

# LAB MANUAL

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## LAB 04

### Python if and else Statements

1. **Basic Task:** Write a program that checks if a given number is positive, negative, or zero.

```
print("1. Check if a given number is positive, negative, or zero:")

# Taking the number as input
num = float(input("Enter a number: "))

# Checking if the number is positive, negative, or zero
if num > 0:
    print(f"{num} is a positive number.")
elif num < 0:
    print(f"{num} is a negative number.")
else:
    print(f"{num} is zero.")
```

Output:

1. Check if a given number is positive, negative, or zero:  
Enter a number: 3.0 is a positive number.

2. **Intermediate Task:** Write a program that takes user input and determines whether it's a even or odd.

```
print("Check if the given number is even or odd:")

# Taking the number as input
num = int(input("Enter a number: "))

# Checking if the number is even or odd
if num % 2 == 0:
    print(f"{num} is an even number.")
else:
    print(f"{num} is an odd number.")
```

Output:

Check if the given number is even or odd:  
Enter a number: 3 is an odd number.

3. **Advanced Task:** Create a program that asks user to print:

- "Excellent" if marks are above 80

- "Good" if marks are between 60 and 80
- "Needs Improvement" if marks are below 60

```
print("Program to print messages based on marks:")

# Taking marks as input
marks = float(input("Enter your marks: "))

# Checking the range of marks and printing the corresponding message
if marks > 80:
    print("Excellent")
elif 60 <= marks <= 80:
    print("Good")
else:
    print("Needs Improvement")
```

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Output:

```
Program to print messages based on marks:
Enter your marks: Excellent
```