**ASSIGNMENT -11**

**Session 1**

1. Create a class of ArrayList and add the objects by using add method and print the all the values which you added.

**package** my.collections;

**import** java.util.ArrayList;

**public** **class** Arraylist {

**public** **static** **void** main(String[] args) {

ArrayList l1=**new** ArrayList();

l1.add(123);

l1.add("niharika");

l1.add(**new** ~~Integer~~(38));

l1.add(40.05f);

l1.add(**new** ~~Boolean~~(**false**));

System.***out***.println("Array List is .....");

System.***out***.println("Values are:"+l1);

}

}

OUTPUT:

Array List is .....

Values are:[123, niharika, 38, 40.05, false]

1. Create a of Linked List add the heterogenous objects print all the objects.

**package** my.collections;

**import** java.util.LinkedList;

**public** **class** Linkedlist {

**public** **static** **void** main(String[] args) {

LinkedList l= **new** LinkedList();

l.add(100);

l.add("niharika");

l.add(40.5);

l.add('m');

l.add(**false**);

l.add(**new** ~~Integer~~(20));

System.***out***.println("Linked List is ....");

System.***out***.println("Values are:"+l);

}

}

OUTPUT:

Linked List is ....

Values are:[100, niharika, 40.5, m, false, 20]

1. Create a LinkedList class and apply different methods for that class size(),contains(),isEmpty(),getFisrt(). print the results.

**package** my.collections;

**import** java.util.LinkedList;

**public** **class** Linkedlist {

**public** **static** **void** main(String[] args) {

LinkedList l= **new** LinkedList();

l.add(100);

l.add("niharika");

l.add(40.5);

l.add('m');

l.add(**false**);

l.add(**new** ~~Integer~~(20));

System.***out***.println("Linked List is ....");

System.***out***.println("Values are:"+l);

System.***out***.println("Size of Linked List:"+l.size());

System.***out***.println("Contains Element:"+l.contains("niharika"));

System.***out***.println("List is Empty:"+l.isEmpty());

System.***out***.println("First element of list:"+l.getFirst());

System.***out***.println("Last element of list:"+l.getLast());

System.***out***.println("Remove element:"+l.remove());

System.***out***.println("Size of list after operations:"+l.size());

}

}

OUTPUT:

Linked List is ....

Values are:[100, niharika, 40.5, m, false, 20]

Size of Linked List:6

Contains Element:true

List is Empty:false

First element of list:100

Last element of list:20

Remove element:100

Size of list after operations:5

1. class name is test and taking arraylist object add different objects and print the values by using for loop and foreach loop.

**package** my.collections

**import** java.util.ArrayList;

**public** **class** test {

**public** **static** **void** main(String[] args) {

ArrayList a=**new** ArrayList();

a.add(123);

a.add('c');

a.add(**true**);

a.add(40.03f);

a.add(50.7);

a.add("ram");

System.***out***.println("List is.."+a);

System.***out***.println("Using For Loop:");

**for**(**int** i=0;i<a.size();i++) {

System.***out***.println(a.get(i));

}

System.***out***.println("Using For Each Loop:");

**for** (Object o:a) {

System.***out***.println(o);

}

}

}

OUTPUT:

List is..[123, c, true, 40.03, 50.7, ram]

Using For Loop:

123

c

true

40.03

50.7

ram

Using For Each Loop:

123

c

true

40.03

50.7

ram

1. Create a class with generics(perticular type integer) and add the values print even numbers.

**package** my.collections;

**import** java.util.ArrayList;

**public** **class** generic {

**public** **static** **void** main(String[] args) {

ArrayList<Integer> a =**new** ArrayList();

System.***out***.println("Print Even Numbers ...");

**for**(**int** i=0;i<11;i++) {

a.add(i);

}

**for**(Object o:a) {

Integer i=(Integer) o;

**if** (i%2==0) {

System.***out***.println(i);

}

}

}

}

OUTPUT:

Print Even Numbers ...

0

2

4

6

8

10

1. Create a class with generics and apply ListIterator cursor on that class and print the values.

**package** my.collections;

**import** java.util.ArrayList;

**import** java.util.ListIterator;

**public** **class** Iterator {

**public** **static** **void** main(String[] args) {

ArrayList a=**new** ArrayList();

a.add("Niharika");

a.add("Mansi");

a.add("Manish");

a.add("Khushi");

a.add("Dev");

a.add("Yuvi");

System.***out***.println("list is ..."+a);

System.***out***.println(" Normal List using iterator....");

ListIterator l1=a.listIterator();

**while**(l1.hasNext()) {

System.***out***.println(l1.next());

}

System.***out***.println(" Reverse List using iterator....");

**while**(l1.hasPrevious()) {

System.***out***.println(l1.previous());

}

}

}

OUTPUT:

list is ...[Niharika, Mansi, Manish, Khushi, Dev, Yuvi]

Normal List using iterator....

Niharika

Mansi

Manish

Khushi

Dev

Yuvi

Reverse List using iterator....

Yuvi

Dev

Khushi

Manish

Mansi

Niharika

1. Create a ArrayList class by using Iterator print the values.

**package** my.collections;

**import** java.util.ArrayList;

**import** java.util.Iterator;

**public** **class** Iterator {

**public** **static** **void** main(String[] args) {

ArrayList a=**new** ArrayList();

a.add("Niharika");

a.add("Mansi");

a.add("Manish");

a.add("Khushi");

a.add("Dev");

a.add("Yuvi");

System.***out***.println("list is ..."+a);

Iterator itr=a.iterator();

**while**(itr.hasNext()) {

System.***out***.println(itr.next());

}

}

}

Output:

list is ...[Niharika, Mansi, Manish, Khushi, Dev, Yuvi]

Niharika

Mansi

Manish

Khushi

Dev

Yuvi