

1. Create a new Qt GUI Application project.
2. Add a new Label and Push Button in the form.
3. Do the rest with writing the program:

mainwindow.cpp:

```
#include "mainwindow.h"
#include "ui_mainwindow.h"
#include <QFileDialog>
#include <QMessageBox>
#include <opencv2/highgui/highgui.hpp>
#include <opencv2/imgproc/imgproc.hpp>
#include <opencv/cv.h>
#include <opencv/highgui.h>
#include <QPixmap>
#include <QString>
```

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

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

```
//Open image function call
void MainWindow::openImage()
{
    //declare FileOpName as the choosen opened file name
    FileOpName = QFileDialog::getOpenFileName(this,
                                                tr("Open File"), QDir::currentPath(),tr("Image Files (*.png *.jpg *.jpeg
*.bmp)"));

    //Check if FileOpName exist or not
    if (!FileOpName.isEmpty()) {
        QImage image(FileOpName);
        if (image.isNull()) {
            QMessageBox::information(this, tr("Face Recognition"),
                                     tr("Cannot load %1.").arg(FileOpName));

            return;
        }
    }
    //function to load the image whenever fName is not empty
    if( FileOpName.size() )
```

```

    {
        imagerd = cvLoadImage(FileOpName.toAscii().data());
        QImage imageView = QImage((const unsigned char*)(imagerd->imageData), imagerd-
>width,imagerd->height,QImage::Format_RGB888).rgbSwapped();
        ui->label->setPixmap(QPixmap::fromImage(imageView));
    }
}

```

```

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

```

```

void MainWindow::on_pushButton_clicked()
{
    openImage();
}

```

```

main.cpp:
#include <QtGui/QApplication>
#include "mainwindow.h"

```

```

int main(int argc, char *argv[])
{
    QApplication a(argc, argv);
    MainWindow w;
    w.show();
    return a.exec();
}

```

```

mainwindow.h:
#ifndef MAINWINDOW_H
#define MAINWINDOW_H

#include <QMainWindow>
#include <opencv/cv.h>
#include <opencv2/imgproc/imgproc.hpp>
#include <opencv/highgui.h>
#include <QFileDialog>

namespace Ui {
    class MainWindow;
}

```

```

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

protected:
    void changeEvent(QEvent *e);
    QString FileOpName; //declare FileOpName as IplImage
    IplImage* imagerd; //declare imagerd as IplImage

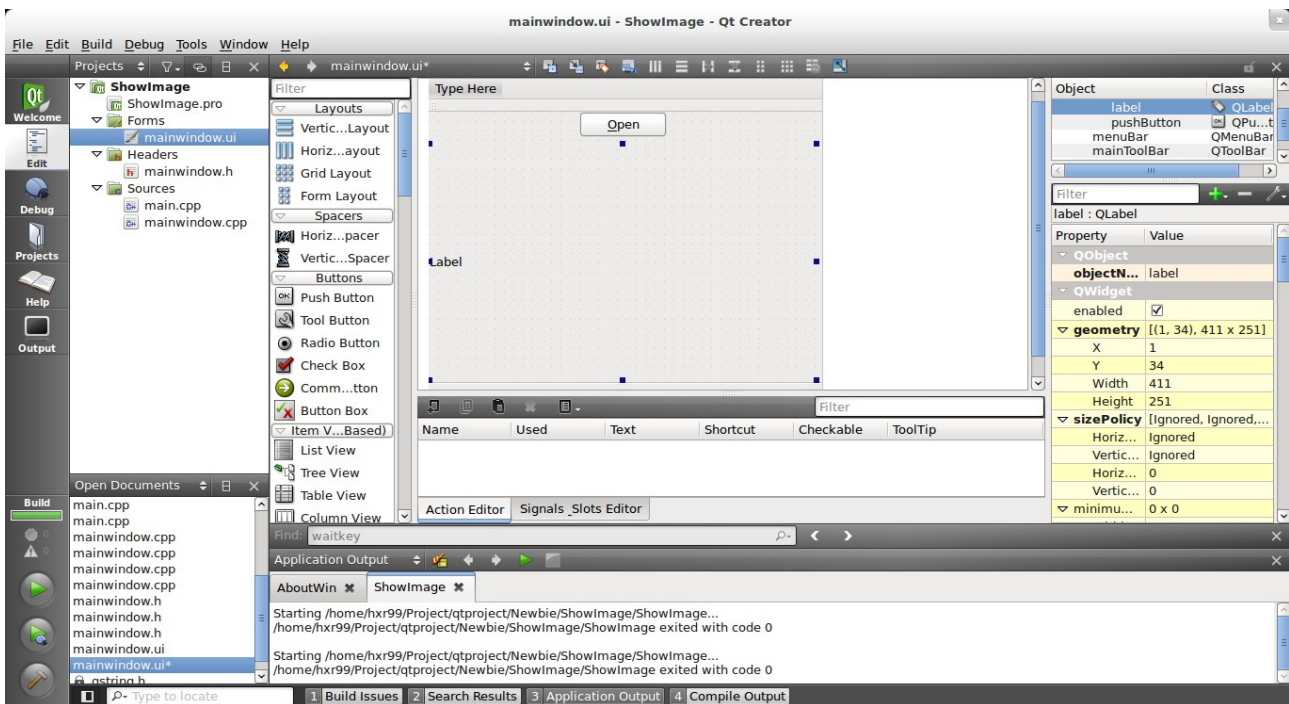
private slots:
    void on_pushButton_clicked();
    void openImage(); //add a new openImage function to the project

private:
    Ui::MainWindow *ui;
};

#endif // MAINWINDOW_H

```

The mainwindow.ui:



The output program:

