

ECE 1778 – Creative Applications for Mobile Devices
January 2016
Assignment S2, for Specialists

App Design Principles, Moqups & Practicing Creativity

The goal of this assignment is to practice idea creation, and to learn how to use an app ‘wireframe’ design package that is often used in industry.

1 Basics of Moqups

Moqups is an online software package that allows you to design the look and parts of the activity of a smartphone app. It gives you the ability to ‘draw’ the different screens of your planned app, and to say what buttons link the launching of one screen from another.

Go to this website: <https://moqups.com> Click on ‘signup & pricing’ on the upper right, and select the free plan that is offered on the bottom of that popup.

Spend an hour learning how to use the tool, either by doing what the first page suggests, or reading the help FAQ. Be sure to learn the following:

- To create a new page
- To duplicate a page
- To change the size of the page, and its length to width ratio.
- To place a text field on a page
- To resize text
- To place a button on a page
- To draw a line
- To change the colour of a line
- How to resize objects
- **How to make a button (or anything else) link to another page**
- How to preview your design to see how it works (and then go back to edit mode)
- How to share your design with someone else
- 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: <http://developer.android.com/design/patterns/app-structure.html> Read it to learn about some notions of design.

Next, to learn from the experts at Apple, go to:

<https://developer.apple.com/library/ios/documentation/UserExperience/Conceptual/MobileHIG/>

Each of the sections provides Apple's latest view of user interface and experience.

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 you have software that can look at 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. Neutral
2. Happy
3. Sad
4. Angry
5. Fear
6. Anticipation
7. Surprise

So, a smartphone or tablet with a camera (either front or back-facing), or a camera wirelessly connected to the smartphone can capture live video and feed 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.

So, you are really being asked to do two 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**, making use of the capability perhaps (but not required for this exercise) within your field of expertise.
2. Design the app's layout and structure, from a user interface perspective, using what you learned from Part1 and Part 2.

Along with a **moqups** mockup, you should hand in a maximum 1000 word document that describes 1) What your application does (*approx. 500 words*), and why and 2) Why you 'designed' it the way you did (*approx. 500 words*). It would help to make reference to the principles of good design you see in Part 2. The document you hand in should contain a link to the mockup that you have created.

Due date: Monday January 25th, at 6pm, Marked out of 10, 0.5 marks off every hour late.

Submit your document on the Blackboard Course Portal link Specialist Assignments, under Assignment S2.