

Setting environment for using XAMPP for Windows.

```
hp@Mohsin c:\xampp #
```

```
cd apache
```

```
hp@Mohsin c:\xampp\apache
```

```
# openssl genrsa -out server.key 2048
```

```
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```

```
# openssl req -new -key server.key -out server.csr
```

You are about to be asked to enter information that will be incorporated into your certificate request.

What you are about to enter is what is called a Distinguished Name or a DN.

There are quite a few fields but you can leave some blank

For some fields there will be a default value,

If you enter '.', the field will be left blank.

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Country Name (2 letter code) [AU]:AU

State or Province Name (full name) [Some-State]:MH

Locality Name (eg, city) []:Tokoyo

Organization Name (eg, company) [Internet Widgits Pty Ltd]:Google

Organizational Unit Name (eg, section) []:IT

Common Name (e.g. server FQDN or YOUR name) []:John

Email Address []:john@gmail.com

Please enter the following 'extra' attributes

to be sent with your certificate request

A challenge password []:1234

An optional company name []:Microsoft

```
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```

```
# openssl x509 -req -days 365 -in server.csr -signkey server.key -out server.crt
```

Certificate request self-signature ok

subject=C = AU, ST = MH, L = Tokoyo, O = Google, OU = IT, CN = John, emailAddress = john@gmail.com

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# openssl x509 -in server.crt -text -noout

Certificate:

Data:

Version: 1 (0x0)

Serial Number:

6a:10:72:f5:7c:07:10:21:be:48:b9:02:ca:91:a4:82:dd:8c:c2:84

Signature Algorithm: sha256WithRSAEncryption

Issuer: C = AU, ST = MH, L = Tokoyo, O = Google, OU = IT, CN = John, emailAddress = john@gmail.com

Validity

Not Before: Apr 12 05:31:32 2025 GMT

Not After : Apr 12 05:31:32 2026 GMT

Subject: C = AU, ST = MH, L = Tokoyo, O = Google, OU = IT, CN = John, emailAddress = john@gmail.com

Subject Public Key Info:

Public Key Algorithm: rsaEncryption

Public-Key: (2048 bit)

Modulus:

00:cf:b3:c8:7b:88:a8:d8:ba:46:ca:6d:a0:0c:c0:  
c8:b4:47:2e:2c:be:d0:3d:ca:04:4e:2a:e8:63:76:  
64:30:c5:97:c7:cd:e2:08:5d:8c:d5:90:dc:ee:a1:  
dc:83:8c:f0:e4:0b:65:f5:2a:18:9b:c2:c3:55:9e:  
9d:ba:2e:65:bb:2b:05:7e:e7:84:63:f6:08:33:50:  
82:e1:5c:df:1d:d7:01:97:6b:b1:41:c2:14:4c:d3:  
d6:5a:8b:7b:67:01:22:4d:2e:07:40:69:f1:e0:d6:  
c1:0e:aa:52:14:6e:c5:d5:c4:8b:b4:fc:3a:e7:a9:  
29:3d:da:e6:84:bc:27:4d:15:e1:87:56:aa:63:9c:

76:50:8c:c2:ce:52:2c:5d:be:65:d9:20:af:ab:e1:  
e3:00:c8:1e:76:5f:53:fe:c8:79:9c:70:0c:19:71:  
11:dc:a1:9f:54:d8:fe:0a:60:6c:9f:ac:c9:08:f3:  
7a:14:ca:92:ea:01:1d:7e:e6:81:b1:f4:99:88:14:  
3d:d1:fa:76:8e:69:1a:78:e2:c1:cf:85:78:ac:bf:  
d6:ca:bf:10:e8:fc:69:81:31:f0:b5:84:a5:87:aa:  
fc:fd:f4:42:a3:82:ab:44:42:85:f5:38:dd:42:e7:  
e2:98:bd:73:3f:5c:0f:20:7b:81:8c:fe:aa:c0:4d:  
0b:e3

Exponent: 65537 (0x10001)

Signature Algorithm: sha256WithRSAEncryption

Signature Value:

14:77:c7:97:1e:00:dc:a1:88:96:eb:69:b8:67:47:a1:21:22:  
5a:af:6a:47:7d:4a:cb:bb:84:2b:39:1b:b2:6a:43:b4:6f:e6:  
58:94:c7:85:c2:d5:00:e2:3e:69:91:62:7a:09:6b:6f:29:91:  
fe:21:7c:c4:0e:2f:5c:00:75:55:ba:e8:87:b3:a5:e5:4b:e4:  
4a:82:e1:3a:15:b8:c4:54:75:d9:b2:bc:1e:ae:2f:35:ab:ab:  
6e:dc:84:60:00:59:a5:7b:7d:3f:d2:52:65:a7:14:25:df:c7:  
82:5f:e3:cc:0a:aa:87:10:39:12:a2:af:e3:8c:e8:2b:78:34:  
bc:13:0c:ba:dc:b4:e3:e3:75:d3:2d:70:64:e7:24:ed:4e:cd:  
b7:44:c5:9f:48:68:21:52:c1:56:3b:2a:c2:09:70:97:ba:11:  
47:5a:94:a6:dd:a1:59:b6:71:99:6e:f0:cd:46:39:db:bf:05:  
34:25:7a:a6:43:8b:8c:66:53:d1:e9:f8:bf:b8:c5:94:ea:38:  
8f:45:90:0a:65:26:ce:ef:e3:36:f2:50:69:42:3a:d9:cd:6e:  
25:de:c6:2f:5f:d7:96:e4:42:ff:50:37:57:de:8e:70:1d:74:  
0d:40:44:b1:f7:8e:21:74:2e:e8:2a:58:52:44:b0:2b:b7:7c:  
4b:87:7f:d3

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# openssl rsa -in server.key -check

RSA key ok

writing RSA key

-----BEGIN PRIVATE KEY-----

MIIEvglBADANBgkqhkiG9w0BAQEFAASCBKgwggSkAgEAAoIBAQDPs8h7iKjYukbK  
baAMwMi0Ry4svtA9ygROKuhjdmQwxZfHzelIXyzVkNzuodyDjPDkC2X1KhibwsNV  
np26LmW7KwV+54Rj9ggzUilHxN8d1wGXa7FBwhRM09Zai3tnASJNLgdAafHg1sEO  
qllUbsXVxlu0/DrnqSk92uaEvCdNFeGHVqpjnHZQjMLOUixdvmXZIK+r4eMAyB52  
X1P+yHmccAwZcRHcoZ9U2P4KYGyfrMkl83oUypLqAR1+5oGx9JmIFD3R+naOaRp4  
4sHPHxisv9bKvxDo/GmBMfC1hKWHqzv99EKjgqtEQoX1ON1C5+KYvXM/XA8ge4GM  
/qrATQvjAgMBAAECggEAVmZVGX5Jro4eclqVr3hqqhQOvI5Hkki99Bv82WFmhZ+Bq  
OQVd51jzAswV+3Z9goOYmWRcb1WpkvG7y9wFhLNUQj2tNZMdMW/hDWeKajD15zXP  
RavYup//Tc45NsUa+kgweqaRAayQn5T2DiGvryw9Q6VU8F6UKIXmAAMVLVYPizK0  
1FliAOU6PihqkdZopWxvBLEKEW6+5HH1qz5nNCdms521SdQt4gLzI4k658YKjAF5  
HtNxdqIMcyK4kLf/euCyJB54bK09rLn1Gio23lxIAIE7Zvo4kygactoAOmlyRTB  
rQg4br+WgJluwIF/btbvYlfpJxl0+R+82oB6Owy1AQKBgQDzaZgg3u2YRvT/TtVf  
Q2yoRDe4TfO3YLcCTwpCULOC6s/Mi0JoUBRmdB7Peb29WgDP9Q/ypq/eCF7QpHcL  
A7o7+VmnPTKXulzoelnDUBCGoxR1pn4XVamneiLDGEzizOVHTPBnLJehIZ0RBv5K  
mvtAdhTGUx+tjogBEQLX+Nq/owKBgQDacXDgOB8Ne7xhFaRw3OVtjLwwbrGjGNZw  
HGa3/yctC4tRa5MMRWlQewuEXVrwdagEuAu3kHpFgCarZpJk1KbVVVRI1kWyrNZC  
ODxlitO/RCI139PpHyGtXWVdY6jEXgKPJ8kKhRjtjKBkXdccWmATikeaSKZqmSMa  
g5id4NRGwQKBgQDxLECK4Px8kmGQzOuhTMbN+blTjTjbCqKJURMTHbgluerl+Vz0  
ydNMP+UXIMJUaGbBpUgF3g4Gaji3dRzV9v2BCtA/ma0VFHuVhBSIJj4ZiF9vKmVo  
bWHJJIRo1Rzo5QD5YkwXjeE2r31WL52pAeHLvrNaxWVvqvdeChjNMC5dDQKBgFIF  
hnyqlf5aF8HcfJibONTNNZ6ufijuuEdyPQNuogPbaCE5BIYGkc97HUNGJ5xj0U2  
Vi/27/JozBxPx2hU8M/p2lv/GOyeOVVkcEmYdym6S54vDULbjamrCASPxBxW0twFJ  
zxNEJrgLta36Dmt3A9xSb9Betx4PoJ6yavvdD9gBAoGBAJuwGaDVqf8ugUPDgtqB  
faNpunrbpLII4xrxGWZg1wjsAOutlcjoH1PmY6vtqrXIBw95V0hcH4wExgvgAfLb  
o1prAg7O5zqz/LSszXvel1OFPin75WPh/v0Y+Wb8K0dXefnUIR5UH14II7qjn90K  
VX12JxgnG/J9NqhBG347HTis

-----END PRIVATE KEY-----

hp@Mohsin c:\xampp\apache#

Output:

