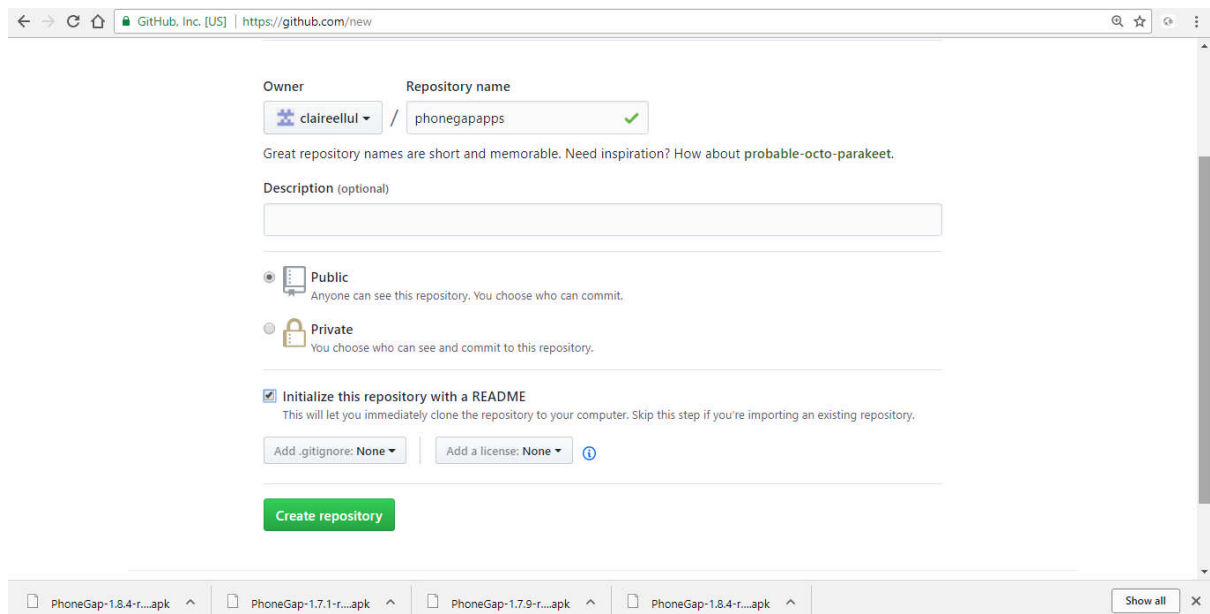


Creating a new PhoneGap Project on Ubuntu

Step 1 – Create a Github Repository for the Project

Set up a new repository on git

1. Go to your GitHub web page
2. Click + and New Repository
3. Name the new repository **cege0043-phonegapapps**
4. Keep it as a public repository with the following settings
5. Click on 'create repository' to create the repository



6. In the command line (terminal) window for Ubuntu, clone the repository to the local version
`cd /home/studentuser/code`
`git clone https://github.com/claireellul/cege0043-phonegapapps.git`

Step 2 – Create a Blank PhoneGap App In Ubuntu

This is a command line option so perhaps more complicated, but is a better option for working at UCL where the firewall will probably block the desktop App.

1. Make sure you are in the correct directory – using `pwd` should give you
`/home/studentuser/code/cege0043-phonegapapps`
2. Create a new phonegap App by typing the line below: (NB App name shouldn't have any spaces). Note that you should also change `ucfscde` for whatever your own UCL username is
e.g. `ucfsxxx` or `ucesxxx`

phonegap create "**ucfscde**" "BasicApp"

3. Use the `ls` command to see the new directory that has been created – you should see a list that includes:

`ucfscde`

4. Add the 'whitelist' plug in to your App – if you miss this step then you won't be able to access the internet from the App!

`cd ucfscde`

`phonegap plugin add cordova-plugin-whitelist`

`cd ..`

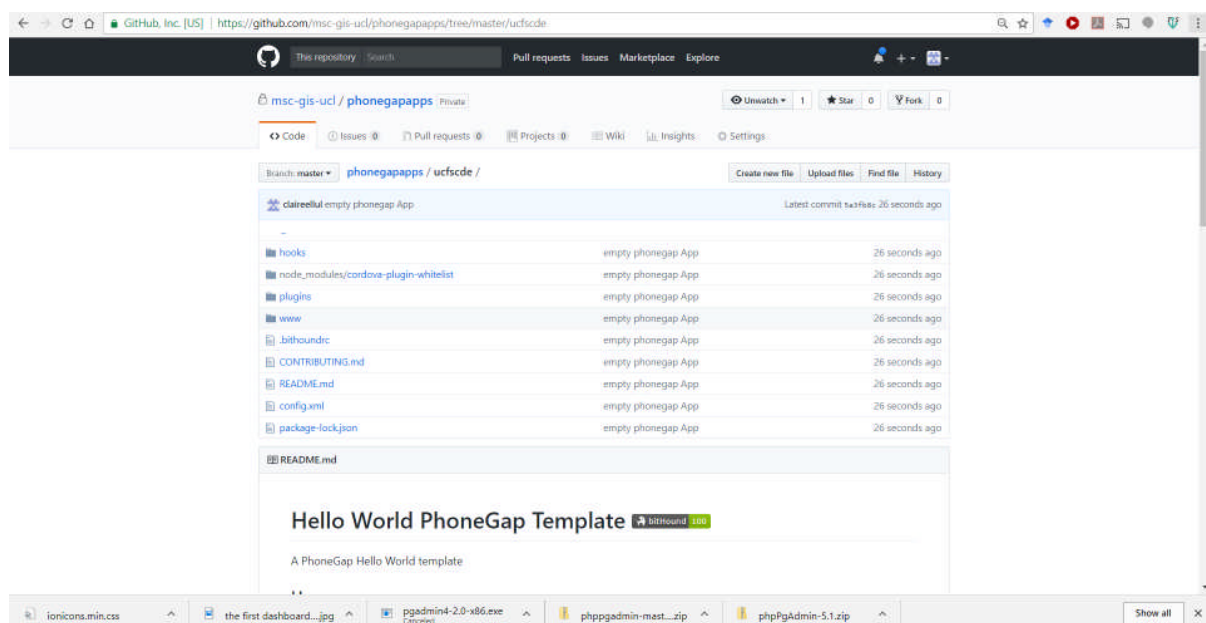
5. Upload all the files to GitHub

`git add -A`

`git commit -am "empty phonegap App"`

`git push`

6. Check your online GitHub account to make sure the files have been uploaded correctly. You should see something that looks like this:



Note the `www` directory – that is where we will be putting our code

Starting the PhoneGap App

1. Make sure you are in the phonegap app directory you just created. Use `pwd` to check that the directory looks like this (use `cd` to change directory if not):

`/home/studentuser/code/phonegapapp/ucfscde`

2. Type *phonegap serve* to start the phonegap server. You will see messages similar to these:

[phonegap] starting app server...

[phonegap] listening on 192.168.128.60:3000

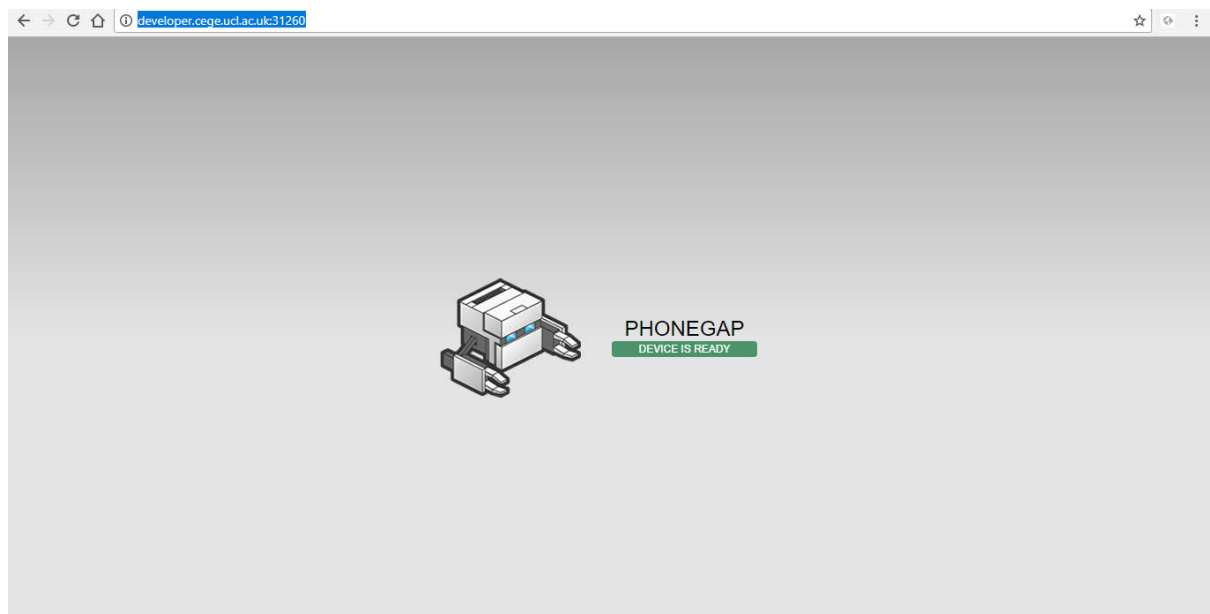
[phonegap]

[phonegap] ctrl-c to stop the server

3. Test the basic App by going to a browser and typing – NB this is your PHONEGAP port:

<http://developer.cege.ucl.ac.uk:31250/>

4. You should see the following (and your system might ask you for permission to download files)



This is the default 'index.html' page that is created for any new PhoneGap App

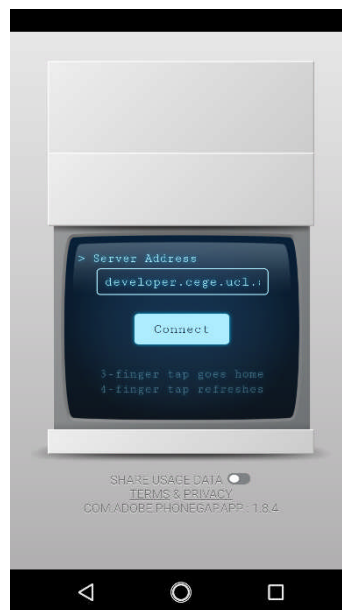
Testing PhoneGap on Your Phone

Once you have tested your PhoneGap App in a browser, you can also test it out on your phone.

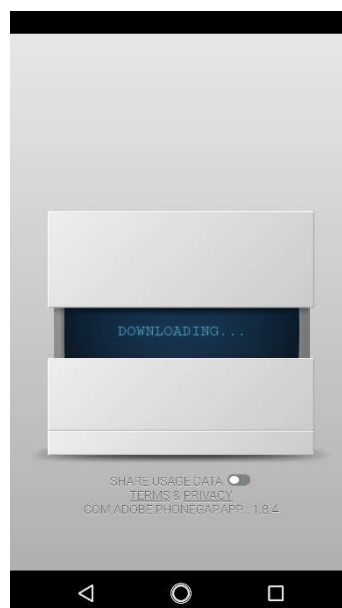
1. Download the PhoneGap App from the Google Play store and install it¹

¹ NB: This may not work for some versions of Android – in that case, you will need to follow the instructions to download and install the App manually – see the slides from Week 1 for a link to instructions.

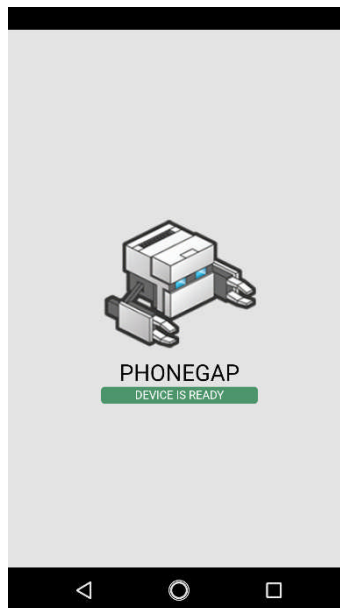
2. Make sure you are on the UCL VPN by installing the Cisco AnyConnect VPN App and connecting to UCL using your UCL username and password
3. Start the PhoneGap App – you will see a screen similar to this (your server address may be blank or a different address for now):



4. Type in the same server address as above and click 'connect' – you will get messages saying *connecting* and then *downloading* (use: developer.cege.ucl.ac.uk:31250 - you don't need the https://)



5. Once connected you will see the same screen as above, but displayed as a native App for your phone



Using Your Own Code

As you have seen, the default App from PhoneGap is just a picture of the PhoneGap logo. However, we want to replace this with our own App – e.g. the Leaflet map we created earlier.

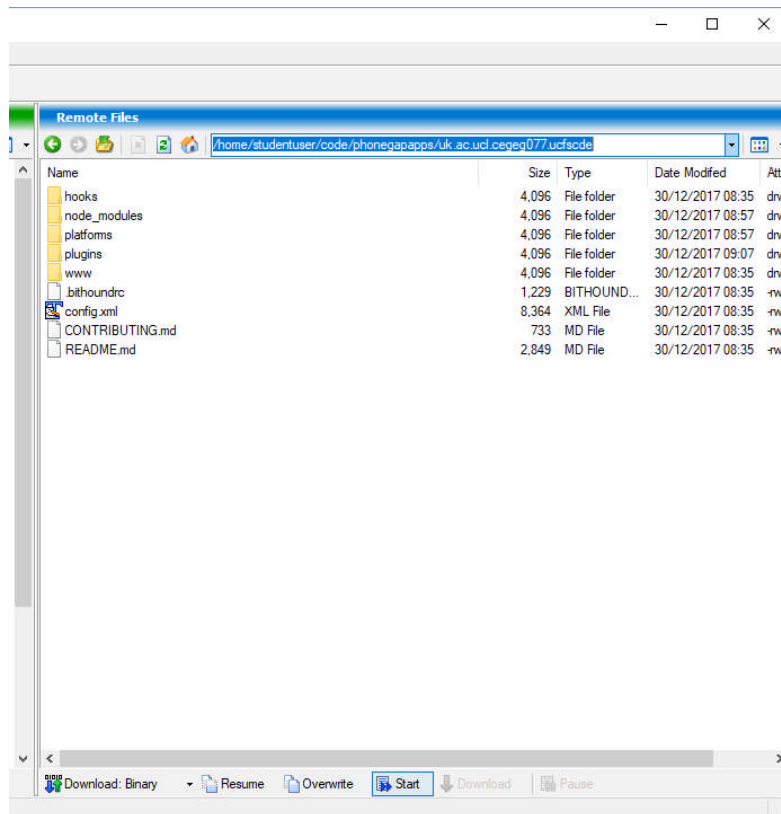
This is quite easy to do, as all you need to do is put your web pages in the www directory that has been automatically created by PhoneGap when you created the project.

Important: You should always have a page called `index.html` as this is the page that PhoneGap will use to start the App

1. Log in to your Ubuntu server via SSH
2. Open an SFTP window (to allow you to drag/drop files) and set the right hand window to your PhoneGap App directory

`/home/studentuser/code/cege0043-phonegapapps/ucfscde`

3. The right hand side of your screen will look similar to the following – note in particular the `www` directory



4. Open the `www` directory and you will see two files `index.html` and `spec.html`
5. Note also the structure of the directories under `www`:
 - `css` will contain any css files for your project
 - `img` will contain any images
 - `js` will contain any javascript files (you can also have javascript in the HTML files of course)
 - `res` contains some default images and icons designed to adapt to the various screen sizes for the different phones – Android, Windows, iPhone
 - `spec` contains the default PhoneGap code

You will not need to make any changes to the `res` or `spec` directories or the `spec.html` file

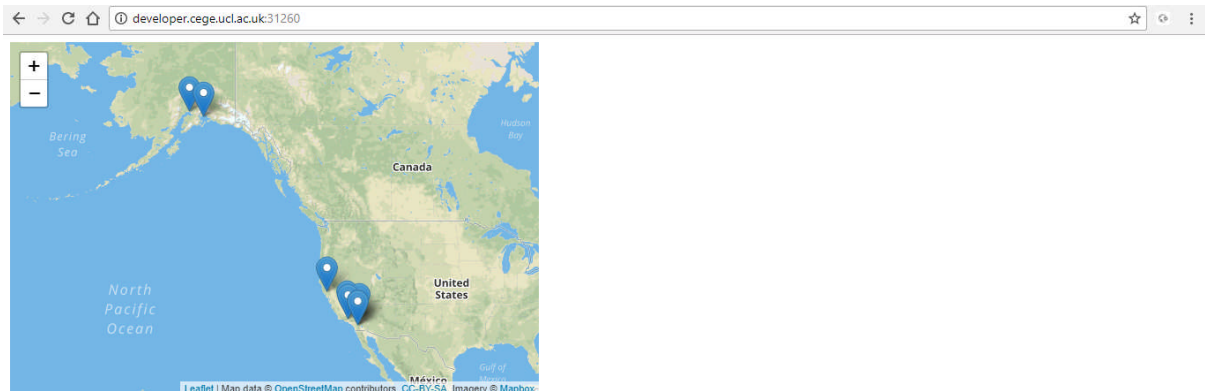
6. Make sure your PhoneGap app is synchronized to GitHub by typing the following commands at the terminal window:

```
cd /home/studentuser/code/cege0043-phonegapapps
git add -A
git commit -am "PhoneGap App before customisation"
git push
```

7. On your PC/laptop/Mac, take a copy of one of your working Leaflet html files and rename the copy to `index.html`

8. In BitVise, copy the new index.html file and replace the one on the server in the `www` directory²
9. Copy any other files you need into the same directory
 - a. `ionicons.min.css`
 - b. `leaflet.awesomemarkers.css`
 - c. `leaflet.awesomemarkers.js`
10. copy the images for any custom icons across – create a new directory called `images` under `www`
11. Commit everything to GitHub
12. At command line (in the terminal window) Start the PhoneGap service again by typing³

```
cd /home/studentuser/code/phonegapapp/ ucfscde  
phonegap serve
```
13. Go to: <http://developer.cege.ucl.ac.uk:31250/> to see your new App



14. Test it out on the phone (remember you need to be on the UCL VPN) – does it work?

² Note – in future practicals we won't simply overwrite files by copying them – this is just to demonstrate PhoneGap

³ If you get an error that says: `[error] listen EADDRINUSE :::3000` this means PhoneGap is already running in the background – just go to the next step