**ASSIGNMENT -12**

**Session 1**

1. create a HashSet class by add 10 numbers by using for loop and extra add some more objects and print the all the values.

**package** my.collections;

**import** java.util.HashSet;

**public** **class** hashset1 {

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

HashSet hs =**new** HashSet();

**for**(**int** i=0;i<10;i++) {

hs.add(i);

}

hs.add("Ram");

hs.add("shyam");

hs.add(20.3);

hs.add('M');

System.***out***.println("Values of Hashet is :"+hs);

}

}

OUTPUT:

Values of Hashet is :[0, 1, 2, 3, 4, 5, 6, 7, 8, 9, M, shyam, 20.3, Ram]

1. create a LinkedHashSet class by add 10 numbers by using for loop and extra add some more objects and print the all the values.

**package** my.collections;

**import** java.util.LinkedHashSet;

**public** **class** linkedhashset1 {

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

LinkedHashSet ls = **new** LinkedHashSet();

**for**(**int** i=1;i<11;i++) {

ls.add(i);

}

ls.add(20.05f);

ls.add('N');

ls.add("Krishna");

ls.add(**true**);

System.***out***.println("Values of Linked Hash Set is:"+ls);

}

}

Output:

Values of Linked Hash Set is:[1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 20.05, N, Krishna, true]

1. By using Iterator class iterate the HashSet class Elements.

**package** my.collections;

**import** java.util.HashSet;

**import** java.util.Iterator;

**public** **class** hashset1 {

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

HashSet hs =**new** HashSet();

**for**(**int** i=0;i<10;i++) {

hs.add(i);

}

hs.add("Ram");

hs.add("shyam");

hs.add(20.3);

hs.add('M');

System.***out***.println("Values of Hashet is :"+hs);

System.***out***.println("Iterarting elements....");

Iterator itr =hs.iterator();

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

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

}

}

}

OUTPUT:

Values of Hashet is :[0, 1, 2, 3, 4, 5, 6, 7, 8, 9, M, shyam, 20.3, Ram]

Iterarting elements....

0

1

2

3

4

5

6

7

8

9

M

shyam

20.3

Ram

1. By using Iterator class iterate the LinkedHashSet Elements.

**package** my.collections;

**import** java.util.LinkedHashSet;

**import** java.util.Iterator;

**public** **class** linkedhashset1 {

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

LinkedHashSet ls = **new** LinkedHashSet();

**for**(**int** i=1;i<11;i++) {

ls.add(i);

}

ls.add(20.05f);

ls.add('N');

ls.add("Krishna");

ls.add(**true**);

System.***out***.println("Values of Linked Hash Set is:"+ls);

System.***out***.println("Iterating Elements .....");

Iterator itr =ls.iterator();

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

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

}

}

}

OUTPUT:

Values of Linked Hash Set is:[1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 20.05, N, Krishna, true]

Iterating Elements .....

1

2

3

4

5

6

7

8

9

10

20.05

N

Krishna

True

1. By using generics cretae hashset class apply some methods,addall(),remove().

**package** my.collections;

**import** java.util.HashSet;

**import** java.util.Iterator;

**public** **class** hashset1 {

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

HashSet<Integer> hs =**new** HashSet();

**for**(**int** i=0;i<10;i++) {

hs.add(i);

}

System.***out***.println("Adding Another Hash Set...");

HashSet<Integer> hs1 =**new** HashSet();

**for**(**int** i=11;i<15;i++) {

hs1.add(i);

}

hs.remove(6);

hs.remove(7);

hs.remove(8);

hs.remove(9);

System.***out***.println("After removing ...."+hs);

}

}

OUTPUT:

Values of hash Set..[0, 1, 2, 3, 4, 5, 6, 7, 8, 9]

Adding Another Hash Set...

Values of Hashset is :[0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 14]

After removing ....[0, 1, 2, 3, 4, 5, 11, 12, 13, 14]

**Session 2**

1. create a class and print the elements by using Tree Set.

**package** my.collections;

**import** java.util.TreeSet;

**public** **class** treeset {

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

TreeSet ts=**new** TreeSet();

ts.add(10);

ts.add(40);

ts.add(30);

ts.add(20);

ts.add(50);

ts.add(60);

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

}

}

OUTPUT:

Values are :[10, 20, 30, 40, 50, 60]

1. Create a class by using generics print all the elements with Tree Set.

**package** my.collections;

**import** java.util.TreeSet;

**public** **class** Tree {

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

TreeSet<String> ts=**new** TreeSet();

ts.add("Niharika");

ts.add("Manish");

ts.add("Dev");

ts.add("Ritu");

ts.add("Varsha");

ts.add("Arun");

ts.add("Fairy");

System.***out***.println("Values of Tree is :"+ts);

}

}

OUTPUT:

Values of Tree is :[Arun, Dev, Fairy, Manish, Niharika, Ritu, Varsha]

1. Create a class with Tree Set use Iterator class to print the values.

**package** my.collections;

**import** java.util.TreeSet;

**import** java.util.Iterator;

**public** **class** Tree {

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

TreeSet<String> ts=**new** TreeSet();

ts.add("Niharika");

ts.add("Manish");

ts.add("Dev");

ts.add("Ritu");

ts.add("Varsha");

ts.add("Arun");

ts.add("Fairy");

System.***out***.println("Values of Tree is :"+ts);

System.***out***.println("Iterating Elements .....");

Iterator itr =ts.iterator();

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

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

}

}

}

OUTPUT:

Values of Tree is :[Arun, Dev, Fairy, Manish, Niharika, Ritu, Varsha]

Iterating Elements .....

Arun

Dev

Fairy

Manish

Niharika

Ritu

Varsha

1. By Using Tree Set retrive and remove highest and lowest value.

**package** my.collections;

**import** java.util.TreeSet;

**import** java.util.Iterator;

**public** **class** Tree {

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

TreeSet<String> ts=**new** TreeSet();

ts.add("Niharika");

ts.add("Manish");

ts.add("Dev");

ts.add("Ritu");

ts.add("Varsha");

ts.add("Arun");

ts.add("Fairy");

System.***out***.println("Values of Tree is :"+ts);

String a=ts.first();

String b=ts.last();

System.***out***.println("First element :"+a);

System.***out***.println("Last element :"+b);

ts.remove(a);

ts.remove(b);

System.***out***.println("values of Tree Set:"+ts);

}

}

OUTPUT:

Values of Tree is :[Arun, Dev, Fairy, Manish, Niharika, Ritu, Varsha]

First element :Arun

Last element :Varsha

values of Tree Set after Operation:[Dev, Fairy, Manish, Niharika, Ritu]