5. Reverse Array in Place

Problem: Write a Java program to reverse an array in place.

Test Cases:

Input: arr = [1, 2, 3, 4]

Output: [4, 3, 2, 1]

Input: arr = [7, 8, 9]

Output: [9, 8, 7]  
  
EXPLANATION

**Class Declaration**: You have two classes - ReverserAtPlace and question5.

**ReverserAtPlace Class**:

**Attributes**:

iArraySize: Stores the size of the array.

iNewArr[]: Stores the reversed array.

**Method**ArrayReverse: This method takes an integer array arrx[] and creates a reversed version of it.

Iterates through the array to determine its length.

Creates a new array iNewArr[] of the same size as the input array.

Uses a while loop to copy elements from the original array to the new array in reverse order.

Prints the reversed array.

**question5 Class**:

**Main Method**: This is the entry point of your program.

**User Input**: It reads the size of the array and the elements of the array from the user.

**Object Creation**: Creates an object robj of the ReverserAtPlace class.

**Method Call**: Calls the ArrayReverse method with the user input array to reverse the array and print it.  
  
time and space complexity  
0(n)  
  
flowchart  
 Start

|

v

Give array size (Read input `iSize`)

|

v

Provide array elements (Read input `arr`)

|

v

Create `ReverserAtPlace` object (`robj`)

|

v

Call `ArrayReverse` method with `arr`

|

v

Initialize `i = 0`, `j = 0`

|

v

Determine length of array (`i` to `arrx.length`)

|

v

Create `iNewArr` of size `iArraySize`

|

v

While `j < iArraySize`

|

v

Copy `arrx[i]` to `iNewArr[j]`

|

v

Decrement `i`, Increment `j`

|

v

End While Loop

|

v

Print `iNewArr`

|

v

End

