**National University of Computer and Emerging Sciences**



**Programming Fundamentals**

**Lab Manual 5**

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**Objective:**

1. **Nested If/else statement**
2. **While Loop**

# PROBLEM 1

Take as input your name Initials in capital letters and display its respective ASCII values.

**Example:**

**Input: S A**

**Output: 83 65**

# PROBLEM 2

You have to develop a program which approximates salary of a candidate for a certain job. Salary depends upon its qualification and experience in related field. Only male candidates with age more than 25 years are preferred for this job. If candidate is a fresh graduate, salary will be in range of 25-40K, but if his qualifications are MS or PhD, then person with experience of more than 5 years will get salary 70k+ otherwise 40k to 70k.

# PROBLEM 3

**(Nested If/else)** You are driving a little too fast, and a police officer stops you. Write a program to compute the result, encoded as an integer value: 0 = no ticket, 1= small ticket, as per the following criteria:

If speed is 60 or less the result is 0. If a speed between 61 or 80 inclusively, the result is 1. If speed is 81 or more, the result is 2. Unless it is your birthday on that day, your speed can be 5 higher in all cases.

# PROBLEM 4

Write a program that calculates the occupancy rate for a hotel. The program should start by asking the user how many floors the hotel has. A loop should then iterate once for each floor. In each iteration, the loop should ask the user for the number of rooms on the floor and how many of them are occupied. After all the iterations, the program should display how many rooms the hotel has, how many of them are occupied, how many are unoccupied, and the percentage of rooms that are occupied. The percentage may be calculated by dividing the number of rooms occupied by the number of rooms.

**NOTE:** It is traditional that most hotels do not have a thirteenth floor. The loop in this program should skip the entire thirteenth iteration.

**PROBLEM 5**

**(While Loop)** Ask a user to enter a number. Find and display all the factors of that number

**Example:**

Enter a Number

**Input:** 60

**Output:** 1 2 3 4 5 6 10 12 15 20 30