

# Guide of Can304 Group Project Code

## 1. Files Introduction

This package consists of three python files

1. **can304.py**:Code of algorithms for encryption and decryption
2. **main.py**:Starter of the program
3. **mainwindow.py**:User interface

## 2. How to run the code

### 2.1 Environment and Packages

Python3, sys, QApplication, QMainWindow, QtCore, QtGui, QtWidgets

### 2.2 Download Packages

In order to have a GUI, the necessary packages are required, the installation command are list as follow, you can download them in the terminal

```
❏ pip3 install PyQt5 -i https://pypi.douban.com/simple ❏
```

```
❏ pip3 install PyQt5-tools -i https://pypi.douban.com/simple ❏
```

### 2.3 Open main.py

Click run in the IDE, the GUI should be showed

### 2.4 Input plaintext and key on the left

If either plaintext or key is empty, encryption function will be invalid

### 2.5 Click Encryption to encrypt the plaintext

After clicking, the cipher will appear on the right

### 2.6 Click Decryption to decrypt the cipher

After clicking, the original plaintext will appear on the right

## 3. Some Testing Cases for Validation

PlainText	Key	Cipher
HelloBob	Crypto	O0Q3Q3W2O2X0W1R3
CAN304	xjtlu	921232400070
CAN304	ilove	03;181:0;030
nihao	shijie	f0d111g0a1

## 4. Note

The code was completed in a short time since the topic was chosen late. Therefore, the programme could have some bugs, we are happy to revise the code to fix bugs later.

Thanks for watching, Good Luck & Have Fun!