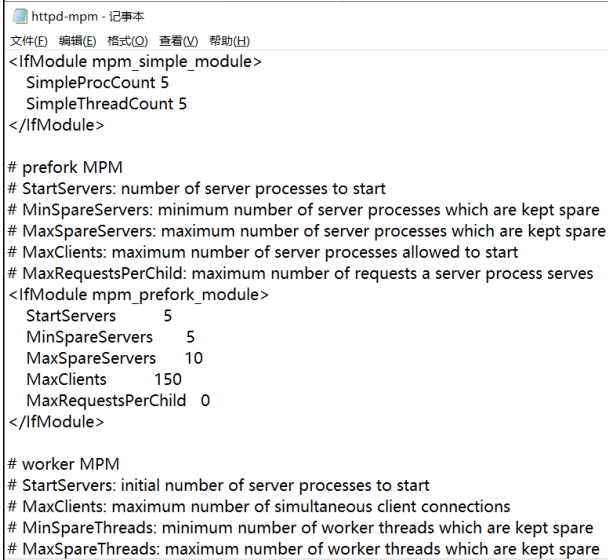


实验名称：ApacheWeb 服务器安装配置	
实验台号：	实验时间：
实验小组：张楷	
实验目的：	
实验环境说明：PC	
实验过程、步骤（可另附页、使用网络拓扑图等辅助说明）及结果：	
一、Apache 的安装和配置	
1) 安装 Apache 成功，并测试 Apache 系统的启动和关闭，测试成功。	
图 1Apache 的安装	

2) Prefork 的配置。



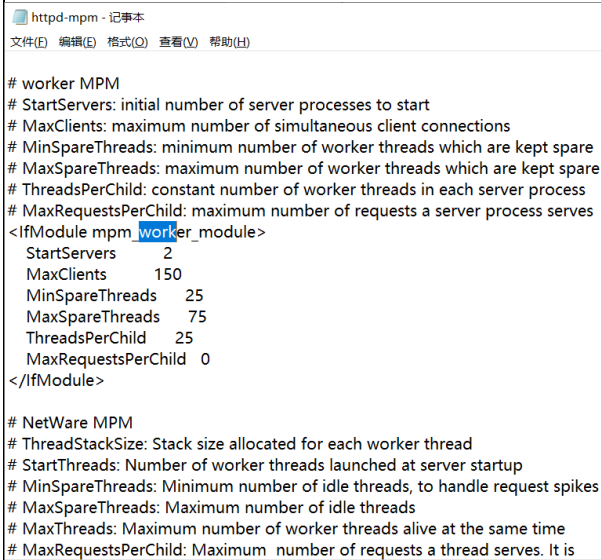
```
httpd-mpm - 记事本
文件(F) 编辑(E) 格式(O) 查看(V) 帮助(H)
<IfModule mpm_simple_module>
  SimpleProcCount 5
  SimpleThreadCount 5
</IfModule>

# prefork MPM
# StartServers: number of server processes to start
# MinSpareServers: minimum number of server processes which are kept spare
# MaxSpareServers: maximum number of server processes which are kept spare
# MaxClients: maximum number of server processes allowed to start
# MaxRequestsPerChild: maximum number of requests a server process serves
<IfModule mpm_prefork_module>
  StartServers      5
  MinSpareServers   5
  MaxSpareServers   10
  MaxClients        150
  MaxRequestsPerChild 0
</IfModule>

# worker MPM
# StartServers: initial number of server processes to start
# MaxClients: maximum number of simultaneous client connections
# MinSpareThreads: minimum number of worker threads which are kept spare
# MaxSpareThreads: maximum number of worker threads which are kept spare
```

图 2Prefork

3) Worker 的配置



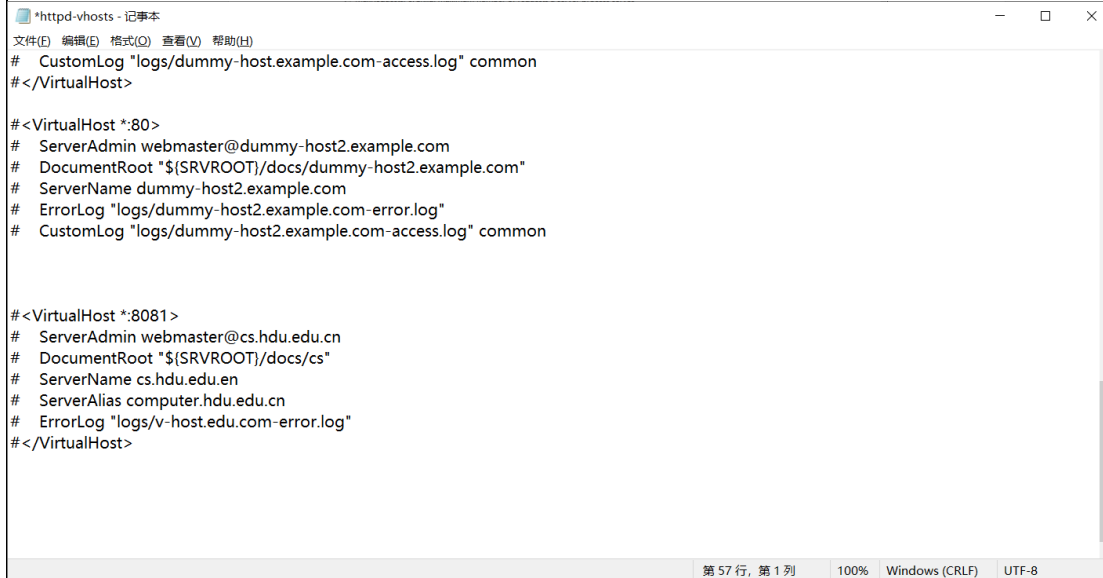
```
httpd-mpm - 记事本
文件(F) 编辑(E) 格式(O) 查看(V) 帮助(H)

# worker MPM
# StartServers: initial number of server processes to start
# MaxClients: maximum number of simultaneous client connections
# MinSpareThreads: minimum number of worker threads which are kept spare
# MaxSpareThreads: maximum number of worker threads which are kept spare
# ThreadsPerChild: constant number of worker threads in each server process
# MaxRequestsPerChild: maximum number of requests a server process serves
<IfModule mpm_worker_module>
  StartServers      2
  MaxClients        150
  MinSpareThreads   25
  MaxSpareThreads   75
  ThreadsPerChild   25
  MaxRequestsPerChild 0
</IfModule>

# NetWare MPM
# ThreadStackSize: Stack size allocated for each worker thread
# StartThreads: Number of worker threads launched at server startup
# MinSpareThreads: Minimum number of idle threads, to handle request spikes
# MaxSpareThreads: Maximum number of idle threads
# MaxThreads: Maximum number of worker threads alive at the same time
# MaxRequestsPerChild: Maximum number of requests a thread serves. It is
```

图 3Worker 的配置

4) 虚拟主机配置



```
# CustomLog "logs/dummy-host.example.com-access.log" common
#</VirtualHost>

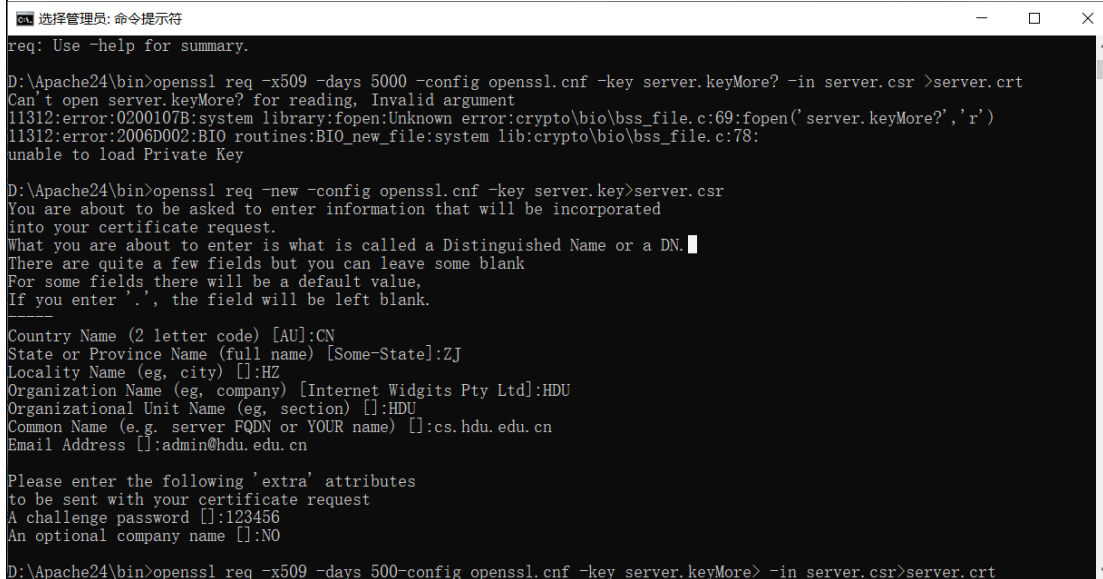
#<VirtualHost *:80>
#   ServerAdmin webmaster@dummy-host2.example.com
#   DocumentRoot "${SRVROOT}/docs/dummy-host2.example.com"
#   ServerName dummy-host2.example.com
#   ErrorLog "logs/dummy-host2.example.com-error.log"
#   CustomLog "logs/dummy-host2.example.com-access.log" common

#<VirtualHost *:8081>
#   ServerAdmin webmaster@cs.hdu.edu.cn
#   DocumentRoot "${SRVROOT}/docs/cs"
#   ServerName cs.hdu.edu.cn
#   ServerAlias computer.hdu.edu.cn
#   ErrorLog "logs/v-host.edu.com-error.log"
#</VirtualHost>
```

图 4 虚拟主机配置

二、HTTPS 服务的安装和配置

1) SSL 证书的生成。



```
req: Use -help for summary.

D:\Apache24\bin>openssl req -x509 -days 5000 -config openssl.cnf -key server.keyMore? -in server.csr >server.crt
Can't open server.keyMore? for reading, Invalid argument
11312:error:0200107B:system library:fopen:Unknown error:crypto\bio\bss_file.c:69:fopen('server.keyMore?', 'r')
11312:error:2006D002:BIO routines:BIO_new_file:system lib:crypto\bio\bss_file.c:78:
unable to load Private Key

D:\Apache24\bin>openssl req -new -config openssl.cnf -key server.key>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.
-----
Country Name (2 letter code) [AU]:CN
State or Province Name (full name) [Some-State]:ZJ
Locality Name (eg, city) []:HZ
Organization Name (eg, company) [Internet Widgits Pty Ltd]:HDX
Organizational Unit Name (eg, section) []:HDX
Common Name (e.g. server FQDN or YOUR name) []:cs.hdu.edu.cn
Email Address []:admin@hdu.edu.cn

Please enter the following 'extra' attributes
to be sent with your certificate request
A challenge password []:123456
An optional company name []:NO

D:\Apache24\bin>openssl req -x509 -days 5000 -config openssl.cnf -key server.keyMore? -in server.csr>server.crt
```

图 5SSL

三、按要求书写 html 页面。代码如下：

```
<!DOCTYPE html>

<html>

<head>

    <meta http-equiv="Content-Type" content="text/html; charset=utf-8" />

</head>

<body>

    <h1>张楷，你好</h1>

</body>

</html>
```

四、通过 127.0.0.1:8081 访问网页。	
<div><div>127.0.0.1:8081</div><div><div>127.0.0.1:8081</div><div>张楷, 你好</div></div></div>	
实验总结（遇到的问题及解决办法、体会）： 大部分是进行文件额操作，大概明白一些文件的用途	
器材、工具领用及归还负责人： 张楷	实验记录人：（签名）张楷
实验执笔人：（签名）张楷	报告协助人：（签名）张楷
小组成员签名：（签名）张楷	
验收人：	成绩评定：