Lab (Complete any two assignments)

Assignment-1. ● Write a Java program named Car ● The Car class should have the following attributes: make (String), model (String) , year (short) , and price(int) . ● The car class should have a constructor that takes all the attributes. ● Add a main method to instantiate car objects. ● The program should allow the user to create and display objects of each Car Class.

public class Car {

    String make ;

    String model ;

    short year;

    int price;

    public Car(String make, String model, short year, int price) {

        super();

        this.make = make;

        this.model = model;

        this.year = year;

        this.price = price;

    }

    public static void main(String[] args) {

        Car car1 = new Car ("Tata", "Indica", (short) 2015, 500000);

        System.out.println(car1.make + " " + car1.model+ " " + car1.year

                + " Price :Rs " +  car1.price  );

    }

}

Assignment-2. ● Write a Java program that demonstrates method overloading by creating a class called Calculator. ● Add three methods called add(). ● The first add() method should take two int variables as arguments and return their sum as int. ● The second add() method should take three int variables as arguments and return their sum as int. ● The third add() method should take two doubles as arguments and return their sum as double. ● The program should allow the user to display the results of each method.

public class Calculator {

    int add (int a , int b) {

        System.out.println("  Add with two ints called");

        return (a+b);

    }

    int add (int a , int b, int c) {

        System.out.println("  Add with three ints called");

        return (a+b+c);

    }

    double add (double a , double b) {

        System.out.println("  Add with two double called");

        return (a+b);

    }

    public static void main(String[] args) {

         Calculator cal = new Calculator ();

         System.out.println(cal.add(2, 3));

         System.out.println(cal.add(2, 3,5));

         System.out.println(cal.add(2.0, 3.0));

    }

}

Assignment-3. ● Create a Java Bean Class Student. ● Add three attributes ○ private String name; ○ private int age; ○ private String department; ● Add a constructor that takes all three attributes as parameters. ● Add setter and getter methods ● Compile the program

package org.anudip.example;

/\*\*

 \* Week1 Session 3 Assignment

 \* @author Anudip

 \*

 \*/

public class Student {

    private String name;

    private int age;

    private String department;

    // Default constructor (no-argument constructor)

    public Student() {

    }

    // Parameterized constructor

    public Student(String name, int age, String department) {

        this.name = name;

        this.age = age;

        this.department = department;

    }

    // Getter for name

    public String getName() {

        return name;

    }

    // Setter for name

    public void setName(String name) {

        this.name = name;

    }

    // Getter for age

    public int getAge() {

        return age;

    }

    // Setter for age

    public void setAge(int age) {

        this.age = age;

    }

    // Getter for department

    public String getDepartment() {

        return department;

    }

    // Setter for department

    public void setDepartment(String department) {

        this.department = department;

    }

    // Other methods if required

    // Main method to execute the program

    public static void main(String[] args)

    {

        Student student=new Student("john",20,"CS");

        System.out.println("Name:"+student.getName()+" Age:"+

        student.getAge()+" Department:"+student.getDepartment());

    }

}