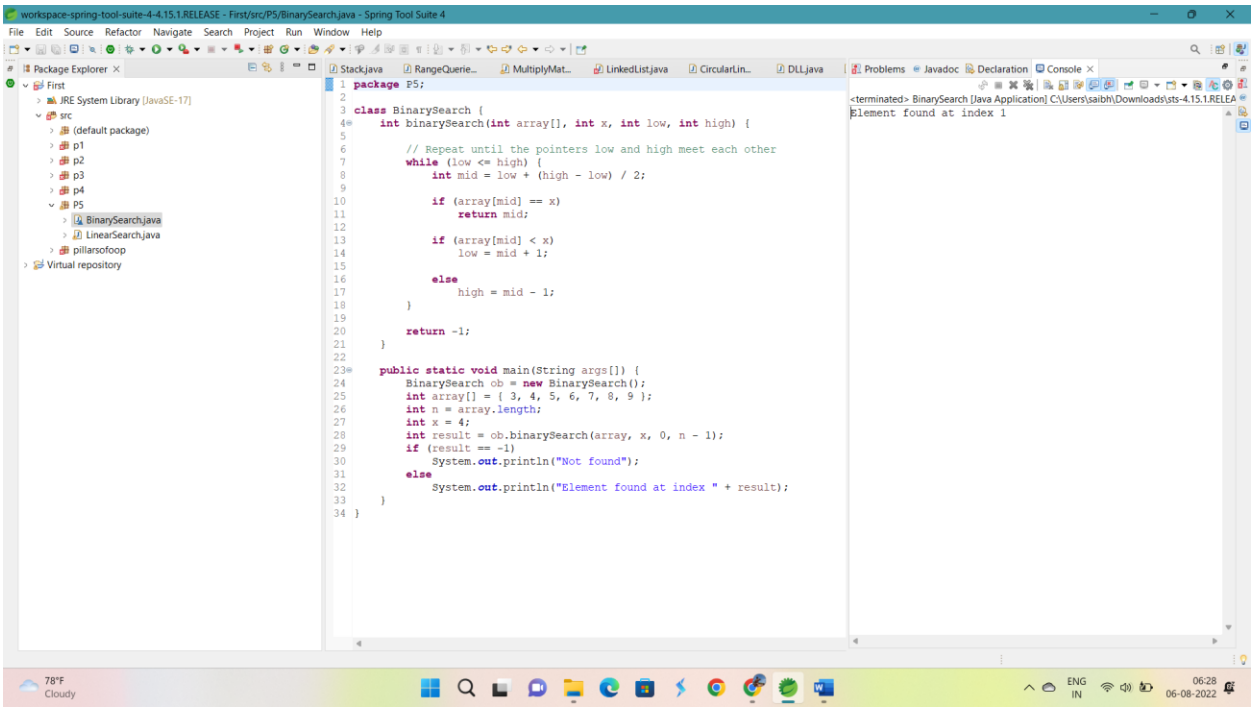
Writing a program in Java implementing the binary search algorithm

```
package P5;

class BinarySearch {
	int binarySearch(int array[], int x, int low, int high) {

		// Repeat until the pointers low and high meet each other
		while (low <= high) {
			int mid = low + (high - low) / 2;

			if (array[mid] == x)
				return mid;

			if (array[mid] < x)
				low = mid + 1;

			else
				high = mid - 1;
		}

		return -1;
	}

	public static void main(String args[]) {
		BinarySearch ob = new BinarySearch();
		int array[] = { 3, 4, 5, 6, 7, 8, 9 };
		int n = array.length;
		int x = 4;
		int result = ob.binarySearch(array, x, 0, n - 1);
		if (result == -1)
			System.out.println("Not found");
		else
			System.out.println("Element found at index " + result);
	}
}
```


workspace-spring-tool-suite-4-4.15.1.RELEASE - First/src/P5/BinarySearch.java - Spring Tool Suite 4
File Edit Source Refactor Navigate Search Project Run Window Help
Package Explorer
First
JRE System Library [JavaSE-17]
src
(default package)
p1
p2
p3
p4
P5
BinarySearch.java
LinearSearch.java
pillarsofoop
Virtual repository
Stack.java
RangeQuerie...
MultiplyMat...
LinkedList.java
CircularLin...
DLL.java
package P5;
class BinarySearch {
int binarySearch(int array[], int x, int low, int high) {
// Repeat until the pointers low and high meet each other
while (low <= high) {
int mid = low + (high - low) / 2;
if (array[mid] == x)
return mid;
if (array[mid] < x)
low = mid + 1;
else
high = mid - 1;
}
return -1;
}
public static void main(String args[]) {
BinarySearch ob = new BinarySearch();
int array[] = { 3, 4, 5, 6, 7, 8, 9 };
int n = array.length;
int x = 4;
int result = ob.binarySearch(array, x, 0, n - 1);
if (result == -1)
System.out.println("Not found");
else
System.out.println("Element found at index " + result);
}
}
Problems
Javadoc
Declaration
Console
<terminated> BinarySearch [Java Application] C:\Users\saibh\Downloads\sts-4.15.1.RELEA
Element found at index 1
78°F
Cloudy
ENG
IN
06:28
06-08-2022