

## Generate Key Pair (RS256)

### Linux & Windows

#### Step 1: Generate Private Key

```
openssl genpkey -algorithm RSA -out duitnow_pay_priv.key -pkeyopt  
rsa_keygen_bits:2048
```



`duitnow_pay_priv.key` file will be generated with content like below,

```
-----BEGIN PRIVATE KEY-----  
MIIEvQIBADANBgkqhkiG9w0BAQEFAASCBCwggSjAgEAAoIBAQDS1FoHuAOTqSmr  
GatYuIAEVKPef01fpBUGcVAPyPX06AX1XNe4ZIV/+1lwbo7oABaXmYdh6G3msn37  
0FZxqsR6do37hBmEPRvfezhezJqrVmz92iayt5fg3F5S5+uRcnFafmCv0xHUVchf  
iyn29DkdUpyjQMFLdB3GCKGV73viJnEXC7x6Zc3ydZu4vuedD6+7gb9irdDNubjG  
eQxpPsi21eNv8zCEkb9D662/UiDw7MFXAu2jTaMpPiU1Kar2Dm4apW1UY53Yj6HP  
C8vCtrhE0anSw511ehdPW96tzF0mqr4aWRsz0CXM1kvso0mHqxHKsWMYzBvtFCE7  
ABe0vZJ/AgMBAAECggEAVhhnx50qwMM1A/1Qjs0Ra7NQ1Au4ldkAyQe/BSMw11TE  
C501btSF+/Sd2p8bdryKfVAyDBaJwtsDPXMNQg/VepktdBfG/8ygtEuygmwVgYCi  
s6vBf9wfhrEXR83z0gq1JapU05j7P/XkBLhk47dqF4Jj+yVwAish+Xw02JbaxUf1  
gP41LJnC1Vu0Ai15h90R13VMerUiE10/8oZhCG4B/6VWH86f9bYZpBaQd12UMXe+  
dZXeu8hEENChxMRADsjE2UdA3qx5EyME2zV10+//wbjRIrcRCqVaaMsBF8WGYI6I  
HyWAEARh01o3IqVy9rKwq8zTBph5nKX7edvQwarBaQKBgQD1bDLkYMuEeA+hnnpx  
vi/PFgf5+qIxGvwDz7soZEjM71gDLtyy6BMCH3i9qNe9CyZpNzdC4GTB+Enkr5Nk  
HQ1Up1m0tTLReb1NQkd9szw0qyLNFjPYPihKzGRMSL1qpyNEa6ZcC5Tqy0Ynp0xr
```

```
MtHbyE1xTaH5X0W9IdR7Ssz8zQKBgQDb6nqpQoY27fj0wbS2tT1T8rBhfsu1qk+R
P6V+VLoK162tPYgrLE+bRPNNAdhRStWVKu+opCM9aTE3czFG4rsCTjI3mUG7R96k
iLCDf9iZHLbv1WuWLQ1Rv01MaBc9n9eWyJhzBVUWYZxbDbEJPZkjWh6zytN907DV
J07dUgCMewKBgQCgjeo1UcWSoeDIAJ917d/1ACqzt02KZnbcH3f3ErQ1r09TFcM4
H27gAqrAmMaaW8MDLiYu0BHae44L13j7E6vY/wKzw4K9W36INoYCi9EMX5Tiy1Wc
b/14AYLUDPeP+EuwJSSuLr17Y3Z+Fop9zr9PoxhWuUzvkQ5Ujt8s0WCNOQKBGCCq
sPPJjPRF3zBEQdr0C0EYELk6w3nFxbH2uVeNsGEB7quIM1zuZRjUYiuzNXXF3voc
eaMcVpu9r3DkLJKyBUNvaCg4HLp8D4dzQn0WFY+Q41+23Rdes9bLyuipoaImxzh/
rZ2QUjZT44zm+MA9pSzKKztbypSUtEzFARJfhvNXAoGAXtleTfhiHQ0AJzCYe8L
TIXt6Xz3haEjDJo0PntIyBR1E41aaApzmTPJYdi5faY7/CowSI3hcCoxqkt8K/Im
Tko6JRVyiW5nhwx4w32TSHWsLqt0pJOsVDBVYA4e230CaEY9K5uQhkhQnAbAxBEV
YauC4m1PLKyq3tYBMEBAKQQ= -----END PRIVATE KEY-----
```

## Step 2: Generate CSR

Using the private key generated in Step 1, `duitnow_pay_priv.key` in case, to generate certificate sign request,

```
openssl req -out duitnow_pay.csr -key duitnow_pay_priv.key -new -sha256
```



Questions will be prompted during CSR generation, please answer by referring the following tables, skip `challenge password`,

Country Name (C)	Country Code: <code>MY</code>
State/County/Region (S)	State: <code>Kuala Lumpur</code>
City/Locality (L)	Postcode: <code>59200</code>

Organization Name (O)	Applicant's organization name. For example: MerchantX Sdn Bhd
Organizational Unit (OU)	Indicate the name of the product or service. For example: <ul style="list-style-type: none"> <li>DuitNow Pay</li> </ul>
Common Name (CN)	Assign the appropriate value based on your application type: <ul style="list-style-type: none"> <li>Project ID (Project ID can be found after a project created in Developer Portal)</li> </ul>
Email Address (E)	Business email address

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. ----- Country Name (2 letter code) [XX]:MY State or Province Name (full name) []:Kuala Lumpur Locality Name (eg, city) [Default City]:59200 Organization Name (eg, company) [Default Company Ltd]:MerchantX Sdn Bhd Organizational Unit Name (eg, section) []:DuitNow Pay Common Name (eg, your name or your server's hostname) []:P12345678 Email Address []:support@merchantX.my

Please enter the following 'extra' attributes to be sent with your certificate request A challenge password []: An optional company name []:

`duitnow_pay.csr` file will be generated with content like below,

```
-----BEGIN CERTIFICATE REQUEST-----
MIIC6DCCAdACAQAwwgaIxCzAJBgNVBAYTAk1ZMRUwEwYDVQQIDAxLdWFsYSBMdW1w
dXlxDjAMBgNVBAcMBTU5MjAwMR0wGAYDVQQKDBFNZXJjaGFudFggU2RuIEJoZDEY
MBYGA1UECwwPUGF5TmV0IENoZWNRb3V0MREwDwYDVQQDDAhNMDAwMDIzMzEjMCEG
CSqGSIB3DQEJARYUc3VwcG9ydEBtZXJjaGFudFgubXkwggEiMA0GCsGSIb3DQEB
AQUAA4IBDwAwggEKAoIBAQDJZon2qSPBcaY+XebVjUGkR4qJd1FILJ5dBbPFcV6W
4rTMYYYyYNPe1BnJDLdcI6/8M3xtD/0mVRNGoVifaQ731WNjboYTjKbhygSBnq/c
Y10U4NHqS40pFKT6Dc473K//hJYX9z9bj8u33Denu9wWlGqR311RPJnSg6uM3YCM
98eCywCZRNMUSiNedUyxjCd69VwMQCkzyfdh/WHSPV4q0d0VU8ftu8neuN4SX8D7
7ribC1CgCCMZ1BVo9Btzq/c3SaLKWDqoHW8KSDKaCI4rrMo1o/tiobnPnU5ujSBw
prVQN7wTV2S0YM/h4TbY2V59k4iB/onBvKxVxSuSDEHnAgMBAAGgADANBgkqhkiG
9w0BAQsFAA0CAQEAXc8h65yBnRtVKLaM0wx3A4dCmZQZEMFZYevtSWBTKz/tFrpB
BpYhwlgSQ6QivJsSjw0e/vgQ0ZtDy0g2/+yCtQjfwMKe/+4Vbtp6w3EktuTIA2Ia
RCkoCeeqRTB5PigGu7fLMGUVhM6G7A/g1Fgi5107EZMc0279hoIPtP3lo3zD4ASc
3wNAe7PE82afoATxekHxIJS9zS0qNGjqFXygYKU8FXhEqsVrkEsa0TTc3/akmcBR
smHhy6TWwCz3s0jQp81+4UYaUsKwbtiI1+ejWZSkMGkE3EoS8o00s/YPiAxwtRCgQ
QLXY05iRNSe0Ea0cSgdrvxtj0oJt8FLft5KX4A== -----END CERTIFICATE
REQUEST-----
```

**Step 3:** Upload `duitnow_pay.csr` to Developer Portal during system verification stage.

