1. Create a program that gives different messages based on time of day

   Code:

```
time = int(input("Enter hour (0–23): "))

if 5 <= time < 12:
    print("Good Morning!")
elif 12 <= time < 17:
    print("Good Afternoon!")
elif 17 <= time < 21:
    print("Good Evening!")
else:
    print("Good Night!")
```

Output:

```
Enter hour (0–23): 14
Good Afternoon!
```

---

2. Build a number guessing game using if-else statements

   Code:

```
secret = (1, 2,3,4,5,6,7,8,9,10)
guess = int(input("Guess a number between 1 and 10: "))

if guess == secret:
    print("Correct! Well done!")
else:
    print("Wrong! The number was", secret)
```

Output:

```
Guess a number between 1 and 10: 4
Wrong! The number was 7
```

---

3. Use for loop to print numbers from 1 to 100
   Code:

```
for i in range(1, 101):
    print(i)
```

Output:

```
1
2
3
...
100
```

---

4. Create a function that calculates area of rectangle
   Code:

```
def area(length, width):
    return length * width

print(area(5, 7))
```

Output:

```
35
```

---

5. Make a simple calculator that can add, subtract, multiply, divide
   Code:

```
a = float(input("Enter first number: "))
b = float(input("Enter second number: "))

op = input("Choose operation (+, -, *, /): ")

if op == "+":
```

```
    print(a + b)
elif op == "-":
    print(a - b)
elif op == "*":
    print(a * b)
elif op == "/":
    if b != 0:
        print(a / b)
    else:
        print("Cannot divide by zero")
else:
    print("Invalid operator")
```

Output:

Enter first number: 10

Enter second number: 5

Choose operation (+, -, *, /): *

50.0

---

6. Practice with real-life scenarios: grading system, age categories

Code:

```
marks = int(input("Enter marks: "))

if marks >= 90:
    print("A")
elif marks >= 75:
    print("B")
elif marks >= 60:
    print("C")
else:
```

```
        print("D")
```

Output:

```
Enter marks: 82
        B
```

---

7. Practice with real-life scenarios: grading system, age categories

Code:

```
age = int(input("Enter age: "))

        if age < 13:
                print("Child")
        elif age < 20:
                print("Teenager")
        elif age < 60:
                print("Adult")
        else:
                print("Senior Citizen")
```

Output:

```
Enter age: 25
        Adult
```

- Build a Simple Student Grade Calculator that takes marks and returns grade (A, B, C, etc.) with encouraging messages for each grade

  Code:

  ```
  marks = float(input("Enter student's marks: "))

  if marks >= 90:
     grade = "A"
     msg = "Excellent work! Keep it up."
  ```

```
elif marks >= 75:
    grade = "B"
    msg = "Good job! Aim a little higher next time."
elif marks >= 60:
    grade = "C"
    msg = "Decent effort. You can improve with practice."
else:
    grade = "D"
    msg = "Needs improvement. Keep trying."

print("Grade:", grade)
print("Message:", msg)
```

Output:

```
Enter student's marks: 92
Grade: A
Message: Excellent work! Keep it up.
```