Practical 1 :

Write a C program for each of the following question

1. Display your name and school name in two separate lines

#include <stdio.h>

int main()

{

printf("My name is Diluk Yuvin Perera\n");

printf("My school is Dharmapala Vidyalaya Pannipitiya\n");

return 0;

}

1. Display the following output using printf() statements

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#include <stdio.h>

int main()

{

printf("\*\n");

printf("\*\*\n");

printf("\*\*\*\n");

printf("\*\*\*\*\n");

printf("\*\*\*\*\*\n");

return 0;

}

1. Input values for int,float,double and char data types and display the value of each of the variable.

#include <stdio.h>

int main()

{

int a;

float b;

double c;

char d [15];

printf("Enter an integer value : ");

scanf("%d",&a);

printf("Enter a float value : ");

scanf("%f",&b);

printf("Enter a double value : ");

scanf("%lf",&c);

printf("Enter a char value : ");

scanf("%s",&d);

printf("%d %f %f %s",a,b,c,d);

return 0;

}

1. Input two integers and display the total

#include<stdio.h>

int main(){

int a,b,tot;

printf("Enter the first number : ");

scanf("%d",&a);

printf("Enter the second number : ");

scanf("%d",&b);

tot=a+b;

printf("Total : %d\n",tot);

return 0;

}

1. Input two numbers with decimals and display the average with decimals

#include<stdio.h>

int main(){

float no1,no2,avg;

printf("Enter first number : ");

scanf("%f",&no1);

printf("Enter second number : ");

scanf("%f",&no2);

avg=(no1+no2)/2;

printf("Average : %.3f\n",avg);

return 0;

}

1. Input a student name, birth year and display student name with age.

#include<stdio.h>

int main(){

int byear,age;

char name [15];

printf("Enter your name : ");

scanf("%s",&name);

printf("Enter your birth year : ");

scanf("%d",&byear);

age=2018-byear;

printf("Name : %s Age : %d\n",name,age);

return 0;

}

1. Input two numbers, swap the values and display the output. ( Before swap and after swap)

#include <stdio.h>

int main()

{

int A,B,temp;

printf("Enter a number for 'A' : ");

scanf("%d",&A);

printf("Enter a number for 'B' : ");

scanf("%d",&B);

temp=A;

A=B;

B=temp;

printf("Now, A = %d\t B = %d\n",A,B);

}

1. Execute the following code and analyze the output.

#include<stdio.h>

main()

{

printf("The color: %s\n", "blue");

printf("First number: %d\n", 12345);

printf("Second number: %04d\n", 25);

printf("Third number: %i\n", 1234);

printf("Float number: %3.2f\n", 3.14159);

printf("Hexadecimal: %x\n", 255);

printf("Octal: %o\n", 255);

printf("Unsigned value: %u\n", 150);

printf("Just print the percentage sign %%\n", 10);

}

Result :

The color: blue

First number: 12345

Second number: 0025

Third number: 1234

Float number: 3.14

Hexadecimal: ff

Octal: 377

Unsigned value: 150

Just print the percentage sign %

* For second number the max number of digits is 4. If less than 4 , the unfilled digit spaces are filled with zeros.
* % u is for unsigned integers . Cant have -ve value. Gives a bogus value when we give a negative value
* For the Hexadecimal %x is used. The decimal is converted to hexadecimal when being displayed
* For octal %o is used. The decimal is converted to the octal and displayed.
* To Print a % a single % is not enough . Two %% is needed.
* %i is used for integers. In scanf it can recognise 0 (octal) or 0x (hexadecimal) while %d cannot scan them.