Python - 2

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1 Python - 2

Write a function ask_for_name() to ask for the participant's name. This function will wait for the participant to enter the name and then return the name. Use the input() function to read the participant's name.

[5]:
```
def ask_for_name():
    print("What's your name?")
    name = input()
    return name
name = ask_for_name()
print(name)
```

```
What's your name?
Japneet
Japneet
```

Write a function ask_multiple_choice_questions() that will print out multiple choice questions and wait for the participant to select one of the choices. This function will take as input the multiple choice questions and the number of options, and return the selected option. If the participant enters an invalid option, the function should print out an error message and ask the participant to retry.

Here is an example of a call made to this function: ask_multiple_choice_question('you like wearing a cape? Type the option number as your answer.1. Yes2.
No',2)

With this example, your function should print the following and wait for the participant's input:

```
Do you like wearing a cape? Type the option number as your answer.
```

1. Yes
2. No

[35]:
```
def ask_multiple_choice_questions():
    choice = input("\nDo you like wearing a cape? Type the option number as␣
↪your answer.\n1.YES\n2.NO\n")
    if choice == '1':
        print("yes")
```

```
    elif choice == '2':
        print("no")
    else:
        print("Invalid option. Please retry with valid option")
    return choice

ask_multiple_choice_questions()
```

```
Do you like wearing a cape? Type the option number as your answer.
1.YES
2.NO
5
Invalid option. Please retry with valid option
```

[35]:
```
'5'
```

Write a function ask_height_preference(). This function will ask the participant if she is scared of heights, ask for the response to be 'Yes' or 'No', and wait for the input.

The function will return -10 points if the participant is scared of heights (you can't be a Superhero if you are scared of heights!) and 10 points if the participant is not scared of heights.

Your function should be case-insensitive when handling the participant's input i.e. 'yes', 'YES', 'Yes' all mean the same thing. If the participant enters an invalid input, print an error message and ask the participant to retry.

[4]:
```
def ask_height_preference():
    height = input("\nAre you scared of heights? Type option number as your␣
 ↪answer. \n1.YES\n2.NO\n")
    if height == '1':
        print("-10 Points")
    elif height == '2':
        print("10 Points")
    else:
        print("Invalid option. Please retry with valid option")
    return height

ask_height_preference()
```

```
Are you scared of heights? Type option number as your answer.
1.YES
2.NO
1
-10 Points
```

[4]:
```
'1'
```

Write a function ask_costume_questions(). Do the following inside this function.

Use the ask_multiple_choice_questions() function written earlier to find out if the participant likes to wear a cape.

If the participant likes to wear a cape, call the ask_multiple_choice_questions() function to find the color of the cape that the participant likes. There are four choices for the color - Red, Green, Black, Other. Based on the option returned by ask_multiple_choice_questions(), give the participant 20 points for Red, 30 points for Green, 50 points for Black, and 10 points for any other color.

If the participant does not like to wear a cape, call the ask_multiple_choice_questions() function to find out if the participant likes to wear a mask. Give the participant 10 points for atleast wearing a mask if not a cape!

Return the participant's costume score.

[6]:
```
def costume_question():
    def ask_multiple_choice_questions():
            choice = input("\nDo you like to wear a cape?\n1.YES\n2.NO")
            if choice == '1':
                    colour = input("\nWhat colour cape would you like to wear?
 ↪\n1. RED\n2. GREEN\n3. BLACK\n4. OTHER")
                    if colour == '1':
                        print("RED: You get 20 points!")
                    elif colour == '2':
                        print("GREEN: You get 30 points!")
                    elif colour == '3':
                        print("BLACK: You get 50 points!")
                    elif colour == '4':
                        print("OTHER: You get 10 points!")
                    else:
                        print("10 points for wearing a mask atleast")
                    return colour
            return choice

ask_multiple_choice_questions()
```

```
Do you like to wear a cape?
1.YES
2.NO1

What colour cape would you like to wear?
1. RED
2. GREEN
3. BLACK
4. OTHER6
10 points for wearing a mask atleast
```

[6]:
```
'6'
```

Write a function report_results() that takes as input the participant's final score. a) If the final score is between 0 and 30 (both inclusive), print: 'You are Green Lantern! Put that ring on to fight

the evil!!' b) If the final score is between 40 and 70 (both inclusive), print: 'You are SuperMan! Save our world!!' c) If the final score is between 70 and 90 (both inclusive), print: 'You are Batman! Gotham needs you!!' d) else print: 'You are Iron Man! We need your technology, wit and bravery!!'

[20]:
```
def report_results(score):
    #score = input("What is your final score?")

    if score in range(0, 31):
            print("You are Green Lantern! Put that ring on to fight the evil.")
    elif score in range(40, 71):
            print("You are Superman!Save our world!")
    elif score in range(70, 91):
            print("You are Batman! Gotham needs you!")
    else:
            print("You are ironman! We need your technology, wit and bravery")
    return score


report_results(94)
```

```
You are ironman! We need your technology, wit and bravery
```

[20]:
```
94
```

Write a function take_quiz(). This function will do the following:

a) Use the ask_multiple_choice_question() function to ask the participant for her age range. There are four options:

1. 18-23
2. 24-28
3. 29-33
4. 34-38

Multiply the selected option by 10. This is the participant's age score.

b) Use the ask_costume_questions() function to obtain the costume score.

c) Use the ask_height_preference() function to obtain the height score.

d) Use the report_results() function to print the results of the quiz. The final score is the sum of all the scores for the participant.

[23]:
```
def ask_multiple_choice_questions():
    age = input("\nWhat is your age?\n1. 18-23\n2. 24-28\n3. 29-33\n4. 34-38\n")
    if age == '1':
        print("10 points")
    if age == '2':
        print("20 points")
    if age == '3':
```

```
        print("30 points")
    if age == '4':
        print("40 points")
ask_multiple_choice_questions()

def ask_height_preference():
     height = input("\nAre you scared of heights? Type option number as your␣
 ↪answer. \n1.YES\n2.NO\n")
     if height == '1':
            print("-10 Points")
     elif height == '2':
            print("10 Points")
     else:
            print("Invalid option. Please retry with valid option")
     return height

ask_height_preference()

def report_results(score):
     #score = input("What is your final score?")

    if score in range(0, 31):
            print("You are Green Lantern! Put that ring on to fight the evil.")
    elif score in range(40, 71):
            print("You are Superman!Save our world!")
    elif score in range(70, 91):
            print("You are Batman! Gotham needs you!")
    else:
            print("You are ironman! We need your technology, wit and bravery")
    return score


report_results(22)

def ask_costume_questions():
    colour = input("\nWhat colour cape would you like to wear?\n1. RED\n2.␣
 ↪GREEN\n3. BLACK\n4. OTHER")
    if colour == '1':
                    print("RED: You get 20 points!")
    elif colour == '2':
                    print("GREEN: You get 30 points!")
    elif colour == '3':
                    print("BLACK: You get 50 points!")
    elif colour == '4':
                    print("OTHER: You get 10 points!")
    else:
                    print("10 points for wearing a mask atleast")
```

```
    return colour
ask_costume_questions()
```

```
What is your age?
1. 18-23
2. 24-28
3. 29-33
4. 34-38
1
10 points

Are you scared of heights? Type option number as your answer.
1.YES
2.NO
1
-10 Points
You are Green Lantern! Put that ring on to fight the evil.

What colour cape would you like to wear?
1. RED
2. GREEN
3. BLACK
4. OTHER5
10 points for wearing a mask atleast
```

[23]:
```
'5'
```

Run the code in the next cell to play the quiz game.
You can see a sample expected output of your program.

[6]:
```
if __name__ == '__main__':
# Starting the quiz
    print("Take this one fun quiz: 'Which Superhero are you?")
    name = ask_for_name()
```

```
Take this one fun quiz: 'Which Superhero are you?
What's your name?
Japneet
```

1.1 Part 2

Use a for loop to print the value of the list [6,2,3,8,4]

[27]:
```
list_1 = [6, 2, 3, 8, 4]
for x in range(len(list_1)):
    print(list_1[x])
```

```
6
2
3
8
4
```

Append the following numbers to the above list - 1,5,7,9. Print the new list.

[28]:
```
list_1 = [6, 2, 3, 8, 4]
newlist = [-1, 5, 7, 9]
list_1.extend(newlist) #Using extend function to append new numbers to previous␣
 ↪list

for y in range(len(list_1)):
    print(list_1[y]) #New list
```

```
6
2
3
8
4
-1
5
7
9
```

Sort the new list in descending order and print it.

[29]:
```
print("List in original order:", list_1)
list_1.sort(reverse=True)

print("List in Descending order:", list_1)
```

```
List in original order: [6, 2, 3, 8, 4, -1, 5, 7, 9]
List in Descending order: [9, 8, 7, 6, 5, 4, 3, 2, -1]
```