works (and then go back to edit mode)
- Use the '**Share'** button to share your design a web link to the prototype

- How to make a Pie Chart and Bar Chart, and to set the size of the regions/bars
- How to create a web link that shares your project with someone else.

2   Reading About Design

The following web page gives a description of the *overall design* of applications, in the Android context: https://material.io/design/introduction. Read it to learn about the kinds of things that designers discuss.

For another perspective, read over the following from Apple:

https://developer.apple.com/design/tips/

and here:

https://developer.apple.com/design/human-interface-guidelines/ios/overview/themes/

3   Assignment

In this assignment, the goal is to gain skills in the design *and* conception of an application. The application you conceive will be based on the following capability: assume that there already exists a software capability that can take in a video, find the faces in it, identify a specific face (by the name of the person) and characterize the emotion that each person's face is currently expressing. The set of emotions are the following:

1. Happy
2. Sad
3. Angry
4. Fear
5. Joy
6. Surprise
7. Neutral

If you wish, you can add in more emotions, as this list is not complete.

So, the assumption is that a smartphone or tablet with a camera (either front or back-facing), can capture live video and feeds it to this software, which every *second* will return the set of names of the people and their current emotion.

You are to conceive of an application that makes use of this capability, and to mock it up using the Marvel App. Next, you should present your application to three people, and ask them for their critical feedback on your application.

So, you are being asked to do these **four** things:

1. Be creative in making use of this capability to design an app that does something interesting. **It must be beyond the obvious app of simply displaying the result of the emotion measurement.** If you wish, cast it within your field of expertise/experience – but this is not required.

2. Design the app's layout and structure, from a user interface perspective, using what you learned from Part1 and Part 2. When you describe the design, you should refer to the design concepts you read about in Part 2.

3. Find three people, present your app and working design in the Marvel App to them individually, and ask them for critical feedback on it. (For example – what did they like about it, not like, suggestions for improvement, would they buy it …). A more complete example set of questions can be found here: https://garyperlman.com/quest/quest.cgi?form=QUIS.

4. Do your own analysis of the App: Describe its strengths and weaknesses.

What to hand in: A (maximum) 1500-word document that contains:
1. A web link to your **Marvel-based** design that you created. Do not change it after the deadline.
2. What your application does (*roughly 500 words*), stating why it is useful, interesting or worthwhile in some way.
3. Why you designed it the way you did (*roughly 400 words*). You should refer to the principles of good design you read about in Part 2.
4. The results of the interviews with the three people. (*roughly 300 words*)
5. Your own critical analysis of your idea. (*roughly 300 words)*

The grading scheme/rubric will be as follows:
- 2 marks for the 'what' in step 2 above – we are looking for a creative use of the emotion recognition capability
- 2 marks for the 'why' in step 2 – looking for logical justification for why this would be used by someone
- 2 marks for design quality and design rationale in step 3 - looking at aesthetics and some form of credible design as related to Apple/Google design guidelines
- 2 marks for the interviews in step 4 – looking for evidence that you sought real and useful feedback, and described it well.
- 2 marks for step 5 – looking for insightful and critical reflection on your creation

We also expect the writing to exhibit high quality grammar and clarity and logical flow. The grades given in in each step will be influenced by this expectation.

Due date: Tuesday February 2nd, at 6pm, Marked out of 10, 0.5 marks off every hour late. Include the word count as part of your document; penalty of 0.1 marks for every word over the limit.

Submit your document on Quercus under this Specialist Assignment S2.