**H.M. Kavisha Thathsarani**

**Student No : 29630**

**Practical Number 1**

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

#include <stdio.h>

#include <stdlib.h>

int main()

{

printf("Kavisha Thathsarani \n");

printf("Kegalle Balika Vidyalya");

return 0;

}

**2.** **Display the following output using printf() statements**

**\***

**\*\***

**\*\*\***

**\*\*\*\***

**\*\*\*\*\***

#include <stdio.h>

#include <stdlib.h>

int main()

{

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

return 0;

}

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

#include <stdio.h>

#include <stdlib.h>

int main()

{

int intValue;

float floatValue;

double doubleValue;

char charValue;

printf("Enter an integer value: ");

scanf("%d",&intValue);

printf("Enter a float value: ");

scanf("%f",&floatValue);

printf("Enter a double value: ");

scanf("%if",&doubleValue);

printf("Enter a character value: ");

scanf("%s",&charValue);

printf("Integer value: %d \n", intValue);

printf("Float value: %.2f \n", floatValue);

printf("Double value: %.2f \n", doubleValue);

printf("Character value: %c\n", charValue);

return 0;

}

**4. Input two integers and display the total**

#include <stdio.h>

#include <stdlib.h>

int main()

{

int no1,no2,total;

printf("Enter First Number ");

scanf("%d",&no1);

printf("Enter Second Number ");

scanf("%d",&no2);

total=no1+no2;

printf("The total is %d",total);

return 0;

}

**5. Input two numbers with decimals(fractions) and display the average with decimals**

#include <stdio.h>

#include <stdlib.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("The avarage is %.2f",avg);

return 0;

}

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

#include <stdio.h>

#include <stdlib.h>

int main()

{

char name[20];

int byear,age;

printf("Enter your name: ");

scanf("%s",&name);

printf("Enter your birth year: ");

scanf("%d",&byear);

age=2023-byear ;

printf("Student name is %s \n",name);

printf("Age is %d \n",age);

return 0;

}

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

#include <stdio.h>

#include <stdlib.h>

Int main()

{

int no1,no2;

printf("Enter first number ");

scanf("%d",&no1);

printf("Enter second number ");

scanf("%d",&no2);

printf("Before swap %d %d \n",no1,no2);

printf("After swap %d %d \n",no2,no1);

return 0;

}

**8. Execute the following code and analyze the output. Study the output format.**

**#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);**

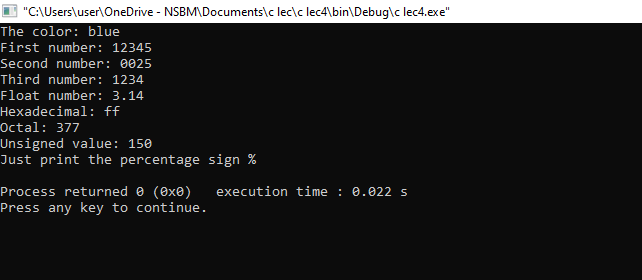
**printf("Hexadecimal: %x\n", 255);**

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

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

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

**}**

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**Practical Number 2**

**1. Have the computer print**

**HI, HOW OLD ARE YOU?**

**on one line. The user then enters his or her age immediately after the question mark. The computer then skips two lines and prints on two consecutive lines.**

**WELCOME (age)**

**LET’S BE FRIENDS!**

**Write a complete C program to do the above.**

#include <stdio.h>

#include <stdlib.h>

int main()

{

int age;

printf("HI, HOW OLD ARE YOU? ");

scanf("%d", &age);

printf("WELCOME %d \n", age);

printf("LET'S BE FRIENDS! \n");

return 0;

}

**2. Write a program which uses the format commands with modifiers to print the following output:**

|  |  |  |
| --- | --- | --- |
| **2** | **4** | **8** |
| **3** | **9** | **27** |
| **4** | **16** | **64** |
| **5** | **25** | **125** |

***Remark:***

***Observe how format commands are used in the following program.***

#include <stdio.h>

int main()

{

printf("%5d%5d\n", 1, 2); //Right Align

printf("%5d%5d\n", 10, 20); //Right Align

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

printf("%-5d%-5d\n", 1, 2); //Left Align

printf("%-5d%-5d\n", 10, 20); //Left Align

return 0;

}

#include <stdio.h>

#include <stdlib.h>

int main()

{

printf("%5d %5d %5d \n",2,4,8);

printf("%5d %5d %5d \n",3,9,27);

printf("%5d %5d %5d \n",4,16,64);

return 0;

}

**3. Write a simple program to evaluate the average speed of a car traveled in meters per second (ms-1). Given that**

**Distance travelled**

\_\_\_

**Time taken**

**Average speed =**

**Try using integer variables. What would be the problem? Why? How to fix the problem?**

#include <stdio.h>

#include <stdlib.h>

int main()

{

float distance, time, speed;

printf("Enter the distance traveled: ");

scanf("%f", &distance);

printf("Enter the time : ");

scanf("%f", &time);

speed = distance / time;

printf("Average speed: %.2f ms-1 \n", speed);

return 0;

}

**4. Convert a temperature reading in degrees Fahrenheit to degrees Celsius, using the formula**

**C = ( 5 / 9 ) x ( F – 32 )**

**Test the program with the following values: 68, 150, 212, 0, -22, -200 (degree Fahrenheit).**

**#**include <stdio.h>

#include <stdlib.h>

int main()

{

int F,C;

printf("Enter the degrees Fahrenheit: ");

scanf("%f",&F);

C=(5/9)\*(F - 32);

printf("Temperature in degrees Celsius: %.2f \n", C);

return 0;

}