

/*1. You are managing a list of student roll numbers for a classroom. You need to insert roll numbers as students enter and display the list after each insertion.

Implement a Java program to:

- Insert student roll numbers at a given position.
- Display the updated list after each insertion*/

```
import java.util.*;

public class july1ht
{
    private int[] data;
    private int size;
    private int capacity;
    public july1ht(int capacity)
    {
        this.capacity=capacity;
        data=new int[capacity];
        size=0;
    }
    public void insert(int pos,int element)
    {
        if(size==capacity)
        {
            System.out.println("The array is full");
            return;
        }
        if(pos<0 || pos>size)
        {
            System.out.println("Enter the index correctly");
        }
        for (int i=size-1;i>=pos;i--)
        {
```

```

        data[i+1]=data[i];

    }
    data[pos]=element;
    size++;
    System.out.println("Inserted "+ element + " at position " + pos);
    display();
}

public boolean isEmpty()
{

    return size==0;

}

public void display()
{
    if (isEmpty())
    {
        System.out.println("The list is empty");
    }
    else
    {
        System.out.print("The updated Student list is: ");
        for (int i=0;i<size;i++)
        {

            System.out.print(data[i]+" ");

        }
        System.out.println(" ");
    }
}
}

```

```
public static void main(String[] args)
{
    july1ht st=new july1ht(10);
    st.insert(0,100);
    st.insert(1,105);
    st.insert(2,150);
    st.insert(0,200);

}
}
```