National University of Computer and Emerging Sciences



# Laboratory Manuals

*for*

## Computer Networks Lab

(CL -3001)

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| --- | --- |
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| Section | BCS-5H |
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**Lab Manual 02**

**In Lab Statements:**

1. **Write a code in Python which performs the following functions:**

**a)** Write a program that checks if a number is even or odd.

**Instructions:**

1. Ask the user to input a number.
2. Convert the input to an integer.
3. Check if the number is even or odd using the modulus operator (%).
4. Print whether the number is even or odd.

**b)** Write a simple calculator program that can perform basic arithmetic operations: addition, subtraction, multiplication, and division.

**Instructions:**

1. Prompt the user to enter two numbers.
2. Ask the user to choose an operation (+, -, \*, /).
3. Perform the chosen operation and display the result.

**Example Output:**

Enter the first number: 5

Enter the second number: 3

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

Result: 8

**c)** Create a program that manipulates strings in various ways.

**Instructions:**

1. Prompt the user to enter a sentence.
2. Print the following:
   * The sentence in all uppercase.
   * The sentence in all lowercase.
   * The number of words in the sentence.
   * The sentence with each word's first letter capitalized.

**Example Output:**

Enter a sentence: Python programming is fun!

Uppercase: PYTHON PROGRAMMING IS FUN!

Lowercase: python programming is fun!

Number of words: 4

Title Case: Python Programming Is Fun!

**d)** Write a program that checks if a given number is a palindrome.

**Instructions:**

1. Prompt the user to enter a number.
2. Determine if the number reads the same forwards and backwards.
3. Print whether the number is a palindrome or not.