# How to use QString in Qt

This example demonstrates some basic Qt string functions.

**Note:Some of images are from qt Creator IDE V4.5 and the code associated with images can also be executed in carbide c++ 2.0**

## Various Function and Operators

- If you want to append a certain number of identical characters to the string, use operator+=()

```
QString str = "Hello";
str += QString(10, 'X');
```

The final content of *str* is "Hello" followed by ten "X": "HelloXXXXXXXXXX".

- Prepends the string *Hello* to the beginning of *str* and returns a reference to this string.

```
QString str = "world";
str.prepend("Hello ");
```

The content of *str* is "Hello world".

- Returns a lowercase copy of the string.

```
QString str = "HELLO";
QString lowerCase = str.toLower();
```

The content of *lowerCase* is "hello". The content of *str* is still "HELLO", the method QString::toLower() does not modify the string, it returns a lowercase version of the string.

## Code snippet using QString

The following example show the use of QString in a graphical application. QLabel is a widget capable of displaying text or images.

```
#include <QApplication>
#include <QLabel>
#include <QString>
#include <QVBoxLayout>

int main(int argc, char *argv[])
{
    QApplication app(argc, argv);

    QString str("world");
    QString sizeOfWorld = QString::number(str.size());

    // resize the string and removes last two characters
    str.resize(3); // str = "wor"

    // Add "Hello " at the beginning
    str.prepend("Hello "); // str = "Hello wor"

    // Add "ld" at the end
```


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```
    str.append("ld"); // str = "Hello world"

    // Remove 6 characters at position five, and insert " India" at this position
    str.replace(5, 6, " India");

    QLabel *label1 = new QLabel(str);
    QLabel *label2 = new QLabel(sizeOfWorld);
    QVBoxLayout *layout = new QVBoxLayout;
    layout->addWidget(label1);
    layout->addWidget(label2);

    QWidget window;
    window.setLayout(layout);
    window.show();
    return app.exec();
}
```

Here is the result of this code on Microsoft Windows:

## Related links:

- Documentation of QString
- How to convert TBuf to QString
- How to convert TBuf to QString


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