Matthew Johnson

Matthew Johnson capstone project proposal for YouMaps iPad app

Capstone Propsal

YouMaps

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# Elevator Pitch

My product, YouMaps, is an Apple iPad application. YouMaps will allow a technologically average user to alter map images. Maps images are kmz or kml files that can be downloaded from Google Earth. YouMaps is similar in functionality to the Google Earth map editor but allows you to edit map files while offline at the users’ convenience. YouMaps is a useful tool with three major functions: first, a user can add and edit kmz or kml files. The user can draw paths and lines, write text, and overlay symbols onto their maps; second, the user can save their edited files in a kml, kmz, or jpeg format. These files can then be uploaded to view online in Google Earth. Files may also be stored and shared with other users for them to modify or view; third, the user can take pictures with their iPad, and using the first two YouMaps functions, edit the pictures and upload them to Google Earth or send them to other users.

# Target Users

YouMaps target users are people who use maps on a routine basis as part of their daily life or as a function of their job. The user base is broad and may include anyone in emergency and disaster response agencies who use maps to track damage to large areas or hard core GeoCachers who use maps to find Geo treasure hunt locations. The typical user would have a need to use and edit maps, sometimes without a direct Internet connection, as well as have the ability to make those maps available to other people. Lastly, the user would also have a need or desire to take pictures, edit those pictures with YouMaps, and share those images as maps.

# User Stories

Title: Place Symbols

#### Priority: One

Description:

As a user I can place the symbol I have created on an image.

#### Acceptance:

The symbol stays where the user placed it.

Title: Store Symbols

#### Priority: Two

#### Description:

As a user I can create a bank of reusable symbols.

#### Acceptance:

When a symbol has been saved a message is displayed showing the user the symbol has been saved.

When a symbol is saved the user will be able see it in the bank of symbols.

Title: Drawing Lines

Priority: Three

Description:

As a user I can draw lines and paths on an image.

Acceptance:

The line or path will stay where the user drew it.

Title: Add Notes

Priority: Four

Description:

As a user I can add notes to an image.

Acceptance:

The notes will remain on the screen at the location the user placed them.

Title: Add Text to Image

Priority: Five

Description:

As a user I can add text to an image.

Acceptance:

The text will remain on the screen superimposed on the image.

Title: Longitude and Latitude Converter

Priority: Six

Description:

As a user I can convert longitude and latitude between decimal and degrees.

Acceptance:

When a longitude and latitude has been entered both the longitude and latitude will be displayed in decimal form and degrees

# Two Week Plan

There are several challenges in developing this application. One challenge is that I will be using a language that I have never programmed in before, as well as an IDE I have never used before. Another challenge I will face will be learning how to manipulate the files and learning the file structure and metadata manipulation rules.

Though there are some hurdles to overcome, I have chosen a project that I think will stretch my programming and self-teaching skills. The following plan outlines what I expect to accomplish in the first two weeks.

## Week One

The first task I need to accomplish is getting the import capacity of the application working. I expect to take four days to get the importing working properly. After I have the importing done I will design the folder structure for storing maps; I expect this process to take two days.

Week One Assignments

Title: Import files

#### Priority: Week One Priority One

#### Description:

As a user I can import a kmz or kml file.

#### Acceptance:

A confirmation message is shown when the import is complete.

Title: Store files

#### Priority: Week One Priority Two

#### Description:

As a user I can define a folder structure for storing my maps.

#### Acceptance:

When a map is stored a message will confirm that it’s been stored successfully.

Title: Display Map

Priority: Week One Priority Three

Description:

As a user I can display an already imported map on the screen.

Acceptance:

The map selected will display on the screen.

## Week Two

After the importing is finished, the second hardest part of the project will be exporting the images into the selected file type. I expect the different pieces in this task to take seven days.

Week Two Assignments

Title: Export Image

#### Priority: Week Two Priority One

#### Description:

As a user I can export an image to a kml, kml, or jpeg.

#### Acceptance:

When a map has been successfully exported the user will see a message showing that the export was successful.

The exported map will be shown on the iPad.

Title: Take Pictures

#### Priority: Week Two Priority Two

#### Description:

As a user I can take a picture with my iPad camera.

#### Acceptance:

The iPad camera takes a picture.

Title: Convert Jpeg

#### Priority: Week Two Priority Three

#### Description:

As a user I can convert a jpeg taken with the iPad camera to a kml or kmz file.

#### Acceptance:

When a jpeg has been converted the user will see a message showing that the conversion was successful.