**Department of Computer Science and Engineering**

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| **Course Code:CSE110** | **Credits: 1.5** |
| **Course Name: Programming Language I** | **Semester: Fall’18** |

**Experiment/Lab 9  
This is Experiment One**

1. **Topic Overview:**

The students will learn arrays and solve problems relating to adding, iterating and processing data in arrays.

1. **Lesson Fit:**
   1. Experiment 1 to 9
   2. Clear understanding of variable declaration, initialization and data types
2. **Learning Outcome:**

After this lecture, the students will be able to:

* 1. Take inputs in arrays
  2. Process and print data form arrays of different data types

1. **Anticipated Challenges and Possible Solutions**
   1. Task 10 while using nested loops

**Solutions:**

* + 1. Trial and error

1. **Acceptance and Evaluation**

If a task is a continuing task and one couldn’t finish within time limit, then he will continue from there in the next Lab, and if it is a one Lab task then it will be given as a home work.

1. **Activity Detail**
   1. **Hour: 1  
      Discussion:**The theoretical aspects of data structures, how arrays work and how the memory allocation work for arrays will be discussed in detail.  
       **Problem Task:**
      1. Problem 1 – Problem 3
   2. **Hour: 2**

**Discussion:**

**Problem Task:**

* + 1. Problem 4 – Problem 7

* 1. **Hour: 3**

**Discussion:**

**Problem Task:**

* + 1. Problem 8 – Problem 11
    2. ......
  1. .........

1. **Home tasks**
   1. Write a java program that reads 10 numbers from the user, and then prints only the even numbers and their positions in reverse order.

Sample Input:

11 13 12 16 61 40

Sample Output:

12 2

16 3

40 5

* 1. Write a java program that reads 10 numbers from the user, and then separately prints the sum of all the even numbers, odd numbers and numbers divisible by 5.

**Experiment/Lab 9 Activity List**

Task 1

Write a java program that would input three numbers from the user and print sum, then the first number, then the 2nd number followed by 3rd number. If user enters 10, 20, 30. Then output should be 60, 10, 20, and 30.

Task 2

Write a java program that reads 10 numbers from the user. The program then reads a number between 0 to 9, and shows the number at the corresponding index number. For instance, if the array is a and the user enters 3, your program should print the value a[3].

Task 3

Write a java program that reads 10 numbers from the user, and then prints them in the reverse order.

Task 4

Write a java program that reads 10 numbers from the user and prints the first odd number in the list.

Task 5

Write a java program that reads 10 numbers from the user and prints the first even number in the list.

Task 6

Write a java program that reads 10 numbers from the user and prints the last odd number in the list.

Task 7

Write a java program that reads 10 numbers from the user and prints the last even number in the list.

Task 8

Write a java program that reads 10 numbers from the user, and then prints only the even numbers in reverse order.

Task 9

Write a java program that reads 10 numbers from the user. Then read another number from the user, and print “yes” if this number exists among the first 10. Print “no” otherwise.

Task 10

Write a java program that reads 10 numbers from the user. After reading each number, print all the numbers that have been entered so far.

After user enters 11, print 11

After user enters 22, print 11, 22

Task 11

Write a java program that reads 10 numbers from the user, but does not allow the user to enter duplicates. This means that if a number has been entered already, the program will not accept it as input again and instead ask the user to enter a different number.