

Individual Project Report

Ryan Borruso

LC1: Team 23

ENGR 13300 – Transforming Ideas to Innovation - Epics

Prof. Soudabeh Taghian Dinani

12/02/2025

1. Project Introduction

The purpose of my project is to create a text-based Star Wars game titled **Star Wars: Create Your Own Story**. This character driven story will be entirely unique to the user's/player's choices and actions. This program allows players to create their own character that makes choices based on events going on around them. These actions influence their reputation and the ending of their game. Players have the ability to become a Jedi and train under Luke Skywalker. They could also become a Sith and train under Darth Vader. They could also become neither, and watch as their life turns upside down by staying neutral. This project contains complex python/coding concepts like loops, conditionals, user-defined functions and user-inputs where the player can choose what to do during game altering events.

This project is meaningful because it merges creativity with STEM related fields. Interdisciplinary studies are very important for students in STEM fields. Many believe that STEM majors are one dimensional and don't result in well-rounded abilities. However, by allowing the player to engage in a storytelling-driven narrative, the game exemplifies how computer science and coding can extend beyond just technical problem solving. Through this beneficial experience for its intended user, the game becomes not only a form of entertainment but also an example of how multidisciplinary skills enhance engineering coding projects.

My background information regarding this project comes from my love for Star Wars. My dad introduced me to the universe back in elementary school, and since then it has been the way he and I have bonded over the years. Whether watching the chaotic film *Revenge of the Sith* on a stormy day or walking the bustling streets of *Galaxy's Edge* in *Disney's Hollywood Studios*, Star Wars has always been a source of entertainment and joy for my father and I. Additionally, I loved playing choice driven video games as a kid, my favorite being *Minecraft: Story Mode*. Once I began coding for the first time this year, I discovered how to make a simplified version of those games. Utilizing Python's functions, conditionals, and loops I was able to actualize my dream project of creating a text-based and choice driven Star Wars Game.

2. Project Overview of Inputs and Outputs

My project relies on many user inputs to uniquely progress through the game's multiple storylines. For example, there are user inputs for your character's name, planet selection, and multiple story decisions. These story inputs are as follows: investigate or stay, join or decline, resist or cooperate, accept or decline. The character and planet inputs allow for a customized output unique to the player. The story inputs directly influence the output and ending of the story. These user-inputs utilize typed out responses prompted from the game to adjust the reputation of the user's character.

The reputation is a numerical score based on the player's actions that affect the outcome of the game. Actions that are widely considered good raise the reputation score (toward the light side of the force). Choices that are widely considered bad lower the reputation score toward the dark side of the force. Using a different file, a player can check their score by inputting 'rep' into the command window to display their current reputation in the output.

The player's reputation and the choices they make using user inputs will determine whether the output is to become a Jedi or a Sith. For example, choosing to investigate and joining the Rebels leads to

Jedi heroism while choosing to stay and hide leads to being captured by the empire. The reputation of the player coincides with these actions taken. For example, investigating the explosion leads to an increase in reputation while staying and hiding leads to a decrease in reputation. The user inputs and 'rep' command provides instant feedback for the player, reinstating the fact that your actions affect the outcome of the story.

My main() function prompts the introduction to the game with a print statement. Then, it calls the first UDF and allows the user to customize their character. Following this, the game lets the user know of the 'rep' command they could input into the command window at any time. After this, the function asks the player if they would like to begin the game. If the user states yes, then the mission(player) function is called and the story begins. This input has a validation checker and will also end the game if the user chooses to say no.

3. User-defined Functions

1. create_character()

This user-defined function allows users to enter their character's name and choose their home planet from a list of options. The inputs for this user-defined function is a string for the player's name, and a planet number (1-5). These inputs output a dictionary that contains their "name", "home planet" and their starting "reputation" of zero. This is set to the character variable. This contributes to the overall functionality of the project by setting up the unique player data for the main storyline.

2. mission(character)

This user-defined function allows users to run the full storyline. This includes all major decisions, reputation changes, and eventually all the different endings. The input for this user-defined function is the character dictionary. Utilizing nested loop statements, the function prints text regarding the process of the story, reputation updates, and even the game's multiple endings. This is the biggest function in my code containing all the narrative elements that contribute to the overall functionality of the project.

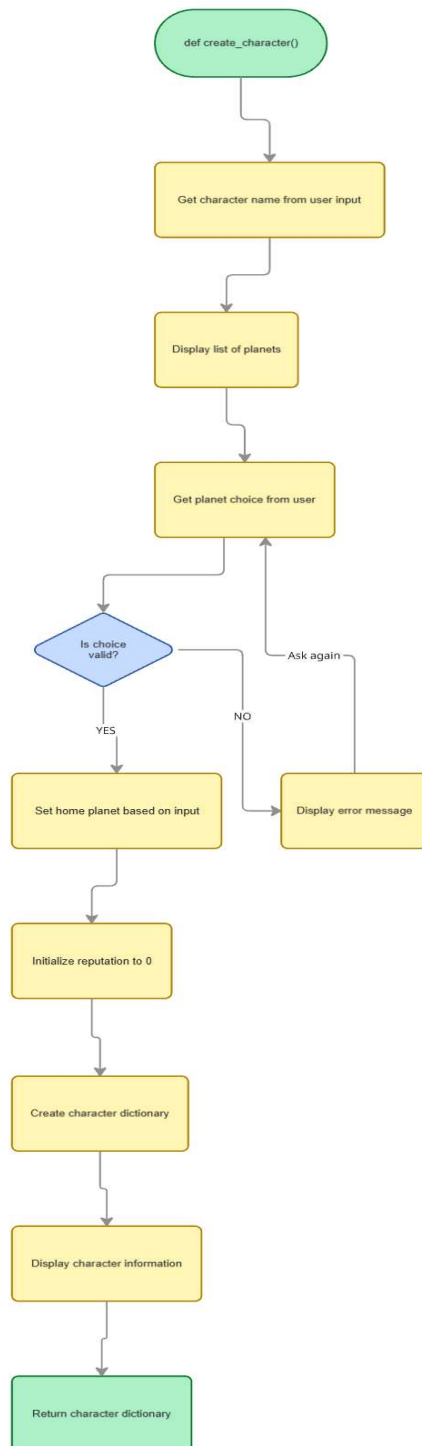
3. check_reputation(character)

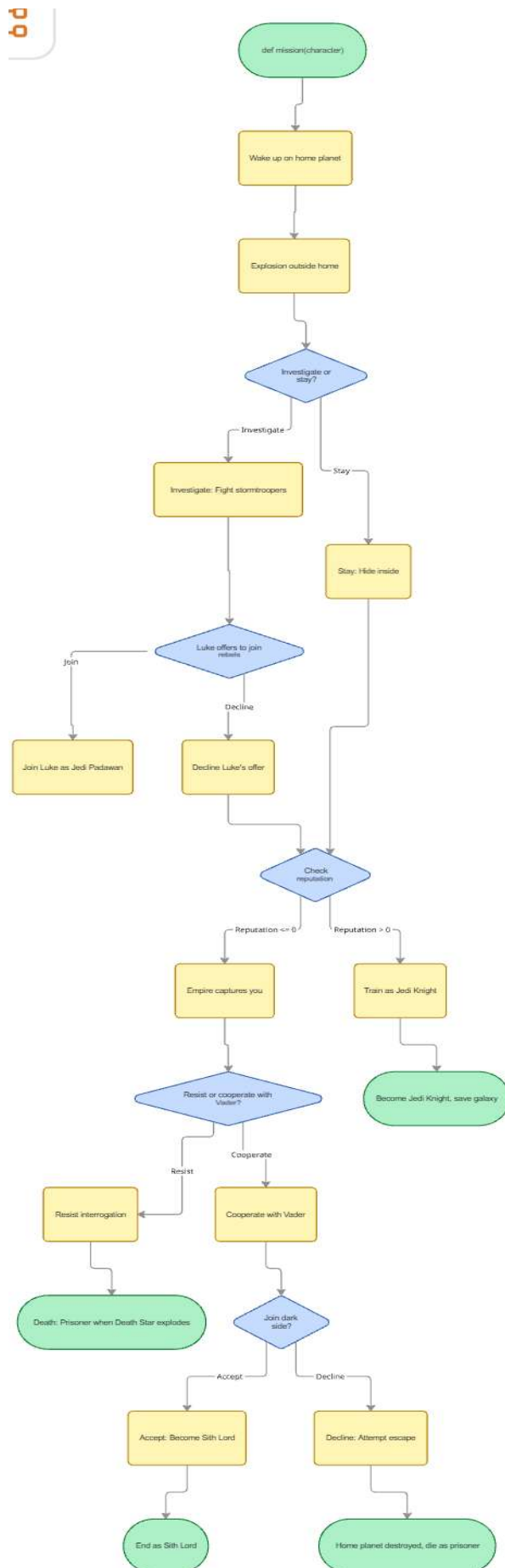
This user-defined function allows users to display their current reputation at any point in the game. The input for this user-defined function is the character dictionary. The function prints the player's current reputation. This contributes to the overall functionality of the project because it allows the player to check how well or how poorly their actions are affecting their reputation. This ability to check your reputation reinstates to the player that every choice they make matters.

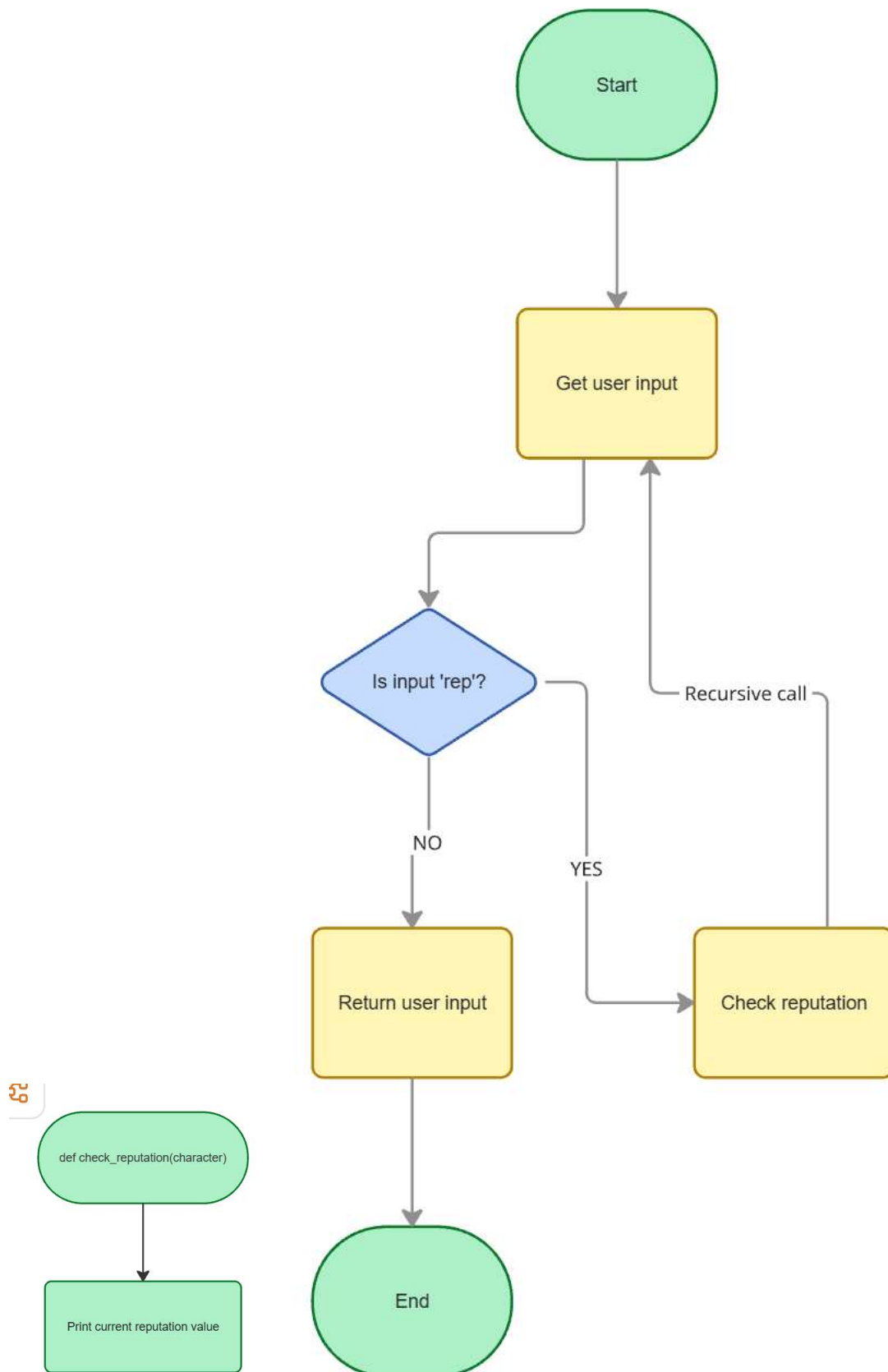
4. user_rep_input(prompt, character)

This user-defined function is a custom user input function that allows the user to check their reputation at any prompt. This recursively calls the user input and allows the player the ability to check the reputation. The inputs for this user-defined function are the message the prompts the

user, and the character dictionary. This function either outputs the user's input or the current reputation. If the function prints the current reputation, the user input will be prompted again to continue the story.







4. References

Star Wars: Episode IV - A New Hope. Directed by George Lucas, Twentieth Century Fox, 1977.

Comment, et al. "Recursion in Python." *GeeksforGeeks*, 20 Sept. 2025, www.geeksforgeeks.org/python/recursion-in-python/.

5. Appendix

User manual

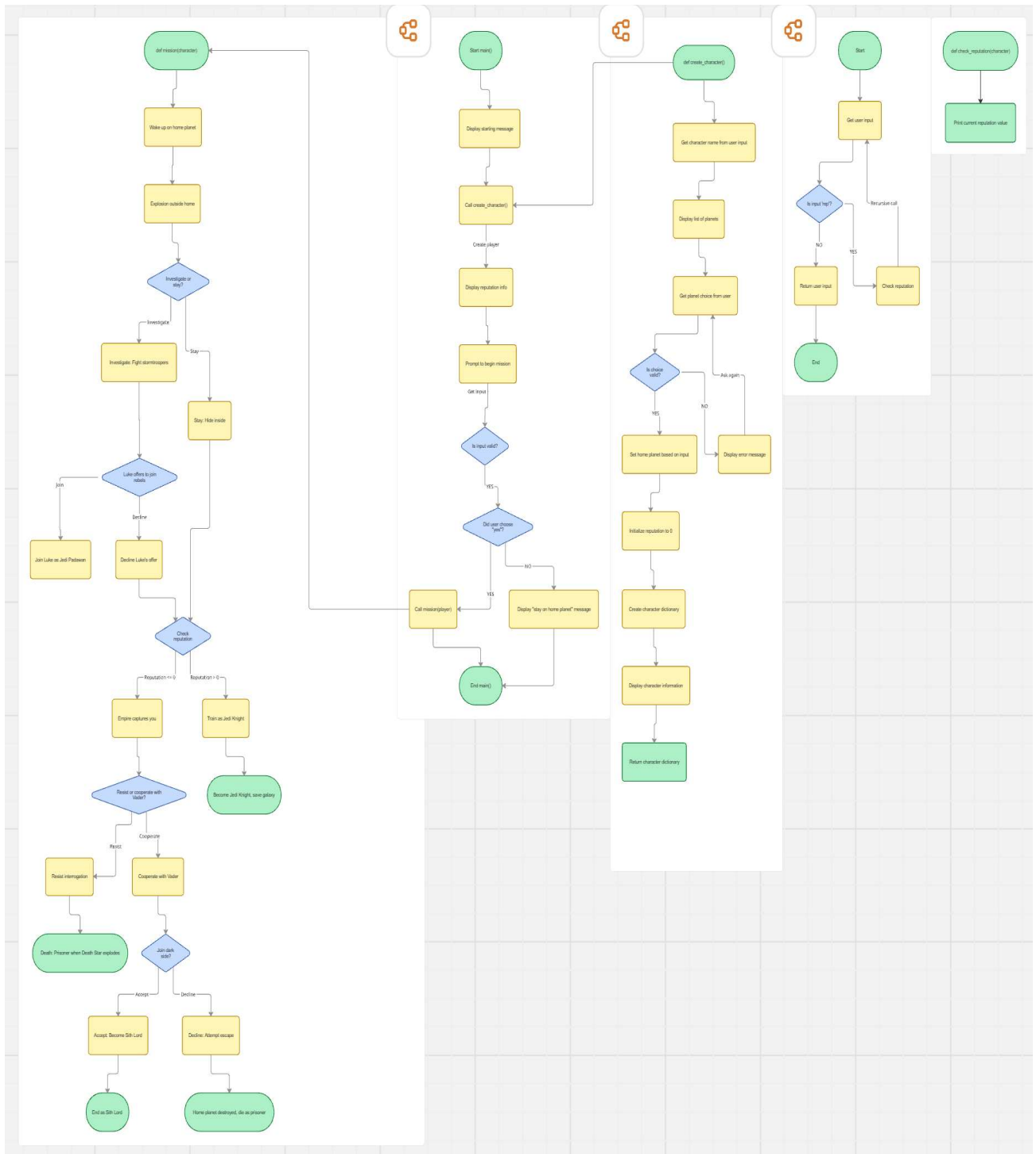
1. Run the Python file.
2. Enter your character's name.
3. Choose a home planet by choosing between numbers 1-5.
4. You may check your reputation by typing 'rep' in any user-input prompt.
5. Choose whether to begin the game with a 'yes' to proceed or a 'no' to quit.
6. During any decision throughout the game, type a valid choice to continue.
7. Follow the storyline and have fun!
8. Find out your character's ending and their final reputation at the end.

```

PS C:\Users\ryanb\OneDrive - purdue.edu\ENGR_133\Python 4> & C:\Users\ryanb\AppData\Local\Programs\Python\Python313\python.exe "c:\Users\ryanb\OneDrive - purdue.edu\ENGR_133\Python 4\FINAL PROJECT.py"
=====
Welcome to Star Wars: Create Your Own Story
=====
Enter Your Character's Name: Ryan Borruso
-----
Choose Your Home Planet:
1. Tatooine
2. Naboo
3. Mustafar
4. Hoth
5. Bespin
Enter the planet number (1-5): 4
  You have successfully created your character!
-----
Welcome to a galaxy far, far away...
Ryan Borruso
From the cold, icy desolate land of Hoth
With a Reputation of 0
-----
=====
Before you begin your adventure, you can check your reputation by typing 'rep' during any prompt.
=====
Are you ready to begin your adventure? (yes/no): rep
-----
Your current Reputation is 0
-----
Are you ready to begin your adventure? (yes/no): yes
-----
Your adventure begins on your home planet of Hoth
As you go through your daily routine, you tire out, and proceed to take a nap.
As you fall asleep, you ponder about the vastness of the galaxy and your place in it.
-----
Suddenly, you are awoken by a loud explosion, right outside your home!!!
-----
Do you rush outside or stay inside and assess the situation? (investigate/stay)stay
-----
You decide to stay inside. You cower in fear as the stormtroopers ransack your village and innocent lives are lost.
Your reputation has decreased to -10 for not defending your home.
-----
-----
You decide to stay inside. You cower in fear as the stormtroopers ransack your village and innocent lives are lost.
Your reputation has decreased to -10 for not defending your home.
-----
However, later that night, the Empire invades and sees you as a threat and captures you.
You are taken to a secret Imperial facility for interrogation by none other than Darth Vader himself.
Do you resist the interrogation or cooperate with Darth Vader? He attempts to extract your blood. (resist/cooperate)resist
-----
You resist the interrogation and refuse to give in to Darth Vader's demands.
You are thrown into a dark cell, where you spend years in isolation.
Unfortunately, your actions lead you to your demise, as the rebels blow up the Death Star, killing you, as a prisoner, without a second thought.
-----
=====
GAME OVER! You led a fearful and shameful life. Your final reputation was: -10
=====

```

Above is one possible outcome based upon the user's choices.

Flowchart

Code

FINAL PROJECT.py

Course Number: ENGR 13300

Semester: Fall 2025

Description:

Develop my own personal Dream Project of a text-based Star Wars Create Your Own Story game.

Assignment Information:

Assignment: 18.4.1 Ind Project

Team ID: LC1 - 23

Author: Ryan Borruso, rborruso@purdue.edu

Date: 12/2/2025

Functions: create_character(), mission(character), and imported functions
check_reputation(character), user_rep_input(prompt, character)

Academic Integrity Statement:

I have not used source code obtained from any unauthorized source, either modified or unmodified; nor have I provided another student access to my code. The project I am submitting is my own original work.

"""

import time

#reputation checker from different file

from final_project_rep import check_reputation, user_rep_input

#customizable character creation

def create_character():

 #name user input

 name = input("Enter Your Character's Name: ")

 #planets and counter

 planets = ["Tatooine", "Naboo", "Mustafar", "Hoth", "Bespin"]

 print("-----")

 print("Choose Your Home Planet:")

 index = 1

 for planet in planets:

 print(f"{index}. {planet}")

 index += 1

```

#Choosing a home planet
choice = user_rep_input("Enter the planet number (1–5): ", None)
#Planet Input Validation CHecker
while choice not in ["1", "2", "3", "4", "5"]:
    print("Invalid choice. Please enter a number from 1 to 5.")
    choice = user_rep_input("Enter the planet number (1–5): ", None)

home_planet = planets[int(choice) - 1]

#planet intros
planet_intros = {
    "Tatooine": "the desert wasteland of",
    "Naboo": "the lush, green landscape of",
    "Mustafar": "the fiery, lava terrain of",
    "Hoth": "the cold, icy desolate land of",
    "Bespin": "the city in the clouds of",}

#Reputation Indexer Beginner
reputation = 0

#character dictionary/information
character = {
    "name": name,
    "home_planet": home_planet,
    "reputation": reputation}

#output
print(" You have successfully created your character!")
print("-----")
print("Welcome to a galaxy far, far away...")
print(f"{character['name']}")
print(f"From {planet_intros[character['home_planet']] {character['home_planet']}")
print(f"With a Reputation of {character['reputation']}")
print("-----")

return character

#storyline/mission
def mission(character):
    #Home Planet Invasion Scenario
    print("-----")
    print(f"Your adventure begins on your home planet of {character['home_planet']}")
    print("As you go through your daily routine, you tire out, and proceed to take a nap.")

```

```

print("As you fall asleep, you ponder about the vastness of the galaxy and your place in it.")
time.sleep(7)
print("-----")
print("Suddenly, you are awoken by a loud explosion, right outside your home!!!")
print("-----")

#First Decision: Investigate or Stay
decision1 = user_rep_input("Do you rush outside or stay inside and assess the situation?
(investigate/stay)", character).lower()
while decision1 not in ["investigate", "stay"]:
    print("Invalid choice. Please enter 'investigate' or 'stay'.")
    decision1 = user_rep_input("Do you rush outside or stay inside and assess the situation?
(investigate/stay)", character).lower()

#investigate path
if decision1 == "investigate":
    print("-----")
    print("You rush outside to find a group of stormtroopers marching toward your village!")
    print("You quickly grab a blaster and prepare to defend your home.")
    print("You are armed and ready to stand alone against an entire army.")
    print("-----")
    time.sleep(7)
    character['reputation'] += 10
    print(f"Your reputation has increased to {character['reputation']} for defending your village!")
    print("-----")
    time.sleep(3)
    print("suddenly, the stormtroopers are surprise attacked by a group of rebels! Led by none
other than Luke Skywalker!")
    print("After the battle, Luke approaches you and thanks you for your bravery in defending your
village.")
    print("He asks you to join their cause and become his Jedi Apprentice.")
    decision2 = user_rep_input("Do you accept Luke's offer to join the rebels? or do you believe the
rebels are scum? (join/decline)", character).lower()
    while decision2 not in ["join", "decline"]:
        print("Invalid choice. Please enter 'join' or 'decline'.")
        decision2 = user_rep_input("Do you accept Luke's offer to join the rebels? or do you believe
the rebels are scum? (join/decline)", character).lower()
    #join jedi path
    if decision2 == "join":
        print("-----")
        print("You have accepted Luke's offer to become his Jedi Padawan!")
        print("You embark on a journey to become a Jedi and fight against the evil Empire.")
        character['reputation'] += 100

```

```

        print(f"Your reputation has increased to {character['reputation']} for joining the rebel
cause!")
        #refuse jedi path... sends to empire kidnapping
    else:
        print("-----")
        print("You have declined Luke's offer and called him scum in the conflict. Saying 'The Empire
is the true order in the galaxy.'")
        character['reputation'] -= 50
        print(f"Your reputation has decreased to {character['reputation']} for refusing to join the
rebels.")
        #stay path... sends to empire kidnapping
    else:
        print("-----")
        print("You decide to stay inside. You Cower in fear as the stormtroopers ransack your village
and innocent lives are lost.")
        character['reputation'] -= 10
        print(f"Your reputation has decreased to {character['reputation']} for not defending your
home.")

#Empire Kidnapping Scenario
if character['reputation'] <= 0:
    print("-----")
    time.sleep(5)
    print("However, later that night, the Empire invades and sees you as a threat and captures
you.")
    print("You are taken to a secret Imperial facility for interrogation by none other than Darth
Vader himself.")
    decision3 = user_rep_input("Do you resist the interrogation or cooperate with Darth Vader? He
attempts to extract your blood. (resist/cooperate)", character).lower()
    while decision3 not in ["resist", "cooperate"]:
        print("Invalid choice. Please enter 'resist' or 'cooperate'.")
        decision3 = user_rep_input("Do you resist the interrogation or cooperate with Darth Vader?
(resist/cooperate)", character).lower()
    #resist path... to death
    if decision3 == "resist":
        print("-----")
        print("You resist the interrogation and refuse to give in to Darth Vader's demands.")
        print("You are thrown into a dark cell, where you spend years in isolation.")
        print("Unfortunately, your actions lead you to your demise, as the rebels blow up the Death
Star, killing you, as a prisoner, without a second thought.")
        print("-----")
        time.sleep(5)
        print("=====")

```

```

    print("GAME OVER! You led a fearful and shameful life. Your final reputation was:",
character['reputation'])
    print("=====")
    #cooperate path... to sith offer
    if decision3 == "cooperate":
        print("-----")
        print("You decide to cooperate with Darth Vader, and you satisfy his experiments.")
        print("He returns to you stating that your blood had a high midichlorian count, and that you
have potential to become a Sith Lord.")
        print("He gives you an offer to join him and the dark side of the Force.")
        decision4 = user_rep_input("Do you accept Darth Vader's offer to join the dark side?
(accept/decline)", character).lower()
        while decision4 not in ["accept", "decline"]:
            print("Invalid choice. Please enter 'accept' or 'decline'.")
            decision4 = user_rep_input("Do you accept Darth Vader's offer to join the dark side?
(accept/decline)", character).lower()
        #sith path
        if decision4 == "accept":
            print("-----")
            print("You have accepted Darth Vader's offer to join the dark side!")
            print("You embark on a journey to become a Sith Lord and serve the Empire.")
            print("-----")
            time.sleep(5)
            print("As a Sith Lord, you help the Empire crush the rebellion and bring order to the galaxy,
killing Luke Skywalker in the process.")
            character['reputation'] -= 10000
            print(f"Your reputation has decreased to {character['reputation']} for joining the dark side
of the force!")
            print("-----")
            time.sleep(3)
            print("=====")
            print("Congratulations! You became a Sith Lord. You led a life full of hatred that resulted in
the loss of millions of innocent lives. Your final reputation was:", character['reputation'])
            print("=====")
            #decline sith path... to death and destruction of home planet
            else:
                print("-----")
                print("You have declined Darth Vader's offer and attempted to escape the facility.")
                print("However, you are caught, and as payment for your crimes, Vader wants to test out
his new weapon on your home planet.")
                print("-----")
                time.sleep(5)

```

```

        print(f"As you watch from your cell, the Death Star fires upon your home planet of
{character['home_planet']], destroying it completely.")
        character['reputation'] -= 1000
        print(f"Your reputation has decreased to {character['reputation']} for causing the
destruction of your home planet.")
        print("-----")
        time.sleep(5)
        print("Unfortunately, your actions lead you to your demise, as the rebels blow up the
Death Star, killing you, as a prisoner, without a second thought.")
        print("-----")
        time.sleep(3)
        print("=====")
        print("GAME OVER! You led a life that resulted in the loss of many innocent lives. Your final
reputation was:", character['reputation'])
        print("=====")
        return
    #jedi path conclusion... to heroic ending
else:
    print("With your newfound reputation as a hero, you train with Luke Skywalker to become a
Jedi Knight.")
    print("-----")
    time.sleep(3)
    print(f"After years of training, you save your home planet of {character["home_planet"]} from
The Death Star, proving your worth as a Jedi Knight.")
    print("You destroy the Death Star with your force skills.")
    character['reputation'] += 10000
    print(f"Your reputation has increased to {character['reputation']} for restoring peace, freedom,
and justice to the galaxy!")
    time.sleep(5)
    print("=====")
    print("Congratulations! You became a Jedi Knight. You led a heroic life. Your final reputation
was:", character['reputation'])
    print("=====")

    return

def main():
    #intro
    print("=====")
    print("Welcome to Star Wars: Create Your Own Story")
    print("=====")

    #create character UDF called

```

```

player = create_character()
time.sleep(7)

#information about rep checker
print("=====")
print("Before you begin your adventure, you can check your reputation by typing 'rep' during any
prompt.")
print("=====")
time.sleep(3)

#prompt to begin mission
begin_mission = user_rep_input("Are you ready to begin your adventure? (yes/no): ",
player).lower()

#validation for begin
while begin_mission not in ["yes", "no"]:
    print("Invalid choice. Please enter 'yes' or 'no'.")
    begin_mission = user_rep_input("Would you like to begin your adventure? (yes/no): ",
player).lower()
    if begin_mission == "yes":
        mission(player)
    else:
        print("You will stay on your home planet forever.")
        return

if __name__ == "__main__":
    main()

```

final_project_rep.py
 Course Number: ENGR 13300
 Semester: Fall 2025

Description:

Develop my own personal Dream Project of a text-based Star Wars Create Your Own Story game.

Assignment Information:

Assignment: 18.4.1 Ind Project
 Team ID: LC1 - 23
 Author: Ryan Borruso, rborruso@purdue.edu
 Date: 12/2/2025

Functions: check_reputation, user_rep_input(prompt, character)

Academic Integrity Statement:

I have not used source code obtained from any unauthorized source, either modified or unmodified; nor have I provided another student access to my code. The project I am submitting is my own original work.

"""

```
def check_reputation(character):  
    print("-----")  
    print(f"Your current Reputation is {character['reputation']}")  
    print("-----")
```

```
def user_rep_input(prompt, character):  
    userinput = input(prompt).strip().lower()
```

```
    if userinput == 'rep':  
        check_reputation(character)  
        return user_rep_input(prompt, character)  
    return userinput
```