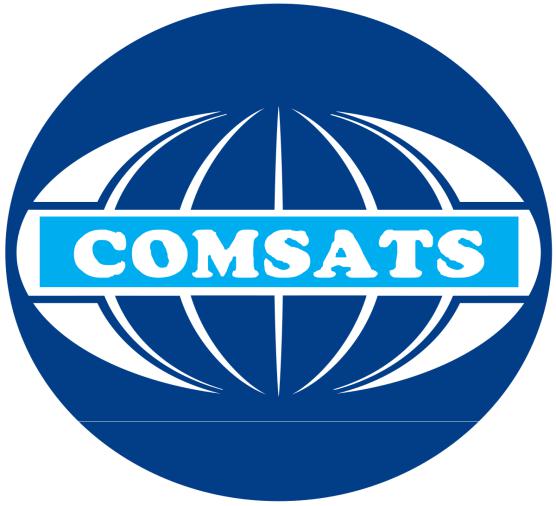
**Object Oriented Programming LAB**

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**Assignment 1st**

**Submitted to: Muhammad Ali-Khan**

**Submitted by: Nasratullah (FA18-BCS-401)**

**Submission Date: 5 March,2021.**

**Section: B**

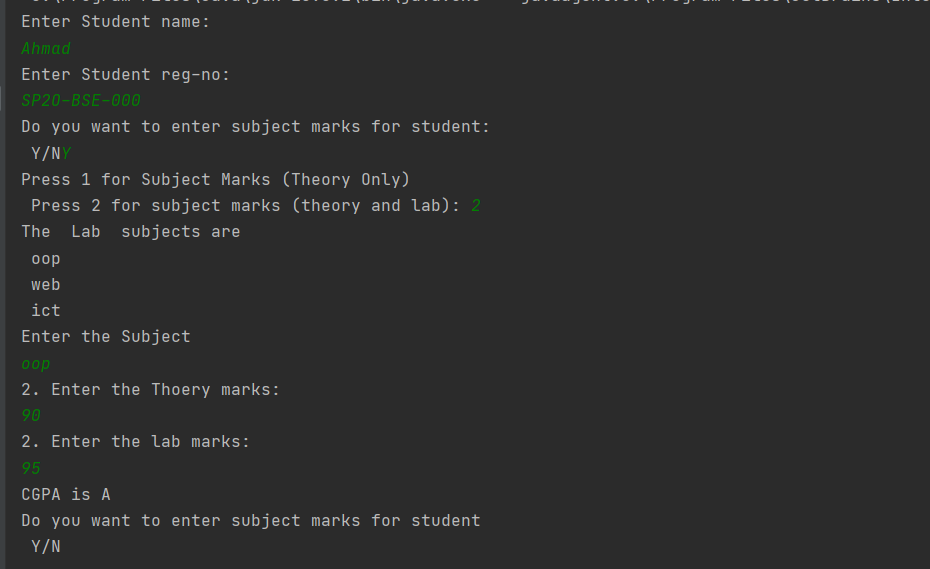
**Student Class:**

|  |
| --- |
| package com.john;  public class Student {  private String name;  private String reg;  private String web;  private String oop;  private String eng;  private String cal;  private String ict;  private int marks1;  private int marks2;  private int marks3;  private int marks4;  private int marks5;  private double tlMarks;  private double avg = 0;  public char cgpa;  private int count = 5;  // setters  public void setName(String name) {  this.name = name;  }  public void setReg(String reg) {  this.reg = reg;  }  public void setweb(String web) {  this.web = web;  }  public void setEng(String eng) {  this.eng = eng;  }  public void setoop(String oop) {  this.oop = oop;  }  public void setCal(String cal) {  this.cal = cal;  }  public void setict(String ict) {  this.ict = ict;  }  // setters for marks  public void setMarks1(int marks1) {  this.marks1 = marks1;  }  public void setMarks2(int marks2) {  this.marks2 = marks2;  }  public void setMarks3(int marks3) {  this.marks3 = marks3;  }  public void setMarks4(int marks4) {  this.marks4 = marks4;  }  public void setMarks5(int marks5) {  this.marks5 = marks5;  }  public void setCGPA(char cgpa) {  this.cgpa = cgpa;  }  public char getCGPA() {  return this.cgpa;  }  public void setTlMarks(int tMarks,int lMarks) {  double tper = (float)tMarks \* 0.75;  double lper = (float)lMarks \* 0.25;  this.tlMarks = tper + lper;  this.avg += this.tlMarks;  }  public void calcCGPA() {  if (this.avg > 90) {  this.cgpa = 'A';  }  if (this.avg < 90 && this.avg > 80) {  this.cgpa = 'B';  } if (this.avg < 80 && this.avg > 65) {  this.cgpa = 'C';  } if (this.avg < 65 && this.avg > 50) {  this.cgpa = 'D';  }  if (this.avg < 50) {  this.cgpa = 'F';  }  }  // getters  public void getName() {  System.out.println("My name is "+name);  }  public void getReg() {  System.out.println("My reg is "+reg);  }    public void getweb() {  System.out.println("Enter your "+web);  }  public String getoop() {  return oop;  }  public String getEng() {  return eng;  }  public String getict() {  return ict;  }  } |

**Test Class:**

|  |
| --- |
| package com.john;  import java.util.Scanner;  public class Main {  public static void main(String[] args) {  Student std1 = new Student();  Scanner Input = new Scanner(System.in);  System.out.println("Enter Student name: ");  String name = Input.nextLine();  std1.setName(name);  System.out.println("Enter Student reg-no: ");  String reg = Input.nextLine();  std1.setReg(reg);  System.out.print("Do you want to enter subject marks for student: \n Y/N");  char option = Input.next().charAt(0);  while (option != 'N') {  if (option == 'Y') {  System.out.print("Press 1 for Subject Marks (Theory Only) \n Press 2 for subject marks (theory and lab): ");  int option2 = Input.nextInt();  if (option2 == 1) {  Input.nextLine();  System.out.println("The theory subjects are\n English \n Calculus ");  System.out.println("Enter the Subject ");  String sName = Input.nextLine();  // if for theory subjects  if (sName.equals("English")) {  std1.setEng(sName);  System.out.println("2. Enter the marks");  int m1 = Input.nextInt();  std1.setMarks1(m1);  } else if (sName.equals("Calculus")) {  std1.setCal(sName);  System.out.println("2. Enter the marks");  int m2 = Input.nextInt();  std1.setMarks2(m2);  }  } else if (option2 == 2) {  System.out.println("The Lab subjects are\n oop \n web \n ict");  Input.nextLine();  System.out.println("Enter the Subject ");  String sName = Input.nextLine();  // if for theory subjects  if (sName.equals("oop")) {  std1.setoop(sName);  System.out.println("2. Enter the Thoery marks:");  int m3 = Input.nextInt();  System.out.println("2. Enter the lab marks:");  int ml3 = Input.nextInt();  std1.setTlMarks(m3, ml3);  } else if (sName.equals("web")) {  std1.setweb(sName);  System.out.println("2. Enter the Thoery marks:");  int m4 = Input.nextInt();  System.out.println("2. Enter the lab marks:");  int ml4 = Input.nextInt();  std1.setTlMarks(m4, ml4);  } else if (sName.equals("ict")) {  std1.setict(sName);  System.out.println("2. Enter the Thoery marks:");  int m5 = Input.nextInt();  System.out.println("2. Enter the lab marks:");  int ml4 = Input.nextInt();  std1.setTlMarks(m5, ml4);  }  }  }  std1.calcCGPA();  System.out.println("CGPA is " + std1.getCGPA());  System.out.print("Do you want to enter subject marks for student \n Y/N");  option = Input.next().charAt(0);  }  }  } |

**Output:**

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