Assignment 1(B)

Title:-Accepts students name, id, and marks and display the highest score and the lowest score using Hashmap

Code:

package javaapplication2;

import java.util.\*;

/\*\*

\*

\* @author Lenovo

\*/

// Creating a student class for storing data

class student

{

String name;

int marks;

student()

{

name = " ";

marks = 0;

}

student(String name, int marks)

{

this.name = name;

this.marks = marks;

}

}

public class JavaApplication2 {

/\*\*

\* @param args the command line arguments

\*/

public static void main(String[] args) {

// TODO code application logic here

// TODO code application logic here

int t, m, r;

String n;

// Creating a Hashmap for student rollno and name

HashMap <Integer, student> hm = new HashMap();

Scanner sc = new Scanner(System.in);

System.out.println("Enter number of students : ");

t = sc.nextInt();

for(int i=0;i<t;i++)

{

System.out.println("Enter rollno of Student " + (i+1) + " :");

r = sc.nextInt();

System.out.println("Enter name and marks of Student " + (i+1) + " :");

n = sc.next();

m = sc.nextInt();

student s = new student(n, m);

hm.put(r, s);

}

// Crating a set for the hasmap for iterating over the items os set

Set set = hm.entrySet();

Iterator it = set.iterator();

student std = new student();

student stdmin = new student();

student stdmax = new student();

int max =0, min =99999;

System.out.println("\nThe details of Students are : ");

while(it.hasNext())

{

Map.Entry me = (Map.Entry)it.next();

System.out.print(me.getKey() + ": ");

std = (student)me.getValue();

System.out.print("Name = " + std.name + "\tRollno = " + std.marks + "\n");

if(std.marks < min)

{

min = std.marks;

stdmin = std;

}

}

Iterator i = set.iterator();

while(i.hasNext())

{

Map.Entry me = (Map.Entry)i.next();

//System.out.print(me.getKey() + ": ");

std = (student)me.getValue();

//System.out.print("Name = " + std.name + "\tRollno = " + std.marks + "\n");

if(std.marks > max)

{

max = std.marks;

stdmax = std;

}

}

// doing similar 2 loops one for maximum and minimum ....

System.out.println("\n\nMaximum marks = " + max + " of Student = " + stdmin.name + "\tRollno = " + stdmin.marks + "\n\nMinimum marks = " + min + " of Student = "+ stdmax.name + "\tRollno = " + stdmax.marks);

}

}

Output:

