Galactic Takeover:

USE CASES & UML DIAGRAM

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USE CASES

- **View Title Screen**
    - Actor: User (Player)
    - Pre-Condition: Game is downloaded on iOS Device
    - Post-Condition: Select players
    - Events:
        - Initial title screen is displayed
            - Shows the picture of the title (logo)
            - Loads the game in the background
        - Player is presented with options for starting the game
        - "Play Game"
            - Game is initiated and taken to player selection
    - **Settings (Extension)**
        - Actor: User (Player)
        - Pre-Condition: Player wants to play the game
        - Post-Condition: Player is satisfied and customized the game to their liking
        - Events:
            - Adjust brightness
                - Toggles brightness level
            - Adjust volume.
                - Toggles extremity of sound
                - Mutes the game
            - Read credit description.
                - Reads game creator credits
            - Return to title screen
                - Selects back button and returns to title screen
                - Go back to Use Case: "View Title Screen"
- **Start Establishing Game Rules**
    - **Select Player Amount**
        - Actor: User (Player)
        - Pre-Condition: Selected "Start Game"
        - Post-Condition: Amount of players has been set
        - Events:
            - User selects amount of players participating
                - Must be between 2 and 6 players
    - **Select Player Characters**
        - Actor: User (Player)
        - Pre-Condition: Amount of players has been set
        - Post-Condition: Each player has their respective alien
        - Events:
            - Different characters are displayed

- - - ■ Each player can choose 1 mutant that will represent them in the game
    - ○ Cycle through the players until each player chooses their mutant
  - ○ **Randomly Select order of players**
    - ■ Actor: Computer (CPU)
    - ■ Pre-Condition: Amount of players has been set
    - ■ Post-Condition: Each player has their respective alien
    - ■ Events:
      - ● Game system determines order of which the players will conduct their turn in
      - ● Saves that order until the game finishes executing
  - ○ **Select Board**
    - ■ **Select Battle Location**
      - ● Actor: Computer (CPU)
      - ● Pre-Condition: Player amount has been established
      - ● Post-Condition: Game will be able to execute on the map
      - ● Events:
        - ○ If there are less than 5 players
          - ■ Game will only be played on Planet X
        - ○ If there are 5 or more players
          - ■ Game will be played on both Planet X and the Moon
- ● **Begin Game Execution**
  - ○ **Set Up Board**
    - ■ Actor: Computer (CPU)
    - ■ Pre-Condition: Board has been selected
    - ■ Post-Condition: First player can roll the die
  - ○ **Die Roll(s)**
    - ● Actor: User (Player)
    - ● Pre-Condition: Players have chosen their characters
    - ● Post-Condition: Game play initiated
    - ● Events:
      - ■ 1st Die Roll
        - ○ Player rolls 6 black die and chooses which set to keep
      - ■ 2nd Die Roll (Extension)
        - ○ If the player wishes to continue rolling die for a better set, they can roll a second time and
      - ■ 3rd Die Roll (Extension)
        - ○ If the player wishes to continue rolling die for a better set, they can roll a third time

  - ○ **Resolve Die**
    - ■ Actor: User (Player)

- Pre-Condition: Player finishes the die rolls they wish to complete up to three
- Post-Condition: Player continues their turn
- Events:
    - **Gain Victory Points**
        - Actor: Player
        - Pre-Condition: Die resolved and player rolled a three of a kind
        - Post-Condition: Continue Turn
        - Events:
            - Player gains as many Victory Points as the number they rolled in the triple set
            - Each additional same face gains the player 1 additional victory point

    - **Attack Opposing Characters**
        - Actor: User (Player)
        - Pre-Condition: Die resolved and player rolled a claw
        - Post-Condition: Continue turn
        - Events:
            - Players on planet can attack opposing players off the planet
            - Players outside the planet can attack opposing players on the planet

    - **Obtain Energy**
        - Actor: User (Player)
        - Pre-Condition: Die resolved and player rolled a lightning bolt
        - Post-Condition: Continue turn
        - Events:
            - Players earn energy cube for each lighting bolt face rolled

    - **Heal**
        - Actor: User (Player)
        - Pre-Condition: Die resolved and player rolled a heart
        - Post-Condition: Continue turn
        - Events:
            - Players outside of the planet can gain 1 health experience, each time a heart face is rolled
            - Players inside the planet cannot gain health experience, even though they rolled a heart face

- ○ **Takeover Planet**
  - ■ Actor: User (Player)
  - ■ Pre-Condition: Planet is not occupied by another player
  - ■ Post-Condition: Player remains on the planet until they are attacked
  - ■ Events:
    - ● Player enters the planet if there is an open space
    - ● Player gains 1 Victory Point

- ○ **Stay on Planet for a Round**
  - ■ Actor: User (Player)
  - ■ Pre-Condition: Player still on the planet after all other players play their turn for that round
  - ■ Post-Condition: Player still on planet, continues their turn
  - ■ Events:
    - ● Player gains 2 Victory Points

- ○ **Vacate Planet**
  - ■ Actor: User (Player)
  - ■ Pre-Condition: Player on planet and gets attacked by another player
  - ■ Post-Condition: Player exits the planet, and opposing players' can now enter
  - ■ Events:
    - ● Player chooses to exit the planet when attacked

- ● **Buy Power Cards**
  - ○ Actor: User (Player)
  - ○ Pre-Condition: Player has acquired enough energy points to purchase Power Cards
  - ○ Post-Condition: Player turn is over, the next player is up.
  - ○ Events:
    - ■ Player purchases Power Cards less than or equal to the amount of energy points they own.
      - ● Power Card amount exceeds energy points, player can not purchase Power Card.
      - ● Refresh deck of three power cards, by using two energy points.
- ● **Keep Power Card**
  - ○ Actor: User (Player)
  - ○ Pre-Condition: Player has purchased a Keep Power Card.
  - ○ Post-Condition: Player has the power card for the duration of the game.
  - ○ Events:
    - ■ Player purchases a Keep Power Card that has the ability to be stored with them for the duration of the game
- ● **Discard Power Card**

- ○ Actor: User (Player)
- ○ Pre-Condition: Player has purchased a Discard Power Card.
- ○ Post-Condition: Player has activated power card for a single-use ability.
- ○ Events:
  - ■ Player purchases a Discard Power Card that has only a single-use ability own the players given turn.
  - ■ Power Card is discarded after initial ability use.

- ○ **Refresh Power Card Deck**
  - ■ Use Case: Refresh Power Cards
  - ■ Actor: User (Player)
  - ■ Pre-Condition: Player has acquired enough energy points to purchase Power Cards
  - ■ Post-Condition: New set of three Power Cards are displayed.
  - ■ Events:
    - ● Player can refresh deck only when energy points are equal to or greater than two.
      - ○ Power Card amount exceeds energy points, the player can not refresh the Power Card set.
- ● **End Game**
  - ○ **Player Defeats all other players**
  - ○ **Someone manually leaves the game**
    - ■ Use Case: End Game
    - ■ Actor: User (Player)
    - ■ Pre-Condition: Game is no longer being played
    - ■ Post-Condition: Game memory is wiped and user resumes from Use Case 1
    - ■ Events:
      - ● Manually Leave Game:
        - ○ Player selects options on top right corner
          - ■ Selects "Leave Game" option
          - ■ Confirms selection
      - ● Player defeats all other players
        - ○ All players except one have 0 health left
        - ○ One player is declared ruler of the galaxy!
    - ■ **Revert to Title Screen (Use Case 1)**

UML DIAGRAM

DiceSet

ArrayList<Dice> diceSet

resolveDie()

GalacticTakeover

startGame()

endGame()

main()

Deck

ArrayList<Card> deck

drawCard()

keepCard()

discardCard()

randomizeCard()

TitleScreen

getPlayerChoice()

startGame()

settings()

Dice

rollDie()

CharacterChoiceScreen

int playerAmount

int selectCharacter

selectPlayerAmount()

selectCharacter()

Board

displayBoard()

Card

string playerMove

int amountOfPower

PlayerCharacter

boolean active

int order

initiatePlayer()

isActive()

getPlayerOrder()

attackPlayer()

PlayerInventory

int Health

int energy

int xp

getHealth()

getEnergy()

getXP()

updateHealth()

updateEnergy()

updateXP()

Planet

boolean isOccupied

PlayerCharacter characterOccupied

boolean isOccupied

Moon

PlayerCharacter characterOccupied

boolean isOccupied