



**COMSATS University Islamabad**  
**Department of Computer Science**  
**Programming Fundamentals (CSC103) – BSCS-2A & 2B**  
**Class Assignment – 2 (CLO-3)**

**Due Date: November 14, 2021 (11:59 pm)**

**Total Marks: 5 x 5 = 25**

**Instructions**

Answer to all questions must be submitted in MS Word.

Answer to all questions should begin on new page.

Assignment document must contain a title page showing Assignment-2, your name and registration number.

Assignment document must also contain JAVA source code along with output.

Solution to JAVA Programming problems must be created in separate .java file (for each question). For example, Question1.java

You must follow proper JAVA naming convention for identifiers and properly document your source code

Combine all your work in one folder. The folder must contain .JAVA source files and a .doc/.docx file.

Name of the Assignment document file should be your Registration Number. E.g. FA21BCS01.docx

Submit your work via MS Teams

**Plagiarism: Plagiarism is not allowed. If found plagiarized, zero marks will be awarded in the assignment.**



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**Question – 1:**

Write a program that prompts the user to enter a Social Security number in the format DDD-DD-DDDD, where D is a digit. Your program should check whether the input is valid. Here are sample runs:

**Enter a SSN: 232-23-5435**

**232-23-5435 is a valid social security number**

**Enter a SSN: 23-23-5435**

**23-23-5435 is an invalid social security number**

**Question – 2:**

Write a program that prompts the user to enter two strings and reports whether the second string is a substring of the first string

Enter string s1: ABCD

Enter string s2: BC

BC is a substring of ABCD

**Question – 3:**

Assume a vehicle plate number consists of three uppercase letters followed by four digits. Write a program to generate a plate number.

**Question – 4:**

Write a program that displays all the leap years, ten per line, from 101 to 2100, separated by exactly one space. Also display the number of leap years in this period.

**Question – 5:**

Write a program that prompts the user to enter a decimal integer and displays its corresponding binary value. Don't use Java's `Integer.toString(int)` in this program.