**EXPERIMENT #2**

**ARRAYS AND ARRAY OF OBJECTS**

**Objectives:**

To create java applications, this will demonstrate the application of array concept and also utilizing the benefits of creating array of objects.

**Preparation**

1. An array is a group of similar typed variables that are referred to by a

common name.

1. To use array in your application, it must be constructed first.

To create a array, you can use “new” keyword.

For eg,

int[ ] array=new int[10];

int[ ][ ] matrix=new int[4][5];

1. Arrays are not only for primitive types, instead you can utilize the array concept to store real world objects such as Student, Employee… which will be called as array of objects.

To create such kind of array….

Eg…

class Student

{

String name;

int regno;

}

Student [ ] s=new Student[3]; //constructing array

s[0] = new Student();

s[1] = new Student();

s[2] = new Student();

1. Now it’s your turn to apply these concepts to create the following set of applications.
   1. **Matrix Manipulation:**

Create a Menu based application to demonstrate the matrix operations such as addition, subtraction, multiplication. Your application should ask the user to select the choice as like the following.

Menu…

1. Create matrix
2. Addition
3. Subtraction
4. Multiplication
5. Exit.

In this application, you will apply the concept of two dimensional arrays.

* 1. **Student Information System**

In this application, you will apply the concept of array of objects. Your application should have class student with some details such as Name, Dept, Reg.No, Mark1, Mark2, Mark3, Mark4, Avg, and Total.

You can implement this application by creating menu choices…

1. Create Students

Get the no.of students, create objects specified by the no.of students,

1. Enter the student details

Ask the user to enter the details of each students.

1. Display student details
2. Searching a particular students details

Get the student name/regno to search and display the

particular student details.

1. Finally, write the output and result.