**Assisted Practice: 4.1 Array Rotation**

This section will guide you to:

* Write a program in Java to right rotate an array by 5 steps
* Use Eclipse (the popular text editor for Java programs)
* Push code to Git

This lab has three subsections, namely:

1. Creating a new project in Eclipse
2. Writing the program in Java for array rotation
3. Pushing the code to your GitHub repositories

**Step 4.1.1:** Creating a new project in Eclipse

* Open Eclipse
* Go to File -> New -> Project -> Java Project -> Next
* Type in any project name and click on Finish
* Select your project and go to File -> New -> Class
* Enter **Main** in any class name, check the checkbox **public static void main(String[] args)**, and click on Finish.

**Step 4.1.2:** Writing a program in Java for array rotation

class RotateArray {

public void rotate(int[] nums, int k) {

     if(k > nums.length)

        k=k%nums.length;

  int[] result = new int[nums.length];

  for(int i=0; i < k; i++){

         result[i] = nums[nums.length-k+i];

  }

  int j=0;

     for(int i=k; i<nums.length; i++){

         result[i] = nums[j];

j++;

     }

  System.arraycopy( result, 0, nums, 0, nums.length );

}

}

public class Main

{

public static void main(String[] args) {

RotateArray r = new RotateArray();

         int arr[] = { 1, 2, 3, 4, 5, 6, 7 };

         r.rotate(arr, 5);

         for(int i=0;i<arr.length;i++){

             System.out.print(arr[i]+" ");

         }

}

}

Output:

https://lh4.googleusercontent.com/-BM_KM0xFqa93gkANnPDdCoAXgIyyKd9wjfkvSRd8Zd1b7HyxYbJPcUTS4AGfy0vyjEA9iuY7Xdsif5jMxy__rCd4HxDD5uDROwo4SvvTatSBxFaHqSExNtAuvggHzO9ztkdHk6_60TNWNsGK-0RSYvA327KR-cLlp7NshPyvZjoiZtHKuXMCXY2Y-IM6Fq2uwOZCg

**Step 4.1.3:** Pushing the code to your GitHub repositories

* Open your command prompt and navigate to the folder where you have created your files.

**cd <folder path>**

* Initialize your repository using the following command:

**git init**

* Add all the files to your git repository using the following command:

**git add .**

* Commit the changes using the following command:

**git commit .  -m “Changes have been committed.”**

* Push the files to the folder you initially created using the following command:

**git push -u origin master**