

# WIX1002 Fundamentals of Programming

## Lab Report 6

1. Write a program to print the following pattern:

1
212
32123
4321234
543212345

2. Write a program to reverse the digits of a positive or negative integer.

Sample Output
Enter an integer: -12345 Reversed integer: -54321

3. Write a program to determine if the number entered by the user is a Strong Number or not. A Strong Number is a number whose sum of the factorial of each digit is equal to the number itself. For example, 145 is a Strong Number because  $1! + 4! + 5! = 1 + 24 + 120 = 145$ .
4. A password is said to be strong if it satisfies the following criteria:

It contains at least one lowercase English character.

It contains at least one uppercase English character.

It contains at least one special character. The special characters are: !@#\$%^&\*()-+.

Its length is at least 8.

It contains at least one digit.

Check the strength of the input string. Let a strong password be one that satisfies all the above conditions. A moderate password is one that satisfies the first three conditions and has a length of at least 6. Otherwise, the password is weak.

Sample Output
Enter a string: A@b1Cdef Strength of password: Strong

## Lab Report

Prepare a report to solve the above problems. The report should contain all the sections as below for each question:

No	Section	Description
1	Problem	Description on the problem
2	Solution	Explanation on how to solve the above problems
3	Sample Input & Output	A few sets of input and output (snapshot)
4	Source Code	Java Source Code

## Requirements

1. Group Assignment (4-5 students per group)
2. Cover page that includes all student matric number and full name.
3. Font: Times New Roman 12, Line Spacing: 1 ½ Spacing
4. Submit to Spectrum according to your OCC.