

This assignment has three parts.

Part One: Design the program

Write a program that demonstrates your programming skills acquired during this course. Use the following guidelines to write your program:

1. Pick one of the following options for your program:
 - a. Expand on a program you've already written or write a new program related to an interest of yours.

Insert your pseudocode here:

Background

- Preset all values for input to blank or zero for asking what BFR, and months of time to Mars
- Make a list of all the SpaceX Rockets

Input

- Ask the user what BFR stands for
- Ask the user how many months they think the BFR will take to get to Mars

Output

- Tell the user if they got the correct answer for BFR= Big Falcon Rocket
- Tell the user different responses based on month input if more than four tell them that it will be shorter, if less than one tell them that they really believe in SpaceX, if two or three tell them that they're on point.
- Draw a rocket if the user gets the correct responses and output the list of rockets
- If they don't get all the right responses tell them to start over and enter the correct responses.

Part Two: Code the program

Use the following guidelines to code your program:

Insert a copy of your code from IDLE here:

```
#Jack Sweeney 9/22/18
```

```
#my program is to ask a user about the information they know about the SpaceX BFR. If the user knows everything it will give them some facts and a turtle graphic.
```

```
import turtle
```

```
def main():
```

```
    userGuessBFR = ""
```

```
    userGuessBFR = input("Elon Musk and his company SpaceX want to go to Mars with their planned BFR what do you think BFR stands for?")
```

```
    if( userGuessBFR == "Big Falcon Rocket" or userGuessBFR == "big falcon rocket" ):
```

```
        print ("Your right! BFR stands for Big Falcon Rocket")
```

```
        winAmount = 1
```

```
    else:
```

```
        print ("BFR actually stands for Big Falcon Rocket")
```

```
        winAmount = 0
```

```
    userGuessMonths = 0
```

```
    userGuessMonths = int(input("How long do you think it will take to travel to Mars with Elon Musks new BFR(Months)?"))
```

```
    if( userGuessMonths == 3 or userGuessMonths == 2 ):
```

```
        print ("Elon also thinks it may take 3 to 2 months to get to Mars with his new BFR. He'd like to make it one month.")
```

```
        winAmount = winAmount + 1
```

```
    elif( userGuessMonths > 3 ):
```

```
        print ("Elon thinks that its gonna take less than four months to get to Mars with his new BFR but you think otherwise. (Next time put lower than 4)")
```

```
        winAmount = winAmount + 0
```

```
    elif( userGuessMonths == 1 ):
```

```
        print ("Wow you must really believe in Elon Musk and his company, he'd like to believe it'll take one month but he thinks like 2 to 3 months")
```

```

winAmount = winAmount + 1
if( winAmount >= 2):
    spaceRockets = ["Falcon 1", "Falcon 5", "Falcon Heavy", "BFR"]
    spaceRockets = ["", "Falcon 1", "Falcon 5", "Falcon Heavy", "BFR"]
    rockets = len(spaceRockets) - 1
    print ("Somthing you may not know SpaceX has " + str(rockets) + " rockets in their rocket
family.")

    for n in range(1, len(spaceRockets)):
        print(str(n) + ". " + spaceRockets[n] + "!")

    rocket = turtle.Turtle()
    rocket.hideturtle()
    rocket.speed(10)
    rocket.pensize(4)
    rocket.left(90)
    rocket.color("black")
    rocket.begin_fill()
    rocket.forward(100)
    rocket.left(45)
    rocket.forward(35)
    rocket.left(90)
    rocket.forward(35)
    rocket.left(45)
    rocket.forward(100)
    rocket.left(90)
    rocket.forward(50)
    rocket.end_fill()
    rocket.penup()
    rocket.left(90)
    rocket.forward(80)
    rocket.left(90)
    rocket.forward(10)
    rocket.pendown()
    rocket.pensize(4)
    rocket.color("grey")
    rocket.begin_fill()
    rocket.fillcolor("blue")

```

```
rocket.forward(30)
rocket.left(90)
rocket.forward(18)
rocket.left(90)
rocket.forward(30)
rocket.left(90)
rocket.forward(18)
rocket.end_fill()
rocket.penup()
rocket.left(180)
rocket.forward(18)
rocket.right(90)
rocket.forward(30)
rocket.left(90)
rocket.forward(20)
rocket.color("white")
rocket.write("SpaceX")
rocket.forward(45)
rocket.right(90)
rocket.forward(10)
rocket.pendown()
rocket.color("orange")
rocket.begin_fill()
rocket.left(105)
rocket.forward(95)
rocket.left(150)
rocket.forward(95)
rocket.left(105)
rocket.forward(50)
rocket.end_fill()
rocket.left(180)
rocket.forward(12)
rocket.begin_fill()
rocket.color("red")
rocket.right(75)
rocket.forward(50)
```

```

        rocket.left(150)
        rocket.forward(50)
        rocket.left(105)
        rocket.forward(25)
        rocket.end_fill()
    else:
        tryAgain = turtle.Turtle()
        tryAgain.hideturtle()
        tryAgain.write("Try Again")
        print ("Try over with the all correct answers you will see somthing different! :)")

main()

```

Part Three: Post Mortem Review

Complete the Post Mortem Review (PMR). Write a thoughtful two to three sentence response to each of the questions in the PMR chart.

Review Question	Response
What was the purpose of your program?	The purpose of my program is to ask a user about the information they know about the SpaceX BFR. If the user knows everything it will give them some facts and a turtle graphic.
How could your program be useful in the real world?	My program could be useful in the real world to teach someone about SpaceX's history. It could also be used to test someone on how much they know about SpaceX.
What is a problem you ran into, and how did you fix it?	A problem I ran into is when printing the complete list, it started at zero. I fixed this by changing the starting point of the for statement.
Describe one thing you would do differently the next time you write a program.	The next time I write a program I'd like to add a lot more length. I'd add more inputs and outputs. I'd also make more parts work together with

	calculations and if statements.
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