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CS385 – Final Project Turn-in

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**Project Name**: “USAFA Marches”

**Description**: March a flight/squadron. Practice marching. Relive the glory days. Complete tasks. Explore the Terrazzo. Unlock different zones. You must give corrections to your flight when they mess up.

**Functional Requirements/Frameworks**:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Requirement** | **Description** | **Framework** | **Status** | **Points** |
| Create Environment | Create terrazzo environment for the flight to march around in | SpriteKit | Fully Functional | 20 |
| March | March a flight/squadron without any errors | SpriteKit | Fully Functional | 40 |
| Implement Commands | Allow the player to give commands to both control and correct his flight/squadron | SpriteKit | Partially Functional. Corrections to flight are not implemented, but basic commands are. | 10 |
| Rank Up | Allow the user to rank up | None | Fully Functional | 15 |
| Post to Facebook | Whenever you rank up, post your new level to Facebook | Social | Fully Functional | 10 |
| Save Progress | Save progress of the player | None | Fully Functional | 10 |
| Settings Menu | Implement a “settings menu” where the player can view both his progress and the progress of his flight | SpriteKit | Fully Functional | 25 |
| Change Size | Change size of flight/squadron | SpriteKit | Fully Functional | 20 |
|  |  |  |  |  |
| Marching Tasks | Implement marching tasks/missions for the player to complete | SpriteKit | Not Implemented (although you can be creative!) | 10 |
| Make Mistakes | Have flight/squadron make random mistakes | SpriteKit | Not Implemented | 10 |
| **Total** |  |  |  | **170** |

**Lessons Learned Since Gatecheck**:

* Swift changes a lot from version to version and has extremely poor documentation to represent that
* Using view controllers with segues can be a good way to pass information if you figure out what’s actually going on
* There are a lot of technicalities to marching (such as needing to be in column formation to do a column movement) that you don’t really think about unless you’re programming it.
* How to really use the Facebook posting and social Framework
* Don’t bite off more than you can chew

**Lines of Code/Time Invested**:

*Time Invested in Project*: Approximately 55 hours (10 hours research/design, 10 hours animation, 35 hours coding)

*Lines of Code*: Approximately 1,100

**User Guide**:

\*\*My lab is stored as PEX/PEX4. If you have trouble getting the app to build and run, make sure you have XCode 8 and open the Game Scene to make sure the tiles appear. If they do not, insert a standard Spritekit tileset and all of the tiles should be reloaded. If not, email me and I can assist.

1. The first view to pop up is the Main Menu
   1. Press “New Game” to get rid of any old games (if there are any) and start a brand new game
   2. Press “Load Game to load game settings which have been previously stored on your phone (only works if the game has already been played and saved)
2. The second view is the Marching View
   1. If you’ve ever marched, everything here is self-explanatory
   2. The location in which you march is the Terrazo
   3. You can zoom in and out by pressing “+” and “-“
   4. Go to the Menu View by pressing “Menu” in the top right of the screen. This allows you to view progress and configure various settings.
   5. You can save progress by pressing the “save” button at any point.
3. The third view is the Menu View
   1. Adjust the number of elements, the number of cadets, and the speed of your cadets.
   2. View your current level and your progress as you level up.