Andorid Programming

Week 6

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Part I

XAMPP Setup

Outline I

- What is XAMPP?
- Installing XAMPP on Windows
- Installing XAMPP on Mac OSX
- Testing Your XAMPP Installation
  - Testing Apache server and PHP
  - Testing MySQL (DB) Server
- Configure Virtual Hosts
- Change the hosts(Virtual Domain Info) file on Android Device or Emulator (Genymotion)
  - ADB - Android Debug Bridge(adb)
  - Emulate Domain Names: Set /system/etc/hosts file on Android Emulator (Genymotion)

- XAMPP stands for
  - Cross-Platform(X)
  - Apache(A)
  - MySQL(M)
  - PHP(P)
  - PerI(P)
- simple, lightweight Apache distrubtion for a local web server
  - server application(Apache)
  - database(MySQL)
  - scripting language(PHP)

Step 1. Download XAMPP - https://www.apachefriends.org/index.html

Step 2. Follow This Guide
How to install and configure XAMPP on Windows 10

Step 3. Configure Virtual Hosts on XAMPP – How to Run Multiple Domains

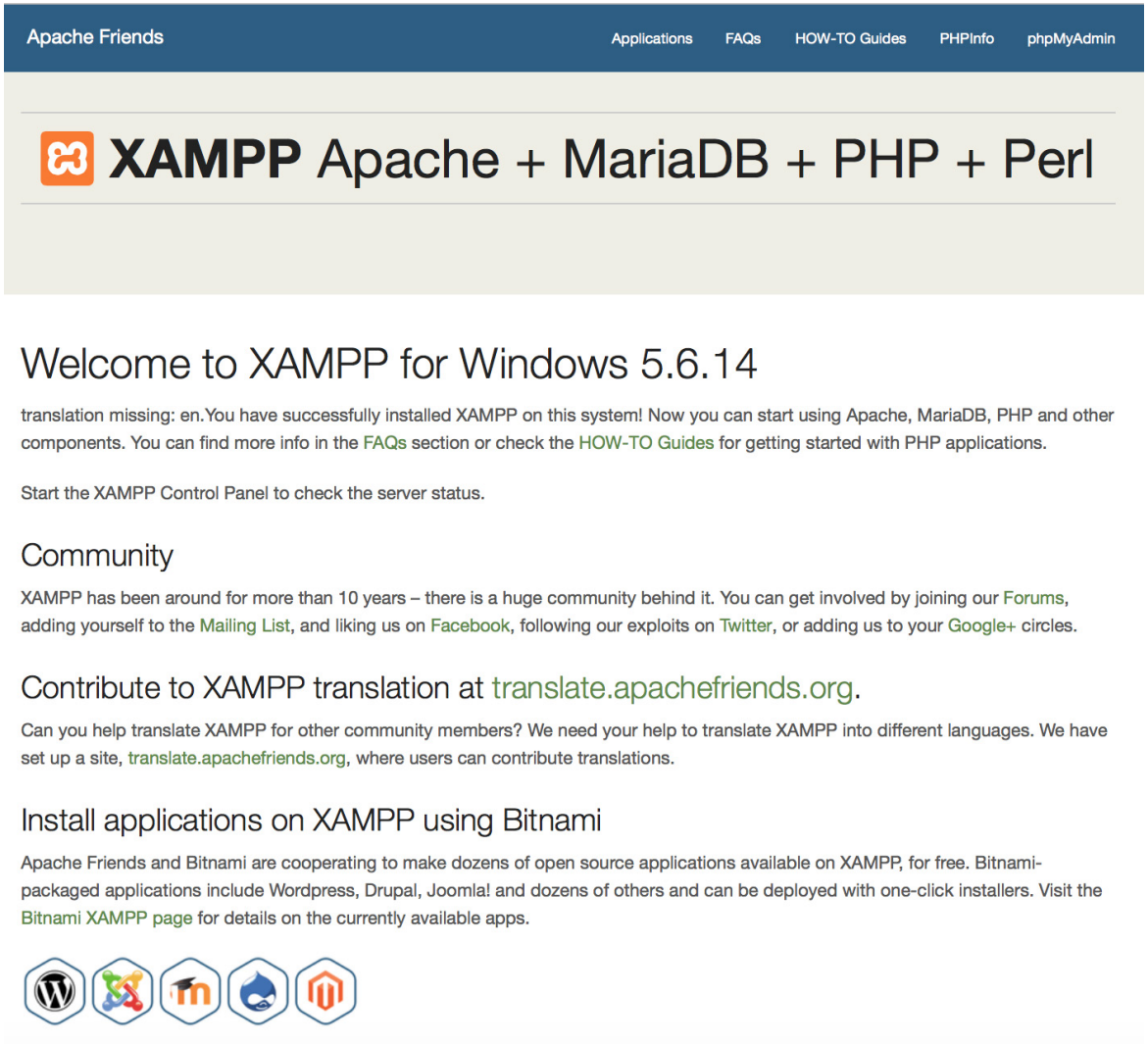
Step 1. Download XAMPP - https://www.apachefriends.org/index.html

Step 2. Follow How To Install XAMPP In MAC OSX And Configure Virtual Host

Step 1. In the XAMPP control panel (or manager), click on 'Start' under 'Actions' for the Apache module. This instructs XAMPP to start the Apache webserver.

Step 2. Open your web browser and type in: http://localhost or 127.0.0.1

Step 3. You should see the XAMPP start page



Step 4. Test whether XAMPP has installed PHP successfully. To do this, fire up your plain-text editor and type the following into a new document:

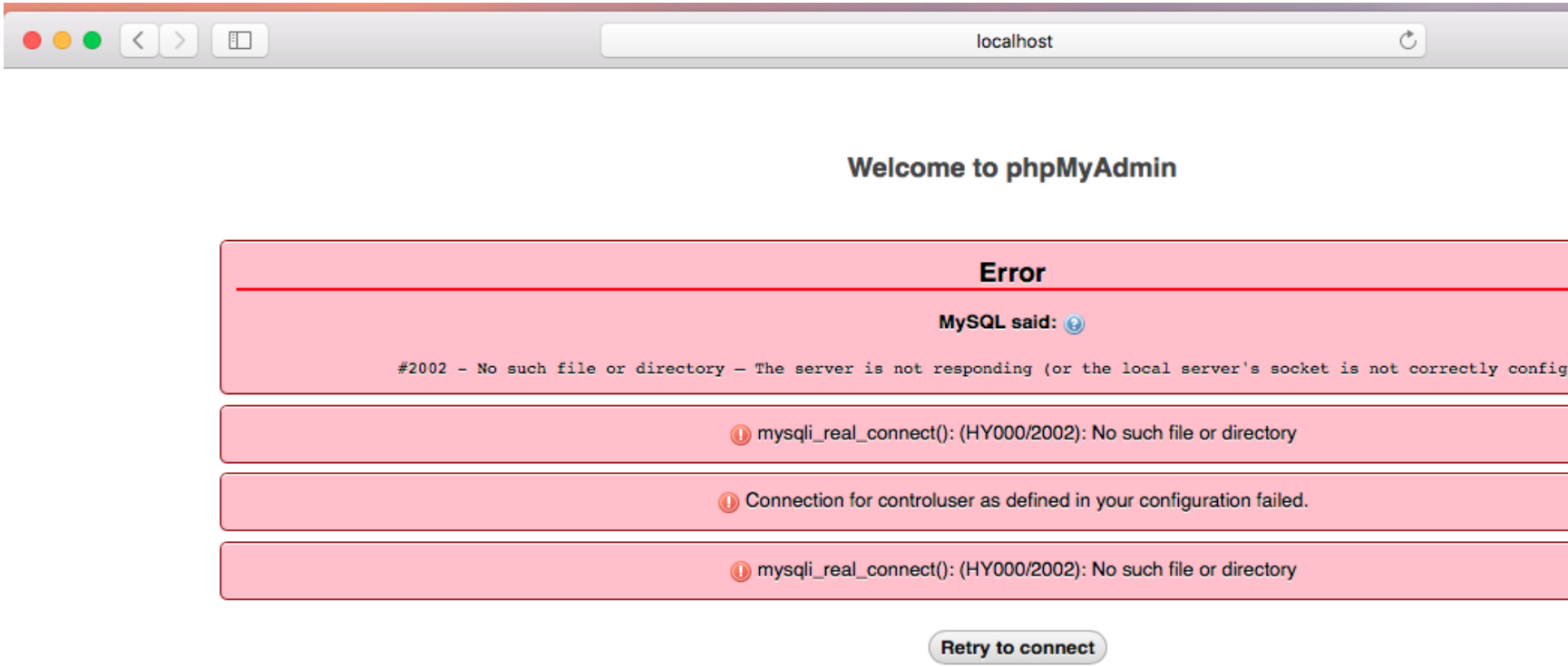
```
1 <?php
2
3     echo "Hello world";
4
5 ?>
```

hello.php

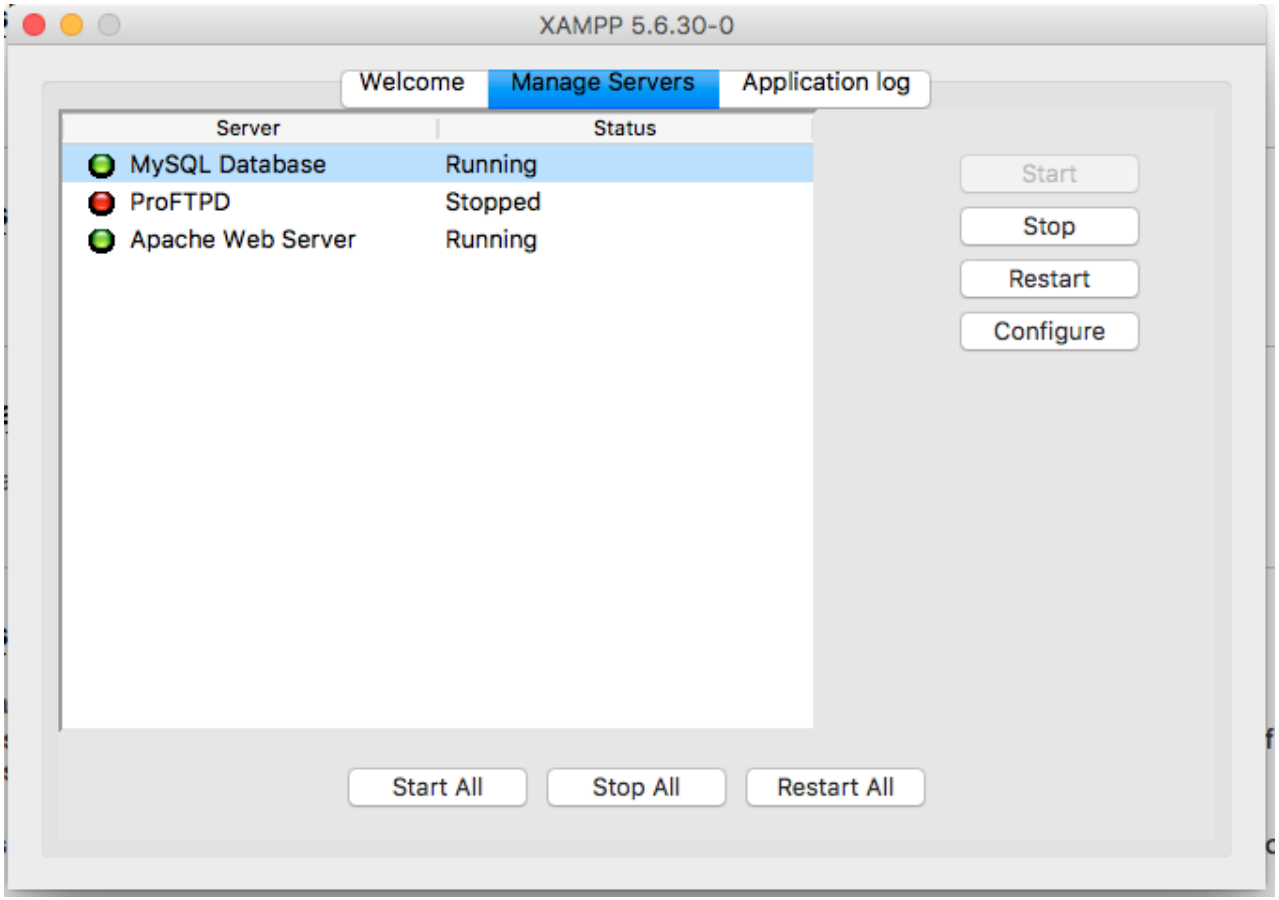
- Save this file as "hello.php" in whichever folder you installed XAMPP.

Step 5. Navigate to localhost/hello.php. You should see the "Hello World" message.

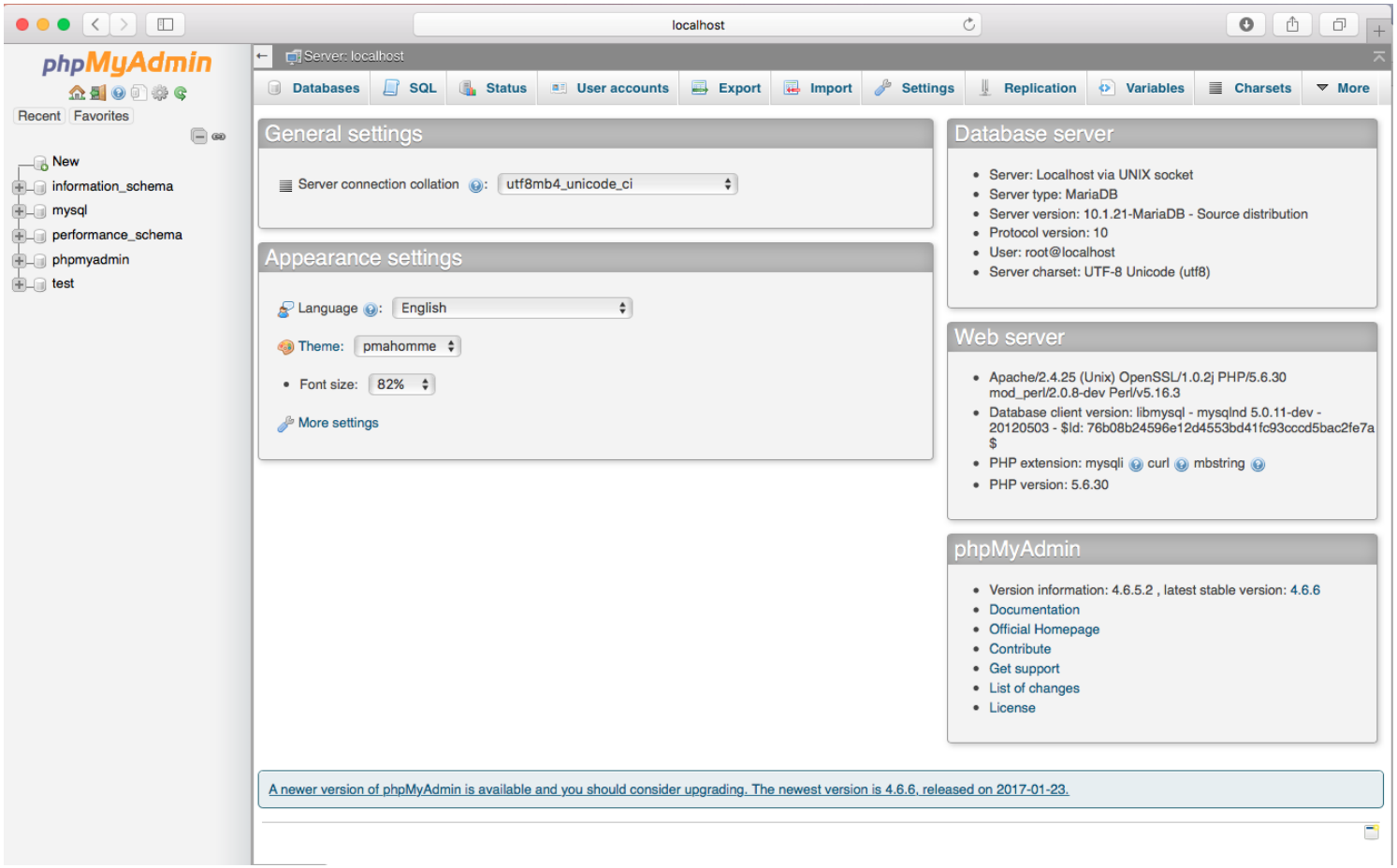
- When MySQL server is not running correctly, you would see



- In the XAMPP control panel (or manager), click on 'Start' under 'Actions' for the MySQL Database module. This instructs XAMPP to start the MySQL Database server.



- Open your web browser and type in: http://localhost or 127.0.0.1 and select phpMyAdmin from the XAMPP start page. You should see the phpMyAdmin page.



- Virtual Hosting: Apache makes it easy to have multiple websites or web applications running on the same physical server, and access each using a custom domain name
  - each virtual host can be mapped to a different subdirectory of the server

- Steps to create a virtual host

Step 1. Open a new terminal and ensure you are logged in as an administrator

Step 2. Change to your XAMPP installation directory and open the httpd.conf file in the etc/ subdirectory using a text editor

Step 3. Within the file, find the following line and uncomment it by removing the hash symbol (#) at the beginning of the line

```
Include etc/extra/httpd-vhosts.conf
```

Step 4. Open the httpd-vhosts.conf file in the etc/extra/ subdirectory and add new virtual hosts

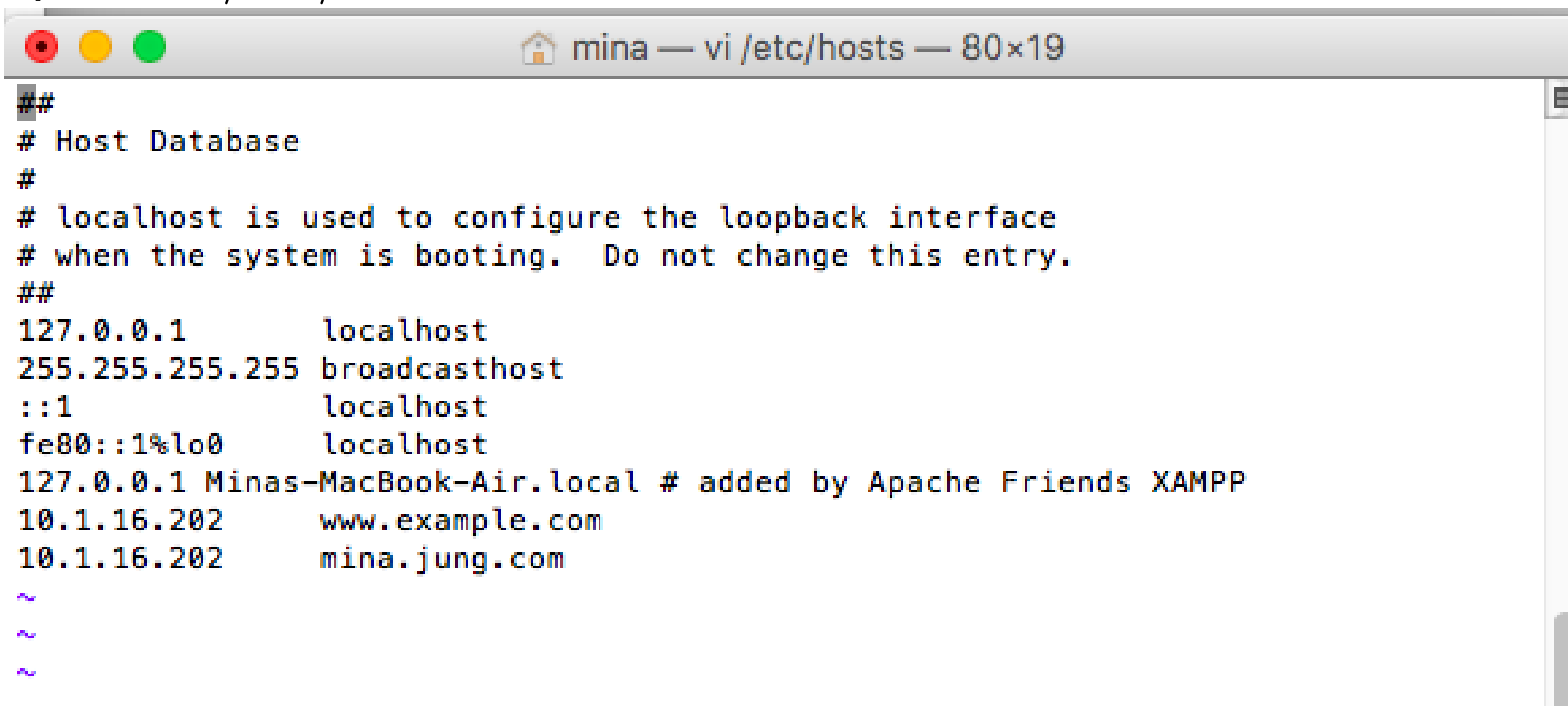
extra — vi httpd-vhosts.conf — 80×24

```
# localhost [must be included as the default named server]
<VirtualHost *:80>
    ServerName www.example.com
    DocumentRoot "/Applications/XAMPP/xamppfiles/htdocs/Dummy"
    <Directory "/Applications/XAMPP/xamppfiles/htdocs/Dummy">
        Options Indexes FollowSymLinks Includes execCGI
        AllowOverride None
        Order Allow,Deny
        Allow From All
    </Directory>
</VirtualHost>

# localhost [must be included as the default named server]
<VirtualHost *:80>
    ServerName mina.jung.com
    DocumentRoot "/Applications/XAMPP/xamppfiles/htdocs/MyApp"
    <Directory "/Applications/XAMPP/xamppfiles/htdocs/MyApp">
        Options Indexes FollowSymLinks Includes execCGI
        AllowOverride None
        Order Allow,Deny
        Allow From All
    </Directory>
</VirtualHost>
```

Step 5. Restart Apache using the XAMPP control panel for your changes to take effect

- Map the custom domain to the local IP address. To do this, open the /etc/hosts file and add new domains



- included in the Android SDK Platform-Tools package, which would be installed at android_sdk/platform-tools/

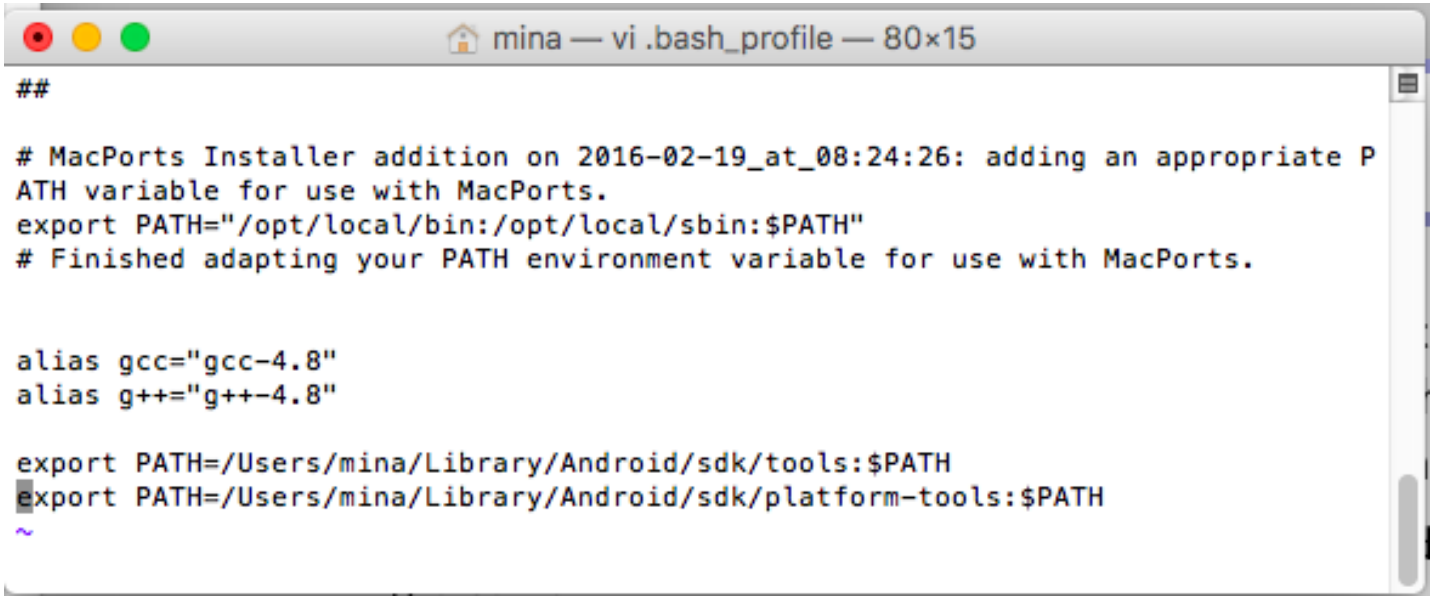
- Confirm that your host computer is connected to the target device:

```
$ adb devices

List of devices attached
device_ip_address:5555 device
```

- Add adb to Path Enviroment Variable
  - Windows – System Properties's Advanced Tab
    - click Environment Variables
    - edit Path of System variables

- Mac – update .bash_profile and apply the updated environment variable ($source .bash_profile)



- To see the emulator in the adb devices output, stop the adb server, and then start it again after using the emulator command and before using the adb devices command, as follows:

```
$ adb kill-server
$ emulator -avd Nexus_6_API_25 -port 5557
$ adb start-server
$ adb devices

List of devices attached
emulator-5557 device
```

- Copy files to/from a device
  - To copy a file or directory and its sub-directories from the device

```
$adb pull remote local
```

  - To copy a file or directory and its sub-directories to the device

```
$adb push local remote
```

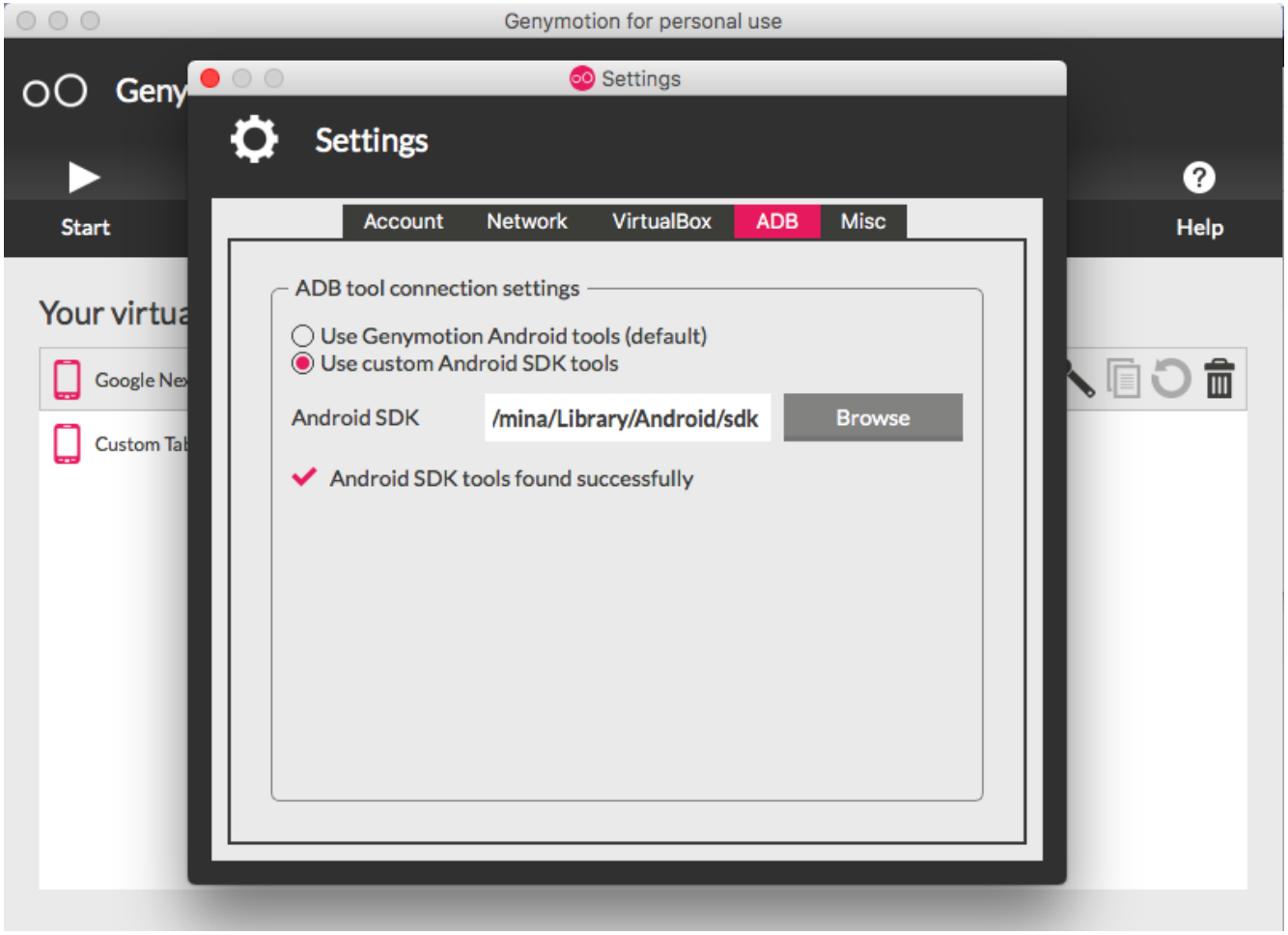
- Remount the /system, /vendor, and /oem partitions in read-write mode

```
$adb remount
```

- Restart adbd with root permissions

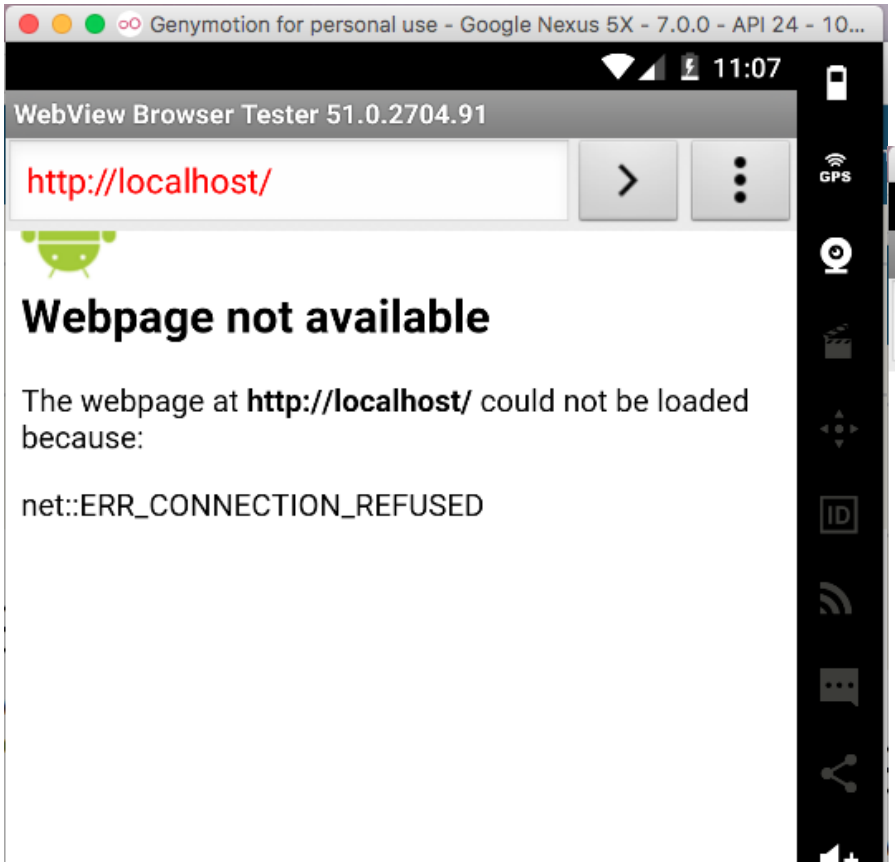
```
$adb root
```

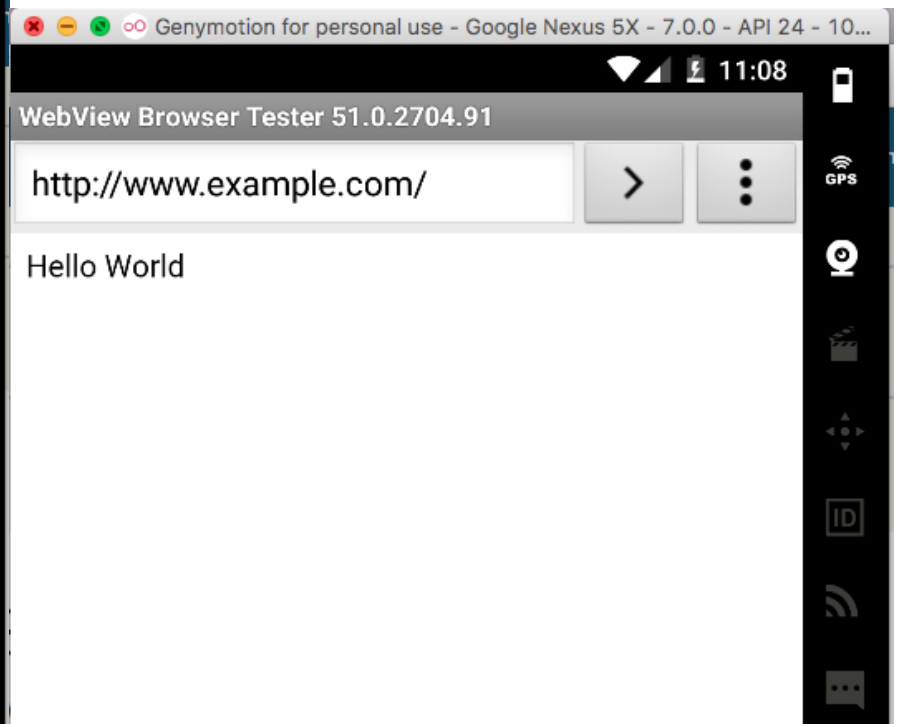
- set custom ADB (Android Studio SDK's adb) on Genymotion

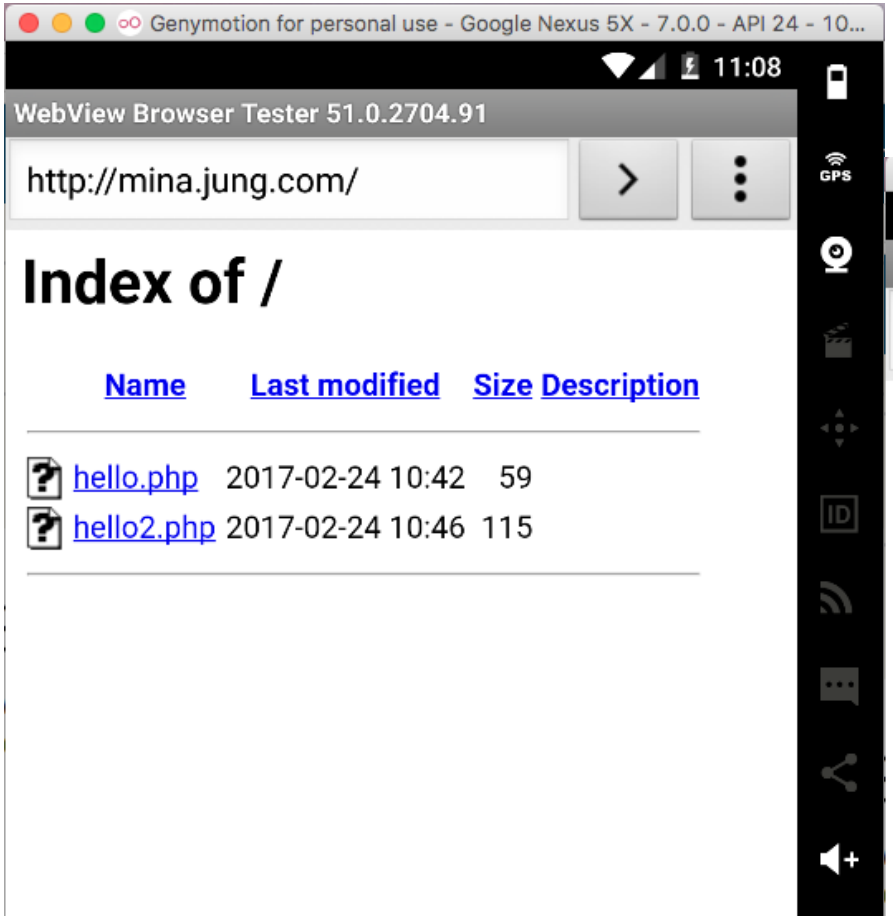


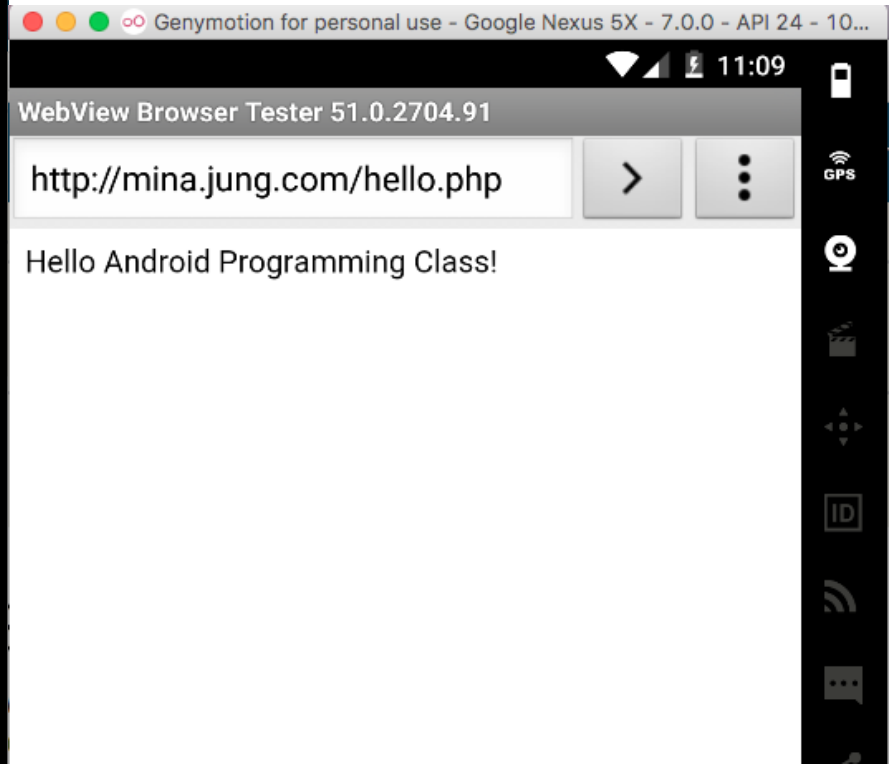
- Get your host machine's IP address
  - on Windows: ipconfig
  - on Unix (Mac or Linux): ifconfig
- Update your local hosts file (/etc/hosts)
- Update hosts file on Adroid (/system/etc/hosts)

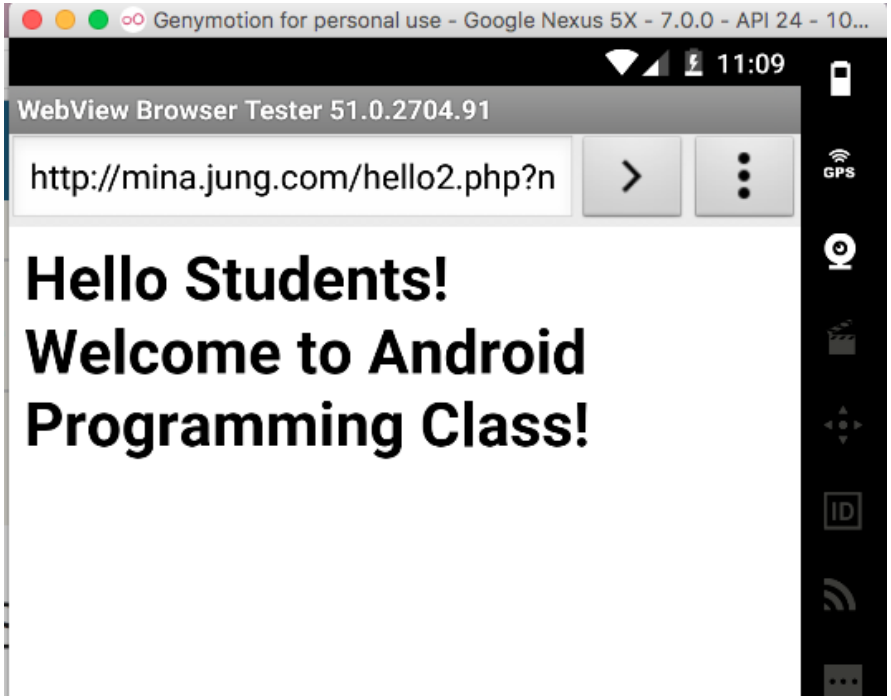
```
$adb root
$adb remount
$adb push /etc/hosts /system/etc/hosts
```


Genymotion for personal use - Google Nexus 5X - 7.0.0 - API 24 - 10...
11:07
WebView Browser Tester 51.0.2704.91
http://localhost/
Webpage not available
The webpage at http://localhost/ could not be loaded because:
net::ERR_CONNECTION_REFUSED
GPS


Genymotion for personal use - Google Nexus 5X - 7.0.0 - API 24 - 10...
11:08
WebView Browser Tester 51.0.2704.91
http://www.example.com/
Hello World
GPS


Genymotion for personal use - Google Nexus 5X - 7.0.0 - API 24 - 10...
11:08
WebView Browser Tester 51.0.2704.91
http://mina.jung.com/
Index of /
Name
Last modified
Size
Description
hello.php 2017-02-24 10:42 59
hello2.php 2017-02-24 10:46 115


Genymotion for personal use - Google Nexus 5X - 7.0.0 - API 24 - 10...
11:09
WebView Browser Tester 51.0.2704.91
http://mina.jung.com/hello.php
Hello Android Programming Class!


Genymotion for personal use - Google Nexus 5X - 7.0.0 - API 24 - 10...
11:09
WebView Browser Tester 51.0.2704.91
http://mina.jung.com/hello2.php?n
GPS
Hello Students!
Welcome to Android
Programming Class!