**Exception Handling**

**Exercise 1:***Create a class called Employee which asks the user to input the name and the age of a*

*employee. Raise a custom defined exception when the user enters an employee name*

*that has been already entered and raise another exception if the age is negative or less*

*than 18 or greater than 60.*

**Collection**

**Exercise 2:***Create a collection that will contain the names of the days in a week. Print the collection.*

*Display the length of the collection and convert the collection into an array and print it.*

*Ans:*

*package Collection;*

*import java.util.ArrayList;*

*import java.util.List;*

*public class NamesofDaysInWeek {*

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

*List<String> list=new ArrayList<String>();*

*list.add("Sun Day");*

*list.add("Mon Day");*

*list.add("TuesDay");*

*list.add("Wednesday");*

*list.add("Thursday");*

*list.add("Friday");*

*list.add("Saturday");*

*for(String s:list)System.out.println(s);*

*System.out.println("=====================");*

*System.out.println("Length of Collection : "+list.size());*

*String arr[]=new String[list.size()];*

*for(int i=0;i<list.size();i++) arr[i]=list.get(i);*

*System.out.println("=====================");*

*for(String s:arr) System.out.println(s);*

*}*

*}*

**Exercise 3:***Write a program to implement a telephone directory. Display the details.*

**Solution Guidance:**  *Name Phone no*

*ABC 1234*

*DEF 5678*

*package Collection;*

*import java.util.Iterator;*

*import java.util.Map;*

*import java.util.Set;*

*import java.util.TreeMap;*

*public class TelephoneDirectory {*

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

*Map<String,Integer> map=new TreeMap<String,Integer>();*

*map.put("ABC",785785788);*

*map.put("DEF",784645465);*

*map.put("MNO",984657457);*

*map.put("XYZ",879565875);*

*Set set=map.keySet();*

*Iterator iterator=set.iterator();*

*while(iterator.hasNext())*

*{*

*Object key=iterator.next();*

*Integer value=map.get(key);*

*System.out.println(key+" "+value);*

*}*

*}*

*}*

**Exercise 4:***Create a program to depict the usage of the dictionary where words along with the meanings are stored. When the user gives a word, its meaning should be displayed.*

*Ans:*

*package Collection;*

*import java.util.Iterator;*

*import java.util.Map;*

*import java.util.Scanner;*

*import java.util.Set;*

*import java.util.TreeMap;*

*public class Dictionary {*

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

*Map<String,String> map=new TreeMap<String,String>();*

*map.put("Concrete","A method wich has an implimentation");*

*map.put("Factory","A method which has Object creation logic");*

*map.put("Recursion","Process in which method calss itself continously");*

*map.put("Array","An Object which contains elements of similar data types");*

*Scanner scn=new Scanner(System.in);*

*System.out.println("Enter a word");*

*Set set=map.keySet();*

*Iterator iterator=set.iterator();*

*while(iterator.hasNext())*

*{*

*String word=scn.next();*

*String value=map.get(word);*

*System.out.println("Meaning of given word is : "+value);*

*}*

*}*

*}*

**Exercise 5:***Create a class called CD whose attributes are Title and singer.*

1. *Arrange the CDs in ascending order based on the singer name*
2. *Arrange the CDs in decending order Based on Title*