

# KeyTool Configuration and Generation

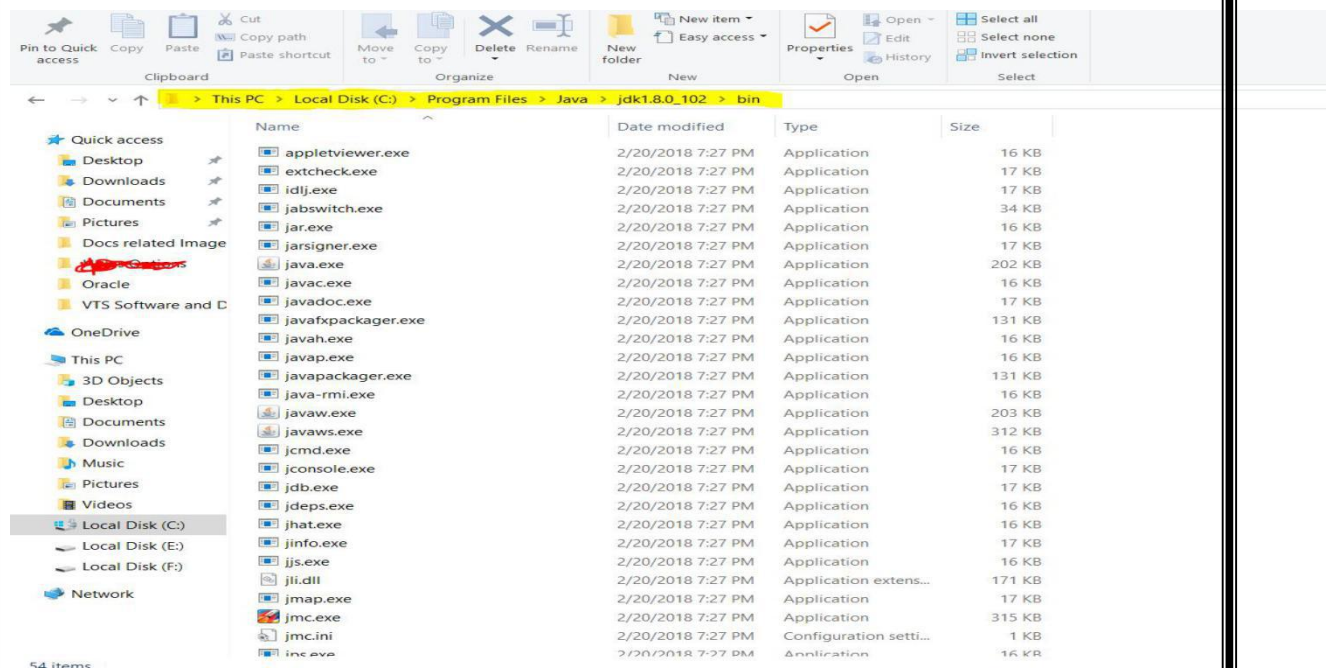
## Configuration:

### 1. Install Java JDK (any version) :

- a) You can find JDK from here to Download :
  - i. <https://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html>
  - ii. Download JDK According to your Desired Operating System.

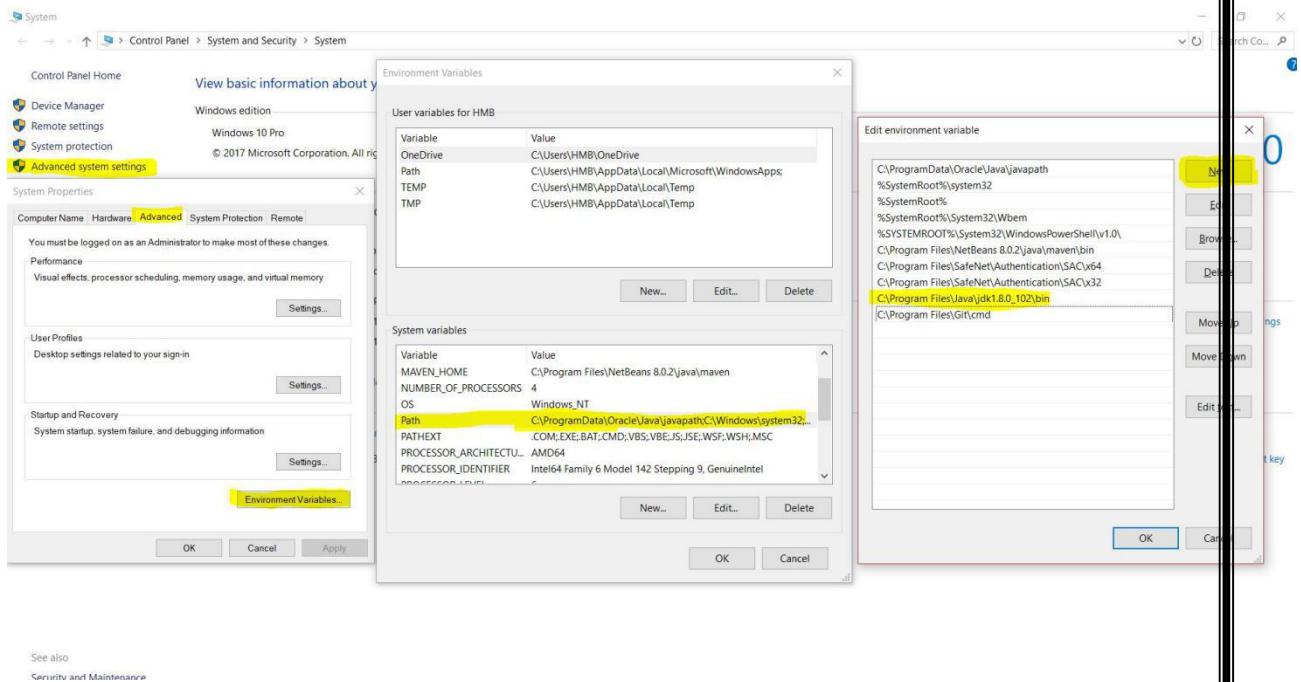
### 2. Set Class path of Java in your System Environment Variable :

- a) Pick jdk path where you installed.
- b) **Like:** Copy Yellow High lighted Path from your computer



### c) Open Environment Variable Settings :

- i. Open My computer/This PC Properties in Windows
- ii. Open **Advance System Settings**
- iii. Select **Advance Tab**
- iv. Click **Environment Variables..** Button
- v. Find the **path** from bottom area of window
- vi. Open **path**
- vii. Press **new Button**
- viii. **Paste** Your **path** here which you have copied before
- ix. Press **OK** to finalize your configuration
- x. **Restart** Your System
- xi. **Example :** Find the **High Lighted** to continue your setting



### 3. CMD:

- a) Must Open CMD as Administrator
- b) Start your Certificate Generation.

### Certificate Generation:

#### 4. Keytool Checking

- a) Type **keytool** in cmd
- b) You will find all the tags of keytool to generate certificate
- c) If Keytool appear any **error**, then make sure you have **installed JDK** and **Class path** is correct.

#### 5. Generating and Deleting Certificate :

##### a) Command to Generate Certificate:

i. **keytool -genkey -keyalg RSA -alias testCertificate -keystore selfsigned.jks -validity 365 -keysize 2048**

1. Enter keystore password:
2. Re-enter new password:
3. What is your first and last name?
4. What is the name of your organizational unit?
5. What is the name of your organization?
6. What is the name of your City or Locality?
7. What is the name of your State or Province?
8. What is the two-letter country code for this unit?

##### b) Command to Check Certificate :

i. **keytool -list -v -keystore selfsigned.jks**

1. To check list of your Certificate which is created.

##### c) Command to Delete Certificate :

i. **keytool -delete -alias testCertificate -keystore selfsigned.jks**

1. Enter keystore password:

##### d) Command to Export Certificate :

i. **keytool -export -alias dummyTest -file mydomain.crt -keystore selfsigned.jks**

# Commands

## Commands for Creating and Importing:

### **Generate a Java keystore and key pair**

```
keytool -genkey -alias mydomain -keyalg RSA -keystore keystore.jks -keysize 2048
```

### **Generate a certificate signing request (CSR) for an existing Java keystore**

```
keytool -certreq -alias mydomain -keystore keystore.jks -file mydomain.csr
```

### **Import a root or intermediate CA certificate to an existing Java keystore**

```
keytool -import -trustcacerts -alias root -file Thawte.crt -keystore keystore.jks
```

### **Import a signed primary certificate to an existing Java keystore**

```
keytool -import -trustcacerts -alias mydomain -file mydomain.crt -keystore keystore.jks
```

### **Generate a keystore and self-signed certificate**

```
keytool -genkey -keyalg RSA -alias selfsigned  
-keystore keystore.jks -storepass password -validity 360 -keysize 2048
```

## Java Keytool Commands for Checking:

### **Check a stand-alone certificate**

```
keytool -printcert -v -file mydomain.crt
```

### **Check which certificates are in a Java keystore**

```
keytool -printcert -v -file mydomain.crt
```

### **Check a particular keystore entry using an alias**

```
keytool -list -v -keystore keystore.jks -alias mydomain
```

## Other Java Keytool Commands:

### **Delete a certificate from a Java Keytool keystore**

```
keytool -delete -alias mydomain -keystore keystore.jks
```

### **Change a Java keystore password**

```
keytool -storepasswd -new new_storepass -keystore keystore.jks
```

### **Export a certificate from a keystore**

```
keytool -export -alias mydomain -file mydomain.crt -keystore keystore.jks
```

### **List Trusted CA Certs**

```
keytool -list -v -keystore $JAVA_HOME/jre/lib/security/cacerts
```

### **Import New CA into Trusted Certs**

```
keytool -import -trustcacerts -file /path/to/ca/ca.pem -alias CA_ALIAS -keystore  
$JAVA_HOME/jre/lib/security/cacerts
```