Final Project Proposal

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Overview

The game will contain a diver that is made of a series of parts all connected much like the hero in MP5. He will also have items that will be attached to him and also be part of the Transform Hierarchy. These items may change throughout the game based on what the user buys or upgrades (purchases).

When the player moves using the keyboard input animations will happen using the transform hierarchy. This will be a swim animation where his legs will move, also based on where you are going his entire body will rotate.

The player will have textures as well as other objects and creatures in the water. There will also be bubbles from the player and creatures in the water which will be alpha blended.

There will be two viewports; the main viewport will follow the diver and display a limited area around him which can be slightly changed in the other display. The other display will show the entire world and where the diver is relative to the world.

The goal of the game is to collected items, and then sell those items to gain money; This money can then be used to purchase or upgrade items, which will allow the user to dive deeper access areas they couldn't otherwise access…

While the diver is exploring and collecting they must watch out for dangers like things falling or sharks running into them. Events like this can damage equipment, this will require it to be repaired and cost money, as well as the player can die if such an event is prolonged. If the player dies they will start back from the last save. The other thing that can happen is if a shark or falling item gets too close then they will lose a little more oxygen for that short period of time. If an item reaches a certain amount of damage it will not work anymore (unable to use it). If the oxygen tank is hit (special item) it will be damaged. After a certain amount of damage the players will lose extra oxygen over time.

The user can save and load a game at any point. Also every time the user services the game will automatically save with an appended name (autosave). The user can also pause the game at any point and resume it as well.

There will be audio for the bubbles as well as when a shark is getting close or something is about to fall or falling.

Selling

When the user surfaces they can sell all the things they have gathered. Each item will have a set value that will not change.

Note: If there is time we will make item values change and the user be able to pick what they sell each time.

Purchasing

The user will be able to purchase upgrades to existing items as well as purchase new ones. Examples of an upgrade is: The user starts with a small oxygen tank so they can only stay down for so long, they will be able to upgrade this oxygen tank so they can hold more oxygen and stay down longer. An example of a new item may be a jack to prop something up to get to something or so that it doesn't fall. Or a knife to cut something loose to take it.

Items

There are two types of items collected items and items the player has.

Collected Items

The player will have an inventory of items they have collected and can sell. These are things like shells they have grabbed. They can only be sold and cannot be used.
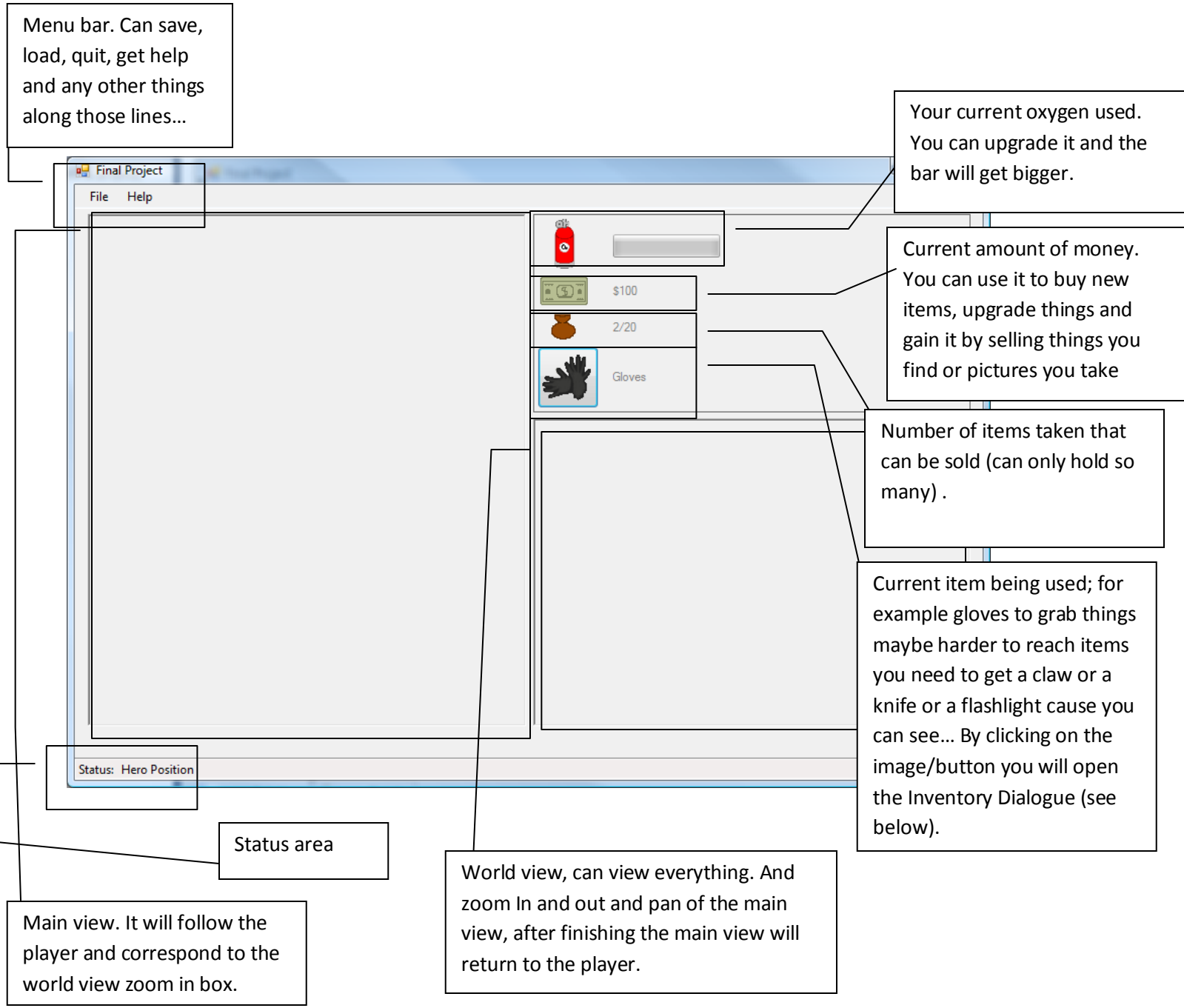
Inventory Items

Inventory of items can use for exploring. At any time they can change what item they are currently using. Based on what object they are near the item will be used or not. By default to pick things up you need gloves. This may be the only item that the user gets or uses if we don't get time to make more.
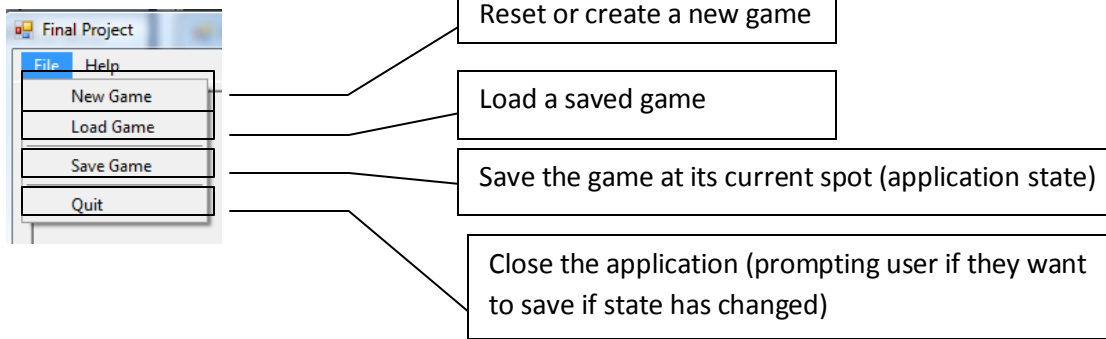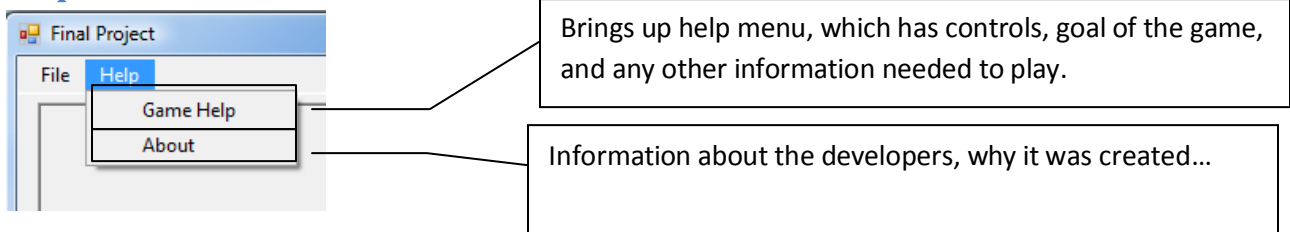
User Interface

Main user interface

This is the interface that will always be visible and the user will use to play the game as well as get to the other interfaces.

Menu bar. Can save, load, quit, get help and any other things along those lines…

Your current oxygen used. You can upgrade it and the bar will get bigger.

Current amount of money. You can use it to buy new items, upgrade things and gain it by selling things you find or pictures you take

Number of items taken that can be sold (can only hold so many) .

Current item being used; for example gloves to grab things maybe harder to reach items you need to get a claw or a knife or a flashlight cause you can see… By clicking on the image/button you will open the Inventory Dialogue (see below).

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File   Help

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Gloves

Status: Hero Position

Status area

World view, can view everything. And zoom In and out and pan of the main view, after finishing the main view will return to the player.

Main view. It will follow the player and correspond to the world view zoom in box.

File Menu

Reset or create a new game

Load a saved game

Save the game at its current spot (application state)

Close the application (prompting user if they want to save if state has changed)

Help Menu

Brings up help menu, which has controls, goal of the game, and any other information needed to play.
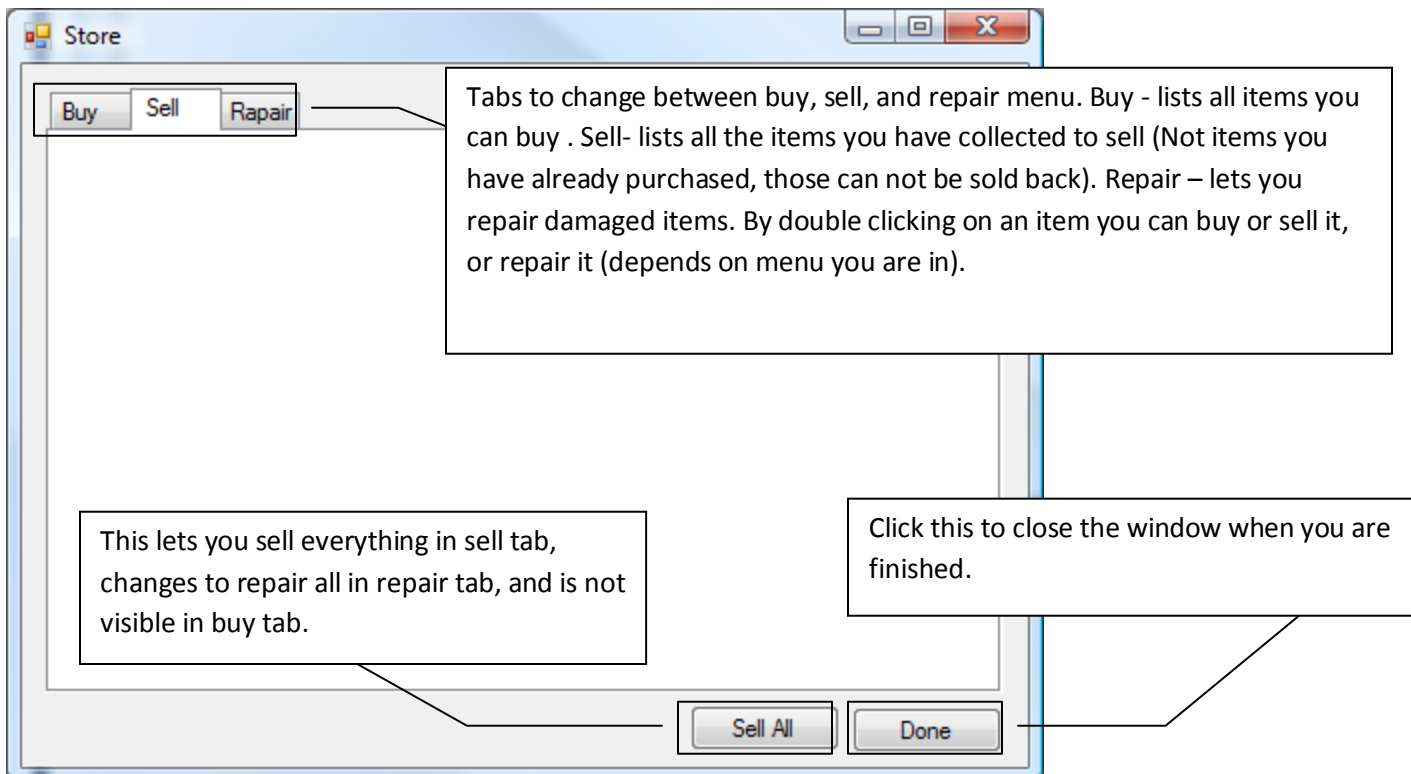
Information about the developers, why it was created…

Store Dialogue

This menu comes up after colliding with the boat on the top of the water. After clicking done you will dive again and can only come back to this menu by hitting the boat again.

Tabs to change between buy, sell, and repair menu. Buy - lists all items you can buy . Sell- lists all the items you have collected to sell (Not items you have already purchased, those can not be sold back). Repair – lets you repair damaged items. By double clicking on an item you can buy or sell it, or repair it (depends on menu you are in).

This lets you sell everything in sell tab, changes to repair all in repair tab, and is not visible in buy tab.

Click this to close the window when you are finished.

Inventory Dialogue

This lists all the items the player owns and can choose the current item to use. There is a done button to close it and by clicking on an item you select it. Alternatively you can double click on an item to selected it and close the window.
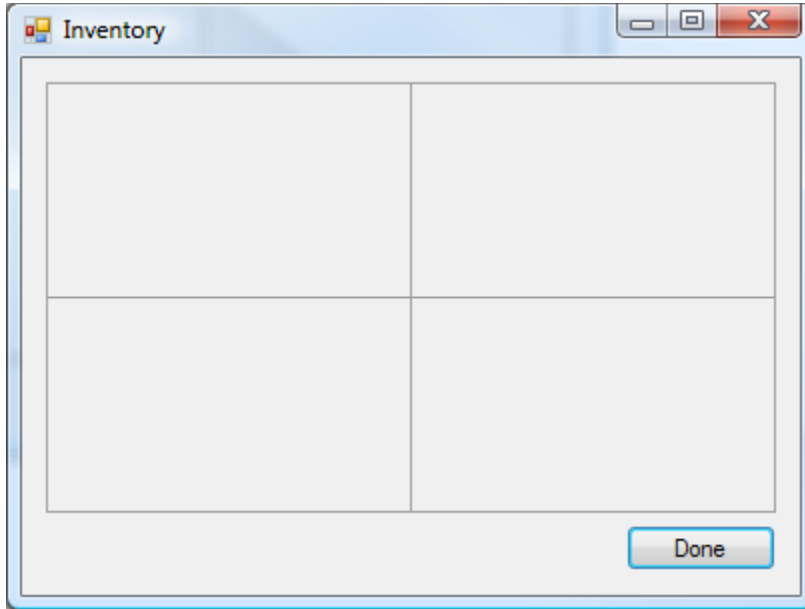
Interactions of objects

Player + Boat = Store dialogue

Player + Shark = Starts timer for death, over time player current equipment can take damage (inventory item). Also the player will lose more oxygen.

Player +Oxygen tank = Oxygen tank will become damaged.