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ICS3U1-01

SAD Proposal

April 23rd 2016

**SAD Proposal-Name: Militant**

**1. Game Description/Purpose**

The basis of the game will be a military strategy game, conceptually similar to Risk, the board game. The purpose of the game is to allow the player to be a military strategiest, and have the option to form allies or make enemies. The game’s overall interface will be laid out in a map format representing the world. The different groups of enemies/allies will be represented as the 7 continents.

There is no set path as to which continent to conquer first, but they will be of varying difficulties, and will require different sorts of troops to conquer. The Ultimate enemy of the player is North America, and the player will need a large amount of troops, and possible allies, Depending on the strategy, to conquer this territory. The game is considered as “Won” when the world is conquered, and the score points reaches 700.

**Attributes:**

There are a few essential attributes for the player, attack (troop power), health points, defense (defensive power of troops), and mobility (speed at which the troops conquer different countries). When the game started, the player has:

*Damage (beginning value: 100, max: 500)*

*Mobility (starting value: 100, max: 500)*

*Health Points (Starting value: 100, max: 500)*

*Defensive power (starting value: 100, max: 500)*

*Gold (100 gold coins)*

*Score Points (0)*

The player can use gold coins earned from killing enemies to buy troop, and buy armor for those troops. Gold coins can also purchase more health, mobility, and attack

**The screen size should be 900x700.**

**Armory:** A player can access the armory at any point to purchase items with gold coins. Certain items will only be unlocked after a certain amount of score points are surpassed. A complete copy of *The Art of War* by Sun Tzu will be available for reading in the armory, such that the player can learn military techniques. Items are unlocked automatically after the player reaches enough score points. However, in order to obtain the item, players must purchase them using the gold they obtained in battle.

**How to obtain Gold/Score:**

-Each level will award the player an amount of gold when the level is completed.

-Additional gold and score points will be awarded for killing enemies, how much money and score points gained depends on the tier of the enemy

-Each territory that is conquered will give the player a different amount of gold. This is dependent on the military ranking of the country.

-Additional score points in the each level can be gained by losing only a small amount to lossing no health points. This means the player is not unharmed by the enemy. The less health points the player lose the more additional score points will be awarded.

**How can the player die/lose health points:**

Loss health points if the user got attacked by the enemy.

The player will die and start over a level when the health points is dropped to 0 in game

* The game is over if all conquered territories are lost.

**2. Data Structure:**

***What gets stored?:*** The game will store Character status information (Damage, health, mobility etc), Progress in the entire campaign(which levels has the player finished), Purchase Information(items that the player purchased),etc. Other information such as enemy status can be defined within the game program, because enemy status doesn’t change.

***Where is it stored?:*** The information in the game that needed to be stored will be stored using CSV files. When the game starts, the information from the csv file will be stored as variables in the game using dictionaries that contain lists. Similar to elephant Trip.

Boolean values in the csv file can act as True or False for if the player has finished a level.

**Using Data structure:**

**Lists** can be used to store frames of one moving picture. For example, if there

are 5 frames of the game character moving, all frames can be stored using

one list.

Lists can store information on the different territories, including the military ranking, amount of troops, strength and damage, and etc.

**Dictionaries:** Items in the game item shop can be saved in dictionaries, the

key would be the name of the item, and values are the description of it.

**Tuples** can be used to store colour values in the game, and x,y coordinates of the

moving characters, obstacles, enemies.

**The following is the status of enemies from each tier:**

Enemies has the following attributes:

***Strength, Defense, Health, Mobility,***

*Enemy soldier Types:*

*Antarctica: 20 Damage, 15 Mobility, 50 Health, 20 defense*

*rewards:**20 gold, 50 score points*

*Australia: 40 Damage, 25 mobility, 60 health, 30 defense*

*rewards: 40 gold, 60 score points*

*Asia: 50 damage, 30 mobility, 70 health, 40 defense*

*rewards:**60 gold, 100 score points*

*Africa: 70 damage, 20 Mobility, 80 Health, 40 defense*

*rewards****:*** *70 gold, 100 score points*

*South America: 80 damage, 40 mobility, 80 health,70 defense*

*Rewards: 90 gold, 100 score points*

*Europe: 90 damage, 50 mobility, 90 health, 80 defense*

*Rewards: 95 gold, 145 score points*

*North America: 100 damage, 80 mobility, 100 health, 100 defense*

*Rewards: 150 gold, 145 score points*

**4. Develop a timeline for accomplishing the project. Begin at this proposal, end with your presentation.**

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| **Due Dates/Timeline** | **Task** |
| April 26 | -Create rough designs for game  -Experiment necessary methods of creating game in pygame  - Create, edit, and finish SAD |
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| April 22nd - April 30th | (Fix SAD if there are problems)  **Work on these for Progress Report:**  -Create all graphics that will be used in the game.  -A basic frame work of the game that includes the intro screen, menu, world map, Armory, and help guide.  -Find sounds to be added to the game (for shooting, character moving etc.)  -Finish Planning what to put in all four levels in the game (landscapes, how many enemies) |
| **Due Date:** May 2nd | Present Oral Progress report |
| May 2nd - May 10th | **Work on these for the next Progress Report:**  **-**Finish all necessary graphics  -Finish the basic coding for all 7 continents in the game.  -Sounds added to the game  -Score/gold system added to the game |
| **Due Date:** May 11th | Present the second progress report |
| May 12th - May 16th | **Work On:**  - coding the levels  -Test and debug errors in the program |
| May 16th - May 18th | -Create a User Documentation that describes the contents of software packages and detailed instruction relating to how the program is used.  - Get someone to test the game |
| **Due Dates:** May 20th 11:30 pm. | Write Documentation and drop Program and documents to drop box |
| May. 26th | Presentation of game |