Name : Mohammad Sayeed Kazi
Roll no: 56
Batch : C2

Exp 5: Write a program to check whether a year is a leap year using if-else.

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

```python
num = int(input("Enter a number : "))

if num > 0:
    print("Positive")
elif num < 0:
    print("Negative")
else:
    print("Zero")
```

```
Enter a number :  23
Positive
```

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

```python
num = int(input("Enter a number : "))
if num%2 == 0:
    print("Even number.")
else :
    print("Odd number.")
```

```
Enter a number :  45
Odd number.
```

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

```python
vowels = ['a','e','i','o','u']
l = input("Enter a letter : ")
if l.lower in vowels:
    print("It is a vowel.")
else:
    print("It is a consonant.")
```

```
Enter a letter :  z
It is a consonant.
```

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

```python
num = int(input("Enter a number : "))
if num%11 == 0 and num%5 == 0:
    print("It is divisible by 5 and 11")
else :
    print("It is not divisible.")
```

```
Enter a number :  11
It is not divisible.
```

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5. Write a program to check whether a given triangle is valid (sum of any two sides greater than the third).

```python
a = int(input("Enter a side : "))
b = int(input("Enter a side : "))
c = int(input("Enter a side : "))

if a + b > c and b + c > a and a + c > b:
    print("It is a valid triangle.")
else :
    print("It is a invalid triangle.")
```

```
Enter a side :   4
Enter a side :   5
Enter a side :   3
It is a valid triangle.
```

6. Write a program to check whether a person is eligible to vote (age ≥ 18).

```python
age = int(input("Enter your age : "))
if age >= 18:
    print("You are eligible to vote.")
elif age < 18:
    print("You are not eligible to vote.")
else:
    print("Please enter a valid age.")
```

```
Enter your age :   018
You are eligible to vote.
```

7. Write a program to calculate the grade of a student based on marks (A: ≥ 90, B: 75–89, C: 50–74, F: <50).

```python
marks = int(input("Enter your marks : "))
if marks >= 90:
    print("A grade")
elif marks >= 75 and marks < 90:
    print("B grade")
elif marks >= 50 and marks < 75:
    print("C grade")
else:
    print("F grade")
```

```
Enter your marks :   87
B grade
```

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

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

```
Enter a number :  21
It is a multiple of 7 and 3.
```

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

```python
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 :  3000
It is 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).

```python
temp = int(input("Enter a temperature : "))
if temp >= 35:
    print("Hot.")
elif temp >= 20 and temp < 35:
    print("Warm.")
else:
    print("Cold.")
```

```
Enter a temperature :  32
Warm.
```