Simple Programming

Lesson 3: IF and Nested Statements - Quiz

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Programming

Programming

Lesson Overview

Objectives

Understand the use of If and Nested IF statements in Python Programming.
Understand the use of the different operators in Python.
Understand the following terms, IF, ELSE & ELIF

Outcomes

Task 1	**Quiz Menu**
Task 2	**Questions**
Task 3	**Quiz Overview**

Python Operators

Operator	Description	Example
=	**Assign a value to a variable**	A = 2
==	Checks to see if two values are **equal**	1 == 1 (True) 1 == 2 (False)
!=	Checks to see if two values are **not equal**	1 != 2 (True) Apple != Pear (True)
>	Checks to see left value is **greater than** the right value.	2 > 1 (True) 3 > 4 (False)
<	Checks to see left value is **less than** the right value.	2 < 4 (True) 4 < 3 (False)
>=	Checks to see left value **is greater than or equal** to the right value.	3 >= 2 (True) 2 >= 2 (True)
<=	Checks to see left value **is less than or equal** to the right value.	1 <= 2 (True) 2 <= 2 (True)

Task 1: Quiz Menu

1. Create the quiz menu to include at least two different types of quiz.
2. Include a prompt to allow the user to select the quiz.
3. Include relevant titles for each quiz.

```
points=0

print("Welcome to the ICT Chapter 1 Quiz. Please select from the options below.")
print("1 Hardware and Software")
print("2 The Main Components of Computer Systems")
print("3 Operating Systems")
print("4 Types of Computer")

print("--------------------------------------------------------------------------")
quiz=int(input("Please enter your quiz option (1,2,3,4): "))

if quiz ==1:
    print ("Hardware and Software")

elif quiz ==2:
    print ("The Main Components of Computer Systems")

elif quiz ==3:
    print ("Operating Systems")

elif quiz ==4:
    print ("Types of Computer")

else:
    print ("You did not enter a valid option")
    print ("You can only enter 1,2,3,4")
```

Quiz Title

Task 2: Questions

1. Enter up to 5 different questions for each quiz.
2. If the input to question is equal to correct answer then add a point.
3. Include a print prompt if the question was answered correctly including the updated points total.
4. Include a print prompt if the question was answered incorrectly including the correct answer.

```
elif quiz ==3:
    print ("Operating Systems")

    q1=(input("""Q1. What does CLI stand for?
              A: Command line Interface
              B: Command long Interface
              C: Command long Internet

              Please enter the correct letter: """))

    if q1 == "A":
        points= (points) +1
        print ("Your answer is correct!")
        print ("You have "+str(points)+" points so far.")
        print("------------------------------------------------------------------")
    else:
        print ("Your answer is incorrect. The correct answer is A: Command line Interface.")
        print ("You have "+str(points)+" points so far")
        print("------------------------------------------------------------------")
```

triple quotes " " " can span multiple lines of text

Question

Pass Statement

Points +1

Fail Statement

Task 3: Quiz Overview

1. Include an IF statement to work out whether the user has passed or failed the quiz.
2. Set a passing points score.
3. Include relevant pass and fail message.

If Points is equal to 3 then the user has passed.

Pass Statement

```
if points==3:
    print("Well Done. You have passed the Operating Systems quiz")
    print("--------------------------------------------------------------------------")
else:
    print("Unlucky. You have not passed the Operating Systems quiz. Please try again.")
    print("--------------------------------------------------------------------------")
```

Fail Statement

Plenary – Refer to the Lesson Objectives

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Understand the use of If and Nested IF statements in Python Programming.

Understand the use of the different operators in Python.

Understand the following terms, IF, ELSE & ELIF

Plenary Task (Q&A)

Peer assess each other scripts.
Discuss the levels pupils have achieved for this task.
Question: What is the purpose of If and Nested Statements?