ASSIGNMENT 6

1. Write a Java program to calculate the final grade of a student based on their scores in

assignments, midterm, and final exam.

Variables: String studentName, int assignmentScore, int midtermScore, int finalExamScore,

String finalGrade

Test case

// Input

studentName = "Alice";

assignmentScore = 85;

midtermScore = 78;

finalExamScore = 92;

// Expected Output: Alice's final grade is B.

**PROGRAM**

import java.util.Scanner;

public class assignment1 {

    public static void main(String[] args)

    {

        String name;

        int assignment,midscore,finalscore,avg,option;

        Scanner scanner=new Scanner(System.in);

        System.out.print("Enter The Student Name:-");

        name=scanner.nextLine();

        System.out.print("Enter The Student Assignment Score:-");

        assignment=scanner.nextInt();

        scanner.nextLine();

        System.out.print("Enter The Student Mid Term Exam Score:-");

        midscore=scanner.nextInt();

        scanner.nextLine();

        System.out.print("Enter The Student Final Exam Score:-");

        finalscore=scanner.nextInt();

        avg=( assignment+midscore+finalscore)/3;

        option=(avg>=90)?1:(avg>=80)?2:(avg>=70)?3:(avg>=60)?4:(avg>=50)?5:6;

        switch(option)

        {

            case 1:

            {

                System.out.println(name+" Final Grade Is:- 'A'");

                break;

            }

            case 2:

            {

                System.out.println(name+" Final Grade Is:- 'B'");

                break;

            }

            case 3:

            {

                System.out.println(name+" Final Grade Is:- 'C'");

                break;

            }

            case 4:

            {

                System.out.println(name+" Final Grade Is:- 'D'");

            }

            case 5:

            {

                System.out.println(name+" Final Grade Is:- 'E'");

                break;

            }

            case 6:

            {

                System.out.println(name+" Has Failed.");

                break;

            }

        }

    }

}

1. Write a Java program to calculate the mileage of a car given the distance traveled and fuel

consumed.

Variables: String carModel, double distanceTraveled, double fuelConsumed, double

mileage

Test Case:

// Input

carModel = "Toyota Camry";

distanceTraveled = 300;

fuelConsumed = 15;

// Expected Output: The mileage of Toyota Camry is 20.0 miles per gallon.

**PROGRAM**

import java.util.Scanner;

public class assignment2 {

    public static Double distancetravelled,fuelconsumed,mileage;

    public static void main(String[] args)

    {

        Scanner scanner=new Scanner(System.in);

        String carmodel;

        System.out.print("Enter The Car Model:-");

        carmodel=scanner.nextLine();

        System.out.print("Enter The Distance Travelled By The Car:-");

        distancetravelled=scanner.nextDouble();

        scanner.nextLine();

        System.out.print("Enter The Fuel Consumed By The Car:-");

        fuelconsumed=scanner.nextDouble();

        scanner.nextLine();

        mileage=calculatemileage(distancetravelled,fuelconsumed);

        System.out.print("The Mileage Of "+carmodel+" Is:-"+mileage);

    }

    public static double calculatemileage(double distancetravelled,double fuelconsumed)

    {

        mileage=distancetravelled/fuelconsumed;

        return mileage;

    }

}

1. Write a Java program to calculate the fine for overdue books in a library. The fine is calculated

based on the number of days overdue.

Variables: String bookTitle, int daysOverdue, double finePerDay, double totalFine

Test Case:

// Input

bookTitle = "Harry Potter";

daysOverdue = 5;

finePerDay = 0.50;

// Expected Output: The fine for Harry Potter is $2.50.

**PROGRAM**

import java.util.Scanner;

public class assignment3 {

    public static Scanner scanner=new Scanner(System.in);

    public static String booktitle;

    public static int daysoverdue;

    public static float fineperday;

    public static void main(String[] args)

    {

       System.out.print("Enter The Title Of The Book:-");

       booktitle=scanner.nextLine();

       System.out.print("Enter The No Of Days Overdue:-");

       daysoverdue=scanner.nextInt();

       scanner.nextLine();

       System.out.print("Enter Fine Per Day:-");

       fineperday=scanner.nextFloat();

       System.out.println("The Fine For "+booktitle+" Is:-$"+fineperday\*daysoverdue);

    }

}