

KeyStoreA

Create StoreA

Create self-signed-certificate and export this cert

```
C:\Users\moshe\Desktop\KeyStoreCryptoProject\keyStore_Submission>keytool -genkeypair -alias storeA -keysize 2048 -storetype PKCS12 -dname "CN=storeA,C=IL" -validity 365 -keystore storeA/storeA.keystore
Enter keystore password:
Re-enter new password:

C:\Users\moshe\Desktop\KeyStoreCryptoProject\keyStore_Submission>keytool -certreq -alias storeA -file storeA/storeAcert.csr -storetype PKCS12 -keystore storeA/storeA.keystore
Enter keystore password:

C:\Users\moshe\Desktop\KeyStoreCryptoProject\keyStore_Submission>keytool -exportcert -file storeA/storeAcert.csr -keystore storeA/storeA.keystore -alias storeA
Enter keystore password:
Certificate stored in file <storeA/storeAcert.csr>

C:\Users\moshe\Desktop\KeyStoreCryptoProject\keyStore_Submission>
```

Import the self-signed-cert to keyStoreB StoreB (trusted-cert)

```
C:\Users\moshe\Desktop\KeyStoreCryptoProject\keyStore_Submission>keytool -importcert -v -trustcacerts -alias storeB -file storeB/storeBcert.csr -keystore storeA/storeA.keystore
Enter keystore password:
Owner: CN=storeB, C=IL
Issuer: CN=storeB, C=IL
Serial number: 3f7953ab
Valid from: Tue Jan 31 14:17:54 IST 2023 until: Wed Jan 31 14:17:54 IST 2024
Certificate fingerprints:
    MD5: 6D:1A:53:9F:31:37:A1:C3:72:9C:99:95:77:E1:24:92
    SHA1: 1E:AF:8A:DB:00:3E:9D:28:AB:5C:B4:BE:34:B7:28:C9:68:AD:F1:CF
    SHA256: 5D:06:3B:B5:66:B9:C5:0A:A2:5C:63:16:EE:40:70:EE:5E:B8:F2:8A:8C:0E:69:C5:D1:4A:15:D6:20:A8:1F:DF
Signature algorithm name: SHA256withRSA
Subject Public Key Algorithm: 2048-bit RSA key
Version: 3

Extensions:
#1: ObjectId: 2.5.29.14 Criticality=false
SubjectKeyIdentifier [
KeyIdentifier [
0000: F2 08 13 11 65 42 55 CC 49 5F 63 35 65 FE 08 85 ....eBU.I_c5e...
0010: 3E 43 34 06 >C4.
]
]

Trust this certificate? [no]: yes
Certificate was added to keystore
[Storing storeA/storeA.keystore]
```

Checking the entry to the keyStore

```
C:\Users\moshe\Desktop\KeyStoreCryptoProject\keyStore_Submission>keytool -list -keystore storeA/storeA.keystore
Enter keystore password:
Keystore type: JKS
Keystore provider: SUN

Your keystore contains 2 entries

storea, Jan 31, 2023, PrivateKeyEntry,
Certificate fingerprint (SHA1): AB:29:7C:BA:6A:9F:1B:E9:AC:E3:19:05:AC:C6:07:CE:08:1B:34:4F
storeb, Jan 31, 2023, trustedCertEntry,
Certificate fingerprint (SHA1): 1E:AF:8A:DB:00:3E:9D:28:AB:5C:B4:BE:34:B7:28:C9:68:AD:F1:CF
```

KeyStoreB

Create StoreB

Create self-signed-certificate and export this cert

```
C:\Users\moshe\Desktop\KeyStoreCryptoProject\keyStore_Submission>keytool -genkeypair -alias storeB -keysize 2048 -storetype PKCS12 -dname "CN=storeB,C=IL" -validity 365 -keyalg RSA -keystore storeB/storeB.keystore
Enter keystore password:
Re-enter new password:

C:\Users\moshe\Desktop\KeyStoreCryptoProject\keyStore_Submission>keytool -certreq -alias storeB -file storeB/storeBcert.csr -storetype PKCS12 -keystore storeB/storeB.keystore
Enter keystore password:

C:\Users\moshe\Desktop\KeyStoreCryptoProject\keyStore_Submission>keytool -exportcert -file storeB/storeBcert.csr -keystore storeB/storeB.keystore -alias storeB
Enter keystore password:
Certificate stored in file <storeB/storeBcert.csr>

C:\Users\moshe\Desktop\KeyStoreCryptoProject\keyStore_Submission>
```

Import the self-signed-cert to keyStoreB StoreA (trusted-cert)

```
[Storing storeA/storeA.keystore]

C:\Users\moshe\Desktop\KeyStoreCryptoProject\keyStore_Submission>keytool -importcert -v -trustcacerts -alias storeA -file storeA/storeAcert.csr -keystore storeB/storeB.keystore
Enter keystore password:
Owner: CN=storeA, C=IL
Issuer: CN=storeA, C=IL
Serial number: 7ddb4c18
Valid from: Tue Jan 31 14:13:09 IST 2023 until: Wed Jan 31 14:13:09 IST 2024
Certificate fingerprints:
    MD5: BA:8E:6B:4B:96:56:47:A0:B9:1F:EE:6C:D0:92:9D:31
    SHA1: AB:29:7C:BA:6A:9F:1B:E9:AC:E3:19:05:AC:C6:07:CE:08:1B:34:4F
    SHA256: 35:E2:32:34:88:DE:74:2F:FE:20:DE:1E:44:BC:82:4D:EC:80:48:FB:F7:FA:5A:6F:8B:4B:0E:90:10:AC:AE:41
Signature algorithm name: SHA256withRSA
Subject Public Key Algorithm: 2048-bit RSA key
Version: 3

Extensions:
#1: ObjectId: 2.5.29.14 Criticality=false
SubjectKeyIdentifier [
KeyIdentifier [
0000: 18 D7 2A 2E C1 CE E4 AD A1 0B C6 C1 15 F2 CD CA ..*.....
0010: F2 22 BC 1F .....".
]
]

Trust this certificate? [no]: yes
Certificate was added to keystore
[Storing storeB/storeB.keystore]

C:\Users\moshe\Desktop\KeyStoreCryptoProject\keyStore_Submission>
```

Checking the entry to the keyStorey

```
C:\Users\moshe\Desktop\KeyStoreCryptoProject\keyStore_Submission>keytool -list -keystore storeB/storeB.keystore
Enter keystore password:
Keystore type: JKS
Keystore provider: SUN

Your keystore contains 2 entries

storeb, Jan 31, 2023, PrivateKeyEntry,
Certificate fingerprint (SHA1): 1E:AF:8A:DB:00:3E:9D:28:AB:5C:B4:BE:34:B7:28:C9:68:AD:F1:CF
storea, Jan 31, 2023, trustedCertEntry,
Certificate fingerprint (SHA1): AB:29:7C:BA:6A:9F:1B:E9:AC:E3:19:05:AC:C6:07:CE:08:1B:34:4F

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```

