

ASSIGNMENT-23

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The screenshot displays the Eclipse IDE interface with the following components:

- Package Explorer (Left):** Shows the project structure. The 'com.maxelement' package is expanded, revealing 'Maxelement.java' and 'module-info.java'. Other packages like 'arrays', 'constructor', 'encapsulation', 'inheritance', 'inheritance2', 'inheritance3', 'inheritancePractice', 'interface1', 'passbyvalue', 'POLYMORPHISM PRACTICE', 'Task', and 'typecasting' are also visible.
- Editor (Center):** Displays the code for 'Maxelement.java'. The code is as follows:

```
1 package com.maxelement;
2
3 public class Maxelement {
4
5     public static void main(String[] args) {
6
7         int[] a = {21,23,54,67,89,345,345,78,567,987,44555};
8
9         int max = a[0];
10
11         for(int i = 1 ; i < a.length; i ++ ) {
12             if (a[i] > max) {
13                 max = a[i];
14             }
15         }
16
17         System.out.println("Maximum element a is :"+max);
18     }
19 }
20
21 }
```
- Console (Right):** Shows the output of the program: 'Maximum element a is :44555'. The console also displays a system message: '<terminated> Maxelement [Java Application] C:\Users\p.pavan k...'.

The Windows taskbar at the bottom shows the time as 12:08:46 on 08-07-2025, along with various system icons and the Windows Start button.

Package Explorer × Type Hierarchy

Abstraction
abstract1
ABSTRACTIONPRACTICE
ARRAYS
JRE System Library [JavaSE-17]
src
com.anil
com.jaggedarray
com.maxelement
Maxelement.java
module-info.java
constructor
encapsulation
inheritance
inheritance2
inheritance3
InheritancePractice
interface1
passbyvalue
POLYMORPHSAMPRACTICE
Task
typecasting

passbyvalue... Car.java Car.java Student.java Kangaroo.java Person.java skill.java Vehicle.java

```
1 package com.maxelement;  
2  
3 public class Maxelement {  
4  
5     public static void main(String[] args) {  
6  
7         int[] a = {21,23,54,67,89,345,345,78,567,987,44555};  
8  
9         int min = a[0];  
10  
11         for(int i = 1 ; i < a.length; i++) {  
12             if (a[i] < min) {  
13                 min = a[i];  
14             }  
15         }  
16  
17         System.out.println("Maximum element a is :"+min);  
18     }  
19 }  
20  
21
```

Console ×

<terminated> Maxelement [Java Application] C:\Users\p.pavan k...
Maximum element a is :21





Package Explorer X Type Hierarchy

- > Abstraction
- > abstract1
- > ABSTRACTIONPRACTICE
- > ARRAYS
 - > JRE System Library [JavaSE-17]
 - > src
 - > com.anil
 - > com.jaggedarray
 - > com.maxelement
 - > Maxelement.java
 - > com.transpose
 - > MatrixTranspose.java
 - > module-info.java
 - > constructor
 - > encapslation
 - > inheritance
 - > inheritance2
 - > inheritance3
 - > InheritancePractice
 - > interface1
 - > passbyvalue
 - > POLYMORPHSAMPRACTICE
 - > Task
 - > typecasting

```
3 public class MatrixTranspose {
4
5     public static void main(String[] args) {
6
7         int[][] matrix = {
8             {21, 15, 39},
9             {42, 59, 65}
10        };
11
12        int rows = matrix.length;
13        int cols = matrix[0].length;
14
15        int[][] transpose = new int[cols][rows];
16
17        for (int i = 0; i < rows; i++) {
18            for (int j = 0; j < cols; j++) {
19                transpose[j][i] = matrix[i][j];
20            }
21        }
22
23        System.out.println("Original Matrix:");
24        printMatrix(matrix);
25
26        System.out.println("\nTransposed Matrix:");
27        printMatrix(transpose);
28    }
29
30    static void printMatrix(int[][] mat) {
31        for (int[] row : mat) {
32            for (int val : row) {
33                System.out.print(val + " ");
34            }
35            System.out.println();
36        }
37    }
38 }
39
40
41
42
43
44
45
```

Console X

```
<terminated> MatrixTranspose [Java Application] C:\Users\p.pava
Original Matrix:
21 15 39
42 59 65

Transposed Matrix:
21 42
15 59
39 65
```