# Tutorial Assignment

1911096 Mugdha Kurkure

## Passing Array In Functions
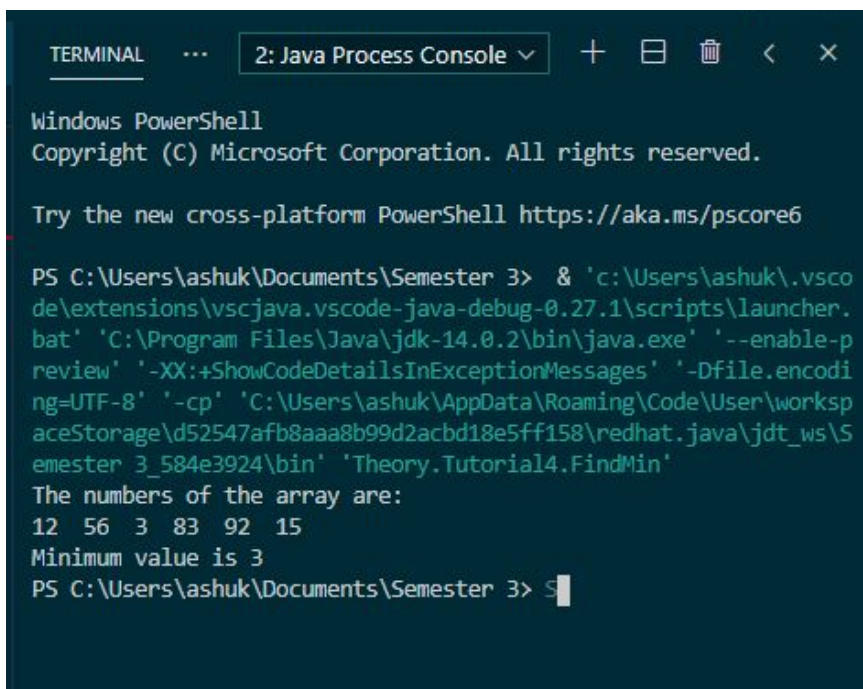
```java
public class FindMin {
    public static void main(String[] args) {
        int arr[] = {12, 56, 3, 83, 92, 15};
        int min = min(arr);

        System.out.println ("The numbers of the array are:");
        for (int x:arr)
        {
            System.out.print(x + "  ");
        }
        System.out.println ("\nMinimum value is " + min);
    }

    public static int min (int arr[])
    {
        int min = arr[0];

        for (int x:arr)
        {
            if (x < min)
                min = x;
        }

        return min;
    }
}
```

```
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Windows PowerShell
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PS C:\Users\ashuk\Documents\Semester 3>  & 'c:\Users\ashuk\.vsco
de\extensions\vscjava.vscode-java-debug-0.27.1\scripts\launcher.
bat' 'C:\Program Files\Java\jdk-14.0.2\bin\java.exe' '--enable-p
review' '-XX:+ShowCodeDetailsInExceptionMessages' '-Dfile.encodi
ng=UTF-8' '-cp' 'C:\Users\ashuk\AppData\Roaming\Code\User\worksp
aceStorage\d52547afb8aaa8b99d2acbd18e5ff158\redhat.java\jdt_ws\S
emester 3_584e3924\bin' 'Theory.Tutorial4.FindMin'
The numbers of the array are:
12  56  3  83  92  15
Minimum value is 3
PS C:\Users\ashuk\Documents\Semester 3> S
```
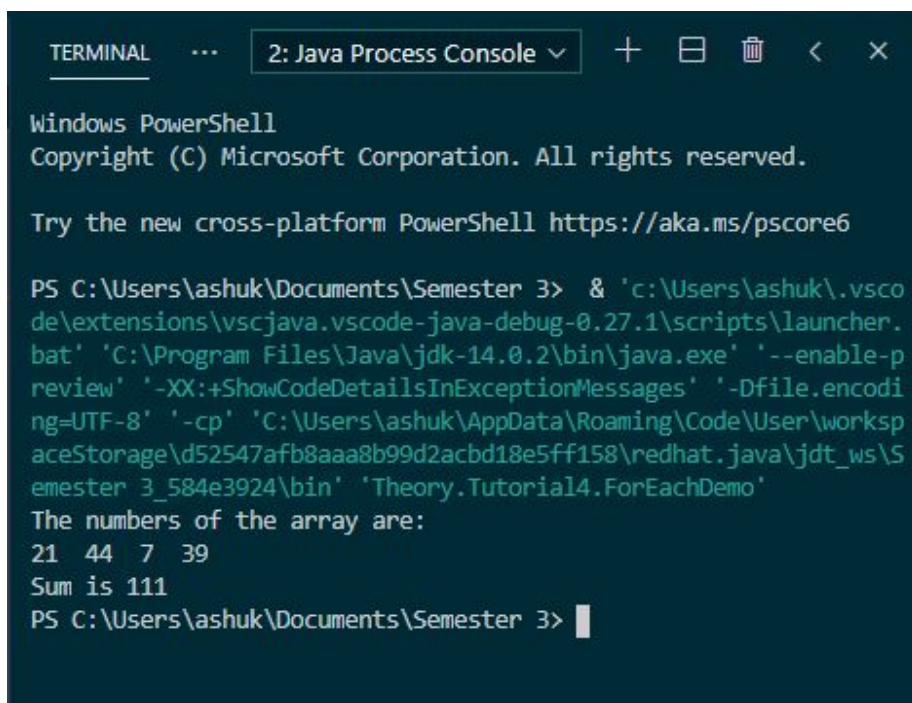
# Using 'For-Each'

```java
public class ForEachDemo {
    public static void main(String[] args) {
        int arr[] = {21, 44, 7, 39};
        int sum = 0;

        System.out.println ("The numbers of the array are:");
        for (int x:arr)
        {
            System.out.print(x + "  ");
            sum += x;
        }

        System.out.println ("\nSum is " + sum);
    }
}
```

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aceStorage\d52547afb8aaa8b99d2acbd18e5ff158\redhat.java\jdt_ws\S
emester 3_584e3924\bin' 'Theory.Tutorial4.ForEachDemo'
The numbers of the array are:
21  44  7  39
Sum is 111
PS C:\Users\ashuk\Documents\Semester 3> █
```

# Transposing a Matrix

```java
public class Transpose {
    public static void main(String[] args) {
        int arr[][] = {{1, 2, 3},
                {4, 5, 6},
                {7, 8, 9},
                {10, 11, 12}};


        System.out.println("Array before transpose");

        for (int i = 0; i < 4; i++)
        {
            for (int j = 0; j < 3; j++)
```

```java
            {
                System.out.print(arr[i][j] + " ");
            }
            System.out.println();
        }

        transpose(arr);
    }

    static void transpose (int arr[] [])
    {
        int x = arr.length, y = arr[0].length;
        int trans [][] = new int [y][x];

        System.out.println("\nArray after transpose");
        for (int i = 0; i < y; i++)
        {
            for (int j = 0; j < x; j++)
            {
                trans [i][j] = arr [j][i];
                System.out.print(arr [j][i] + " ");
            }
            System.out.println();
        }
    }
}
```

```
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ng=UTF-8' '-cp' 'C:\Users\ashuk\AppData\Roaming\Code\User\worksp
aceStorage\d52547afb8aaa8b99d2acbd18e5ff158\redhat.java\jdt_ws\S
emester 3_584e3924\bin' 'Theory.Tutorial4.Transpose'
Array before transpose
1 2 3
4 5 6
7 8 9
10 11 12

Array after transpose
1 4 7 10
2 5 8 11
3 6 9 12
PS C:\Users\ashuk\Documents\Semester 3> ▌
```