

Assignment - 5

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Do all same all program for linkedlist, hashset and for hashmap which you did in arraylist.

You have to make a 3 class file to execute all the method with respective linkedlist, hashset and hashmap problem statement will be same but method will be used as per the linkedlist, hashset and hashmap.

linkedlist :-

```
import java.util.*;  
class linkedlist  
{  
public static void main(string args[])  
{  
    linkedlist<string> l1 = new linkedlist  
        < string >();  
    l1.add("A");  
    l1.add("B");  
    l1.addlast("C");  
    l1.addFirst("D");  
    l1.add(2, "E");  
    system.out.println(l1);  
    l1.remove(3);  
    l1.removeFirst();  
    l1.set(1, "F");  
    For(string str : l1)  
        system.out.println("str + " );  
    linkedlist sec-list = new linkedlist();  
    sec-list = (linkedlist)l1.clone();
```

```
system.out.println("Second linkedList is : ")
+ sec>List);
system.out.println("Second linkedlist is : "
+ sec-list);
system.out.println("The object that is
replaced is : " + L1.set(2, "S"));
system.out.println("Does the List contains
'A' : " + L1.contains("A"));
L1.push("Z");
System.out.println(L1);
String s = L1.pop();
System.out.println(s);
Collection<String> collect = new ArrayList<
<String>();
collect.add("A");
collect.add("Computer");
L1.addAll(collect);
System.out.println("The first element
is : " + L1.getFirst());
System.out.println("The last element is : "
L1.getLast());
System.out.println("The first element is : "
removeFirst());
System.out.println("The last element is : "
+ L1.removeLast());
L1.addLast("Last");
L1.add("L");
L1.add("M");
L1.add("N");
System.out.println("The list is as follows : ");
ListIterator listIter = L1.listIterator(2);
while(listIter.hasNext()) {
```

```
System.out.println("The first occurrence of  
F is at index :" + l1.indexOf("F"));  
l1.clear();
```

```
System.out.println("List after clearing all  
elements :" + l1);
```

{

{

hashes

hashset :-

```
import java.util.*;  
class hashset
```

{

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

{

```
Hashset<String> arr = new Hashset<String>();  
arr.add("collection framework in java");  
arr.add("ArrayList");  
arr.add("Vector");  
arr.add("List");
```

```
Hashset<String> arr2 = new Hashset<String>();  
arr2.add("LinkedList");  
arr2.add("Vector");
```

```
System.out.println("In Does set1 contains  
set 2 :" + arr.containsAll(arr2));
```

```
System.out.println("Elements in hashset :" + arr);  
System.out.println();
```

```
boolean value = arr.equals(arr2);
```

```
System.out.println("Are both set equals :"  
+ value);
```

```
boolean flag = arr.contains("List");
```

```
if (flag == true)
```

{

```
System.out.println("hashset contains  
element list");  
System.out.println();  
}  
else  
{  
    System.out.println("hashset doesn't contain  
element list");  
    System.out.println();  
}  
arr.remove(2);  
System.out.println("hashset after removing  
element at index 2 = " + arr);  
System.out.println();  
HashSet cloned-set = new HashSet();  
cloned-set = (HashSet)arr.clone();  
System.out.println("The iterator values are:");  
while (value2.hasNext())  
{  
    System.out.println(value2.next());  
}  
Object[] object = arr.toArray();  
for (int i = 0; i < object.length; i++)  
{  
    System.out.println(value2.next());  
}  
System.out.println("value at index " + it  
" & Array converted from hashset = " +  
object[i]);  
System.out.println();  
}
```

```
System.out.println("Value at index " + arr.hashCode()
                    + " value : " + arr.hashCode());
boolean flag1 = arr.isEmpty();
if (flag1 == arr.isEmpty() == true) {
    System.out.println("ArrayList is Empty");
}
else {
    System.out.println("ArrayList is not
                        Empty");
    System.out.println();
    arr.clear();
    System.out.println("empty ArrayList after
                        using clear method : " + arr);
}
```

hashmap :-

```
import java.util.*;
class hashmap
{
    public static void main(String args[])
    {
        HashMap<String, Integer> map = new HashMap<
            <String, Integer>();
        map.put("java", 1);
        map.put("C", 20);
        map.put("C++", 30);
        map.put("ado", 40);
        HashMap<String, Integer> map2 = new
            HashMap<>();
        map2.put("C#", 50);
```

```
map2.put("python", 60);
System.out.println("Is the key '5' present?" + map.containskey(5));
System.out.println("Is the key '5' present?" + map.containskey(10));
System.out.println("Is the value 'world' present?" + map.containsValue("("));
System.out.println("Is the map empty?" + map.isEmpty());
System.out.println("The set is:" + map.entrySet());
System.out.println("The value is:" + map.get(10));
System.out.println("The set is:" + map.keySet());
System.out.println("The size of the map is:" + map.size());
map.put("J2SE", 15);
HashMap<String, Integer> new-hash-map
= new HashMap<String, Integer>();
new-hash-map.putAll(map);
System.out.println("The cloned map look like this:" + map.clone());
}
```