**Assignment 1**

If-else

1. Finding F from C (temp).

#include <stdio.h>

void main()

{

    int CL = 010;

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

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

    printf("Temparature In Feranhite is :%f", fr);

}

Output :

Temparature In Celcius is :8

Temparature In Feranhite is :46.400002

PS C:\Code>

2. Finding area and perimeter of rectangle or circle.

#include <stdio.h>

void main()

{

    int L = 15, W = 45;

    int areaOfRect = L \* W;

    int periMeter = 2 \* (L + W);

    printf("Length of Rectangle: %d, Width: %d \nArea of Reactangle: %d \n", L, W, areaOfRect);

    printf("Perimeter of Reactangle: %d \n ", periMeter);

    printf("\n");

    float radious = 9.0;

    const float PI = 3.14;

    float Circumference = 2.0 \* PI \* radious;

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

    printf("Radious of circle is: %f \nCircumference of that circle is: %f \n", radious, Circumference);

    printf("Area of that circle is: %f \n", areaOfCircle);

}

Output :

PS C:\Code> & 'c:\Users\bhagv\.vscode\extensions\ms-vscode.cpptools-1.21.6-win32-x64\.....:\TDM-GCC-64\bin\gdb.exe' '--interpreter=mi'

Length of Rectangle: 15, Width: 45

Area of Reactangle: 675

Perimeter of Reactangle: 120

Radious of circle is: 9.000000

Circumference of that circle is: 56.520000

Area of that circle is: 254.340012

PS C:\Code>

3. Accept a 3 digit number from user and find the sum of the digits and also reverse the number

#include <stdio.h>

void main()

{

    int num = 234;

    int sum = 0;

    int rev = 0;

    int r1 = num % 10;

    int q1 = num / 10;

    sum += r1;

    rev = (rev \* 10) + r1;

    r1 = q1 % 10;

    q1 /= 10;

    rev = (rev \* 10) + r1;

    sum += r1;

    r1 = q1 % 10;

    q1 /= 10;

    rev = (rev \* 10) + r1;

    sum += r1;

    printf("Sum of %d digits is: %d \n Also Reverse of num: %d", num, sum, rev);

}

Output :

Sum of 234 digits is: 9

Also Reverse of num: 432

PS C:\Code>

4. Check if the given number is even or odd.

#include <stdio.h>

void main()

{

    int num = 7;

    if (num % 2 == 0)

    {

        printf("Number %d is Even.", num);

    }

    else

    {

        printf("Number %d is Odd.", num);

    }

}

Output :

PS C:\Code> & 'c:\Users\bhagv\.vscode\extensions\ms-vscode.cpptools-1.21.6-win32-x64\debugAdapters\bin\WindowsDebugLauncher.exe' '--stdin=Microsoft-MIEngine-In-t051go41.zaq' '--stdout=Microsoft-MIEngine-Out-n0kfklnm.lli' '--stderr=Microsoft-MIEngine-Error-3hiuyso4.uvj' '--pid=Microsoft-MIEngine-Pid-langrl2h.tb3' '--dbgExe=C:\TDM-GCC-64\bin\gdb.exe' '--interpreter=mi'

Number 7 is Odd.

PS C:\Code>

5. Calculating total salary based on basic. If basic <=5000 da, ta and hra will be 10%,20% and 25% respectively otherwise da, ta and hra will be 15%,25% and 30% respectively.

#include <stdio.h>

void main()

{

    float baseSalary = 7777.0, totalSalary;

    float DA, TA, HRA;

    if (baseSalary <= 5000)

    {

        DA = 0.10 \* baseSalary;

        // printf(" DA %f \n", DA);

        TA = 0.20 \* baseSalary;

        // printf(" TA %f \n", TA);

        HRA = 0.25 \* baseSalary;

        // printf(" HRA %f \n", HRA);

        //  totalSalary = DA + TA + HRA + baseSalary;

        // printf("Total Salary for bsae %f is : %f ", baseSalary, totalSalary);

    }

    else

    {

        DA = 0.15 \* baseSalary;

        // printf(" DA %f \n", DA);

        TA = 0.25 \* baseSalary;

        // printf(" TA %f \n", TA);

        HRA = 0.30 \* baseSalary;

        // printf(" HRA %f \n", HRA);

        // float totalSalary = DA + TA + HRA + baseSalary;

        // printf("Total Salary for bsae %f is : %f ", baseSalary, totalSalary);

    }

    totalSalary = DA + TA + HRA + baseSalary;

    printf("Total Salary for bsae %f is : %f ", baseSalary, totalSalary);

}

Output :

PS C:\Code> & 'c:\Users\bhagv\.vscode\extensions\ms-vscode.cpptools-1.21.6-win32-x64\debugAdapters\bin\.....:\TDM-GCC-64\bin\gdb.exe' '--interpreter=mi'

Total Salary for bsae 7777.000000 is : 13220.900391

PS C:\Code>

6. Write a program to check if person is eligible to marry or not (male age >=21 and female age>=18).

#include <stdio.h>

void main()

{

    int maleAge = 25, femaleAge = 29;

    char gender = 'f';

    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\.... \gdb.exe' '--interpreter=mi'

Eligible to marry

PS C:\Code>

Assignment 1 Using FunctionTyp1

#include <stdio.h>

void tempConvert();

void areaAndPerimetere();

void sumOfDigitAndReverse();

int evenOdd();

float salary();

void marriageEligibility();

float circumference();

float areaofCircle();

int perimeter();

int areaofRect();

void main()

{

    int ch;

    printf("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)

    {

        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 ", totalSalarysalary());

    }

    else if (ch == 6)

    {

        marriageEligibility();

    }

}

void tempConvert()

{

    int CL = 010;

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

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

    printf("Temparature In Feranhite is :%f", fr);

}

void areaAndPerimetere()

{

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

    printf("\n");

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

    printf("\n");

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

    printf("\n");

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

}

float areaofCircle()

{

    const float PI = 3.14;

    float radious = 9.0;

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

    return areaOfCir;

}

int areaofRect()

{

    int L = 15, W = 45;

    int areaOfRect = L \* W;

    return areaOfRect;

}

int perimeter()

{

    int L = 15, W = 45;

    int areaOfRect = L \* W;

    int periMeter = 2 \* (L + W);

    return periMeter;

}

float circumference()

{

    const float PI = 3.14;

    float radious = 9.0;

    float Circumfer = 2.0 \* PI \* radious;

    return Circumfer;

}

void sumOfDigitAndReverse()

{

    int num = 234;

    int sum = 0;

    int rev = 0;

    int r1 = num % 10;

    int q1 = num / 10;

    sum += r1;

    rev = (rev \* 10) + r1;

    r1 = q1 % 10;

    q1 /= 10;

    rev = (rev \* 10) + r1;

    sum += r1;

    r1 = q1 % 10;

    q1 /= 10;

    rev = (rev \* 10) + r1;

    sum += r1;

    printf("Sum of %d digits is: %d \n Also Reverse of num: %d", num, sum, rev);

}

int evenOdd()

{

    int num = 7;

    if (num % 2 == 0)

    {

        return 1;

    }

    else

    {

        return 0;

    }

}

float salary()

{

    float baseSalary = 7777.0, 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;

}

void marriageEligibility()

{

    int maleAge = 25, femaleAge = 29;

    char gender = 'f';

    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\....\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

Temparature In Celcius is :8

Temparature In Feranhite is :46.400002

1) Temp Convert:

2) Area And Perimeter:

3) Sum Of Digits and Reverse:

4) Even Odd :

5) Salary:

6) Marriage Eligibility:

2

Length of Rectangle: 15, Width: 45

Area of Reactangle: 675

Perimeter of Reactangle: 120

Radious of circle is: 9.000000

Circumference of that circle is: 56.520000

Area of that circle is: 254.340012

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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

Eligible to marry

PS C:\Code>