

```
package com.simplilearn.demo;
```

```
public class longestIncreasingSubsequence {
```

```
    static int lis(int arr[], int n)
```

```
    {
```

```
        int lis[] = new int[n];
```

```
        int i, j, max = 0;
```

```
        for (i = 0; i < n; i++)
```

```
            lis[i] = 1;
```

```
        for (i = 1; i < n; i++)
```

```
            for (j = 0; j < i; j++)
```

```
                if (arr[i] > arr[j] && lis[i] < lis[j] + 1)
```

```
                    lis[i] = lis[j] + 1;
```

```
        for (i = 0; i < n; i++)
```

```
            if (max < lis[i])
```

```
                max = lis[i];
```

```
        return max;
```

```
    }
```

```
    public static void main(String args[])
```

```
    {
```

```
        int arr[] = { 10, 22, 9, 33, 21, 50, 41, 60 };
```

```
        int n = arr.length;
```

```
        System.out.println("Length of list is " + lis(arr, n) + "\n");
```

```
    }
```

```
}
```