**PRACTICAL # 07**

**OBJECT:**

**GUI and Graphics Drawing in Java.**

**THEORY:**

An array is a collection of elements (usually of same type).

String is and special type of array that is specially used for storing a series of characters.

Both arrays and strings can be one dimensional or N dimensional.

**Program:**

The program defines array and string in the data segment. It then uses these array variables in the program by using their starting offset address.

**Note**: Strings in C++ end with ‘\0’ character. Similarly strings in assembly end with a ‘$’ character.

**ACTIVITIES**

**Activity 1**

Define an array of words (with dw) and print its elements in reverse order.

**Activity 2**

Write a program to print the string in reverse order.

**Activity 3**

Write a program that finds sum of elements of an array of size three.

**REVIEW QUESTIONS**

1. How are arrays and strings arranged in the memory?
2. What will happen if a string is not terminated with a ‘$’ character?
3. What will be the output of printing string if in the middle of the string comes the character ‘$’?
4. What will be the effect on output if we print an increment array index further off its original size (total number of elements) ?
5. What is the purpose of using **offset** or **lea** for loading an array or string in register? What will happen if array/string name is directly used without using offset?