How to do HTTP Get and Post using Qt

Overview

This article is a basic QWidget application which performs **HTTP GET** and **POST** for a user specified URL.

This is a very basic article this can be extended to suite the developers need. Note that it can only be used in portrait mode - it does not scale properly when rotated.

Prerequisite

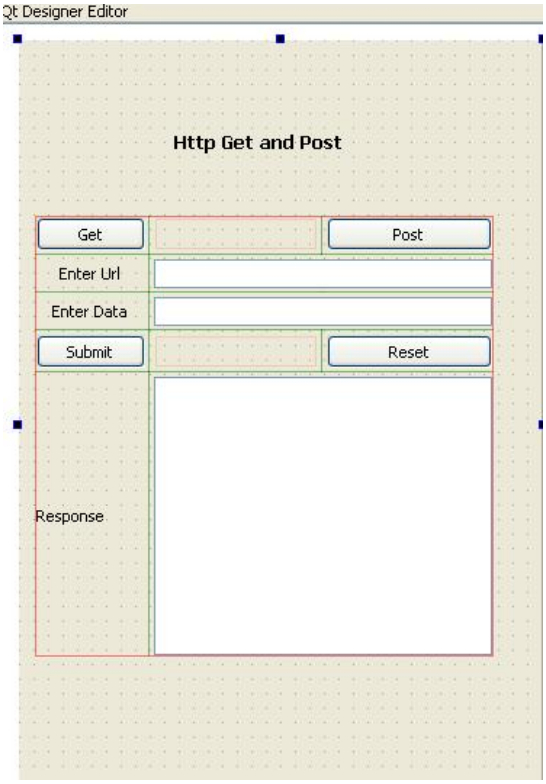
- Install the Qt SDK

capability required

- NetworkServices

UI design (.ui file)

The below screenshot shows the ui design file.



Header File

```
#ifndef MAINWINDOW_H
#define MAINWINDOW_H

#include <QMainWindow>
#include <QNetworkAccessManager>
#include <QNetworkReply>
#include <QMessageBox>
#include<QByteArray>


namespace Ui {
```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```
    class MainWindow;
}

class MainWindow : public QMainWindow {
    Q_OBJECT
public:
    MainWindow(QWidget *parent = 0);
    ~MainWindow();

protected:
    void changeEvent(QEvent *e);

private slots:
    void finished(QNetworkReply *reply);
    void DoHttpGet();
    void activateGetWidgets();
    void HideWidgets();
    void clearWidgets();
    void activatePostWidgets();

private:
    Ui::MainWindow *ui;

    QNetworkAccessManager *nam;
};

#endif // MAINWINDOW_H
```

Source File

```
#include "mainwindow.h"
#include "ui_mainwindow.h"

MainWindow::MainWindow(QWidget *parent) :
    QMainWindow(parent),
    ui(new Ui::MainWindow)
{
    ui->setupUi(this);

    nam = new QNetworkAccessManager(this);
    HideWidgets();
    connect(ui->getButton,SIGNAL(clicked()),this,SLOT(activateGetWidgets()));
    connect(ui->submitButton,SIGNAL(clicked()),this,SLOT(DoHttpGet()));
    connect(ui->resetButton,SIGNAL(clicked()),this,SLOT(clearWidgets()));
    connect(nam,SIGNAL(finished(QNetworkReply*)),this,SLOT(finished(QNetworkReply*)));
    connect(ui->postButton,SIGNAL(clicked()),this,SLOT(activatePostWidgets()));
}

MainWindow::~MainWindow()
{
    delete ui;
}

void MainWindow::changeEvent(QEvent *e)
{
    QMainWindow::changeEvent(e);
    switch (e->type()) {
    case QEvent::LanguageChange:
        ui->retranslateUi(this);
        break;
    default:
        break;
    }
}

void MainWindow::activateGetWidgets()
 {
      ui->urlLabel->setHidden(false);
      ui->urlLine->setHidden(false);
      ui->submitButton->setHidden(false);
      ui->textBrowser->setHidden(false);
      ui->responseTitleLabel->setHidden(false);
      ui->getButton->setHidden(true);
      ui->postButton->setHidden(true);

 }

void MainWindow::activatePostWidgets()
 {
 ui->dataLabel->setHidden(false);
 ui->dataLine->setHidden(false);
 activateGetWidgets();

 }



void MainWindow::finished(QNetworkReply *reply)
{
    if(reply->error() == QNetworkReply::NoError)
    {
        ui->textBrowser->setText(reply->readAll());

    }
    else
    {
        ui->textBrowser->setText(reply->errorString());
    }
}

void MainWindow::DoHttpGet()
 {
  ui->resetButton->setHidden(false);
        QString url = ui->urlLine->text();
        QString data = ui->dataLine->text();
        QByteArray postData;
        postData.append(data.toAscii());
        if(postData.isEmpty() == true)
                {
                nam->get(QNetworkRequest(QUrl(url)));
                }
        else
                {
```


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```
                nam->post(QNetworkRequest(QUrl(url)),postData);
                }

 }

void MainWindow::HideWidgets()
 {
    ui->urlLabel->setHidden(true);
    ui->urlLine->setHidden(true);
    ui->dataLabel->setHidden(true);
    ui->dataLine->setHidden(true);
    ui->submitButton->setHidden(true);
    ui->responseTitleLabel->setHidden(true);
    ui->textBrowser->setHidden(true);
    ui->resetButton->setHidden(true);

 }

void MainWindow::clearWidgets()
 {
    ui->urlLabel->setHidden(true);
    ui->urlLine->setHidden(true);
    ui->dataLabel->setHidden(true);
    ui->dataLine->setHidden(true);
    ui->submitButton->setHidden(true);
    ui->responseTitleLabel->setHidden(true);
    ui->textBrowser->setHidden(true);
    ui->resetButton->setHidden(true);
    ui->urlLine->clear();
    ui->textBrowser->clear();
    ui->dataLine->clear();
    ui->getButton->setHidden(false);
    ui->postButton->setHidden(false);

 }
```

Output Screenshots

- **Initial Screen Asking the user to select and http get or post**.

- **Screenshot after user has clicked the get button**.

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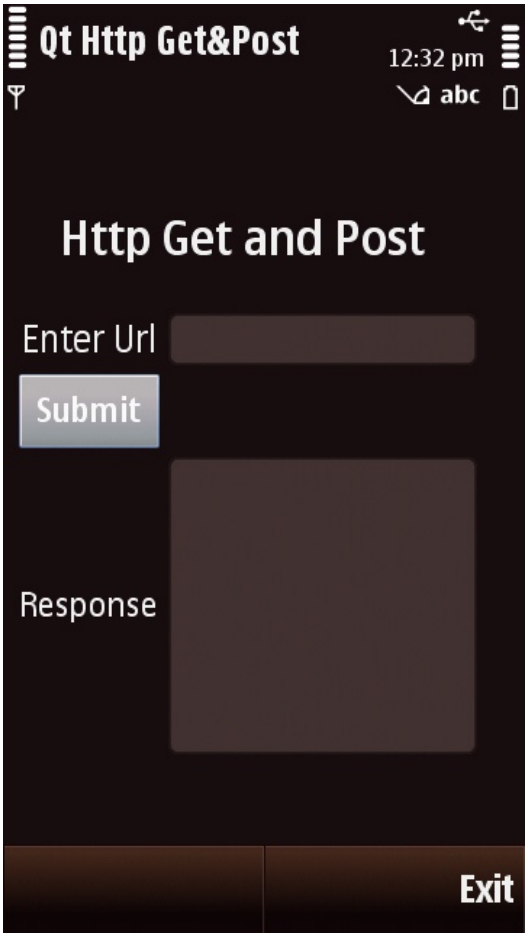

- **Screenshot after user has clicked the post button**.

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Sample Application

- A sample Qt Application can be downloaded from this File:HttpGet&Post.zip

Reference Links

- QNetworkAccessManager
- See also HTTP Example

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