Programming and Soft Skills Club
Gopalganj Science and Technology University
Python Essentials: Beginner to Intermediate
Python Workshop – 2025

Exercise Sheet – 02

1. Grade Calculator

Take marks (0 - 100) as input and display:

- 80–100 → "A+"

- 70–79 → "A"

- 60–69 → "B"

- 50–59 → "C"

- 40–49 → "D"

- Below 40 → "F"

2. Input a number and check:

- Odd or Even

- Positive, Negative, or Zero

3. **Maximum of Three Numbers**

Input three numbers and print the largest one
(No built-in functions like max allowed)

4. **Simple Calculator**

Input:

- Two numbers

- One operator: +, -, *, /

Use conditions to perform the correct operation.

5. **Password Strength Checker**

Input a password.
Check conditions:

- At least 8 characters

- Contains a number

- Contains a special character: !@#$%^&*

Print:

- Strong

- Medium

- Weak

6. Leap Year Checker

Input a year and check:

- If divisible by 400 → Leap Year

- If divisible by 100 → Not Leap Year

- If divisible by 4 → Leap Year
  Else → Not Leap Year

7. Username Validator

Input a username and check:

- Must be at least **5 characters**

- Cannot contain spaces

- Must start with a letter
  Print **Valid** or error message.

8. Check If First and Last Characters Are Same

Input a string and check:

- If first and last characters are equal → "Match"

- Else → "No match"

9. Email Validator (Simple Rules)

Input an email:

- Must contain @

- Must contain .

- @ cannot be the first character
  Print whether valid or invalid.

10. **Palindrome Type Checker**

Input a string:

- If palindrome → "Palindrome"

- Else → "Not palindrome"

- If palindrome AND length > 5 → "Strong palindrome"