Use Case Document

Description of Use Cases for *AstroBeasts* by Team Russian Blue for
CMSC447 - Sprint 2

Interaction With the Start Menu:

From the start menu, the user will see the *Title Screen* and 3 options. The options are *New Game*, *Load Game*, and *Options*.

- *New Game* will start a brand new game from the beginning with a tutorial.
  Once pressed, you will see 3 Save Slots available to pick. Empty SS will say "Empty".
  Picking a save slot will prompt you to enter a 5-character long name => *SSName*
- *Load Game* will load a previous Save Slot. *Save Slots* that have info will have a 5-character long *SSName* displayed and current level location.
- *Options* will show a list of selectable options. It will show Credits, Brightness, Sound, High Scores, etc. and Back option.

Interaction with Save Slots:

3 *Save Slots* will be shown on the screen once selected. Empty SS will say "Empty".

- *Save Slots* that are used will have a 5-char SSName displayed and current level.
- Picking an empty save slot will immediately start the *New Game*.
- There is also a Back option at the bottom that returns to the Start *Menu*.

For New User:

A new user will want to immediately start playing, so the user will choose the New Game option. They will enter a Save Slot Name (SSName) and press continue. This will launch the tutorial.

1) Tutorial: Once in the game, the tutorial will spawn the player in our character's spaceship. It's a small room called The Hub which contains a small Shop, a training ground called The Dojo, and a teleportation pad that leads to The Arena.
   a) Text bubbles pop up and guide the user on the game's basic controls. It will have a bubble for Movement (WASD), interact (E), and Player Menu (R). Bubbles disappear once the player has pressed all the buttons.
   b) The player will be prompted to interact with the ship's main screen. A digital wanted poster appears showing the first bounty that the player must defeat.

2) Choosing Your Starter: The player will then interact with the Shop and purchase their first starter astrobeast.

a) They will choose from 3 options. Each astrobeast has a different element.

3) Customizing Character: Players can choose or customize their character's appearance, abilities, or equipment before starting or during gameplay, we could use a database here and use sql queries to get the correct character. Maybe outfit may be tough but we can hae different character and delete them as different use cases

4) Player Progression: A text bubble will briefly explain the game's mechanics.
   a) The player can progress through the game by acquiring currency from defeated enemies, picking up items/resources, or buying items and additional astrobeasts in the shop.
   b) In order to unlock another world, the player must defeat the planet's bounty or Boss. Lore-wise, the player claims their bounty and gains bonus experience and currency. Once the player's party defeats the boss battle bounty, they officially unlock the next planet. When the player opens the Starport menu, they will see the new planet is available. They can choose to stay on their current planet and explore or progress to the newly unlocked planet.

For Returning User:

A returning user will choose Load Game in the Start Menu. A Save Slot will load:
- Save Slots - SSName, Inventory, Level location, enemies (defeated and future)
- Inventory - beasts (health, experience, moveset, stats), items, currency,

Once loaded, the player will spawn back in the Ship on the appropriate planet (level). The Ship will always have a fixed position per level.

Combat:

1) When battle starts, the player's Party of Astrobeasts (max 4) will be set against a randomly generated party of enemies (max 4.) Combat is in the form of turn-based battle that occurs in rounds until one party is completely defeated.
2) To determine which side starts first, the player or the enemies, we calculate the average speed **SPD** stat of both sides's Astrobeasts, and whichever side is higher starts first.
   On Player's Turn:
   - When it is the player's turn. Each Astrobeast player's party will have the chance to perform a combat action. This will be done in order of descending speed **SPD** stat. I.e., faster Astrobeasts in the party go first.
   - There will be 4 different combat actions an Astrobeast can perform: **Fight**, **Flee**, **Item**, and **Scan**
     Fight:

- When this option is selected, a list of that Astrobeast's learned attacks will appear in the GUI as well as the basic stats of that attack
- When an attack is selected, the player will then be prompted to select a target enemy to use that attack on.
- Once the attack and target has been chosen, the system will calculate if the attack landed based on the attacker's dexterity **DEX** and luck **LUK** stats. If not, this Astrobeast's turn ends.
- If the attack lands successfully, the system will calculate the raw damage of the attack by using the Astrobeast's attack **ATK** stat, the attack's damage **DMG** stat, and a random number. (This formula will be derived later.)
- Then, the system will calculate the amount of damage that will be mitigated according to the target's defense **DEF** stat and a random number. (This formula will be derived later.)
- The total damage is given by taking the difference between the raw attack and mitigated damage. This total damage is displayed on the screen.
- This total is then deducted from the target's health pool. If this deduction drops them to or below 0 hitpoints, they are dead.
- The Astrobeast's turn ends

Flee:

- Selecting this option will begin an attempt to forfeit the battle.
- This is calculated by random chance. The player has a 20% chance to flee the battle.
- Upon successful fleeing, the battle ends. If fleeing is unsuccessful, That Astrobeast's turn ends and battle continues.

Item:

- Selecting this option will bring up the player's inventory to the GUI. (perhaps we will have a way to sort or tab the inventory)
- Once an item to give to the Astrobeast has been selected, the item's effect will be performed.
- The Astrobeast's turn ends.

Scan:

- Selecting this option will allow the player to scan an enemy combatant
- Scanning will display a description of the combatant and their remaining health
- This does not end the Astrobeast's turn

- If every Astrobeast in the player's party has ended their turn and there is at least one living enemy, the enemy party begins their turn.
3) This gameplay continues until one side is defeated. If the Player wins, they are rewarded with Credits and XP. If they lose, they lose some Credits and respawn at the closest save.

Elemental System

Weaknesses

Every Astrobeast has an elemental affinity.

Fire is strong against Gravity, Electric

Water is strong against Fire, Rock

Gravity is strong against Water, Rock

Rock is strong against Fire, Electric

Scorch is strong against Water, Gravity

- If an Astrobeast attacks another Astrobeast with an elemental attack that is strong against the victim, the Astrobeast victim will take bonus damage.

Player Progression

Experience

Initially, the player's Astrobeasts all start at Level 1. After achieving enough experience based on the Level Tiers, the Astrobeast will increase in level. Each increase in level will increase their stats by ___10.

Astrobeasts

The player can purchase Astrobeasts at the store using credits.

For advancing to new planets:

Once the player's party defeats the boss battle bounty, they officially unlock the next planet. When the player opens the Starport menu, they will see the new planet is available. They can choose to stay on their current planet and explore or progress to the newly unlocked planet.

For a viewer of High Scores:

Anyone who wants to view high scores should interface with a URI and see the team name, game name, player and their high score for the top five players.

1) Detailed Leaderboards: Beyond just viewing high scores, provide detailed leaderboards that include statistics such as total enemies defeated, planets conquered, and hours played.

2) Player Profiles: Allow viewers to click on a high score to view the player's profile, showcasing their character, equipment, achievements, and game history.

Player Menu:

Once the player is in the Battle Hub, they can
1) **Inventory:** Open up inventory that includes Astrobeasts and items. Astrobeasts display common stats like name, hp, and element.
2) **Training Dojo:** Go into a virtual battle to gain experience and currency.
3) **Fight:** Continue in the tournament and fight an opponent.
4) **Save:** The current Save Slot information will be stored on the Save Slot that is currently being played on.
5) **Save & Quit:** The current Save Slot information will be stored on the Save Slot that is currently being played on. After saving, the game will return the Start Menu.

Astrobeasts:

Common Astrobeasts

What to focus on is highlighted in yellow.

Skol Tarkeel Arquam Shamrock Hotu Zallo	Icell Strikoh Scourge

Stats
- NAM - Name
- ATK - Attack
- DEF - Defense
- SPD - Speed

Possible elements: Fire, Water/Ice, Plant, Rock, Scorch

Astrobeasts Moveset

1-4 per Player

What to focus on is highlighted in yellow.

DMG & ELM

● Slash ● Bite ● Pounce ● Tackle	● Headbutt

Ship interior aka The Hub:

The Hub is where the player can go and practice against other NPCs that are not bosses to grind Experience Points and Credits. Winning against these NPCs grants bonuses because in-game audiences like to watch and bet on you since you are a highly skilled Astro Trainer.

The Shop

This option allows the player to select and purchase consumable items and Astrobeasts that will help the player on their journey

Items

What to focus on is highlighted in yellow.
- **Power-Ups**

  Power-ups provide in-battle boosts to Astrobeasts.
  - ATK Potion: Boosts Astrobeasts ATK level by _____ points. Price: ___
  - DEF Potion: Boosts Astrobeasts DEF level by _____ points. Price: ___

- **Defensive Gadgets**
  - Photon Shield: block 1 attack against an ally Astrobeast. Lasts 1 turn. Price: ___
- **Snacks**
  - Cookies: Heals an injured Astrobeast for 20 hp.

Astrobeasts
- **Attack-oriented**
  - HP: 200-250; ATK: 35-50; DEF: 35-45
  - SPD: 40-50; DEX: 40-50; LUK: 25-30
- **Support-oriented**
  - HP: 250-300; ATK: 20-30; DEF: 40-50
  - SPD: 30; DEX: 30; LUK: 40
- **Defense-oriented**
  - HP: 300-400; ATK: 25-35; DEF: 50-60
  - SPD: 20; DEX: 20; LUK: 20

The Dojo

This option allows the player to enter into a training session with another NPC that's similar to the Arena but there are no penalties for losing.

You fight against a random group of 1-4 Astrobeasts with random Elemental Affinities and stats.

The Arena

This option will launch the player to fight in the Arena within the Galactic Astrobeast Tournament.

Tournament Format

| 1 |
| 2 |
  9
| 3 |
| 4 |
  10
      13   14
  11
| 5 |
| 6 |
  12
| 7 |
| 8 |

Tier 1   Tier 2   Tier 3