Final Year B. Tech., Sem VII 2022-23

Cryptography And Network Security

PRN/ Roll No: 2020BTECS00206
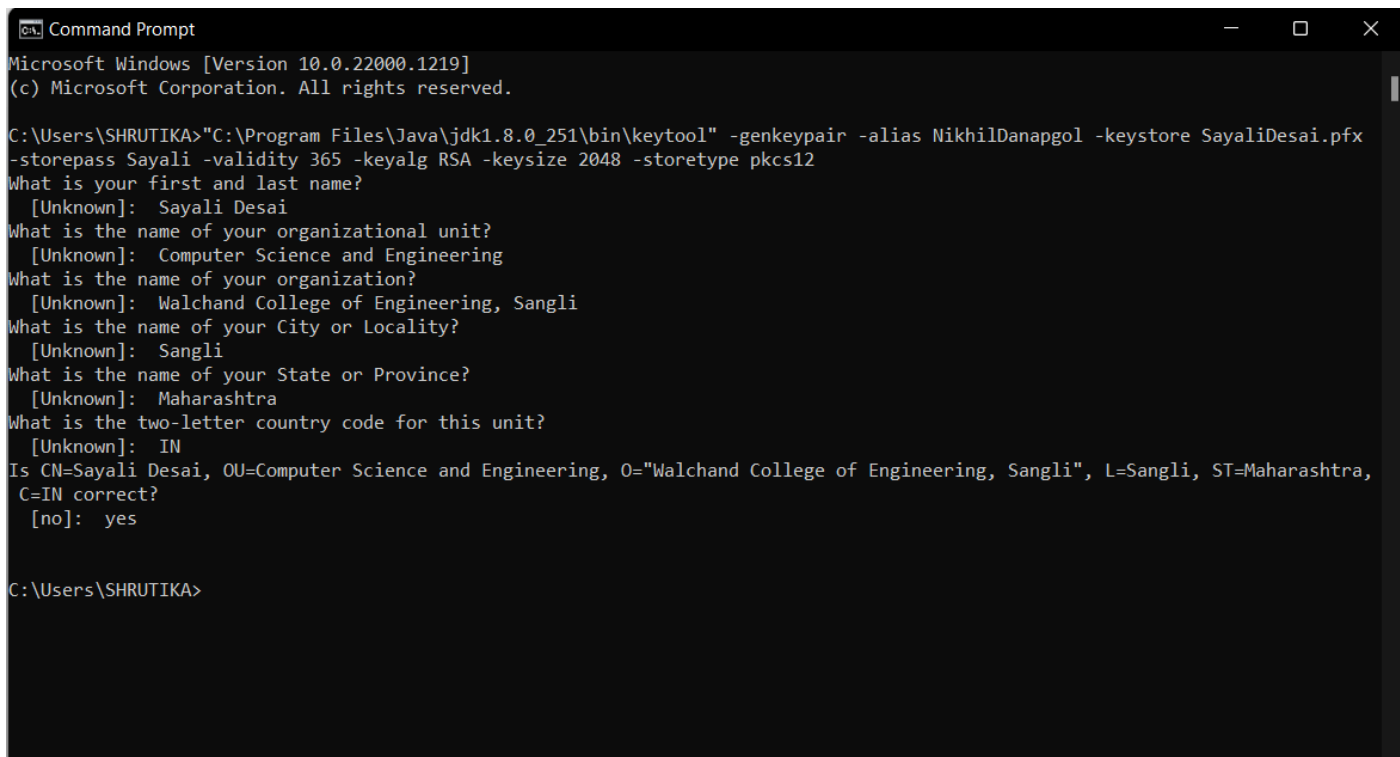
Full Name: SAYALI YOGESH DESAI

Batch: B4

Assignment No. 14

---

1. **Aim:**
   Create Digital Certificate

2. **Code:**
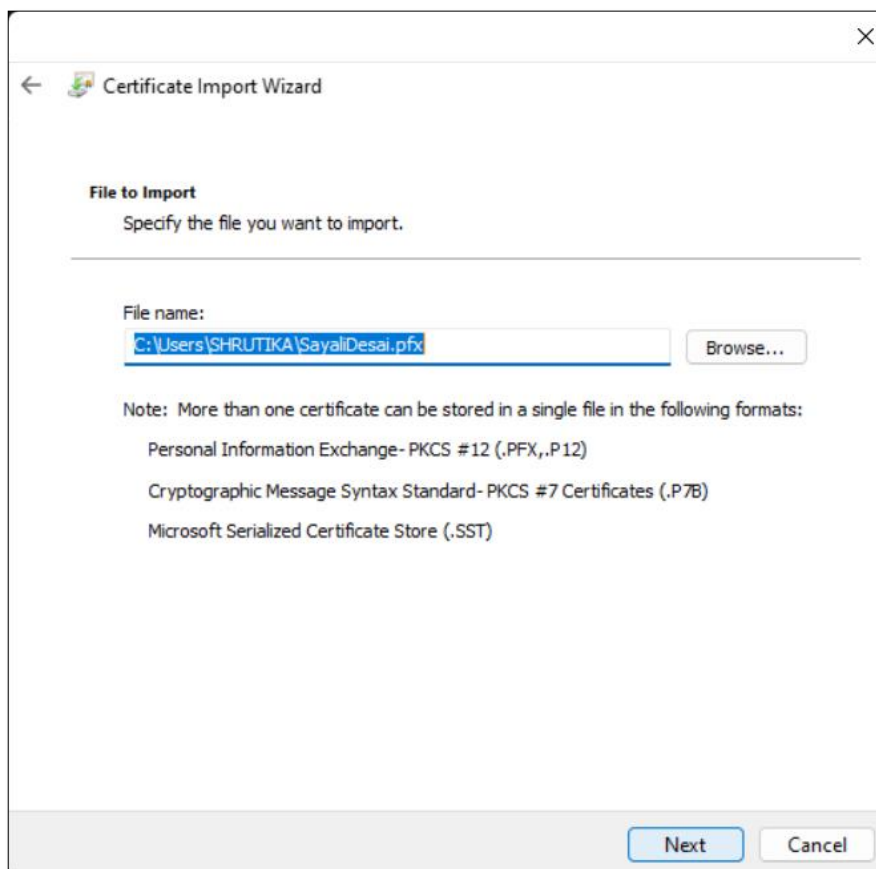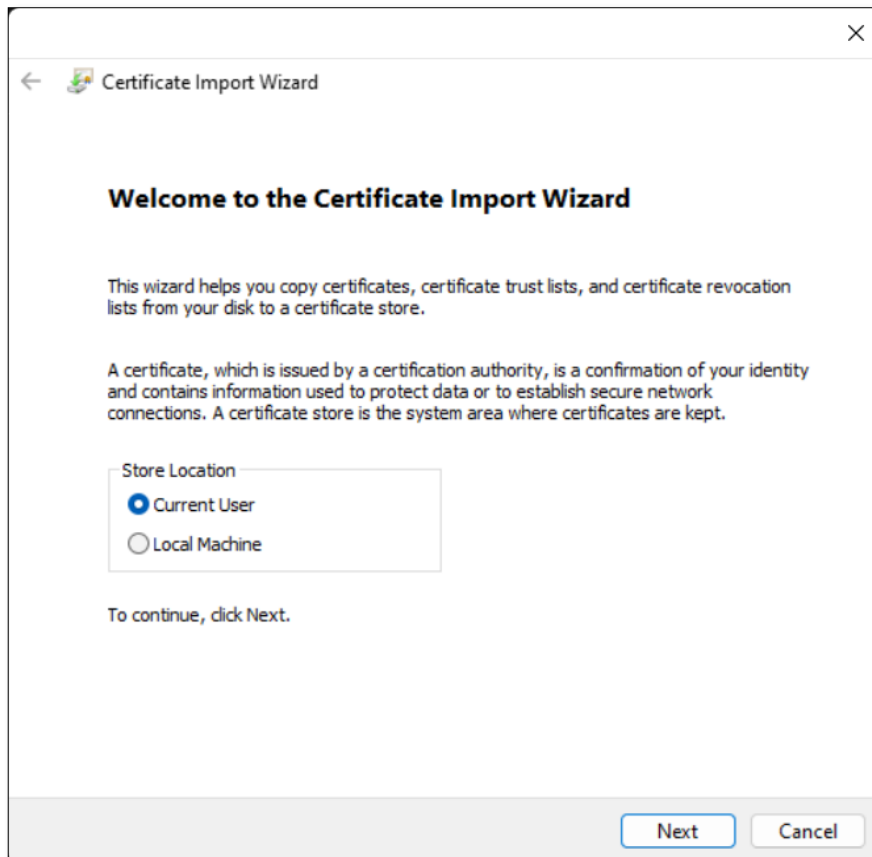
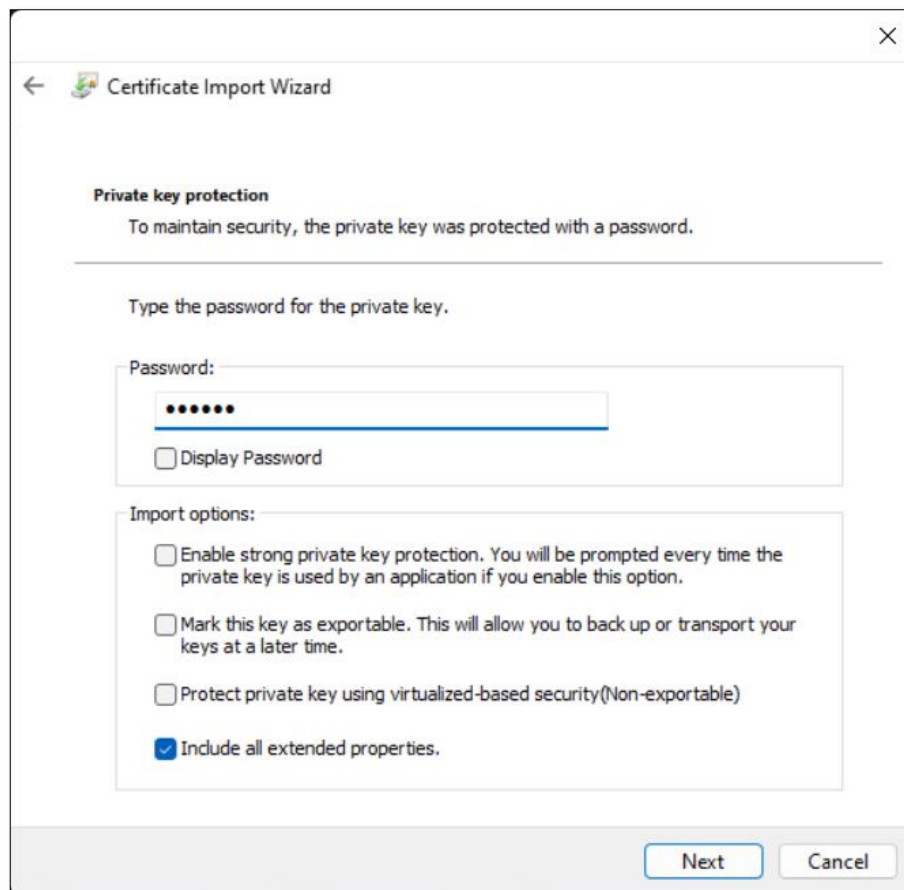```
Command Prompt   —   □   ×

Microsoft Windows [Version 10.0.22000.1219]
(c) Microsoft Corporation. All rights reserved.

C:\Users\SHRUTIKA>"C:\Program Files\Java\jdk1.8.0_251\bin\keytool" -genkeypair -alias NikhilDanapgol -keystore SayaliDesai.pfx
-storepass Sayali -validity 365 -keyalg RSA -keysize 2048 -storetype pkcs12
What is your first and last name?
  [Unknown]: Sayali Desai
What is the name of your organizational unit?
  [Unknown]: Computer Science and Engineering
What is the name of your organization?
  [Unknown]: Walchand College of Engineering, Sangli
What is the name of your City or Locality?
  [Unknown]: Sangli
What is the name of your State or Province?
  [Unknown]: Maharashtra
What is the two-letter country code for this unit?
  [Unknown]: IN
Is CN=Sayali Desai, OU=Computer Science and Engineering, O="Walchand College of Engineering, Sangli", L=Sangli, ST=Maharashtra,
 C=IN correct?
  [no]: yes

C:\Users\SHRUTIKA>
```

×

← Certificate Import Wizard

## Welcome to the Certificate Import Wizard

This wizard helps you copy certificates, certificate trust lists, and certificate revocation lists from your disk to a certificate store.

A certificate, which is issued by a certification authority, is a confirmation of your identity and contains information used to protect data or to establish secure network connections. A certificate store is the system area where certificates are kept.

Store Location
- ● Current User
- ○ Local Machine

To continue, click Next.

Next    Cancel

×

← Certificate Import Wizard

**File to Import**
Specify the file you want to import.

File name:
C:\Users\SHRUTIKA\SayaliDesai.pfx    Browse...

Note: More than one certificate can be stored in a single file in the following formats:

Personal Information Exchange- PKCS #12 (.PFX,.P12)

Cryptographic Message Syntax Standard- PKCS #7 Certificates (.P7B)

Microsoft Serialized Certificate Store (.SST)

Next    Cancel

Certificate Import Wizard

**Private key protection**
To maintain security, the private key was protected with a password.
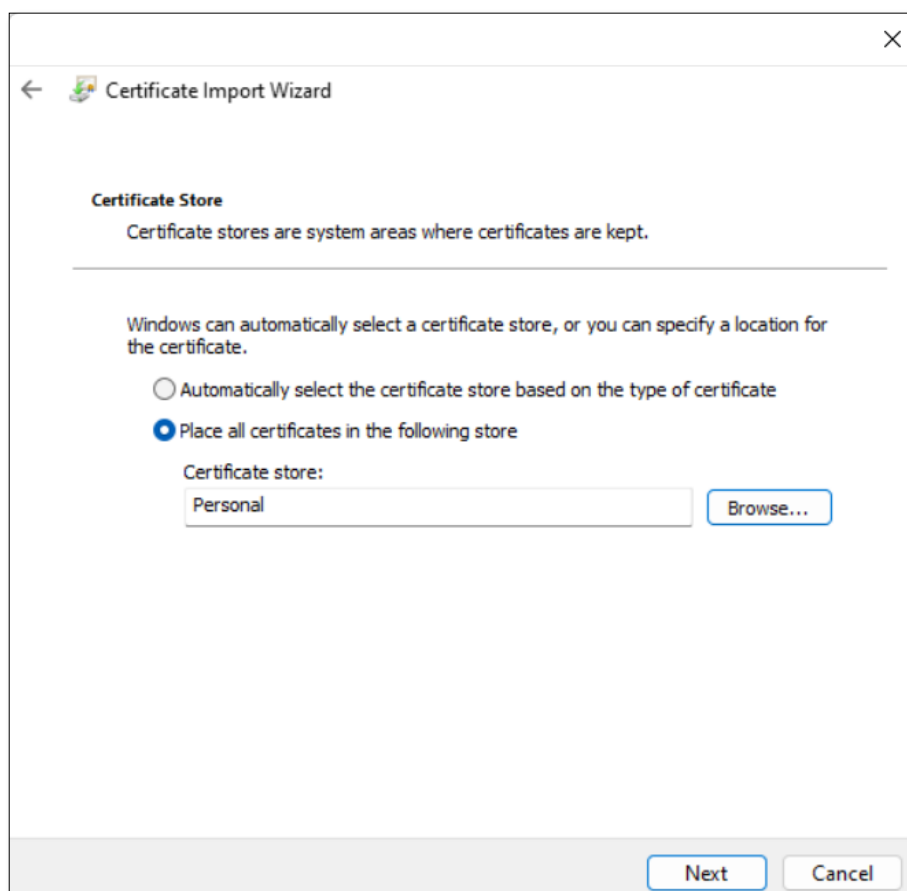
Type the password for the private key.

Password:

●●●●●●

☐ Display Password

Import options:

☐ Enable strong private key protection. You will be prompted every time the private key is used by an application if you enable this option.

☐ Mark this key as exportable. This will allow you to back up or transport your keys at a later time.

☐ Protect private key using virtualized-based security(Non-exportable)

☑ Include all extended properties.

[ Next ]   [ Cancel ]
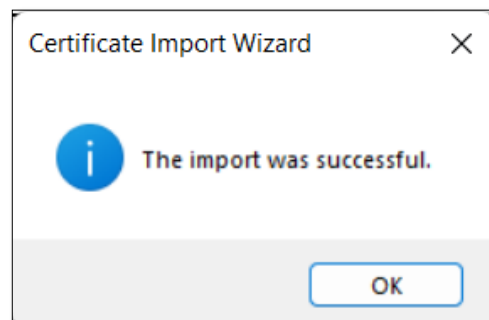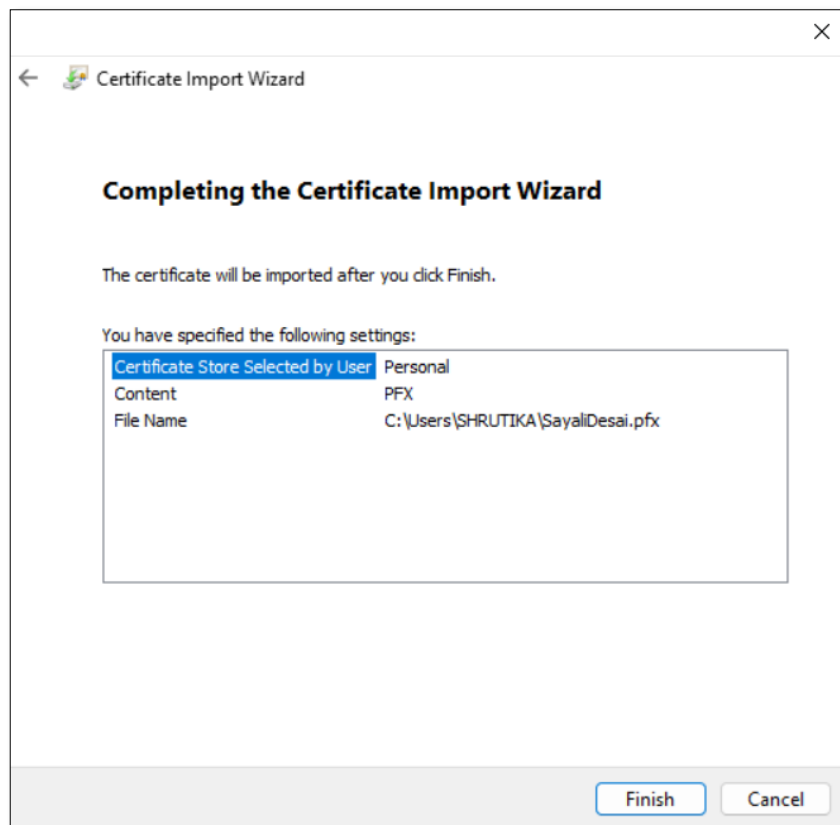
---

Certificate Import Wizard

**Certificate Store**
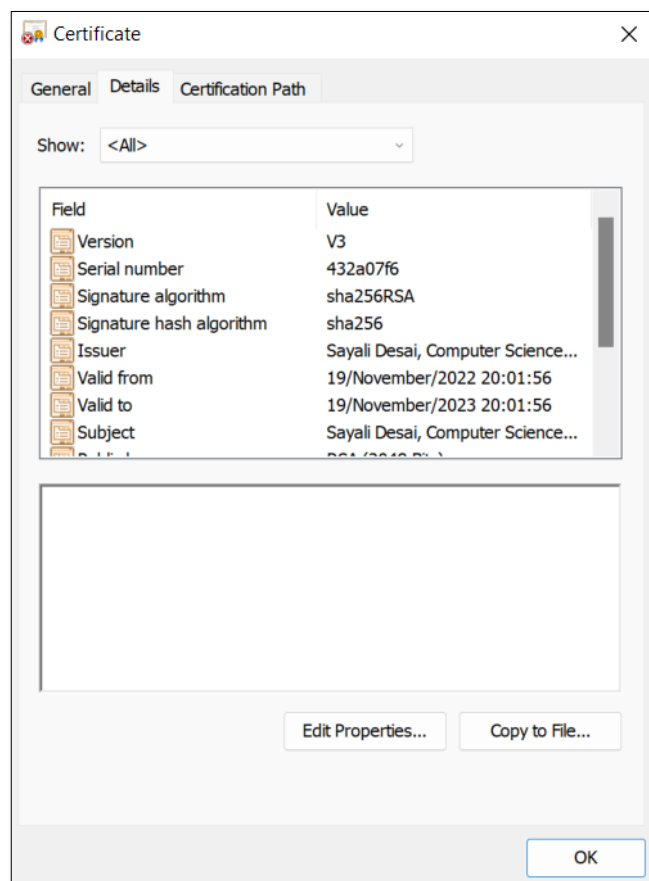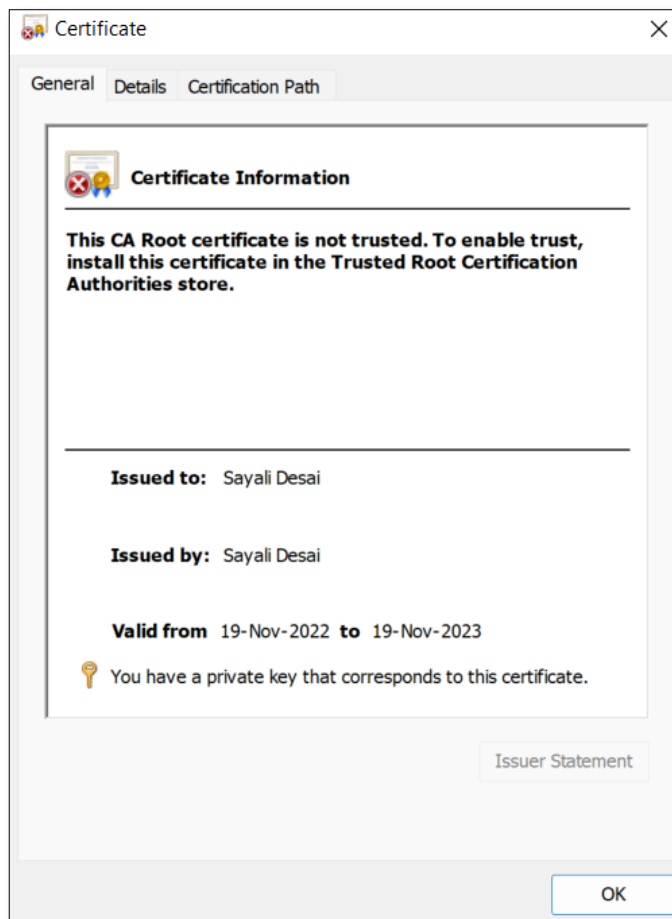Certificate stores are system areas where certificates are kept.

Windows can automatically select a certificate store, or you can specify a location for the certificate.
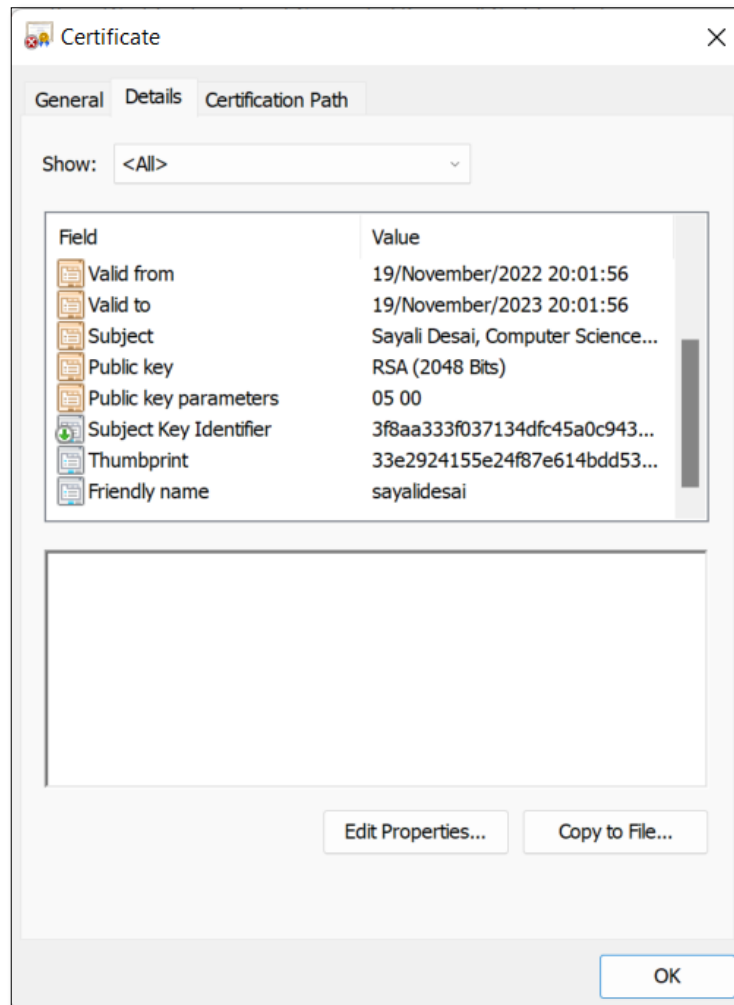
○ Automatically select the certificate store based on the type of certificate

● Place all certificates in the following store

Certificate store:

Personal                                    [ Browse... ]

[ Next ]   [ Cancel ]

## Certificate

**General** | Details | Certification Path

### Certificate Information

**This CA Root certificate is not trusted. To enable trust, install this certificate in the Trusted Root Certification Authorities store.**

**Issued to:** Sayali Desai

**Issued by:** Sayali Desai

**Valid from** 19-Nov-2022 **to** 19-Nov-2023

🔑 You have a private key that corresponds to this certificate.

Issuer Statement

OK

## Certificate

General | **Details** | Certification Path

Show: <All>

| Field | Value |
|---|---|
| Version | V3 |
| Serial number | 432a07f6 |
| Signature algorithm | sha256RSA |
| Signature hash algorithm | sha256 |
| Issuer | Sayali Desai, Computer Science... |
| Valid from | 19/November/2022 20:01:56 |
| Valid to | 19/November/2023 20:01:56 |
| Subject | Sayali Desai, Computer Science... |

Edit Properties...    Copy to File...

OK

### 3. Conclusion:

Successfully created digital certificate named Sayali.