<h1 style="text-align:center; color:red;">Using Generic Methods (Assessment-3)</h1>

Your task is to create a Java program that uses **generic methods** for manipulating data in arrays.

1. **Generic Methods:** Create a class named `DataProcessor` that includes the following generic methods:

   a. `printArray(T[] array)`: This method should accept an array of any type and print all elements in the array.

   b. `swapElements(T[] array, int index1, int index2)`: This method should accept an array of any type and two indices. It should swap the elements at these indices.

   c. `findMax(T[] array)`: This method should accept an array of any type that implements the `Comparable` interface and return the maximum element.

2. **Main Method:** In a `Main` class, create the `main()` method that does the following:

   a. Define several arrays of different types (like Integer and String).

   b. Use the `printArray()` method to print these arrays.

   c. Use the `swapElements()` method to swap elements in these arrays, then print the arrays again.

   d. Use the `findMax()` method to find the maximum element in each array and print the result.

Notes:

- Use exception handling where necessary.
- Include comments to document your code and improve readability.
- Follow good coding standards and practices.

Submission:

Please submit your source code files along with the output screenshots. Make sure your program runs correctly without any errors before submission.

Deadline for submission: 23-05-2023 (submit on VTOP-Assessment-3)

10 marks: if submitted before **1:20 pm** (for all successful implementations, fulfilling all requirements).