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Course No:SPP II(Python)

## Experiment no.:5

1. Write a program to check whether a given number is positive, negative, or zero.

```
num = float(input("Enter a number: "))

if num > 0:
    print("The number is positive.")

elif num < 0:
    print("The number is negative.")

else:
    print("The number is zero.")
```

```
Enter a number: 2
The number is positive.
```

2. Write a program to check whether a given number is even or odd.

```
num = int(input("Enter a number: "))
if num % 2 == 0:
    print("The number is even.")
else:
    print("The number is odd.")
```

```
Enter a number: 4
The number is even.
```

3. Write a program to check whether a given character is a vowel or consonant.

```
ch = input("Enter a character: ")
if ch.lower() in ['a', 'e', 'i', 'o', 'u']:
    print("The character is a vowel.")
else:
    print("The character is a consonant.")
```

```
Enter a character: M
The character is a consonant.
```

4. Write a program to check whether a given number is divisible by 5 and 11.

```
num = int(input("Enter a number: "))
if num % 5 == 0 and num % 11 == 0:
    print("The number is divisible by both 5 and 11.")
else:
```

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```
print("The number is not divisible by both 5 and 11.")  
Enter a number: 54  
The number is not divisible by both 5 and 11.
```

**5. Write a program to check whether a given triangle is valid (sum of any two sides greater**

```
a = float(input("Enter first side: "))  
  
b = float(input("Enter second side: "))  
  
c = float(input("Enter third side: "))  
  
if a + b > c and a + c > b and b + c > a:  
  
    print("The triangle is valid.")  
  
else:
```

```
    print("The triangle is not valid.")  
  
Enter first side: 4  
Enter second side: 5  
Enter third side: 6  
The triangle is valid.
```

**6. Write a program to check whether a person is eligible to vote (age  $\geq 18$ ).**

```
age = int(input("Enter your age: "))  
  
if age >= 18:  
    print("You are eligible to vote.")  
else:  
    print("You are not eligible to vote.")
```

```
Enter your age: 20  
You are eligible to vote.
```

**7. Write a program to calculate the grade of a student based on marks (A:  $\geq 90$ , B: 75–89, C: 50–74, F:**

```
marks = float(input("Enter your marks: "))  
  
if marks >= 90:  
    print("Grade: A")  
elif marks >= 75:  
    print("Grade: B")  
elif marks >= 50:
```

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```
print("Grade: C")
else:
    print("Grade: F")
```

```
Enter your marks: 85
Grade: B
```

**8. Write a program to check whether a given number is a multiple of 3 or 7.**

```
num = int(input("Enter a number: "))
if num % 3 == 0 or num % 7 == 0:
    print("The number is a multiple of 3 or 7.")
else:
    print("The number is not a multiple of 3 or 7.")
```

```
Enter a number: 28
The number is a multiple of 3 or 7.
```

**9. Write a program to check whether a given year is a century year (divisible by 100).**

```
year = int(input("Enter a year: "))
if year % 100 == 0:
    print("It is a century year.")
else:
    print("It is not a century year.")
```

```
Enter a year: 2025
It is not a century year.
```

**10. Write a program to check whether a given temperature is hot, warm, or cold (hot: >35°C, warm: 20–35°C, cold: <20°C). def check\_temperature():**

```
temp = float(input("Enter temperature in °C: "))
if temp > 35:
    print("It's hot.")
elif temp >= 20:
    print("It's warm.")
else:
    print("It's cold.")
```

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```
Enter temperature in °C: 96
```

```
It's hot.
```