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**PPS Assignment**

**Government Engineering College, Modasa**

**Information Technology Department**

**Subject: PPS (3110003)**

Instructions for preparing Lab file for subject PPS

* All students need to prepare a lab file in which all practical needs to write on 1 sided line page. Output needs to write on an opposite blank page.
* Start each practical with a new page.
* A total of 34 programs need to be written in the lab file that is given below.

|  |  |
| --- | --- |
| **PRACTICAL SET - 0** | 1 |
| **PRACTICAL SET - 1** | 2 |
| **PRACTICAL SET - 2** | 2 |
| **PRACTICAL SET - 3** | 5 |
| **PRACTICAL SET - 4** | 4 |
| **PRACTICAL SET - 5** | 3 |
| **PRACTICAL SET - 6** | 3 |
| **PRACTICAL SET - 7** | 2 |
| **PRACTICAL SET - 8** | 3 |
| **PRACTICAL SET - 9** | 3 |
| **PRACTICAL SET - 10** | 4 |
| **PRACTICAL SET - 11** | 2 |
| **Total:** | 34 |

# PRACTICAL SET - 0

1. Print a “Hello World” on screen. And observe the software’s menu and other features. List out available all C compilers and get the overview.

#include <stdio.h>

int main()

{

printf("Hello World");

return 0;

}

**Output :-**

Hello World

# PRACTICAL SET - 1(Any 2)

1. Write a program to that performs as calculator ( addition, multiplication, division, subtraction).

#include <stdio.h>

int main()

{

  float num1, num2;

  printf("Enter The First Number: ");

  scanf("%f", &num1);

  printf("Enter The Second Number: ");

  scanf("%f", &num2);

  printf("\n%f + %f = %f", num1, num2, num1 + num2);

  printf("\n%f - %f = %f", num1, num2, num1 - num2);

  printf("\n%f \* %f = %f", num1, num2, num1 \* num2);

  printf("\n%f / %f = %f", num1, num2, num1 / num2);

  return 0;

}

**Output :-**

Enter The First Number: 10

Enter The Second Number: 5

10.000000 + 5.000000 = 15.000000

10.000000 - 5.000000 = 5.000000

10.000000 \* 5.000000 = 50.000000

10.000000 / 5.000000 = 2.000000

1. Write a program to find area of triangle(a=h\*b\*.5) a = area, h = height,

b = base

#include <stdio.h>

int main()

{

  float a, h, b;

  printf("Enter the Value of Height Of Triangle: ");

  scanf("%f", &h);

  printf("Enter the Value of Base Of Triangle: ");

  scanf("%f", &b);

  a = h \* b \* 0.5;

  printf("\nThe Area Of Triangle is %f", a);

  return 0;

}

**Output :-**

Enter the Value of Height Of Triangle: 5

Enter the Value of Base Of Triangle: 10

The Area Of Triangle is 25.000000

1. Write a program to calculate simple interest (i = (p\*r\*n)/100 ) i = Simple interest, p = Principal amount, r = Rate of interest, n = Number of years

#include <stdio.h>

int main()

{

  float i, p, r, n;

  printf("Enter The Principal Amount: ");

  scanf("%f", &p);

  printf("Enter The Rate Of Interest: ");

  scanf("%f", &r);

  printf("Enter The Number Of Years: ");

  scanf("%f", &n);

  i = p \* r \* n / 100;

  printf("\nThe Value Of Simple Interest is  %f ", i);

  return 0;

}

**Output :-**

Enter The Principal Amount: 1000

Enter The Rate Of Interest: 5

Enter The Number Of Years: 2

The Value Of Simple Interest is 100.000000

1. Write a C program to interchange two numbers.

#include <stdio.h>

int main()

{

  int a, b, temp;

  printf("Enter The Value Of num1: ");

  scanf("%d", &a);

  printf("Enter The Value Of num2: ");

  scanf("%d", &b);

  printf("\nBefore Interchange \n  num1 = %d \n  num2 = %d", a, b);

  temp = a;

  a = b;

  b = temp;

  /\*Other Methods

  (1)a=b\*a;

     b=a/b;

     a=a/b;

  (2)a=a+b;

     b=a-b;

     a=a-b;

  \*/

  printf("\nAfter Interchange \n  num1 = %d \n  num2 = %d", a, b);

  return 0;

}

**Output :-**

Enter The Value Of num1: 5

Enter The Value Of num2: 10

Before Interchange

num1 = 5

num2 = 10

After Interchange

num1 = 10

num2 = 5

1. Write a C program to enter a distance in to kilometre and convert it in to meter, feet, inches and centimetre.

#include <stdio.h>

int main()

{

    float k, m, f, i, c;

    printf("Enter The Value Of Kilometres: ");

    scanf("%f", &k);

    m = 1000 \* k;

    f = 3280.84 \* k;

    i = 39370.0787402 \* k;

    c = 100000 \* k;

    printf("\n%f Kilometer is equal to %f metres,", k, m);

    printf("\n%f Kilometer is equal to %f feets,", k, f);

    printf("\n%f Kilometer is equal to %f inches,", k, i);

    printf("\n%f Kilometer is equal to %f centimetres.", k, c);

    return 0;

}

**Output :-**

Enter The Value Of Kilometres: 1

1.000000 Kilometer is equal to 1000.000000 metres,

1.000000 Kilometer is equal to 3280.840088 feets,

1.000000 Kilometer is equal to 39370.078125 inches,

1.000000 Kilometer is equal to 100000.000000 centimetres.

1. Write a program to compute Fahrenheit from centigrade (f=1.8\*c +32)

#include <stdio.h>

int main()

{

    float c, f;

    printf("Enter the value of Temperature in Centigrade: ");

    scanf("%f", &c);

    f = 1.8 \* c + 32;

    printf("\n%f Centigrade is equal to %f Fahrenheit.", c, f);

    return 0;

}

**Output :-**

Enter the value of Temperature in Centigrade: 1

1.000000 Centigrade is equal to 33.799999 Fahrenheit.

1. Write a C program to find out distance travelled by the equation d = ut + at^2

#include <stdio.h>

int main()

{

    float u, a, d, t;

    printf("Enter The Value of Acceleration(m/s^2) : ");

    scanf("%f", &a);

    printf("Enter The Value of Initial velocity(m/s) : ");

    scanf("%f", &u);

    printf("Enter The Value of Time(s) : ");

    scanf("%f", &t);

    d = (u \* t) + (a \* t \* t);

    printf("\nThe Distance is %f m", d);

    return 0;

}

**Output :-**

Enter The Value of Acceleration(m/s^2) : 5

Enter The Value of Initial velocity(m/s) : 20

Enter The Value of Time(s) : 60

The Distance is 19200.000000 m

# PRACTICAL SET - 2(Any 2)

1. Write a C program to find that the accepted number is Negative, or Positive or Zero.

#include <stdio.h>

int main()

{

  int num;

  printf("Enter the Number: ");

  scanf("%d", &num);

  if (num > 0)

  {

    printf("%d is Positive Number", num);

  }

  else if (num < 0)

  {

    printf("%d is Negative Number", num);

  }

  else

  {

    printf("%d is zero", num);

  }

  return 0;

}

**Output :-**

Enter the Number: 26

26 is Positive Number

1. Write a program to read marks of a student from keyboard whether the student is pass or fail(using if else)

#include<stdio.h>

int main(){

    int marks;

    printf("Enter Your Marks: ");

    scanf("%d",&marks);

    if(marks<33){

        printf("Your Marks is %d \nYou Are Fail",marks);

    }

    else if (marks>=33 && marks<=100){

        printf("Your Marks is %d \nYou Are Pass",marks);

    }

    else{

      printf("Invalid Marks");

    }

    return 0;

}

**Output :-**

Enter Your Marks: 83

Your Marks is 83

You Are Pass

1. Write a program to read three numbers from keyboard and find out maximum out of these three. (nested if else)

#include <stdio.h>

int main()

{

    int num1, num2, num3;

    printf("Enter the First Number: ");

    scanf("%d", &num1);

    printf("Enter the Second Number: ");

    scanf("%d", &num2);

    printf("Enter the Third Number: ");

    scanf("%d", &num3);

    if (num1 > num2)

    {

        if (num1 > num3)

        {

            printf("The Maximum Out Of These Three Is %d", num1);

        }

        else

        {

            printf("The Maximum Out Of These Three Is %d", num3);

        }

    }

    else

    {

        if (num2 > num3)

        {

            printf("The Maximum Out Of These Three Is %d", num2);

        }

        else

        {

            printf("The Maximum Out Of These Three Is %d", num3);

        }

    }

    return 0;

}

* **Second Method:-**

#include <stdio.h>

int main()

{

    int num1, num2, num3;

    printf("Enter the First Number: ");

    scanf("%d", &num1);

    printf("Enter the Second Number: ");

    scanf("%d", &num2);

    printf("Enter the Third Number: ");

    scanf("%d", &num3);

    if (num1 > num2 && num1 > num3)

    {

        printf("The Maximum Out Of These Three Is %d", num1);

    }

    else if (num2 > num1 && num2 > num3)

    {

        printf("The Maximum Out Of These Three Is %d", num2);

    }

    else if (num3 > num2 && num3 > num1)

    {

        printf("The Maximum Out Of These Three Is %d", num3);

    }

    else

    {

        printf("Enter Valid Numbers! ");

    }

    return 0;

}

**Output :-**

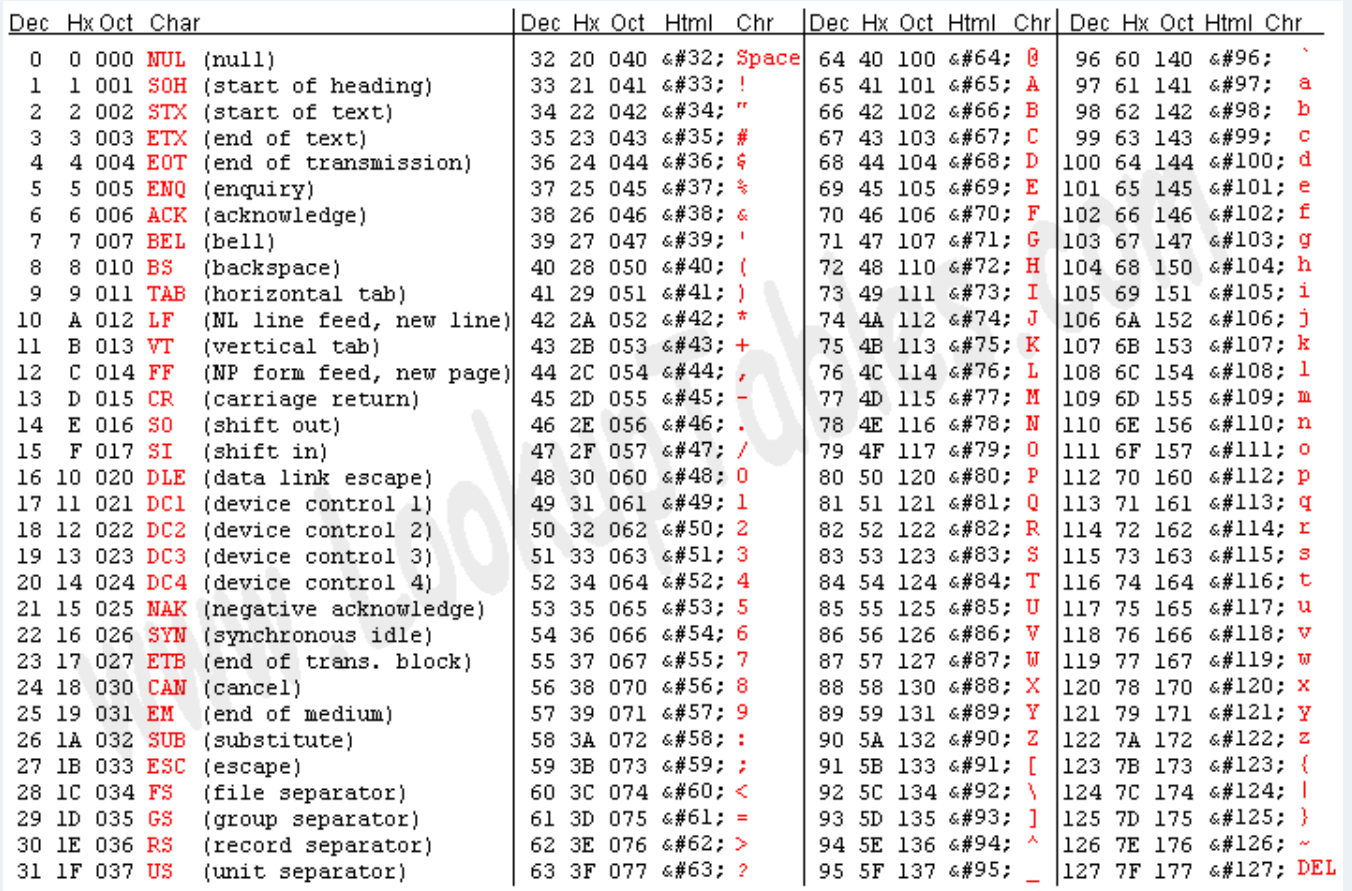
Enter the First Number: 25

Enter the Second Number: 30

Enter the Third Number: 85

The Maximum Out Of These Three Is 85

1. Write a C program to check whether the entered character is capital, small letter, digit or any special character.



#include<stdio.h>

int main(){

    char ch;

    printf("Enter Character : ");

    scanf("%c",&ch);

    // 65-90 = A-Z ASCII Values

    if(ch>64 && ch<91){

        printf("%c is Capital Character",ch);

    }

    // 97-122 = a-z ASCII Values

    else if(ch>=97 && ch<=122){

        printf("%c is Small Character",ch);

    }

    // 48-57 = 0-9 ASCII Values

    else if(ch>47 && ch<58){

        printf("%c is Digital Character",ch);

    }

    else{

        printf("%c is Special Character",ch);

    }

    return 0;

}

**Output :-**

Enter Character : A

A is Capital Character

1. Write a program to read marks from keyboard and your program should display equivalent grade according to following table(if else ladder)

|  |  |
| --- | --- |
| Marks | Grade |
| 100-80 | Distinction |
| 79 - 60 | First Class |
| 59 - 40 | Second Class |
| < 40 | Fail |

#include <stdio.h>

int main()

{

    float marks;

    printf("Enter Your Marks: ");

    scanf("%f", &marks);

    if (marks >= 80 && marks <= 100)

    {

        printf("Your Grade is Distinction");

    }

    else if (marks >= 60 && marks < 80)

    {

        printf("Your Grade is First Class");

    }

    else if (marks >= 40 && marks < 60)

    {

        printf("Your Grade is Second Class");

    }

    else if (marks < 40)

    {

        printf("Your are Fail");

    }

    else

    {

        printf("Invalid Marks");

    }

    return 0;

}

**Output :-**

Enter Your Marks: 85

Your Grade is Distinction

# PRACTICAL SET - 3(Any 5, last 3 compulsory)

1. Write a c program to prepare pay slip using following data.

Da = 10% of basic, Hra = 7.50% of basic, Ma = 300,

Pf = 12.50% of basic, Gross = basic + Da + Hra + Ma, Nt = Gross – Pf.

#include <stdio.h>

int main()

{

    float basic, Da, Hra, Ma, Pf, Gross, Nt;

    printf("Enter The Value Of Basic Salary : ");

    scanf("%f", &basic);

    Da = 0.10 \* basic;

    Hra = 0.075 \* basic;

    Ma = 300;

    Pf = 0.125 \* basic;

    Gross = basic + Da + Hra + Ma;

    Nt = Gross - Pf;

    printf("\nBasic : %f", basic);

    printf("\nDa : %f", Da);

    printf("\nHra : %f", Hra);

    printf("\nMa : %f", Ma);

    printf("\nPf : %f", Pf);

    printf("\n\nGross : %f", Gross);

    printf("\nNt : %f", Nt);

    return 0;

}

**Output :-**

Enter The Value Of Basic Salary : 100

Basic : 100.000000

Da : 10.000000

Hra : 7.500000

Ma : 300.000000

Pf : 12.500000

Gross : 417.500000

Nt : 405.000000

1. Write a C program to read no 1 to 7 and print relatively day Sunday to

Saturday.

#include <stdio.h>

int main()

{

    int num;

    printf("Enter The Number Of Day (1 to 7) : ");

    scanf("%d", &num);

    switch (num)

    {

    case 1:

        printf("Sunday");

        break;

    case 2:

        printf("Monday");

        break;

    case 3:

        printf("Tuesday");

        break;

    case 4:

        printf("Wednesday");

        break;

    case 5:

        printf("Thursday");

        break;

    case 6:

        printf("Friday");

        break;

    case 7:

        printf("Saturday");

        break;

    default:

        printf("Please Enter Day Number Between 1 to 7");

    }

    return 0;

}

**Output :-**

Enter The Number Of Day (1 to 7) : 4

Wednesday

1. Write a C program to find out the Maximum and Minimum number from given 10 numbers

#include <stdio.h>

int main()

{

    int marks[10], i = 1, max, min;

    while (i <= 10)

    {

        printf("Enter The Number: ");

        scanf("%d", &marks[i]);

        i++;

    }

    i = 1;

    max = marks[1];

    min = marks[1];

    while (i <= 10)

    {

        if (max < marks[i])

        {

            max = marks[i];

        }

        if (min > marks[i])

        {

            min = marks[i];

        }

        i++;

    }

    printf("The Maximum NUmber is %d", max);

    printf("\nThe Minimum NUmber is %d", min);

    return 0;

}

**Output :-**

Enter The Number: 25

Enter The Number: 63

Enter The Number: 41

Enter The Number: 52

Enter The Number: 68

Enter The Number: 94

Enter The Number: 63

Enter The Number: 12

Enter The Number: 85

Enter The Number: 64

The Maximum Number is 94

The Minimum Number is 12

1. Write a C program to input an integer number and check the last digit of number is even or odd.

#include <stdio.h>

int main()

{

    int num, r, a;

    printf("Enter The Number : ");

    scanf("%d", &num);

    if ((num % 10) % 2 == 0)

    {

        printf("Last Digit Of Number is even");

    }

    else

    {

        printf("Last Digit Of Number is Odd");

    }

    return 0;

}

**Output :-**

Enter The Number : 25364

Last Digit Of Number is even

1. Write a C program to find factorial of a given number.

#include <stdio.h>

int main()

{

    int num, i, fact = 1;

    printf("Enter The Number : ");

    scanf("%d", &num);

    for (i = 1; i <= num; i++)

    {

        fact = fact \* i;

    }

    printf("The Factorial Of %d is %d", num, fact);

    return 0;

}

**Output :-**

Enter The Number : 5

The Factorial Of 5 is 120

1. Write a program to reverse a number.

#include <stdio.h>

int main()

{

    int num, a;

    printf("Enter The Number : ");

    scanf("%d", &num);

    if (num > 10)

    {

        while (num > 0)

        {

            a = num % 10;

            printf("%d", a);

            num = num / 10;

        }

    }

    else

    {

        printf("%d", num);

    }

    return 0;

}

**Output :-**

Enter The Number : 25863

36852

1. Write a program to generate first n number of Fibonacci series

#include <stdio.h>

int main()

{

    int a = 1, b = 1, sum, i, num;

    printf("Enter the Number : ");

    scanf("%d", &num);

    if (num == 1)

    {

        printf("0");

    }

    else if (num == 2)

    {

        printf("0 1");

    }

    else if (num == 3)

    {

        printf("0 1 1");

    }

    else if (num > 0)

    {

        printf("0 1 1 ");

        num = num - 3;

        while (i < num)

        {

            sum = a + b;

            printf("%d ", sum);

            a = b;

            b = sum;

            i++;

        }

    }

    else

    {

        printf("");

    }

    return 0;

}

**Output :-**

Enter the Number : 10

0 1 1 2 3 5 8 13 21 34

# PRACTICAL SET - 4(Any 3 from 1,2,3,4,5 is compulsory, Any 1 from the last 4.)

1. Write a program to find out sum of first and last digit of a given number.

#include <stdio.h>

int main()

{

    int num, a, b;

    printf("Enter The Number :  ");

    scanf("%d", &num);

    b = num;

    a = num % 10;

    if (num > 10)

    {

        while (b > 10)

        {

            b = b / 10;

        }

        printf("The Sum of First And Last Digit is %d", a + b);

    }

    else

    {

        printf("The Sum of First And Last Digit is %d", num);

    }

    return 0;

}

**Output :-**

Enter The Number : 3562

The Sum of First And Last Digit is 5

1. Write a C program to find the sum and average of different numbers which are accepted by user as many as user wants

#include <stdio.h>

int main()

{

    float num, a, sum = 0, avg;

    int i;

    printf("Enter How Many Numbers You Want To Enter: ");

    scanf("%f", &num);

    for (i = 1; i <= num; i++)

    {

        printf("Enter No.%d: ", i);

        scanf("%f", &a);

        sum = sum + a;

    }

    avg = sum / num;

    printf("The Sum Of Given Numbers is %f\n", sum);

    printf("The Average Of Given Numbers is %f", avg);

    return 0;

}

**Output :-**

Enter How Many Numbers You Want To Enter: 5

Enter No.1: 25

Enter No.2: 63

Enter No.3: 12

Enter No.4: 36

Enter No.5: 96

The Sum Of Given Numbers is 232.000000

The Average Of Given Numbers is 46.400002

1. Write a program to calculate average and total of 5 students for 3 subjects

(use nested for loops)

#include <stdio.h>

int main()

{

    int sub[3], i, j, sum[5];

    for (i = 1; i <= 5; i++)

    {

        printf("\nStudent [%d] : \n", i);

        sum[i]=0;

        for (j = 1; j <= 3; j++)

        {

            printf("Marks Of Subject [%d] : ", j);

            scanf("%d", &sub[j]);

            sum[i] = sum[i] + sub[j];

        }

    }

    i = 1;

    while (i <= 5)

    {

        printf("\nStudent [%d] :", i);

        printf("\nTotal Marks is : %d", sum[i]);

        printf("\nAverage Of Total Marks is : %d", sum[i] / 3);

        i++;

    }

    return 0;

}

**Output :-**

Student [1] :

Marks Of Subject [1] : 35

Marks Of Subject [2] : 85

Marks Of Subject [3] : 65

Student [2] :

Marks Of Subject [1] : 56

Marks Of Subject [2] : 63

Marks Of Subject [3] : 45

Student [3] :

Marks Of Subject [1] : 35

Marks Of Subject [2] : 52

Marks Of Subject [3] : 41

Student [4] :

Marks Of Subject [1] : 99

Marks Of Subject [2] : 98

Marks Of Subject [3] : 99

Student [5] :

Marks Of Subject [1] : 58

Marks Of Subject [2] : 69

Marks Of Subject [3] : 48

Student [1] :

Total Marks is : 185

Average Of Total Marks is : 61

Student [2] :

Total Marks is : 164

Average Of Total Marks is : 54

Student [3] :

Total Marks is : 128

Average Of Total Marks is : 42

Student [4] :

Total Marks is : 296

Average Of Total Marks is : 98

Student [5] :

Total Marks is : 175

Average Of Total Marks is : 58

1. Read five persons height and weight and count the number of person having height greater than 170 and weight less than 50.

#include <stdio.h>

int main()

{

    int height[5], weight[5], i, a = 0;

    for (i = 1; i <= 5; i++)

    {

        printf("\nPerson [%d] :\n\t    Enter Your Height : ", i);

        scanf("%d", &height[i]);

        printf("\t    Enter Your Weight : ");

        scanf("%d", &weight[i]);

        if (height[i] > 170 && weight[i] < 50)

        {

            a++;

        }

    }

    printf("\n %d Persons Are Having Height Greater Than 170 And Weight Less Than 50", a);

    return 0;

}

**Output :-**

Person [1] :

Enter Your Height : 170

Enter Your Weight : 50

Person [2] :

Enter Your Height : 185

Enter Your Weight : 45

Person [3] :

Enter Your Height : 165

Enter Your Weight : 40

Person [4] :

Enter Your Height : 190

Enter Your Weight : 40

Person [5] :

Enter Your Height : 150

Enter Your Weight : 50

2 Persons Are Having Height Greater Than 170 And Weight Less Than 50

1. Write a program to check whether the given number is prime or not.

#include <stdio.h>

int main()

{

    int num, i, a = 0;

    printf("Enter The Number : ");

    scanf("%d", &num);

    for (i = 2; i < num; i++)

    {

        if (num % i == 0)

        {

            printf("%d is Not Prime Number", num);

            a = 1;

            break;

        }

    }

    if (num == 1)

    {

        printf("%d is Not Prime Number", num);

    }

    else if (a != 1)

    {

        printf("%d is Prime Number", num);

    }

    return 0;

}

**Output :-**

Enter The Number : 6

6 is Not Prime Number

6. Write a program to evaluate the series 1^2+2^2+3^2+……+n^2

#include <stdio.h>

int main()

{

    int num, sum, i;

    printf("Enter The Number(n) : ");

    scanf("%d", &num);

    for (i = 1; i <= num; i++)

    {

        sum = sum + (i \* i);

    }

    printf("The Sum Of Given Series is %d", sum);

    return 0;

}

**Output :-**

Enter The Number(n) : 8

The Sum Of Given Series is 204

1. Write a C program to find 1+1/2+1/3+1/4+....+1/n.

#include <stdio.h>

int main()

{

    float num, i, sum = 0;

    printf("Enter The Number : ");

    scanf("%f", &num);

    for (i = 1; i <= num; i++)

    {

        sum = sum + (1 / i);

    }

    printf("The Sum Of Given Series is %f", sum);

    return 0;

}

**Output :-**

Enter The Number : 10

The Sum Of Given Series is 2.928968

1. Write a C program to find 1+1/2!+1/3!+1/4!+.....+1/n!.

#include <stdio.h>

int main()

{

    float num, i, sum = 0, j, fact = 1;

    printf("Enter The Number : ");

    scanf("%f", &num);

    for (i = 1; i <= num; i++)

    {

        fact=1;

        for (j = 1; j <= i; j++)

        {

            fact = fact \* j;

        }

        sum = sum + (1 / fact);

    }

    printf("The Sum Of Given Series is %f", sum);

    return 0;

}

**Output :-**

Enter The Number : 5

The Sum Of Given Series is 1.716667

1. Write a program to evaluate the series sum=1-x+x^2/2!-x^3/3!+x^4/4!......-x^9/9!

#include <stdio.h>

int main()

{

    float x, j, power, fact, sum1, sum2, sum;

    int i;

    printf("Enter The Value Of X : ");

    scanf("%f", &x);

    for (i = 1; i < 10; i++)

    {

        fact = 1;

        power = 1;

        for (j = 1; j <= i; j++)

        {

            fact = fact \* j;

            power = power \* x;

        }

        if (i % 2 == 0)

        {

            sum1 = sum1 + (power / fact);

        }

        else

        {

            sum2 = sum2 + (power / fact);

        }

    }

    sum = 1 + sum1 - sum2;

    printf("The Sum Of Given Series is %f", sum);

    return 0;

}

**Output :-**

Enter The Value Of X : 1

The Sum Of Given Series is 0.367879

# PRACTICAL SET - 5

1. Write a program to print following patterns :

|  |  |  |
| --- | --- | --- |
| \*   * \* * \* \* * \* \* \* * \* \* \* \* | \*   * \* * \* \* * \* \* \* * \* \* \* \* | * \* \* \* \* * \* \* \* * \* \* * \*   \* |

1. Write a program to print following patterns :

|  |  |  |  |
| --- | --- | --- | --- |
| 1  1 2  1 2 3  1 2 3 4  1 2 3 4 5 | 1 2 3 4 5  1 2 3 4  1 2 3  1 2  1 | 5 5 5 5 5  4 4 4 4  3 3 3  2 2  1 | 1   1. 2 2. 3 3 3. 4 4 4 4. 5 5 5 5 |

1. Write a program to print following patterns :

|  |  |
| --- | --- |
| 1. A A A 2. B B B 3. C C 4. D   E | A B C D E  A B C D  A B C  A B  A |

# PRACTICAL SET - 6(Any 2 + No. 5 is compulsory)

1. Write a C program to read and store the roll no and marks of 20 students using array.

#include <stdio.h>

int main()

{

    int roll[20], marks[20], i = 1;

    while (i <= 20)

    {

        printf("\n(%d)", i);

        printf("Enter Your Roll Number: ");

        scanf("%d", &roll[i]);

        printf("\t Enter Your Marks: ");

        scanf("%d", &marks[i]);

        i++;

    }

    i = 1;

    printf("\nRoll No.        Marks \n");

    while (i <= 20)

    {

        printf("%d\t\t%d\n", roll[i], marks[i]);

        i++;

    }

    return 0;

}

**Output :-**

(1)Enter Your Roll Number: 1

Enter Your Marks: 25

(2)Enter Your Roll Number: 2

Enter Your Marks: 24

(3)Enter Your Roll Number: 3

Enter Your Marks: 85

(4)Enter Your Roll Number: 4

Enter Your Marks: 65

(5)Enter Your Roll Number: 5

Enter Your Marks: 89

(6)Enter Your Roll Number: 6

Enter Your Marks: 30

(7)Enter Your Roll Number: 7

Enter Your Marks: 35

(8)Enter Your Roll Number: 85

Enter Your Marks: 34

(9)Enter Your Roll Number: 9

Enter Your Marks: 60

(10)Enter Your Roll Number: 10

Enter Your Marks: 96

(11)Enter Your Roll Number: 11

Enter Your Marks: 85

(12)Enter Your Roll Number: 12

Enter Your Marks: 23

(13)Enter Your Roll Number: 13

Enter Your Marks: 85

(14)Enter Your Roll Number: 26

Enter Your Marks: 21

(15)Enter Your Roll Number: 98

Enter Your Marks: 26

(16)Enter Your Roll Number: 37

Enter Your Marks: 85

(17)Enter Your Roll Number: 94

Enter Your Marks: 52

(18)Enter Your Roll Number: 64

Enter Your Marks: 53

(19)Enter Your Roll Number: 108

Enter Your Marks: 99

(20)Enter Your Roll Number: 51

Enter Your Marks: 99

Roll No. Marks

1 25

2 24

3 85

4 65

5 89

6 30

7 35

85 34

9 60

10 96

11 85

12 23

13 85

26 21

98 26

37 85

94 52

64 53

108 99

51 99

1. Write a program to find out which number is even or odd from list of 10 numbers using array

#include <stdio.h>

int main()

{

    int marks[10], i = 1, max, min;

    while (i <= 10)

    {

        printf("Enter The Number: ");

        scanf("%d", &marks[i]);

        i++;

    }

    i = 1;

    printf("\nEven Numbers: ");

    while (i <= 10)

    {

        if (marks[i] % 2 == 0)

        {

            printf("%d ", marks[i]);

        }

        i++;

    }

    i = 1;

    printf("\nOdd Numbers: ");

    while (i <= 10)

    {

        if (marks[i] % 2 != 0)

        {

            printf("%d ", marks[i]);

        }

        i++;

    }

    return 0;

}

**Output :-**

Enter The Number: 25

Enter The Number: 63

Enter The Number: 51

Enter The Number: 85

Enter The Number: 41

Enter The Number: 63

Enter The Number: 52

Enter The Number: 12

Enter The Number: 5

Enter The Number: 52

Even Numbers: 52 12 52

Odd Numbers: 25 63 51 85 41 63 5

1. Write a program to find maximum element from 1-Dimensional array.

#include <stdio.h>

int main()

{

    int a[100], i, n, max;

    printf("\nHow many numbers you want to enter [Max 100] : ");

    scanf("%d", &n);

    for (i = 0; i < n; i++)

    {

        printf("Enter Value in Array at Position [%d] :", i + 1);

        scanf("%d", &a[i]);

        if (i == 0)

        {

            max = a[i];

        }

        else

        {

            if (max < a[i])

            {

                max = a[i];

            }

        }

    }

    printf("\n Maximum Value in Array is %d", max);

    return 0;

}

**Output :-**

How many numbers you want to enter [Max 100] : 5

Enter Value in Array at Position [1] :25

Enter Value in Array at Position [2] :35

Enter Value in Array at Position [3] :41

Enter Value in Array at Position [4] :5

Enter Value in Array at Position [5] :3

Maximum Value in Array is 41

1. Write a C program to calculate the average, geometric and harmonic mean of n elements in an array.
2. Write a program to sort given array in ascending order (Use Insertion sort, Bubble sort, Selection sort, Mergesort, Quicksort, Heapsort).

# PRACTICAL SET - 7(Any 2)

1. Write a program to find a character from given string.
2. Write a program to replace a character in given string.
3. Write a program to delete a character in given string.
4. Write a program to reverse string.
5. Write a program to convert string into upper case

# PRACTICAL SET - 8(Any 3)

1. Write a program that defines a function to add first n numbers.
2. Write a function in the program to return 1 if number is prime otherwise return 0
3. Write a function Exchange to interchange the values of two variables, say x and y. illustrate the use of this function in a calling function.
4. Write a C program to use recursive calls to evaluate F(x) = x – x 3 / 3! + x 5

/ 5 ! – x 7 / 7! +… x n / n!.

1. Write a program to find factorial of a number using recursion.
2. Write a C program using global variable, static variable.
3. Write a function that will scan a character string passed as an argument and convert all lowercase character into their uppercase equivalents

# PRACTICAL SET - 9(Any 3)

1. Write a program to read structure elements from keyboard.
2. Define a structure type struct personal that would contain person name, date of joining and salary using this structure to read this information of 5 people and print the same on screen.
3. Define structure data type called time\_struct containing three member’s integer hour, integer minute and integer second. Develop a program that would assign values to the individual number and display the time in the following format: 16: 40:51
4. Define a structure called cricket that will describe the following information: Player name

Team name

Batting average

Using cricket, declare an array player with 50 elements and write a C program to read the information about all the 50 players and print team wise list containing names of players with their batting average.

1. Design a structure student\_record to contain name, branch and total marks obtained. Develop a program to read data for 10 students in a class and print them.

# PRACTICAL SET - 10(Any 4)

1. Write a program to print address of variable using pointer.
2. Write a C program to swap the two values using pointers.
3. Write a C program to print the address of character and the character of string using pointer.
4. Write a program to access elements using pointer.
5. Write a program for sorting using pointer.

# PRACTICAL SET - 11

1. Write a program to write a string in file
2. A file named data contains series of integer numbers. Write a c program to read all numbers from file and then write all odd numbers into file named “odd” and write all even numbers into file named “even”. Display all the contents of these file on screen.