# Types of Data Types

char a = 'C'; // single character %c

char b[] = "Bro"; // array of characters %s

We have to Specify the amount of character allowed in []

float c = 3.141592; // 4 bytes (32 bits of precision) 6 - 7 digits %f

double d = 3.141592653589793; // 8 bytes (64 bits of precision) 15 - 16 digits %lf

bool e = true; // 1 byte (true or false) %d

char f = 120; // 1 byte (-128 to +127) %d or %c

unsigned char g = 255; // 1 byte (0 to +255) %d or %c

short h = 32767; // 2 bytes (−32,768 to +32,767) %d

unsigned short i = 65535; // 2 bytes (0 to +65,535) %d

int j = 2147483647; // 4 bytes (-2,147,483,648 to +2,147,483,647) %d

unsigned int k = 4294967295; // 4 bytes (0 to +4,294,967,295) %u

long long int l = 9223372036854775807; // 8 bytes (-9 quintillion to +9 quintillion) %lld

unsigned long long int m = 18446744073709551615U; // 8 bytes (0 to +18 quintillion) %llu

printf("%c\n", a); // char

printf("%s\n", b); // character array

printf("%f\n", c); // float

printf("%lf\n", d); // double

printf("%d\n", e); // bool

printf("%d\n", f); // char as numeric value

printf("%d\n", g); // unsigned char as numeric value

printf("%d\n", h); // short

printf("%d\n", i); // unsigned short

printf("%d\n", j); // int

printf("%u\n", k); // unsigned int

printf("%lld\n", l); // long long int

printf("%llu\n", m); // unsigned long long int

Important Doubt

[4:54 pm, 7/8/2024] Namya: #include <stdio.h>

int main() {

char b[100] ;

scanf("%c", b);

printf("%c\n%c",b , b) ;

return 0;

}

Solution use %s instead of %c

int main() {

char b[10] = "\*\*";

printf("%s", b);

return 0;

}

# Escape Sequence

| **Escape Sequence** | **Name** | **Description** |
| --- | --- | --- |
| \a | Alarm or Beep | It is used to generate a bell sound in the C program. |
| \b | Backspace | It is used to move the cursor one place backward. |
| \f | Form Feed | It is used to move the cursor to the start of the next logical page. |
| \n | New Line | It moves the cursor to the start of the next line. |
| \r | Carriage Return | It moves the cursor to the start of the current line. |
| \t | Horizontal Tab | It inserts some whitespace to the left of the cursor and moves the cursor accordingly. |
| \v | Vertical Tab | It is used to insert vertical space. |
| \\ | Backlash | Use to insert backslash character. |
| \’ | Single Quote | It is used to display a single quotation mark. |
| \” | Double Quote | It is used to display double quotation marks. |
| \? | Question Mark | It is used to display a question mark. |
| \ooo | Octal Number | It is used to represent an octal number. |
| \xhh | Hexadecimal Number | It represents the hexadecimal number. |
| \0 | NULL | It represents the NULL character. |
| \e | Escape sequence | It represents the ASCII escape character. |
| \s | Space Character | It represents the ASCII space character. |
| \d | Delete Character | It represents the ASCII DEL character. |

# Operator

Operator priority order

Ternary operator / if else / break

# Practice Question 11 2:40:57