How to check the char is an alphabet char?

[intro]

There is a library called <cctype> implement it.

The library <cctype> provides many functions so that

we can check the type of char.

For example, we can use isdigit(c) to

check the char c is a decimal digit or NOT.

[P.S.]

NOTE that here

not only space ‘ ‘ is considered as a white-space,

but also ‘\t’ ,’\n‘ etc are considered as a white-space.

Look at the following table.

For the "C" locale, white-space characters are any of:

|  |  |  |
| --- | --- | --- |
| ' ' | (0x20) | space (SPC) |
| '\t' | (0x09) | horizontal tab (TAB) |
| '\n' | (0x0a) | newline (LF) |
| '\v' | (0x0b) | vertical tab (VT) |
| '\f' | (0x0c) | feed (FF) |
| '\r' | (0x0d) | carriage return (CR) |

[namespace]

NONE

[library]

<ctype.h> for older version.

<cctype> for newer version.

[code]

#include <iostream>

#include <string>

#include <cctype>

using namespace std;

int main ()

{

string s;

cin>>s;

for(int i=0;i<s.length();i++)

{

char c=s[i];

if(isxdigit(c))

{

cout<<c<<" belongs to a hexdecimal digit and is NOT zero."<<endl;

}else

{

cout<<c<<" does NOT belong to either a hexdemical digit or is NOT zero or both."<<endl;

}

if(isgraph(c))

{

cout<<c<<" is a graphable char."<<endl;

}else

{

cout<<c<<" is NOT a graphable char."<<endl;

}

if(isprint(c))

{

cout<<c<<" is a printable char."<<endl;

}else

{

cout<<c<<" is NOT a printable char."<<endl;

}

if(isalnum(c))

{

cout<<c<<" is a alpha or numeric digit."<<endl;

}else

{

cout<<c<<" is NEITHER a alpha NOR numeric digit."<<endl;

}

if(isupper(c))

{

cout<<c<<" is a uppercase char."<<endl;

}else

{

cout<<c<<" is NOT a uppercase char, or it is NOT a alphabet char."<<endl;

}

if(isspace(c))

{

cout<<c<<" is a space."<<endl;

}else

{

cout<<c<<" is NOT a space."<<endl;

}

}

return 0;

}

[input]

12345

[result]

1 belongs to a hexdecimal digit and is NOT zero.

1 is a graphable char.

1 is a printable char.

1 is a alpha or numeric digit.

1 is NOT a uppercase char, or it is NOT a alphabet char.

1 is NOT a space.

2 belongs to a hexdecimal digit and is NOT zero.

2 is a graphable char.

2 is a printable char.

2 is a alpha or numeric digit.

2 is NOT a uppercase char, or it is NOT a alphabet char.

2 is NOT a space.

3 belongs to a hexdecimal digit and is NOT zero.

3 is a graphable char.

3 is a printable char.

3 is a alpha or numeric digit.

3 is NOT a uppercase char, or it is NOT a alphabet char.

3 is NOT a space.

4 belongs to a hexdecimal digit and is NOT zero.

4 is a graphable char.

4 is a printable char.

4 is a alpha or numeric digit.

4 is NOT a uppercase char, or it is NOT a alphabet char.

4 is NOT a space.

5 belongs to a hexdecimal digit and is NOT zero.

5 is a graphable char.

5 is a printable char.

5 is a alpha or numeric digit.

5 is NOT a uppercase char, or it is NOT a alphabet char.

5 is NOT a space.

[ref]

<https://cplusplus.com/reference/cctype/>