Unit – 2

1)Find whether a number is even or odd.

**package** ConditionalStatement;

**import** java.util.Scanner;

**public** **class** EvenOdd {

**public** **static** **void** main(String[] args)

{

**int** n;

Scanner sc=**new** Scanner(System.***in***);

System.***out***.println("Enter the number");

n=sc.nextInt();

**if**(n%2==0)

{

System.***out***.println(n + " Number is even");

} **else** {

System.***out***.println(n + " Number is Odd");

}

}

}

O/P :-

Enter the number

567

567 Number is Odd

2)Check whether a number is divisible by 17.

**package** ConditionalStatement;

**import** java.util.Scanner;

**public** **class** Divisible17 {

**public** **static** **void** main(String[] args)

{

**int** n;

Scanner sc=**new** Scanner(System.***in***);

System.***out***.println("Enter the number");

n=sc.nextInt();

**if**(n%17==0)

{

System.***out***.println(n + " Number is divisible by 17");

}

**else**

{

System.***out***.println(n + " Number is not divisible by 17");

}

}

}

O/P : -

Enter the number

136

136 Number is divisible by 17

3)Find whether a year is a leap year.

**package** ConditionalStatement;

**import** java.util.Scanner;

**public** **class** Prog3 {

**public** **static** **void** main(String[] args)

{

Scanner sc=**new** Scanner(System.***in***);

System.***out***.println("Enter the year");

**int** year=sc.nextInt();

**if**(year%4==0 ) {

}

**if**((year %4==0 && year%100!=0) || year%400==0){

System.***out***.println(" year is leap ");

}

**else**

{

System.***out***.println(" year is Not leap ");

}

}

}

O/P :-

Enter the year

2004

year is leap

4)Check whether a number is divisible by 5 and 7.

**package** ConditionalStatement;

**import** java.util.Scanner;

**public** **class** Divisibleby5and7 {

**public** **static** **void** main(String[] args)

{

**int** n;

Scanner sc=**new** Scanner(System.***in***);

System.***out***.println("Enter the number");

n=sc.nextInt();

**if**(n%5==0 && n%7==0)

{

System.***out***.println(n+ " Number is divisible by 5 & 7");

}

**else**

{

System.***out***.println(n+ " Number is not divisible by 5 & 7");

}

}

}

O/P :-

Enter the number

3456

3456 Number is not divisible by 5 & 7

5)Check whether a number is divisible by 5 or 7.

**package** ConditionalStatement;

**import** java.util.Scanner;

**public** **class** Prog5 {

**public** **static** **void** main(String[] args) {

{

**int** n;

Scanner sc=**new** Scanner(System.***in***);

System.***out***.println("Enter the number");

n=sc.nextInt();

**if**(n%5==0 || n%7==0)

{

System.***out***.println(n+ " Number is divisible by 5 or 7");

}

**else**

{

System.***out***.println(n+ " Number is not divisible by 5 or 7");

}

}

}

}

O/P :-

Enter the number

35

35 Number is divisible by 5 or 7

6)Find the maximum of two numbers.

package ConditionalStatement;

import java.util.Scanner;

public class Prog7 {

public static void main(String[] args)

{

int a,b;

Scanner sc=new Scanner(System.*in*);

System.*out*.println("Enter the two number");

a=sc.nextInt();

b=sc.nextInt();

if(a>b)

{

System.*out*.println(a+ " is Max");

}

else if(b>a)

{

System.*out*.println(b+ " is Max");

}

else

{

System.*out*.println("Both are equal");

}

}

}

O/P :-

Enter the two number

60

98

1. s Max

7)Find the minimum of two numbers.

**package** ConditionalStatement;

**import** java.util.Scanner;

**public** **class** Prog8 {

**public** **static** **void** main(String[] args)

{

**int** a,b;

Scanner sc=**new** Scanner(System.***in***);

System.***out***.println("Enter the two number");

a=sc.nextInt();

b=sc.nextInt();

**if**(a<b)

{

System.***out***.println(a+ " is Min");

}

**else** **if**(b<a)

{

System.***out***.println(b+ " is Min");

}

**else**

{

System.***out***.println("Both are equal");

}

}

}

O/P :-

Enter the two number

34

56

1. is Min

8)Check whether a number is positive or negative.

**package** ConditionalStatement;

**import** java.util.Scanner;

**public** **class** Prog6 {

**public** **static** **void** main(String[] args)

{

**int** n;

Scanner sc=**new** Scanner(System.***in***);

System.***out***.println("Enter the number");

n=sc.nextInt();

**if**(n>0)

{

System.***out***.println(n+ " number is positive");

}

**else** **if**(n<0)

{

System.***out***.println(n+ " number is negative");

}

**else** {

System.***out***.println(n+ " number is zero");

}

}

}

O/P :-

Enter the number

46

46 number is positive

9)Check whether the first number is between the second and third.

**package** ConditionalStatement;

**import** java.util.Scanner;

**public** **class** Prog9 {

**public** **static** **void** main(String[] args)

{

**int** a,b,c;

Scanner sc=**new** Scanner(System.***in***);

System.***out***.println("Enter the first number");

a=sc.nextInt();

System.***out***.println("Enter the second number");

b=sc.nextInt();

System.***out***.println("Enter the third number");

c=sc.nextInt();

**if**((a>b && a<c ) || (a>c && a<b))

{

System.***out***.println(a+" is between "+b+" and"+c);

}

**else**{

System.***out***.println(a+" is not between "+b+" and "+c);

}

}

}

O/P :-

Enter the first number

53

Enter the second number

24

Enter the third number

87

53 is between 24 and87

10) Check whether the second number is between the first and third.

**package** ConditionalStatement;

**import** java.util.Scanner;

**public** **class** Prog10 {

**public** **static** **void** main(String[] args)

{

**int** a,b,c;

Scanner sc=**new** Scanner(System.***in***);

System.***out***.println("Enter the first number");

a=sc.nextInt();

System.***out***.println("Enter the second number");

b=sc.nextInt();

System.***out***.println("Enter the third number");

c=sc.nextInt();

**if**((b>a && b<c ) || (b>c && b<a)) //&&

{

System.***out***.println(b+"is in between "+a+" and"+c);

}

**else**

{

System.***out***.println(b+" is not between "+a+" and"+c);

}

}

}

O/P :-

Enter the first number

30

Enter the second number

20

Enter the third number

10

20 is in between 30 and10

11) Check whether the third number is between the first and second.

**package** ConditionalStatement;

**import** java.util.Scanner;

**public** **class** Prog11 {

**public** **static** **void** main(String[] args)

{

**int** a,b,c;

Scanner sc=**new** Scanner(System.***in***);

System.***out***.println("Enter the first number");

a=sc.nextInt();

System.***out***.println("Enter the second number");

b=sc.nextInt();

System.***out***.println("Enter the third number");

c=sc.nextInt();

**if**((c>a && c<b ) || (c>b && c<a))

{

System.***out***.println(c+" is in between "+a+" and"+b);

}

**else**

{

System.***out***.println(c+" is not between "+a+" and"+b);

}

}

}

O/P :-

Enter the first number

10

Enter the second number

20

Enter the third number

15

15 is in between 10 and20

12) Accept cost price and selling price, then find profit/loss in percentage/amount.

**package** ConditionalStatement;

**import** java.util.Scanner;

**public** **class** Prog12 {

**public** **static** **void** main(String[] args)

{

Scanner sc = **new** Scanner(System.***in***);

System.***out***.println("Enter the cost price: ");

Double costprice=sc.nextDouble();

System.***out***.println("Enter the selling price: ");

Double sellingPrice =sc.nextDouble();

Double profitOrLoss=costprice-sellingPrice;

**if**(profitOrLoss >0){

System.***out***.println("Profit:"+profitOrLoss+" Rs. ");

System.***out***.println("Profit%:"+(profitOrLoss/costprice)\*100);

}**else** {

System.***out***.println("Loss : "+(-profitOrLoss)+ "Rs. ");

System.***out***.println("Loss% :"+(-profitOrLoss/costprice)\*100);

} } }

O/P:-

Enter the cost price:

15000

Enter the selling price:

10000

Profit:5000.0 Rs.

Profit%:33.33333333333333

13) Accept amount and apply discount based on the amount range.

**package** ConditionalStatement;

**import** java.util.Scanner;

**public** **class** Prog13 {

**public** **static** **void** main(String[] args) {

Scanner sc=**new** Scanner(System.***in***);

System.***out***.println("Enter the amount");

Double Amt=sc.nextDouble();

Double discount;

**if**(Amt>=10000)

{

discount=0.15;

}

**else** **if**(Amt>=5000) {

discount=0.10;

}

**else** **if**(Amt>=1000) {

discount=0.05;

}

**else** {

discount=0.0;

}

Double discountAmount=Amt\*discount;

Double finalAmount=Amt-discountAmount;

System.***out***.println("Original Amount : " +Amt);

System.***out***.println("Discount : " +(discount\*100) + "%");

System.***out***.println("Discount Amount : " + discountAmount);

System.***out***.println("Final amount to pay: " + finalAmount);

}

}

O/P :-

Enter the amount

6000

Original Amount : 6000.0

Discount : 10.0%

Discount Amount : 600.0

Final amount to pay: 5400.0

14) Accept basic salary and calculate tax based on given tax brackets.

**package** ConditionalStatement;

**import** java.util.Scanner;

**public** **class** Prog14 {

**public** **static** **void** main(String[] args) {

Scanner sc=**new** Scanner(System.***in***);

System.***out***.println("Enter the Basic Salary");

Double salary=sc.nextDouble();

**double** taxRate;

**if**(salary <=250000) {

taxRate=0;//250,000 : 0tax

}

**else** **if**(salary <=500000) {

taxRate=0.05;//500,000 : 5%tax

}

**else** **if**(salary <=1000000) {

taxRate=0.10 ;//1,000,000 : 10%tax

}

**else** {

taxRate=0.20 ;// 1,000,000 : 20% tax

}

Double taxAmount =salary \*taxRate;

Double finalSalary=salary-taxAmount;

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

System.***out***.println("Tax Rate : " + (taxRate +100)+ "%");

System.***out***.println("Final Amount after Tax: " + finalSalary);

}

}

O/P :-

Enter the Basic Salary

750000

Basic Salary : 750000.0

Tax Rate : 10.0%

Final Amount after Tax: 675000.0

15) Accept monthly sales income and calculate commission.

**package** ConditionalStatement;

**import** java.util.Scanner;

**public** **class** Prog15 {

**public** **static** **void** main(String[] args)

{

Scanner sc=**new** Scanner(System.***in***);

System.***out***.println("Enter monthly Sales income");

Double sales=sc.nextDouble();

**double** CR; //commissionRate

**if**(sales < 10000) {

CR=0.02;//10,000 : 2 % commission

}

**else** **if**(sales < 50000) {

CR=0.05;//10,000-49,999 : 5% commission

}

**else** **if**(sales <=100000) {

CR=0.10 ;//50,000-99,999 : 10% commission

}

**else** {

CR=0.15 ;// 100,000 : 15% commission

}

Double commission =sales \* CR;

System.***out***.println("Sales income : " + sales);

System.***out***.println("Commission Rate : " + (CR \* 100)+ "%");

System.***out***.println("Commission Earned : " + commission);

}

}

O/P :-

Enter monthly Sales income

65000

Sales income : 65000.0

Commission Rate : 10.0%

Commission Earned : 6500.0

16) Accept loan amount and calculate interest and EMI.

**package** ConditionalStatement;

**import** java.util.Scanner;

**public** **class** Prog16 {

**public** **static** **void** main(String[] args) {

Scanner sc=**new** Scanner(System.***in***);

System.***out***.println("Enter loan Amt :");

Double loan=sc.nextDouble();

System.***out***.println("Enter Duration");

Double duration=sc.nextDouble();

Double interest=loan\*0.1;

Double EMI=(loan+interest)/duration;

System.***out***.println("Interest :"+ interest +"Rs.");

System.***out***.println("EMI:"+ EMI +"Rs.");

}

}

O/P :-

Enter loan Amt :

45000

Enter Duration

12

Interest :4500.0Rs.

EMI:4125.0Rs.

17) Accept age and check whether a person is eligible for voting.

**package** ConditionalStatement;

**import** java.util.Scanner;

**public** **class** Prog17 {

**public** **static** **void** main(String[] args) {

**int** age;

Scanner sc=**new** Scanner(System.***in***);

System.***out***.println("Enter your age");

age=sc.nextInt();

**if**(age>=18)

{

System.***out***.println("You are eligible for voting");

}

**else**

{

System.***out***.println("You are NOT eligible for voting");

}

}

}

O/P :-

Enter your age

20

You are eligible for voting

18) Accept ATM pin number (1234) and check whether it is valid or not.

**package** ConditionalStatement;

**import** java.util.Scanner;

**public** **class** Prog18 {

**public** **static** **void** main(String[] args) {

// **TODO** Auto-generated method stub

Scanner sc=**new** Scanner(System.***in***);

**int** CorrectPIN=1234;

System.***out***.println("Enter your ATM PIN ");

**int** PIN=sc.nextInt();

**if**(PIN==CorrectPIN) {

System.***out***.println("PIN is valid");

}

**else** {

System.***out***.println("Invalid PIN.");

}

}

}

O/P :-

Enter your ATM PIN

412301

Invalid PIN.

19) Accept number of vaccines taken, if 2 vaccines then print eligible for interview.

**package** ConditionalStatement;

**import** java.util.Scanner;

**public** **class** Prog19 {

**public** **static** **void** main(String[] args) {

// **TODO** Auto-generated method stub

Scanner sc=**new** Scanner(System.***in***);

System.***out***.println("Enter number of vaccines you taken: ");

**int** vaccine=sc.nextInt();

**if**(vaccine == 2 || vaccine >2)

{

System.***out***.println("Your eligibal for interview");

} **else** {

System.***out***.println("Your not eligibal for interview");

}

}

O/P :-

Enter number of vaccines you taken:

2

Your eligibal for interview

20) Accept ATM balance and withdrawal amount, then check sufficient balance and display the remaining balance.

**package** ConditionalStatement;

**import** java.util.Scanner;

**public** **class** Prog20 {

**public** **static** **void** main(String[] args) {

Double withdrwal,balance;

Scanner sc=**new** Scanner(System.***in***);

System.***out***.println("Enter the Withdrwal Amount");

withdrwal=sc.nextDouble();

System.***out***.println("Enter the total Balance");

balance=sc.nextDouble();

**if**(withdrwal <= balance)

{

balance -=withdrwal;

System.***out***.println("Successful to withdrwal");

System.***out***.println("Remaining balance is : " +balance);

}

**else**

{

System.***out***.println("Insufficient balance withdrwal failed");

}

}

}

O/P :-

Enter the Withdrwal Amount

15000

Enter the total Balance

20000

Successful to withdrwal

Remaining balance is : 5000.0

21) Check whether a number is 1-digit, 2-digit, 3-digit, 4-digit, or above.

**package** ConditionalStatement;

**import** java.util.Scanner;

**public** **class** Prog21 {

**public** **static** **void** main(String[] args) {

// **TODO** Auto-generated method stub

Scanner sc=**new** Scanner(System.***in***);

System.***out***.print("Enter the Number : ");

**int** num=sc.nextInt();

**if**(num >=0 && num <=9)

{

System.***out***.println("It is a 1-digit number");

}**else** **if**(num >=10 && num <=99)

{

System.***out***.println("It is a 2-digit number");

}**else** **if**(num >=100 && num <=999)

{

System.***out***.println("It is a 3-digit number");

}**else** **if**(num >=1000 && num<9999)

{

System.***out***.println("It is a 4-digit number");

}

**else**

{

System.***out***.println("It is more than 4 digit");

}

}

}

O/P :-

Enter the Number : 1412

It is a 4-digit number

22) Read three sides (a, b, c) of a triangle and print its type.

**package** ConditionalStatement;

**import** java.util.Scanner;

**public** **class** Prog22 {

**public** **static** **void** main(String[] args) {

Scanner sc=**new** Scanner(System.***in***);

System.***out***.print("Enter the a :");

**int** a=sc.nextInt();

System.***out***.print("Enter the b :");

**int** b=sc.nextInt();

System.***out***.print("Enter the c :");

**int** c=sc.nextInt();

**if**((a\*a)+(b\*b)==(c\*c) || (b\*b)+(c\*c)==(a\*a) || (c\*c)+(a\*a)==(b\*b))

{

System.***out***.println("Right angled Triangle");

}

**else** **if**((a==b) && (b==c))

{

System.***out***.println("Equilateral Triangle ");

}

**else** **if** ((a==b) || (b==c) || (c==a))

{

System.***out***.println("Isosceles Tringle");

}

**else** **if**(a!=b && b!=c && c!=a)

{

System.***out***.println("Scalene Triangle");

}

**else**

{

System.***out***.println("Not a valid Triangle");

}

}

}

O/P :- 1)

Enter the a :5

Enter the b :5

Enter the c :5

Equilateral Triangle

2)

Enter the a :6

Enter the b :6

Enter the c :10

Isosceles Tringle

23) Accept two points (x, y) and determine which quadrant they belong to.

**package** ConditionalStatement;

**import** java.util.Scanner;

**public** **class** Prog23 {

**public** **static** **void** main(String[] args)

{

**int** x,y;

Scanner sc=**new** Scanner(System.***in***);

System.***out***.println("Enter the value of X & Y");

x=sc.nextInt();

y=sc.nextInt();

**if**((x>0) && (y>0))

{

System.***out***.println(x+" and "+y+" is in first Quadrant");

}

**else** **if**((x<0) && (y>0)) {

System.***out***.println(x+" and "+y+" is in second Quadrant");

}

**else** **if**((x<0) && (y<0))

{

System.***out***.println(x+" and "+y+" is in Third Quadrant");

}

**else** **if**((x>0) && (y<0))

{

System.***out***.println(x+" and "+y+" is in Fourth Quadrant");

}

**else** **if**((x>0) && (y>=0))

{

System.***out***.println(x+" and "+y+" is in first Quadrant axis");

}

**else** **if**((x<0) && (y>=0))

{

System.***out***.println(x+" and "+y+" is in second Quadrant axis");

}

**else** **if**((x>=0) && (y>=0))

{

System.***out***.println(x+" and "+y+" is in origin");

}

}

}

O/P :-

Enter the value of X & Y

-3

5

-3 and 5 is in second Quadrant

24) Find the maximum of three numbers using nested if-else.

**package** ConditionalStatement;

**import** java.util.Scanner;

**public** **class** Prog24 {

**public** **static** **void** main(String[] args) {

Scanner sc=**new** Scanner(System.***in***);

System.***out***.print("Enter a:");

**int** a=sc.nextInt();

System.***out***.print("Enter b :");

**int** b=sc.nextInt();

System.***out***.print("Enter c :");

**int** c=sc.nextInt();

System.***out***.println("a: "+ a);

System.***out***.println("b: "+ b);

System.***out***.println("c: "+c);

**if**(a>b) {

**if**(a<c) {

System.***out***.println("A is Max");

}**else** {

System.***out***.println("C is Max");

}

}**else** {

**if**(b>c) {

System.***out***.println("b is Max");

}**else** {

System.***out***.println("C is Max");

}

}

}

}

O/P :-

Enter a:56

Enter b :78

Enter c :65

a: 56

b: 78

c: 65

b is Max

25) Find the minimum of three numbers.

**package** ConditionalStatement;

**import** java.util.Scanner;

**public** **class** Prog25 {

**public** **static** **void** main(String[] args) {

// **TODO** Auto-generated method stub

Scanner sc=**new** Scanner(System.***in***);

System.***out***.print("Enter a :");

**int** a=sc.nextInt();

System.***out***.print("Enter b :");

**int** b=sc.nextInt();

System.***out***.print("Enter c :");

**int** c=sc.nextInt();

System.***out***.println("a :"+a );

System.***out***.println("b :"+b );

System.***out***.println("c :"+c );

**if**(a<b) {

**if**(a<c) {

System.***out***.println("a is Min" );

}**else** {

System.***out***.println("c is Min" );

}

} **else** **if**(b<c) {

System.***out***.println("b is Min");

}**else** {

System.***out***.println("c is Min" );

}

}

}

O/P :-

Enter a :32

Enter b :46

Enter c :12

a :32

b :46

c :12

c is Min

26) Find the maximum of four numbers.

**package** ConditionalStatement;

**import** java.util.Scanner;

**public** **class** Prog26 {

**public** **static** **void** main(String[] args) {

Scanner sc=**new** Scanner(System.***in***);

System.***out***.print("Enter a :");

**int** a=sc.nextInt();

System.***out***.print("Enter b :");

**int** b=sc.nextInt();

System.***out***.print("Enter c :");

**int** c=sc.nextInt();

System.***out***.print("Enter d :");

**int** d=sc.nextInt();

**int** max=a;

**if**(b>a) {

max=b;

}**if**(c>max) {

max=c;

}

**if**(d>max) {

max=d;

}

System.***out***.println("The maximum number is: " +max);

}

}

O/P :-

Enter a :45

Enter b :43

Enter c :78

Enter d :90

The maximum number is: 90

27) Find the maximum of two numbers using the ternary operator.

**package** ConditionalStatement;

**import** java.util.Scanner;

**public** **class** Prog27 {

**public** **static** **void** main(String[] args) {

// **TODO** Auto-generated method stub

Scanner sc=**new** Scanner(System.***in***);

System.***out***.print("Enter a: ");

**int** a=sc.nextInt();

System.***out***.print("Enter b: ");

**int** b=sc.nextInt();

System.***out***.print("Enter c: ");

**int** c=sc.nextInt();

**int** max=(a>b)? a:b;

{

System.***out***.println("Max element is "+max);

}

}

}

O/P :-

Enter a: 34

Enter b: 45

Max element is 45

28) Find the maximum of three numbers using the ternary operator.

**package** ConditionalStatement;

**import** java.util.Scanner;

**public** **class** Prog28 {

**public** **static** **void** main(String[] args) {

// **TODO** Auto-generated method stub

Scanner sc=**new** Scanner(System.***in***);

System.***out***.print("Enter a:");

**int** a=sc.nextInt();

System.***out***.print("Enter b:");

**int** b=sc.nextInt();

System.***out***.print("Enter c:");

**int** c=sc.nextInt();

**int** max= (a>b)?(a>c)? a:c:(b>c)? b:c;

System.***out***.println("Max element is " + max);

}

}

O/P :-

Enter a:34

Enter b:67

Enter c:89

Max element is 89

29) Find the maximum of four numbers using nested if-else.

**package** ConditionalStatement;

**import** java.util.Scanner;

**public** **class** Prog29 {

**public** **static** **void** main(String[] args) {

Scanner sc=**new** Scanner (System.***in***);

System.***out***.print("Enter a :");

**int** a=sc.nextInt();

System.***out***.print("Enter b :");

**int** b=sc.nextInt();

System.***out***.print("Enter c :");

**int** c=sc.nextInt();

System.***out***.print("Enter d :");

**int** d=sc.nextInt();

**if**(a>b) {

**if**(a>c) {

**if**(a>d)

{

System.***out***.println("a is Max" );

}**else** {

System.***out***.println("d is Max" );

}

}**else** {

**if**(c>d) {

System.***out***.println("c is Max" );

}**else** {

System.***out***.println("d is Max" );

}

}

}**else** {

**if**(b>c) {

**if**(b>d) {

System.***out***.println("b is Max" );

}**else** {

System.***out***.println("d is Max" );

}

}**else** {

**if**(c>d) {

System.***out***.println("c is Max" );

}**else** {

System.***out***.println("d is Max" );

}

} } } }

O/P :-

Enter a :67

Enter b :54

Enter c :90

Enter d :76

c is Max

30) Accept three subject marks from the user and display total, percentage,

and class.

**package** ConditionalStatement;

**import** java.util.Scanner;

**public** **class** Prog30 {

**public** **static** **void** main(String[] args) {

Scanner sc=**new** Scanner(System.***in***);

System.***out***.print("Enter marks of Python: ");

Double python=sc.nextDouble();

System.***out***.print("Enter marks of Java: ");

Double java=sc.nextDouble();

System.***out***.print("Enter marks of DSA: ");

Double dsa=sc.nextDouble();

**if**(python>=40 && java>=40 && dsa >=40)

{

Double total=python+java+dsa;

Double percentage=total/3;

System.***out***.println("Total: "+ total);

System.***out***.println("%: "+ percentage);

**if**(percentage >90 && percentage <=100)

{

System.***out***.println("Distinction Class");

}**else** **if**(percentage >80 && percentage <=90)

{

System.***out***.println("first Class");

}

**else** **if**(percentage >70 && percentage <=80)

{

System.***out***.println("Second Class");

}

**else** **if**(percentage >=40 && percentage <=70)

{

System.***out***.println("Pass Class");

}

//else {

//System.out.println(" Class Fail");

//}

}

}

}

O/P :-

Enter marks of Python: 90

Enter marks of Java: 87

Enter marks of DSA: 93

Total: 270.0

%: 90.0

first Class

31) Accept 10th, 12th, and graduation marks, then check eligibility for an interview.

**package** ConditionalStatement;

**import** java.util.Scanner;

**public** **class** Prog31 {

**public** **static** **void** main(String[] args) {

Scanner sc=**new** Scanner(System.***in***);

System.***out***.print("Accept 10th marks :");

Double Tenmark=sc.nextDouble();

System.***out***.print("Accept 12th marks :") ;

Double Twlmark=sc.nextDouble();

System.***out***.print("Accept Graduation marks :");

Double GraduationMark=sc.nextDouble();

**if**((Tenmark>=60 && Twlmark>=60 && GraduationMark>=65) )

{

System.***out***.print("Your eligible for an inverview");

}

**else** {

System.***out***.print("Your Not eligible for an inverview");

}}}

O/P :-

Accept 10th marks :84

Accept 12th marks :64

Accept Graduation marks :87

Your eligible for an inverview

32) Accept marks in three subjects, if marks in each subject ≥ 40, then display class, else print fail/ATKT.

**package** ConditionalStatement;

**import** java.util.Scanner;

**public** **class** Prog32 {

**public** **static** **void** main(String[] args) {

Scanner sc=**new** Scanner(System.***in***);

System.***out***.print("Enter marks of Python: ");

Double python=sc.nextDouble();

System.***out***.print("Enter marks of Java: ");

Double java=sc.nextDouble();

System.***out***.print("Enter marks of DSA: ");

Double dsa=sc.nextDouble();

**if**(python>=40 && java>=40 && dsa >=40)

{

Double total=python+java+dsa;

Double percentage=total/3;

System.***out***.println("%: "+ percentage);

**if**(percentage >90 && percentage <=100)

{

System.***out***.println("Distinction Class");

}**else** **if**(percentage >80 && percentage <=90)

{

System.***out***.println("first Class");

}

**else** **if**(percentage >70 && percentage <=80)

{

System.***out***.println("Second Class");

}

**else** **if**(percentage >=40 && percentage <=70)

{

System.***out***.println("Pass Class");

}

}

**else** {

System.***out***.println("Sorry! you are get Failed");

}

}

}

O/P :-

Enter marks of Python: 98

Enter marks of Java: 89

Enter marks of DSA: 76

%: 87.66666666666667

first Class

33) Check whether a character is a vowel.

**package** ConditionalStatement;

**import** java.util.Scanner;

**public** **class** Prog33 {

**public** **static** **void** main(String[] args) {

// **TODO** Auto-generated method stub

Scanner sc=**new** Scanner(System.***in***);

System.***out***.println("Enter your Character :");

**char** ch=sc.next().toLowerCase().charAt(0);

**if**(ch == 'a' || ch == 'e' || ch == 'i' || ch == 'o' || ch=='u') {

System.***out***.println("It is Vowel");

}

**else**

{

System.***out***.println("It is Not vowel");

}

}

}

O/P :-

Enter your Character :

T

It is Not vowel

34) Check whether a character is an alphabet or not.

**package** ConditionalStatement;

**import** java.util.Scanner;

**public** **class** Prog34 {

**public** **static** **void** main(String[] args) {

Scanner sc=**new** Scanner(System.***in***);

System.***out***.println("Enter your Character :");

**char** ch=sc.next().toLowerCase().charAt(0);

**if**((ch >= 'A' && ch<='Z') || (ch>='a' && ch<='z'))

{

System.***out***.println(ch + " is an alphabet");

}**else**

{

System.***out***.println(ch + " is not an alphabet");

}

}

}

O/P :-

Enter your Character :

7

7 is not an alphabet

35) Check whether a character is uppercase, lowercase, or something else.

**package** ConditionalStatement;

**import** java.util.Scanner;

**public** **class** Prog35 {

**public** **static** **void** main(String[] args) {

Scanner sc=**new** Scanner(System.***in***);

System.***out***.println("Enter your Character :");

**char** ch= sc.next().charAt(0);

**if**(Character.*isUpperCase*(ch)){

System.***out***.println(ch + " is Upper");

} **else** **if** (Character.*isLowerCase*(ch)){

System.***out***.println(ch + " is Lower");

}

**else** **if**(Character.*isDigit*(ch))

{

System.***out***.println(ch + " is Digit");

}

**else** {

System.***out***.println(ch + " is Special Character");

}

}}

O/P :-

Enter your Character :

1412

1 is Digit

36) Check whether a character is a digit or not.

**package** ConditionalStatement;

**import** java.util.Scanner;

**public** **class** Prog36 {

**public** **static** **void** main(String[] args) {

Scanner sc=**new** Scanner(System.***in***);

System.***out***.print("Enter the Character : ");

**char** ch=sc.next().charAt(0);

**if**(ch >= '0' && ch<='9')

{

System.***out***.println(ch + " is a digit");

}**else**

{

System.***out***.println(ch + " is Not a digit");

}

}

}

O/P :-

Enter the Character : 12

1 is a digit

37) Check whether a character is a special character.

**package** ConditionalStatement;

**import** java.util.Scanner;

**public** **class** Prog37 {

**public** **static** **void** main(String[] args) {

Scanner sc=**new** Scanner(System.***in***);

System.***out***.print("Enter the Character :");

**char** ch=sc.next().charAt(0);

**if**(!Character.*isLetterOrDigit*(ch))

{

System.***out***.print(ch + " is a special Character");

}

**else**

{

System.***out***.print(ch + " is Not a special Character");

}

}

}

O/P :-

Enter the Character :@

@ is a special Character

38) Accept age, weight, and haemoglobin level and check blood donation eligibility.

**package** ConditionalStatement;

**import** java.util.Scanner;

**public** **class** Prog38 {

**public** **static** **void** main(String[] args) {

Scanner sc=**new** Scanner(System.***in***);

System.***out***.print(" Enter the age :");

**int** age=sc.nextInt();

System.***out***.print(" Enter the weight :");

**float** weight=sc.nextFloat();

System.***out***.print(" Enter the Hoemoglobin level :");

**float** hl=sc.nextFloat();

**if**(age >=18) {

**if**(weight >=50) {

**if**(hl >=12.5) {

System.***out***.println(" Eligible for blood donation");

} **else** {

System.***out***.println(" Not eligible: Hemoglbin level is too low.");

}

} **else** {

System.***out***.println (" Not eligible : Age must be at least 18.");

}

}

}

}

O/P :-

Enter the age :20

Enter the weight :51

Enter the Hoemoglobin level :13.2

Eligible for blood donation

39) Write a program that calculates the movie ticket price based on age (children under 12 get a discount, seniors over 65 also get a discount).

**package** ConditionalStatement;

**import** java.util.Scanner;

**public** **class** Prog39 {

**public** **static** **void** main(String[] args) {

Scanner sc=**new** Scanner(System.***in***);

**double** regularPrice=200.0;

**double** finalPrice = 0;

System.***out***.print("Enter the age :");

**int** age=sc.nextInt();

**if**(age< 12) {

finalPrice=regularPrice \* 0.5; // 50 % discount

System.***out***.println("Child discount applied ");

}**else** **if** (age > 65) {

System.***out***.println(" Senior citizen discount applied");

}

**else** {

finalPrice=regularPrice;

System.***out***.println("No discount applied");

}

System.***out***.println("Ticket price : " + finalPrice);

}

}

O/P :-

Enter the age :10

Child discount applied

Ticket price : 100.0

40) Write a program that simulates a traffic light system based on user input.

41) Accept weekday/weekend & age, then calculate movie ticket pricing:

Children (<13 years) 🡪₹100 (Weekdays), ₹120 (Weekends)

Adults (13-64 years) → ₹150 (Weekdays), ₹180 (Weekends)

Seniors (≥65 years) → ₹130 (Weekdays), ₹150 (Weekends)

**package** ConditionalStatement;

**import** java.util.Scanner;

**public** **class** Prog41 {

**public** **static** **void** main(String[] args) {

Scanner sc=**new** Scanner(System.***in***);

System.***out***.println("1. Monday");

System.***out***.println("2. Tuesday");

System.***out***.println("3. Wendnesday");

System.***out***.println("4. Thursday");

System.***out***.println("5. Friday");

System.***out***.println("6. Saturday");

System.***out***.println("7. Sunday");

System.***out***.print("Enter No.of Day: ");

**int** day=sc.nextInt();

System.***out***.print("Enter Age: ");

**int** age=sc.nextInt();

**if**(day >=1 && day <=5) {

System.***out***.println("Weekday");

**if**(age<=13) {

System.***out***.println("Yout Ticket Price is 100 Rs. ");

}

**else** **if**(age > 13 && age <= 65) {

System.***out***.println("Yout Ticket Price is 150 Rs. ");

}**else** {

System.***out***.println("Yout Ticket Price is 130 Rs. ");

}

}

**else**

{

System.***out***.println("Weekend");

**if**(age<=13) {

System.***out***.println("Yout Ticket Price is 120 Rs. ");

}

**else** **if**(age > 13 && age <= 65) {

System.***out***.println("Yout Ticket Price is 180 Rs. ");

}**else** {

System.***out***.println("Yout Ticket Price is 150 Rs. ");

}

}

}

}

O/P :-

1. Monday

2. Tuesday

3. Wendnesday

4. Thursday

5. Friday

6. Saturday

7. Sunday

Enter No.of Day: 6

Enter Age: 20

Weekend

Yout Ticket Price is 180 Rs.

42) Accept product category and apply a discount based on category:

Electronics 🡪 10% discount

Clothing → 15% discount, 20% if amount > ₹5000

Food → No discount, but 5% if amount > ₹1000

43) Accept month number and print the number of days in that month.

**package** ConditionalStatement;

**import** java.util.Scanner;

**public** **class** Prog43 {

**public** **static** **void** main(String[] args) {

Scanner sc=**new** Scanner(System.***in***);

System.***out***.print("Enter the Month number (1-12) :");

**int** month=sc.nextInt();

**int** days = 0;

**if**((month ==1 || month==3 || month==5 || month==7 || month ==8 || month==10 || month==12))

{

days=31;

}

**else** **if**((month==4 || month==6 || month==9 || month==11 )) {

days=30;

}**else** **if**(month==2)

{

days=28;

}

**else** {

System.***out***.println("Invalid month number.");

}

System.***out***.println("Number of days in month " + month + " : " + days);

}

}

O/P :-

Enter the Month number (1-12) :11

Number of days in month 11 : 30