

Walchand College Of Engineering, Sangli
Department of Computer Science and Engineering
Subject: C&NS Lab

Batch: B4

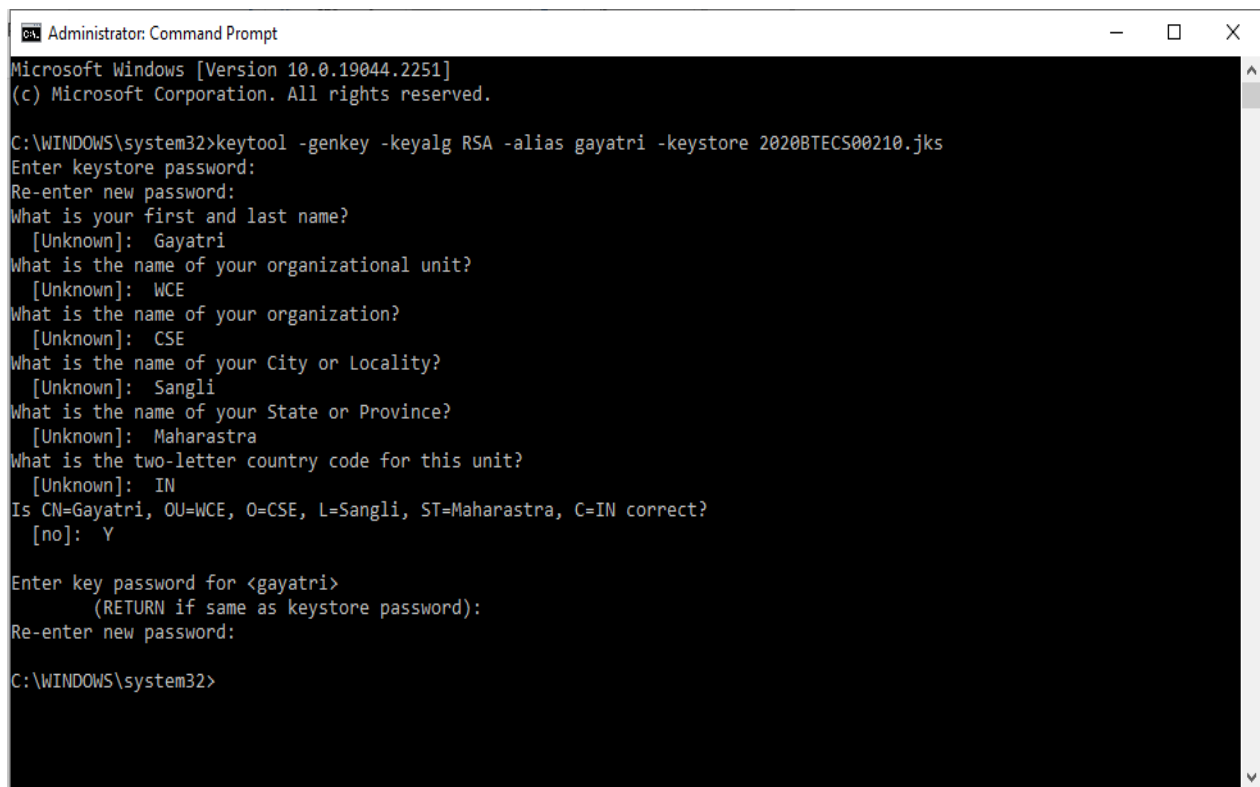
Name: Gayatri Sopan Gade

PRN:2020BTECS00210

Title: Generation of Digital Certificate

Theory:

- Generation of digital certificate using **java key tool and key store utilities** or by using **open SSL**



```
Administrator: Command Prompt
Microsoft Windows [Version 10.0.19044.2251]
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C:\WINDOWS\system32>keytool -genkey -keyalg RSA -alias gayatri -keystore 2020BTECS00210.jks
Enter keystore password:
Re-enter new password:
What is your first and last name?
  [Unknown]: Gayatri
What is the name of your organizational unit?
  [Unknown]: WCE
What is the name of your organization?
  [Unknown]: CSE
What is the name of your City or Locality?
  [Unknown]: Sangli
What is the name of your State or Province?
  [Unknown]: Maharastra
What is the two-letter country code for this unit?
  [Unknown]: IN
Is CN=Gayatri, OU=WCE, O=CSE, L=Sangli, ST=Maharastra, C=IN correct?
  [no]: Y

Enter key password for <gayatri>
  (RETURN if same as keystore password):
Re-enter new password:

C:\WINDOWS\system32>
```

```

Administrator: Command Prompt
C:\WINDOWS\system32>keytool -v -list -keystore 2020BTECS00210.jks
Enter keystore password:

Keystore type: JKS
Keystore provider: SUN

Your keystore contains 1 entry

Alias name: gayatri
Creation date: Dec 1, 2022
Entry type: PrivateKeyEntry
Certificate chain length: 1
Certificate[1]:
Owner: CN=Gayatri, OU=MCE, O=CSE, L=Sangli, ST=Maharashtra, C=IN
Issuer: CN=Gayatri, OU=MCE, O=CSE, L=Sangli, ST=Maharashtra, C=IN
Serial number: 57924153
Valid from: Thu Dec 01 22:34:09 IST 2022 until: Wed Mar 01 22:34:09 IST 2023
Certificate fingerprints:
    MD5: 24:6B:7B:D2:E0:24:8E:97:64:C3:7B:35:01:94:15:F7
    SHA1: 72:4F:9C:C9:A1:D4:84:47:4B:E7:CC:B6:7A:BF:E5:CF:CC:AE:83:46
    SHA256: 4C:6F:F0:8A:E5:95:B0:59:AE:3C:A7:86:73:19:8B:B3:17:68:BA:C1:0D:2F:59:84:47:D2:22:23:50:56:CB:36
Signature algorithm name: SHA256withRSA
Version: 3

Extensions:

#1: ObjectId: 2.5.29.14 Criticality=false
SubjectKeyIdentifier [
KeyIdentifier [
0000: BE E8 2C 23 2C CE 6C 13   5C 1E 6D C9 72 2D B4 66   ...,.,1.\.m.r.-.f
0010: E0 1D 72 9D               ..r.
]
]

*****
*****

C:\WINDOWS\system32>keytool -export -alias gayatri -keystore 2020BTECS00210cer.cer -keystore 2020BTECS00210.jks
Enter keystore password:

```

