

Objectives:

Write Programs that make uses Generics

Exercise 1

The bubble sort algorithm allows you to sort data. The following code shows how to sort an integer array using bubble sort.

```
void bubbleSort(int arr[])
{
    int n = arr.length;
    for (int i = 0; i < n-1; i++)
        for (int j = 0; j < n-i-1; j++)
            if (arr[j] > arr[j+1])
            {
                // swap arr[j+1] and arr[i]
                int temp = arr[j];
                arr[j] = arr[j+1];
                arr[j+1] = temp;
            }
}
```

- (a) Write a main function to call the bubbleSort() to sort an array of 10 elements
- (b) Rewrite the above class using generics so that the solution works for any kind of data.
- (c) Rewrite the main function that uses the generic sort class to sort arrays containing
 - a. Float array
 - b. Double array
- (d) Rewrite the bubbleSort() as a generic method and use it in the code as a generic method

Exercise 2

Implement a generic method called print which can print any value type. The message will be string.

Below is a version of the print() message that works only for integers.

```
void print(String message, int val)
```

e.g. of usage

```
print("Age is ", age) ➔ Age is : 24
```