Name: Michael Xiao

Project: AstroExplorer: Voyage Home

Requirements:

User Requirement #3

<u>Use Case-03:</u> The player should be able to view their health, oxygen, and fuel bar at the top of the screen. The changes to the bars should correlate to what the player does in the game.

User Requirement #6

<u>Use Case-06:</u> The player should be able to access an in-game shop where they can view the upgrades to their equipment in exchange for their resources.

Use Case Document(s):

Use Case ID:	UC-03		
Use Case Name:	Monitor Statistics		
Description:	The player should be able to view their current values for health, oxygen, and fuel amount.		
Actors:	Player		
Pre-Condition:	The player must be in a game session.		
Post-Conditions:	The player can see in the game interface the amount of health, oxygen, and fuel they currently have.		
Frequency of Use:	Used consistently while in game.		
Flow of Events		Actor Action	System Response
	1	Player does not move.	Game displays health, oxygen, and fuel bars in top of screen.
	2	Player uses jetpack.	Game decreases fuel and oxygen.
	3	Player collides with object in game.	Game decreases health.
Variations:	2. Player doesn't have any oxygen/fuel left. 3. Player doesn't have any health left.		
Exceptions:			
Developer Notes:			

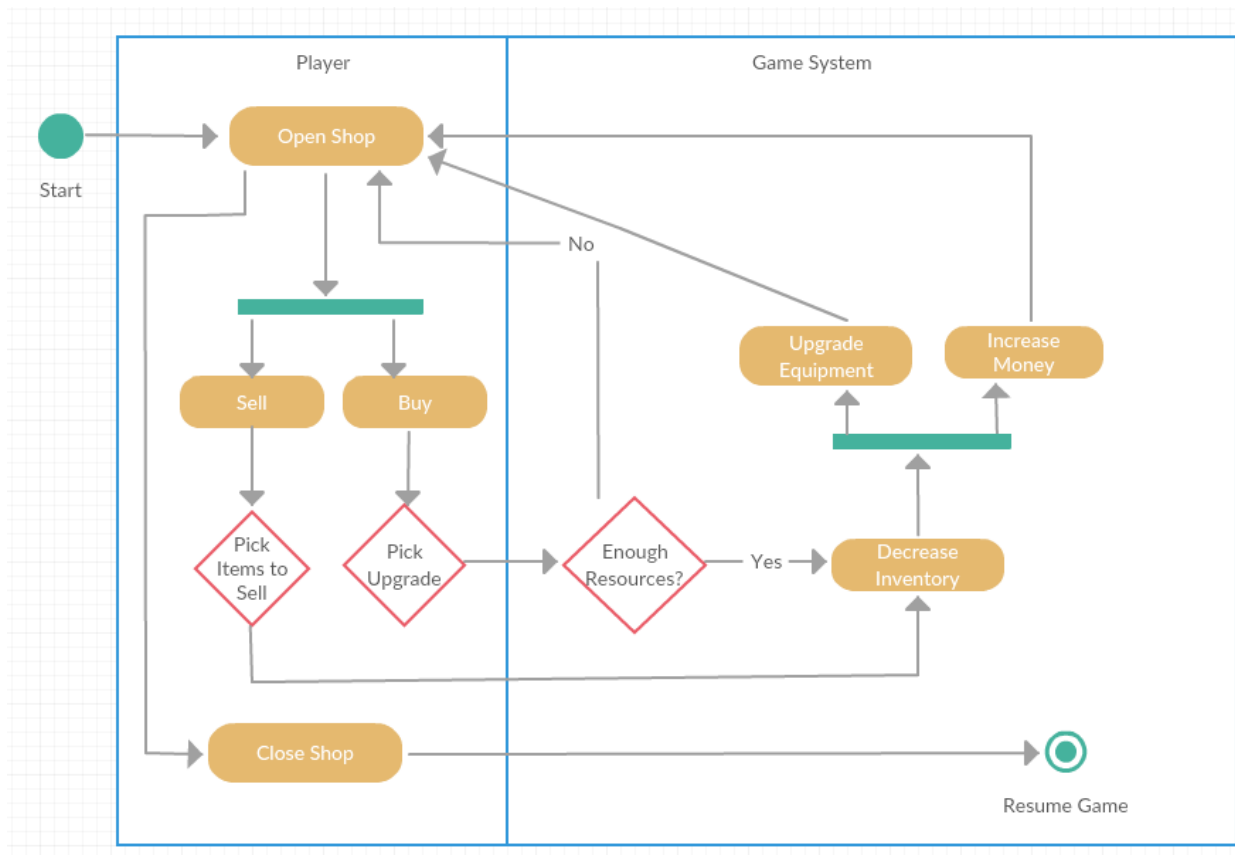| Use Case ID:	UC-09	
Use Case Name:	Item Upgrade	
Description:	The player should be able to access the in-game workshop to upgrade their equipment's performance.	
Actors:	Player	
Pre-Condition:	The player must be in a game session and in the specific area where the shop is located.	
Post-Conditions:	The player uses their resources they gathered to upgrade their equipment.	
Frequency of Use:	Used consistently while in game.	
Flow of Events		Actor Action	System Response
	1	Player enters shop area.	Game displays shop menu.
	2	Player selects upgrade they want.	
	3	Player trades resources for upgrade.	Game increases equipment efficiency. Game decreases player inventory.
Variations:	3. Player doesn't have enough resources.	
Exceptions:		
Developer Notes:		

Activity Diagram:

Requirement ID: UR-06

Use Case ID: UC-09

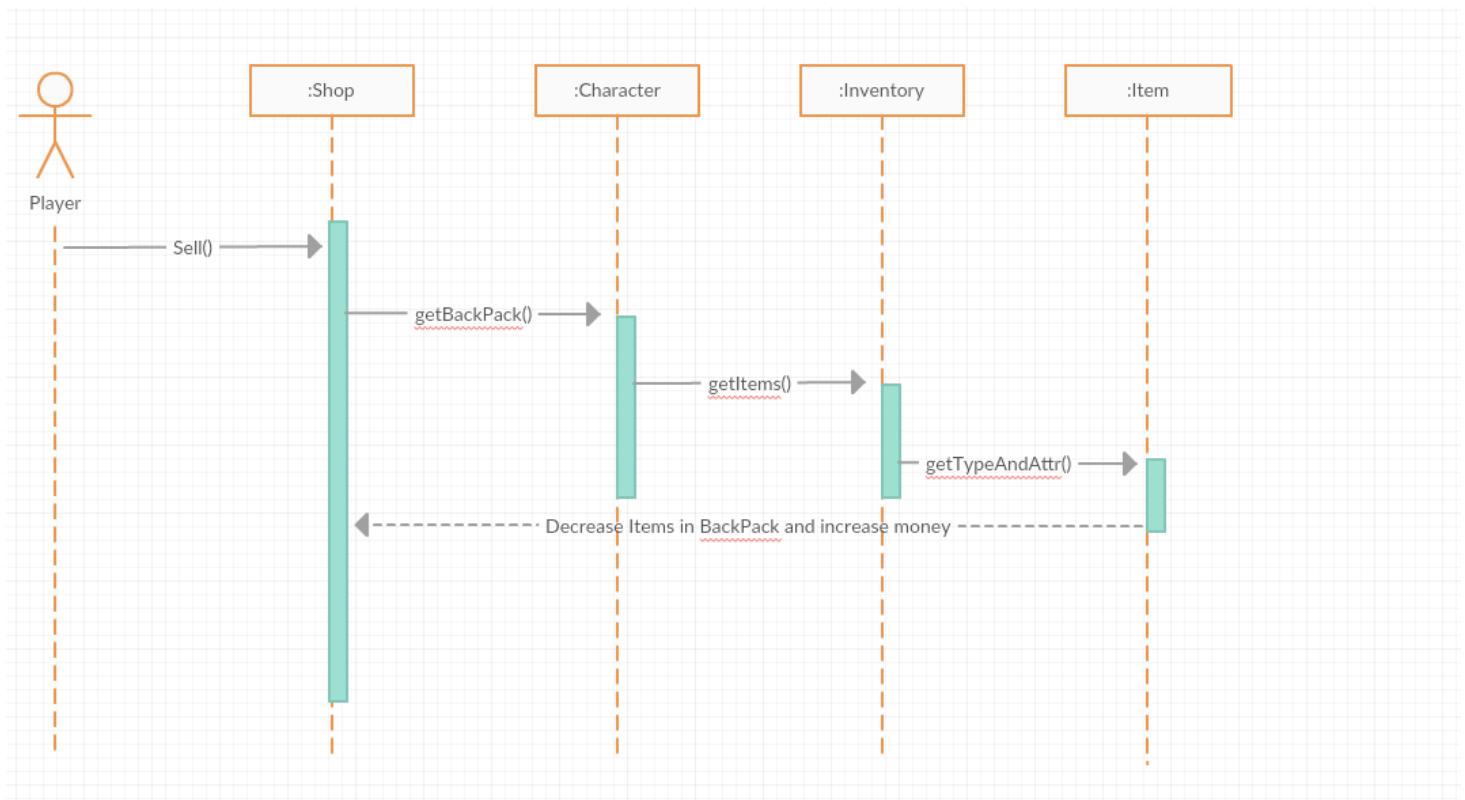Use Case Name: Item Upgrade

Author: Michael Xiao

User Interactions:

Requirement ID: UR-06

Use Case ID: UC-09

Use Case Name: Item Upgrade (Sell option)

Use Case Short Description: The player should be able to sell their items in their inventory to increase the money that they have for buying things within the shop. The shop checks to see if the player has enough of what they are selling before returning the correct values. If the player doesn't have that item there is no decrease in the decrease items in backpack return.

Requirement ID: UR-06

Use Case ID: UC-09

Use Case Name: Item Upgrade (Buy option)

Use Case Short Description: The player should be able to increase the efficiency of their equipment. The store checks to see if the player has enough resources to buy the equipment before issuing a return and a change to the player class. If the player does have enough resources, the value for the specific item bought will be set to a higher value in the Statistics method (which keeps track of health, oxygen, and fuel bar), and the item will be returned and set higher in the player inventory section as well.