**Assignment 01 Type 4**

#include <stdio.h>

float tempConvert(int);

int evenOdd(int);

void areaAndPerimetere();

float circumference(float);

float areaofCircle(int);

int perimeter(int, int);

int areaofRect(int, int);

void sumOfDigitAndReverse();

int sumOfDigits(int);

int reverseNum(int);

float salary(float);

int marriageEligibility(int, char);

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)

        {

            int cel;

            printf("Enter Teperature in Celcious.");

            scanf("%d", &cel);

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

        }

        else if (ch == 2)

        {

            areaAndPerimetere();

        }

        else if (ch == 3)

        {

            sumOfDigitAndReverse();

        }

        else if (ch == 4)

        {

            int num;

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

            scanf("%d", &num);

            evenOdd(num);

            (evenOdd(num)) ? printf("Number is Even \n") : printf("Number is odd. \n");

        }

        else if (ch == 5)

        {

            float baseSalary;

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

            scanf("%f", &baseSalary);

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

        }

        else if (ch == 6)

        {

            int age;

            char gender;

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

            fflush(stdin);

            scanf("%c", &gender);

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

            scanf("%d", &age);

            (marriageEligibility(age, gender)) ? printf("Eligible to marry") : printf("Not Eligible to marry");

        }

    }

}

float tempConvert(int 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);

    int L, W;

    float rad;

    if (ch == 0 || ch > 4 || ch < 0)

    {

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

    }

    else if (ch == 1)

    {

        printf("Enter Radious of Circle");

        scanf("%f", &rad);

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

    }

    else if (ch == 2)

    {

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

        scanf("%d%d", &L, &W);

        printf("\n");

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

    }

    else if (ch == 3)

    {

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

        scanf("%d%d", &L, &W);

        printf("\n");

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

    }

    else if (ch == 4)

    {

        printf("Enter Radious of Circle");

        scanf("%f", &rad);

        printf("\n");

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

    }

}

float areaofCircle(int radious)

{

    const float PI = 3.14;

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

    return areaOfCir;

}

int areaofRect(int L, int W)

{

    int areaOfRect = L \* W;

    return areaOfRect;

}

int perimeter(int L, int W)

{

    int periMeter = 2 \* (L + W);

    return periMeter;

}

float circumference(float radious)

{

    const float PI = 3.14;

    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);

    int num;

    if (ch == 1)

    {

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

        scanf("%d", &num);

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

    }

    else if (ch == 2)

    {

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

        scanf("%d", &num);

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

    }

    else

    {

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

    }

}

int sumOfDigits(int num)

{

    int sum = 0;

    for (num; num > 0; num /= 10)

    {

        sum += (num % 10);

    }

    return sum;

}

int reverseNum(int num)

{

    int rev = 0;

    for (num; num > 0; num /= 10)

    {

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

    }

    return rev;

}

int evenOdd(int num)

{

    if (num % 2 == 0)

    {

        return 1;

    }

    else

    {

        return 0;

    }

}

float salary(float baseSalary)

{

    float totalSalary;

    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;

}

int marriageEligibility(int age, char gender)

{

    return ((gender == 'f' && age >= 18 || gender == 'm' && age >= 21) ? 1 : 0);

}

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 Teperature in Celcious.45

Temparature In Celcius is :45

Temparature In Feranhite is :113.00

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 Circle22

1519.76 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 :

34

7 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 :

322

Number is Even

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 :

34225

Total Salary is : 58182.500000

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): f

Enter age of Person:

45

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>