**Assignment 01 Using Type 2**

#include <stdio.h>

float tempConvert();

void areaAndPerimetere();

void sumOfDigitAndReverse();

int evenOdd();

float salary();

void marriageEligibility();

int sumOfDigits();

int reverseNum();

float circumference();

float areaofCircle();

int perimeter();

int areaofRect();

void main()

{

    int ch = 1;

    while (ch)

    {

        printf("\n Eneter your choice : \n");

        printf("1) Temp Convert: \n");

        printf("2) Area And Perimeter: \n");

        printf("3) Sum Of Digits and Reverse: \n");

        printf("4) Even Odd : \n");

        printf("5) Salary: \n");

        printf("6) Marriage Eligibility: \n");

        scanf("%d", &ch);

        if (ch > 6 || ch <= 0)

        {

            printf("Inavalid Choice !");

        }

        else if (ch == 1)

        {

            printf("Temparature In Feranhite is :%.2f", tempConvert());

        }

        else if (ch == 2)

        {

            areaAndPerimetere();

        }

        else if (ch == 3)

        {

            sumOfDigitAndReverse();

        }

        else if (ch == 4)

        {

            if (evenOdd())

            {

                printf("Number is Even \n");

            }

            else

            {

                printf("Number is odd.");

            }

        }

        else if (ch == 5)

        {

            printf("Total Salary is : %f ", salary());

        }

        else if (ch == 6)

        {

            marriageEligibility();

        }

    }

}

float tempConvert()

{

    int CL;

    printf("Enter Teparature in Celcious :");

    scanf("%d", &CL);

    float fr = (9.0 / 5.0) \* CL + 32;

    printf("Temparature In Celcius is :%d \n", CL);

    return fr;

}

void areaAndPerimetere()

{

    printf("What do you want to do brooo. \n");

    int ch;

    printf("1> Area of Circle\n");

    printf("2> Area of Reactangle\n");

    printf("3> Perimeter of Circle \n");

    printf("4> Circumference of Circle\n");

    scanf("%d", &ch);

    if (ch == 0 || ch > 4 || ch < 0)

    {

        printf("Invalid Choice broooo!!!");

    }

    else if (ch == 1)

    {

        printf("%.2f is area of Circle...! \n", areaofCircle());

    }

    else if (ch == 2)

    {

        printf("\n");

        printf("%d is area of Rectangle...! \n", areaofRect());

    }

    else if (ch == 3)

    {

        printf("\n");

        printf("%d is Perimeter of Rectangle..! \n", perimeter());

    }

    else if (ch == 4)

    {

        printf("\n");

        printf("%.2f is Circumference of circle..! \n", circumference());

    }

}

float areaofCircle()

{

    const float PI = 3.14;

    float radious;

    printf("\n Enter Radious Of Circle : \n");

    scanf("%f", &radious);

    float areaOfCir = PI \* (radious \* radious);

    return areaOfCir;

}

int areaofRect()

{

    int L, W;

    printf("\n Enter Length and Width of Reactangle : \n");

    scanf("%d%d", &L, &W);

    int areaOfRect = L \* W;

    return areaOfRect;

}

int perimeter()

{

    int L, W;

    printf("\n Enter Length and Width of Reactangle : \n");

    scanf("%d%d", &L, &W);

    int periMeter = 2 \* (L + W);

    return periMeter;

}

float circumference()

{

    const float PI = 3.14;

    float radious;

    printf("\n Enter Radious Of Circle : \n");

    scanf("%f", &radious);

    float Circumfer = 2.0 \* PI \* radious;

    return Circumfer;

}

void sumOfDigitAndReverse()

{

    printf("What do you Whant to do : \n");

    printf("1> Sum Of Digits of number: \n");

    printf("2> Reverse the number : \n");

    int ch;

    scanf("%d", &ch);

    if (ch == 1)

    {

        printf(" \n %d is Sum of digits.\n", sumOfDigits());

    }

    else if (ch == 2)

    {

        printf(" \n %d is Reverse Number \n", reverseNum());

    }

    else

    {

        printf("Invalid Choice brooo!! \n");

    }

}

int sumOfDigits()

{

    printf("Enter a Number : \n");

    int num, sum = 0;

    scanf("%d", &num);

    for (num; num > 0; num /= 10)

    {

        sum += (num % 10);

    }

    return sum;

}

int reverseNum()

{

    printf("Enter a Number : \n");

    int num, rev = 0;

    scanf("%d", &num);

    for (num; num > 0; num /= 10)

    {

        rev = (rev \* 10) + (num % 10);

    }

    return rev;

}

int evenOdd()

{

    int num;

    printf("\n Enter A Number : \n ");

    scanf("%d", &num);

    if (num % 2 == 0)

    {

        return 1;

    }

    else

    {

        return 0;

    }

}

float salary()

{

    float baseSalary, totalSalary;

    printf("\n Enter Base Salary :  \n");

    scanf("%f", &baseSalary);

    float DA, TA, HRA;

    if (baseSalary <= 5000)

    {

        DA = 0.10 \* baseSalary;

        TA = 0.20 \* baseSalary;

        HRA = 0.25 \* baseSalary;

    }

    else

    {

        DA = 0.15 \* baseSalary;

        TA = 0.25 \* baseSalary;

        HRA = 0.30 \* baseSalary;

    }

    totalSalary = DA + TA + HRA + baseSalary;

    return totalSalary;

}

void marriageEligibility()

{

    int maleAge, femaleAge;

    char gender;

    printf("\n Enter Your Gender (f/m): ");

    fflush(stdin);

    scanf("%c", &gender);

    if (gender == 'm')

    {

        printf("\n Enter age of male: \n");

        scanf("%d", &maleAge);

    }

    else if (gender == 'f')

    {

        printf("\n Enter age of Female: \n");

        scanf("%d", &femaleAge);

    }

    if (gender == 'f' && femaleAge >= 18 || gender == 'm' && maleAge >= 21)

    {

        printf("Eligible to marry");

    }

    else

    {

        printf("Not Eligible to marry");

    }

}

Output :

PS C:\Code> & 'c:\Users\bhagv\.vscode\....\TDM-GCC-64\bin\gdb.exe' '--interpreter=mi'

Eneter your choice :

1) Temp Convert:

2) Area And Perimeter:

3) Sum Of Digits and Reverse:

4) Even Odd :

5) Salary:

6) Marriage Eligibility:

1

Enter Teparature in Celcious :23

Temparature In Celcius is :23

Temparature In Feranhite is :73.40

Eneter your choice :

1) Temp Convert:

2) Area And Perimeter:

3) Sum Of Digits and Reverse:

4) Even Odd :

5) Salary:

6) Marriage Eligibility:

2

What do you want to do brooo.

1> Area of Circle

2> Area of Reactangle

3> Perimeter of Circle

4> Circumference of Circle

1

Enter Radious Of Circle :

23

1661.06 is area of Circle...!

Eneter your choice :

1) Temp Convert:

2) Area And Perimeter:

3) Sum Of Digits and Reverse:

4) Even Odd :

5) Salary:

6) Marriage Eligibility:

3

What do you Whant to do :

1> Sum Of Digits of number:

2> Reverse the number :

1

Enter a Number :

123456

21 is Sum of digits.

Eneter your choice :

1) Temp Convert:

2) Area And Perimeter:

3) Sum Of Digits and Reverse:

4) Even Odd :

5) Salary:

6) Marriage Eligibility:

4

Enter A Number :

23

Number is odd.

Eneter your choice :

1) Temp Convert:

2) Area And Perimeter:

3) Sum Of Digits and Reverse:

4) Even Odd :

5) Salary:

6) Marriage Eligibility:

5

Enter Base Salary :

12000

Total Salary is : 20400.000000

Eneter your choice :

1) Temp Convert:

2) Area And Perimeter:

3) Sum Of Digits and Reverse:

4) Even Odd :

5) Salary:

6) Marriage Eligibility:

6

Enter Your Gender (f/m): m

Enter age of male:

26

Eligible to marry

Eneter your choice :

1) Temp Convert:

2) Area And Perimeter:

3) Sum Of Digits and Reverse:

4) Even Odd :

5) Salary:

6) Marriage Eligibility:

0

Inavalid Choice !

PS C:\Code>