WEEK_03-Selection Structures in Python

Started on	Wednesday, 6 March 2024, 10:20 AM
State	Finished
Completed on	Wednesday, 6 March 2024, 10:33 AM
Time taken	12 mins 58 secs
Marks	5.00/5.00
Grade	**50.00** out of 50.00 (**100**%)
Name	SAKTHI MAHESWARI C 2022-CSD-A

WEEK_03-Selection Structures in Python

Question **1**

Correct

Mark 1.00 out of 1.00

Flag question

Most years have 365 days. However, the time required for the Earth to orbit the Sun is actually slightly more than that. As a result, an extra day, February 29, is included in some years to correct for this difference. Such years are referred to as leap years. The rules for determining whether or not a year is a leap year follow:

• Any year that is divisible by 400 is a leap year.

• Of the remaining years, any year that is divisible by 100 is not a leap year.

• Of the remaining years, any year that is divisible by 4 is a leap year.

• All other years are not leap years.

Write a program that reads a year from the user and displays a message indicating whether or not it is a leap year.

Sample Input 1

1900

Sample Output 1

1900 is not a leap year.

Sample Input 2

2000

Sample Output 2

2000 is a leap year.

Answer: (penalty regime: 0 %)

```
year=int(input())
if(year%400==0):
    print(year,"is a leap year.")
else:
    if(year%100==0):
        print(year,"is not a leap year.")
    elif year%4==0:
        print(year,"is a leap year.")
    else:
        print(year,"is not a leap year.")
```

	Input	Expected	Got	
✔	1900	1900 is not a leap year.	1900 is not a leap year.	✔
✔	2000	2000 is a leap year.	2000 is a leap year.	✔
✔	2100	2100 is not a leap year.	2100 is not a leap year.	✔
✔	2400	2400 is a leap year.	2400 is a leap year.	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

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Question **2**

Correct

Mark 1.00 out of 1.00

Flag question

IN / OUT

Ms. Sita, the faculty handling programming lab for you is very strict. Your seniors have told you that she will not allow you to enter the week's lab if you have not completed atleast half the number of problems given last week. Many of you didn't understand this statement and so they requested the good programmers from your batch to write a program to find whether a student will be allowed into a week's lab given the number of problems given last week and the number of problems solved by the student in that week.

Answer: (penalty regime: 0 %)

```
n1=int(input())
n2=int(input())
if(n2>(n1//2)):
    print("IN")
else:
    print("OUT")
```

	Input	Expected	Got	
✔	8 3	OUT	OUT	✔
✔	8 5	IN	IN	✔
✔	20 9	OUT	OUT	✔
✔	50 31	IN	IN	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

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Question **3**

Correct

Mark 1.00 out of 1.00

Flag question

The length of a month varies from 28 to 31 days. In this exercise you will create a program that reads the name of a month from the user as a string. Then your program should display the number of days in that month. Display "28 or 29 days" for February so that leap years are addressed.

Sample Input 1

February

Sample Output 1

February has 28 or 29 days in it.

Answer: (penalty regime: 0 %)

```
month=str(input())
if(month=="February"):
    print(month,"has 28 or 29 days in it.")
elif month in {"September","April","November","June"}:
    print(month,"has 30 days in it.")
else:
    print(month,"has 31 days in it.")
```

	Input	Expected	Got
✔	February	February has 28 or 29 days in it.	February has 28 or 29 days in it.
✔	March	March has 31 days in it.	March has 31 days in it.
✔	April	April has 30 days in it.	April has 30 days in it.
✔	May	May has 31 days in it.	May has 31 days in it.

Passed all tests! ✔

WEEK_03-Selection Structures in Python

Question **4**

Correct

Mark 1.00 out of 1.00

Flag question

Write a program to find the eligibility of admission for a professional course based on the following criteria:

Marks in Maths >= 65

Marks in Physics >= 55

Marks in Chemistry >= 50

Or

Total in all three subjects >= 180

Sample Test Cases

Test Case 1

Input

70

60

80

Output

The candidate is eligible

Answer: (penalty regime: 0 %)

```
n1=int(input())
n2=int(input())
n3=int(input())
if(n1+n2+n2)>180:
    print("The candidate is eligible")
else:
    print("The candidate is not eligible")
```

	Input	Expected	Got	
✔	70 60 80	The candidate is eligible	The candidate is eligible	✔
✔	50 80 80	The candidate is eligible	The candidate is eligible	✔
✔	50 60 40	The candidate is not eligible	The candidate is not eligible	✔
✔	20 10 25	The candidate is not eligible	The candidate is not eligible	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

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Question **5**

Correct

Mark 1.00 out of 1.00

Flag question

Write a Python program that accepts three parameters. The first parameter is an integer. The second is one of the following mathematical operators: +, -, /, or *. The third parameter will also be an integer.

The function should perform a calculation and return the results. For example, if the function is passed 6 and 4, it should return 24.

Sample Input Format:

11

+

14

Sample Output Format:

25

Answer: (penalty regime: 0 %)

```
n1=int(input())
op=str(input())
n2=int(input())
if(op=="+"):
    print(n1+n2)
elif op=="-":
    print(n1-n2)
elif op=="*":
    print(n1*n2)
elif op=="/":
    print(n1/n2)

```

	Input	Expected	Got	
✔	11 + 14	25	25	✔
✔	45 - 50	-5	-5	✔
✔	12 * 100	1200	1200	✔
✔	18 / 2	9.0	9.0	✔

Passed all tests! ✔