**Java-Lab-Exercise**

1. Design a class named **Student** that has two private data – student id and score. The class should contain a parameterized constructor to initialize its data member and one method to display the information. Now write a Java program that will use an array of Student objects to represent information about **n** students and calculate grade based on student’s score. Your program should take input from the keyboard and display the information of these **n** number of students.

**Solution**

import java.util.Scanner;

class Student {

private int student\_ID;

private int score;

char grade;

Student(int std\_ID, int s,char g) {

student\_ID = std\_ID;

score = s;

grade=g;

}

void display() {

System.out.println(student\_ID+"\t"+score+"\t"+grade);

}}

public class Test {

public static void main(String[] args) {

Scanner in = new Scanner(System.in);

System.out.println("Enter no. of students: ");

int n = in.nextInt();

Student students[] = new Student[n];

int stdID, stdScore;

char grade;

for (int i = 0; i < n; i++) {

System.out.print("Enter student ID: ");

stdID = in.nextInt();

System.out.print("Enter score: ");

stdScore = in.nextInt();

if(stdScore>=90)

grade='A';

else if(stdScore>=80)

grade='B';

else if(stdScore>=70)

grade='C';

else if(stdScore>=50)

grade='D';

else

grade='F';

students[i] = new Student(stdID, stdScore,grade);

}

//Display students’ information

System.out.println("IDNo\t"+"Score\t"+"Grade");

for (int i = 0; i < n; i++) {

students[i].display();

} } }

1. **Employee class**

public class Employee{

String name;

int age;

String Department;

double salary;

// This is the constructor of the class Employee

public Employee(String name){

this.name = name;

}

// Assign the age of the Employee to the variable age.

public void empAge(int empAge){

age = empAge;

}

//Assign the Department to the variable Department

public void empDepartment(String empDept){

Department = empDept;

}

// Assign the salary to the variable salary.

public void empSalary(double empSalary){

salary = empSalary;

}

//Print the Employee details

public void printEmployee(){

System.out.println("Name:"+ name );

System.out.println("Age:" + age );

System.out.println("Department:" + Department );

System.out.println("Salary:" + salary);

}

public static void main(String args[]){

// Create two objects using constructor

Employee empOne = new Employee("Mori Odinga");

Employee empTwo = new Employee("Hana Ananya");

// Invoking methods for each object created

empOne.empAge(26);

empOne.empDepartment("Information Technology");

empOne.empSalary(1000);

empOne.printEmployee();

empTwo.empAge(21);

empTwo.empDepartment("Software Engineer");

empTwo.empSalary(500);

empTwo.printEmployee();

}}}