

## **CPET 499/ITC 250 Web Systems**

### **Web Server Configuration and Trouble Shooting**

#### **References**

- Apache HTTP Server Project, <http://httpd.apache.org/>
  - Apache httpd 2.4.23 Released, 2016-07-5
- XAMPP Server, <https://www.apachefriends.org/index.html>
  - XAMPP, open source package, is a PHP development environment containing MariaDB, PHP, and Perl
  - XAMPP for Windows v5.6.23 (PHP 5.6.23) 2016-06-28, , XAMPP for Linux v5.6.23 (PHP 5.6.23), XAMPP for OS X v5.6.23 (PHP 5.6.23),
- Wamp Server, <http://www.wampserver.com/en/>
- Apache HTTP Server 2.2 Server Administration Vol. I, 2010, by The Apache Software Foundation
- Apache – The Definitive Guide, 2003, by Ben Laurie & Peter Laurie, published by O'REILLY
- Apache Cookbook, 2008, by Ken Coar & Rich Bowen, published by O'REILLY
- IIS, <http://www.iis.net/>

#### **Topics on HTTP Web Server**

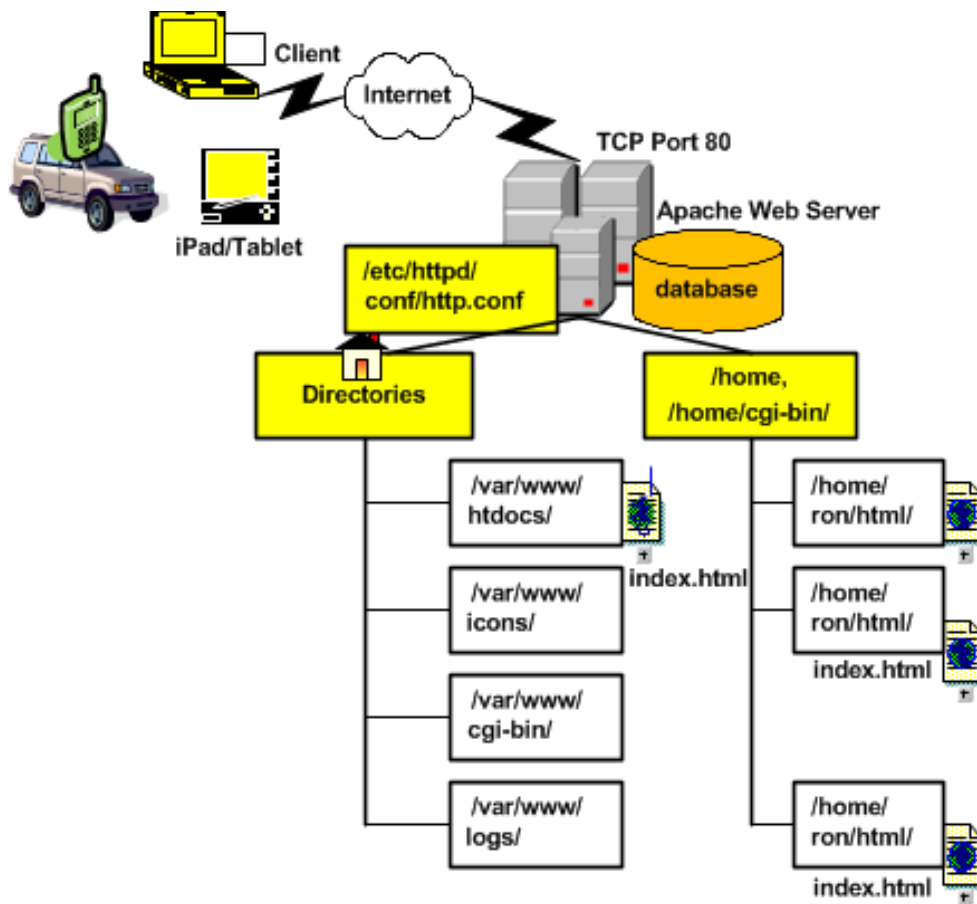
- Configuration
- Virtual Hosts
- Authentication
- Content Description and Modification
- Indexing
- Redirection
- Proxying
- Logging
- Security
- Running a Big Web Site
- Building Applications
- Server-Side Includes
- PHP
- CGI and Perl
- mod\_perl
- mod\_jserv and Tomcat
- The Apache API
- Writing Apache Modules

#### **Server Administration Knowledge/Skills**

- Building, Installation, Upgrading
- Configuration
  - Configuration Files
  - Configuration Sections
- Starting, Stopping, Restarting
- Adding common modules
- Logging

- Virtual Hosts
- Aliases, Redirecting, and Rewriting
- Security
- Installing SSL
- Dynamic Content
  - Enabling CGI scripts, PHP, Perl, Python
- Error Handling
- Proxies
- Performance
- Directory Listings

## Apache Web Server



## Apache or XAMPP Startup Problem

See what's Using Port 80:

1) start => command OR from XAMPP Control panel: Shell

2) netstat -ao

⇒ TCP 0.0.0.0:80 PID 4

Setting environment for using XAMPP for Windows.

Administrator@LIN-PC c:\xampp

# netstat -ao

Active Connections

Proto	Local Address	Foreign Address	State	PID
TCP	0.0.0.0:80	lin-PC:0	LISTENING	4
TCP	0.0.0.0:135	lin-PC:0	LISTENING	848
TCP	0.0.0.0:445	lin-PC:0	LISTENING	4
TCP	0.0.0.0:1309	lin-PC:0	LISTENING	2668
TCP	0.0.0.0:1332	lin-PC:0	LISTENING	3684
TCP	0.0.0.0:1947	lin-PC:0	LISTENING	2492
TCP	0.0.0.0:2002	lin-PC:0	LISTENING	5076
TCP	0.0.0.0:2343	lin-PC:0	LISTENING	2692
TCP	0.0.0.0:2869	lin-PC:0	LISTENING	4
...				

3) Task Manager

Kill the process from Task Manager (but unsuccessful)

NT Kernel & System?

4) from Windows Control Panel => Administrative Tools => Services

### Problem (A) Web Development Agent Service is using port 80

- Opening Up Port 80 for Apache to Use on Windows,

<http://www.devside.net/wamp-server/opening-up-port-80-for-apache-to-use-on-windows>

⇒ Control Panel > System and Security > Administrative Tools => Service > Web Deployment Agent Service (STOP this service)

⇒ Then restart the XAMPP

### Problem (B) NI System Web Server is using port 80

- Click on "Stop the Service"
- Then restart the XAMPP

### Problem (C) SQL Server Reporting Services (SQLEXPRESS)

Yet NOT ABLE to solve the problem:

### Using NET STOP HTTP command to stop HTTP service

Administrator@LIN-PC c:\xampp

# NET Stop HTTP

The following services are dependent on the HTTP service.

Stopping the HTTP service will also stop these services.

UPnP Device Host  
SSDP Discovery  
Print Spooler

```

Do you want to continue this operation? (Y/N) [N]: y
The UPnP Device Host service is stopping.
The UPnP Device Host service was stopped successfully.

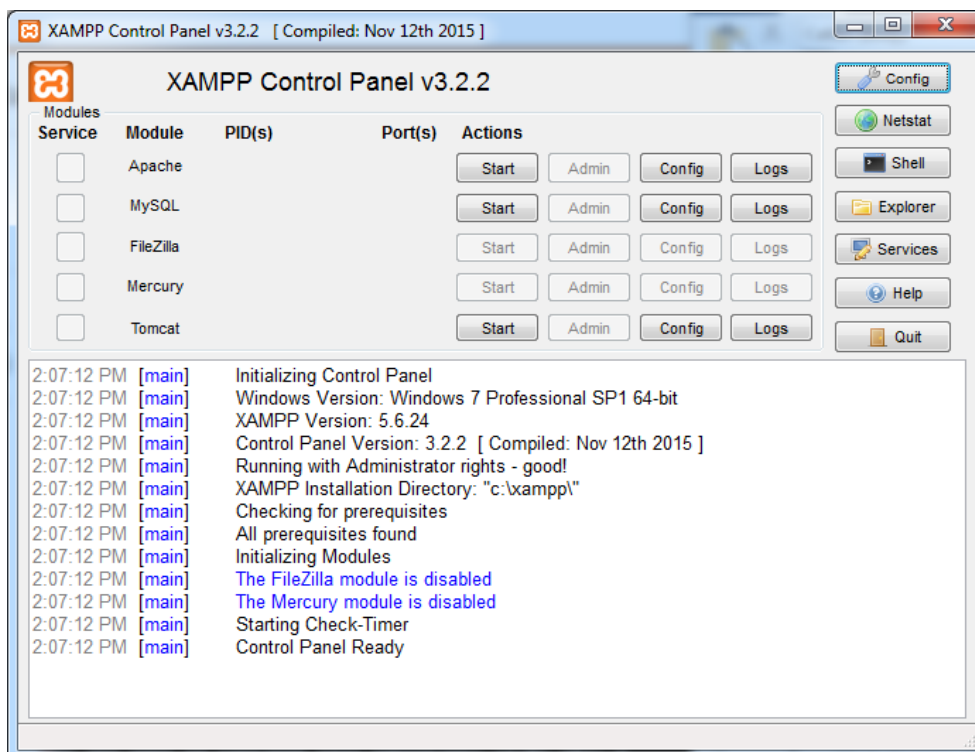
The SSDP Discovery service is stopping.
The SSDP Discovery service was stopped successfully.

The Print Spooler service is stopping.
The Print Spooler service was stopped successfully.

The HTTP service is stopping.....
The HTTP service could not be stopped.

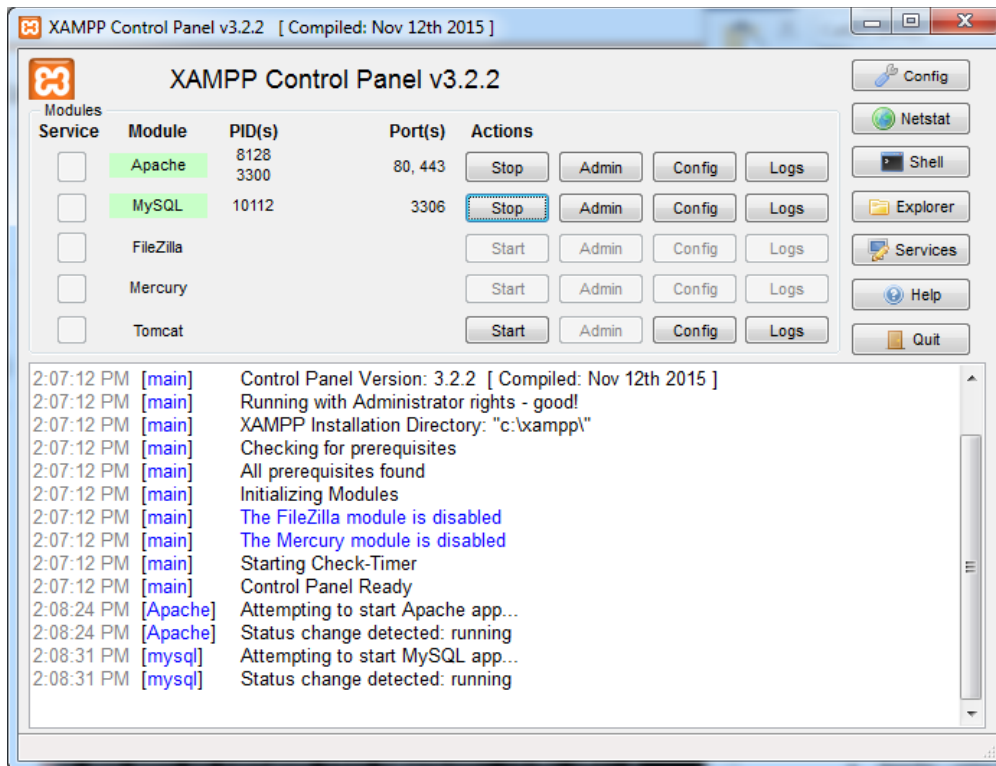
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## Restart XAMPP Control Panel



## Start Service Modules

- Apache – using PID(s): 8128, 3300; PORT 80, 443
- MySQL – using PID(s) 10112; PORT 3306



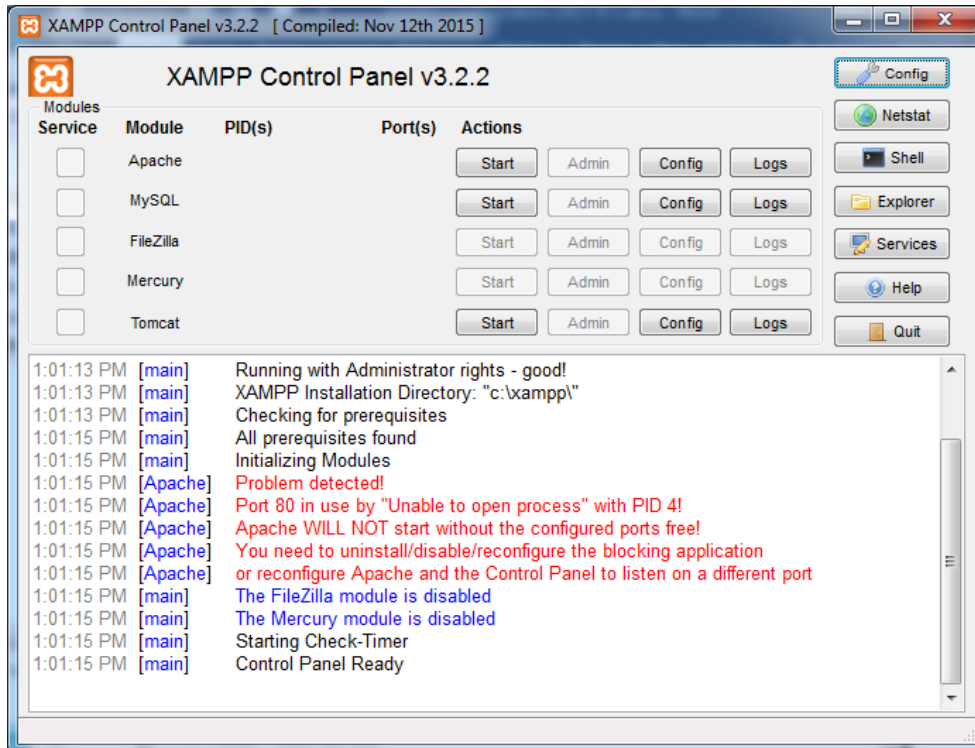
## Apache Folders/Subdirectories (XAMPP example)

- apache
  - /bin/
  - /conf/httpd.conf ..... the configuration file
    - Listening port 80 (default)
    - LoadModule
    - ServerName localhost:80
    - DocumentRoot "C:/xampp/htdocs"
    - <Directory "C:/xampp/htdocs"> ...</Directory>
    - <Directory "C:/xampp/cgi-bin"> ...</Directory>
  - /conf/extra
  - /conf/original
  - /conf/ssl.crt
  - /conf/ssl.csr
  - /conf/ssl.key
  - /error
  - /icons
  - /include
  - /lib
  - /logs
  - /manual
  - /modules
  - /scripts

- htdocs
- cgi-bin
- php
- perl
- phpMyAdmin

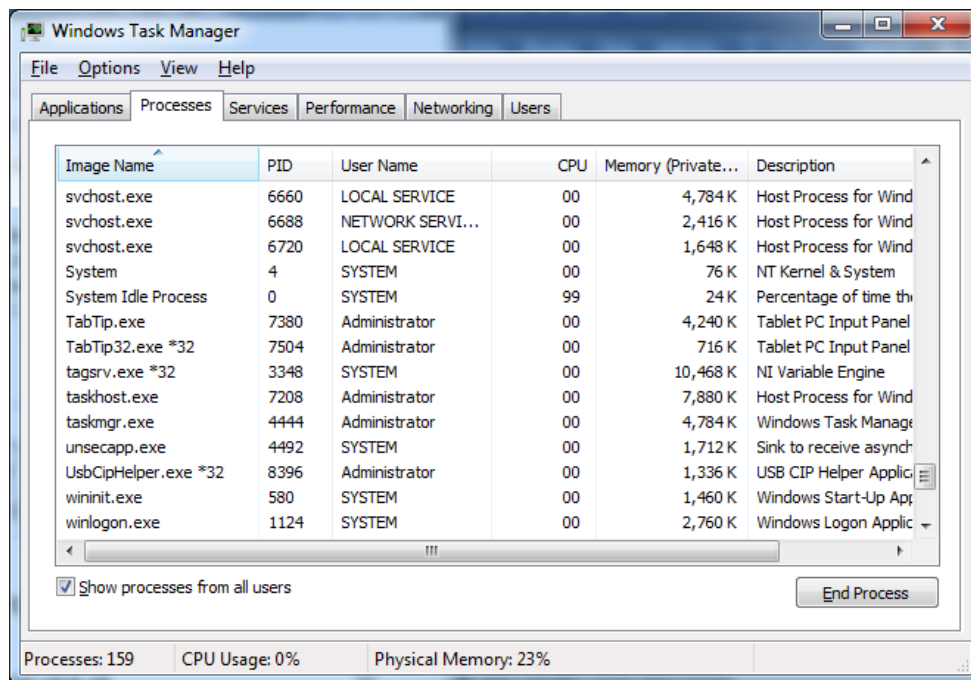
## XAMPP Configuration & Trouble Shooting

Port 80 in use with PID4



## Finding Your Windows Process ID

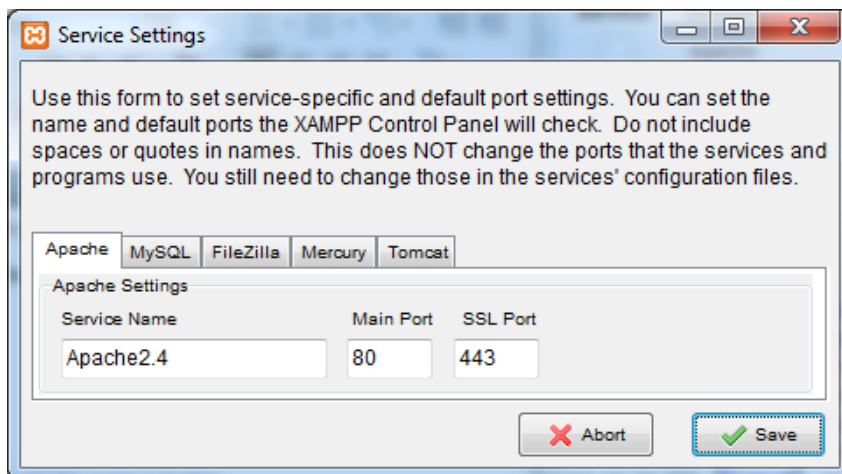
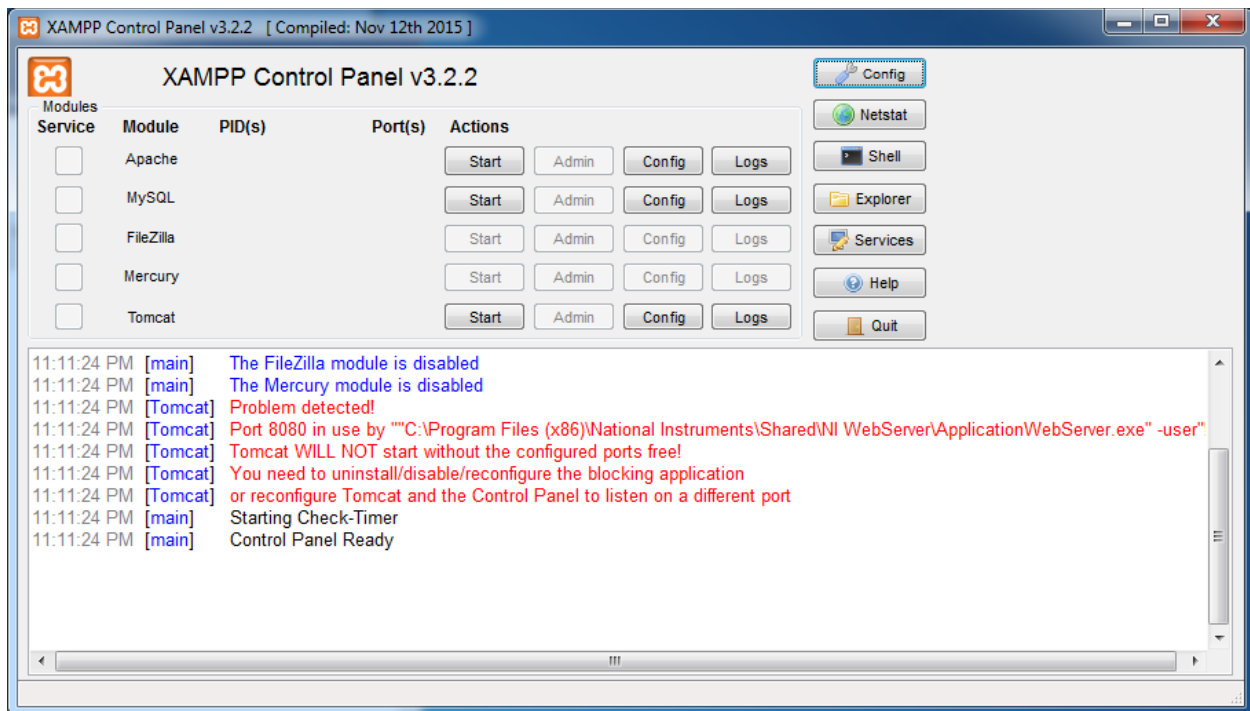
- Finding Process ID, <https://docs.microsoft.com/en-us/windows-hardware/drivers/debugger/finding-the-process-id>
- PID number in Task Manager can't be found, <https://superuser.com/questions/191416/pid-number-in-task-manager-cant-be-found>
- 10 Windows Task Manager Tricks you Didn't Know, by Joel Lee, 2016/2/12 <http://www.makeuseof.com/tag/10-windows-task-manager-tricks-didnt-know/>
- Ctrl, Shift+ESC key to start your Task Manager



Unable to kill System process with PID 4 which uses Port 80

<https://stackoverflow.com/questions/1430141/port-80-is-being-used-by-system-pid-4-what-is-that>

## XAMPP Configuration





Service Settings

Use this form to set service-specific and default port settings. You can set the name and default ports the XAMPP Control Panel will check. Do not include spaces or quotes in names. This does NOT change the ports that the services and programs use. You still need to change those in the services' configuration files.

Apache MySQL FileZilla Mercury Tomcat

MySQL Settings

Service Name	Main Port
mysql	3306

Abort Save

Service Settings

Use this form to set service-specific and default port settings. You can set the name and default ports the XAMPP Control Panel will check. Do not include spaces or quotes in names. This does NOT change the ports that the services and programs use. You still need to change those in the services' configuration files.

Apache MySQL FileZilla Mercury Tomcat

Tomcat Settings

Service Name	Main Port	AJP Port	HTTP Port
Tomcat7	8005	8009	8080

Abort Save

Change HTTP Port to 8090

Discussion Forum:

- <http://stackoverflow.com/questions/34495137/tomcat-shutdown-unexpectedly>
- net stop http -- stop the services on port 80
- netstat -abno -- to see who else is using port