



Adapt plugins for the app

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Titus Learning

What I will cover

- Why should you care about mobile?
- What is the Moodle App?
- Basic Tools and techniques

More smartphones than humans by 2021, according to report

JOE CLARK REPORTER
12TH APRIL 2017

+ INCREASE / DECREASE TEXT SIZE -



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The sales of smartphones are going to continue to rise and CCS Insight estimate that over 10 billion will be shipped by 2021

Limitations of what I will cover

- My Background is in Quiz Question Type
- No coverage of media
- No coverage of camera/video/gyro



How hard is it?

- I had minimal javascript experience before I started
- Three weeks part time development
- I classify it as medium difficulty



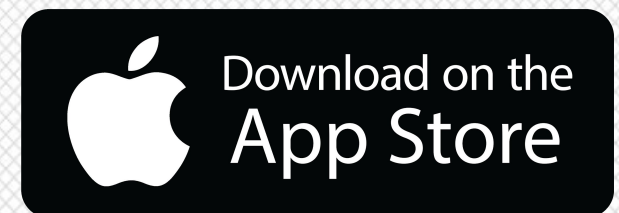
2018 v3.5 - The developers friend

- Improved plugins support
- Develop without Javascript
- Developers do not need a mobile setup



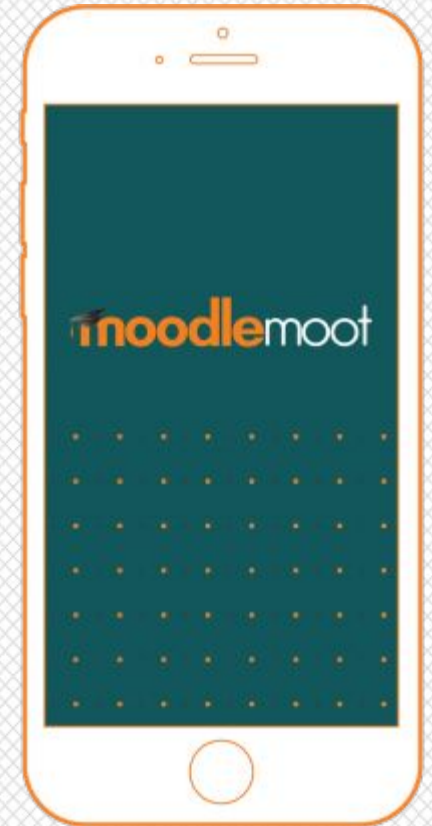
What is the app?

- Cross platform hybrid app
- Web technologies for a native like experience
- Uses the native browser engine



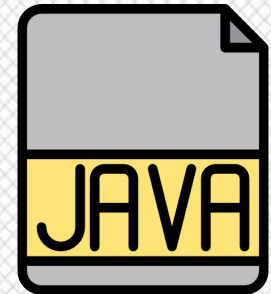
What does it do?

- Separates the interface from the implementation
- Some parts 'scrape the html' output
- Makes use of web services



Programming technologies

- PHP (of course)
- Javascript (probably)
- IONIC Markup (Like Angular/Vue)

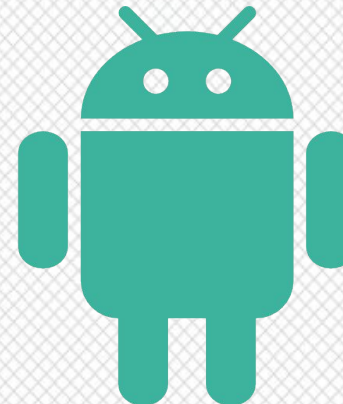
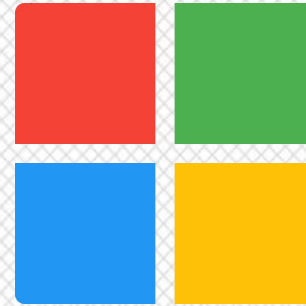


No need to run an emulator

- <https://mobileapp.moodledemo.net/>
- Your site will need to be publicly visible
- I used it for all my development

My tools

- Microsoft VSEdit
- Chromium Browser
- OSX/Android/iPad Hardware



Chromium (is not for chrome)

- Open source basis of Chrome browser
- Run in 'unsafe' mode
- Otherwise the CSS won't render



Browser must be unsafe

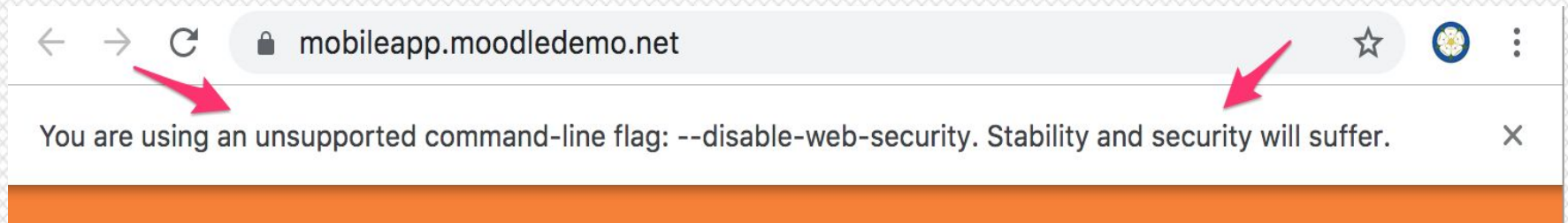
If you don't start the browser correctly like this

```
'/Applications/Google Chrome Canary.app/Contents/MacOS/Google Chrome Canary' --allow-  
file-access-from-files --disable-web-security --user-data-dir --allow-running-  
insecure-content https://mobileapp.moodledemo.net/
```

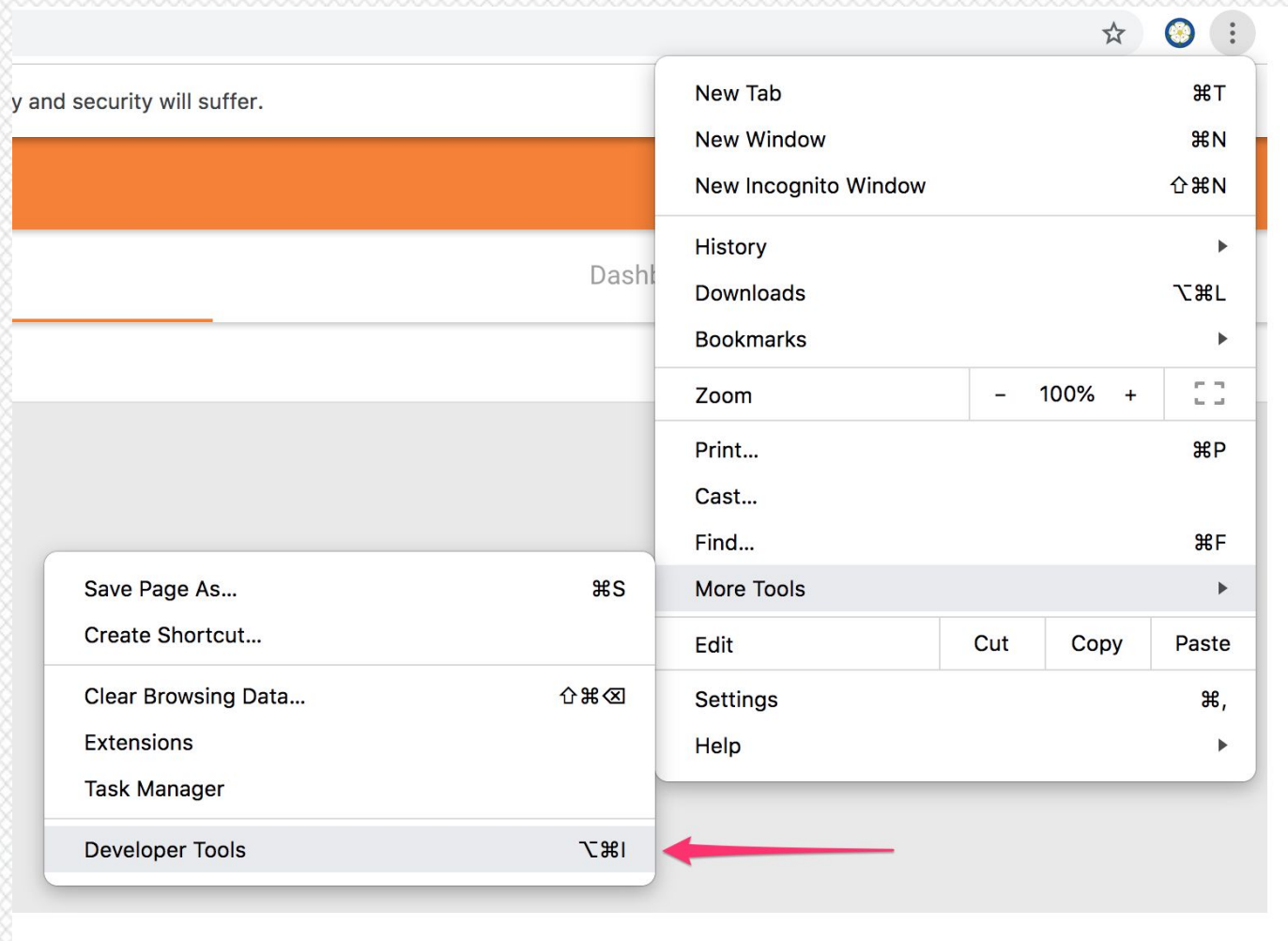
And it is not in 'unsafe' mode you will get this error in the console, the css will not render

```
✖ Access to XMLHttpRequest at 'https://m.vledevelop.co.uk/question/type/wordselec (index):1  
t/mobile/styles_app.css' from origin 'https://mobileapp.moodledemo.net' has been blocked  
by CORS policy: No 'Access-Control-Allow-Origin' header is present on the requested  
resource.
```


You **SHOULD** see this warning



Chrome developer tools



The debugger statement

```
22
23 var that = this;
24 var result = {
25
26   componentInit: function() {
27     debugger;
28     /**
29      * If the question is in a readonly state, e.g. after being
30      * answered or in the review page then stop any further
31      * selections.
32      *
33      * @param {NodeList} draggables
34      * @param {MouseEvent} event
35      * @return {string} value of target
36      */
37     function pickAnswerOption(draggables, event) {
38       /* If the question is in a readonly state, e.g. after being
39        * answered or in the review page then stop any further
40        * selections.
41        */
42       if (event.currentTarget.classList.contains('readonly')) {
43         return false;
44       }
45     }
46   }
47 }
```


Files to add

- db/mobile.php
- class/output/mobile.php
- javascript/mobile.js
- mobile/YOURPLUGINNAME.html
- styles_app.css



Ionic Markup

Like extended HTML

```
<p *ngIf="!question.readOnly" class="core-info-card" icon-start>  
  <ion-icon name="information-circle"></ion-icon>  
  {{ 'plugin.qtype_wordselect.taptoselect' | translate }}  
</p>
```

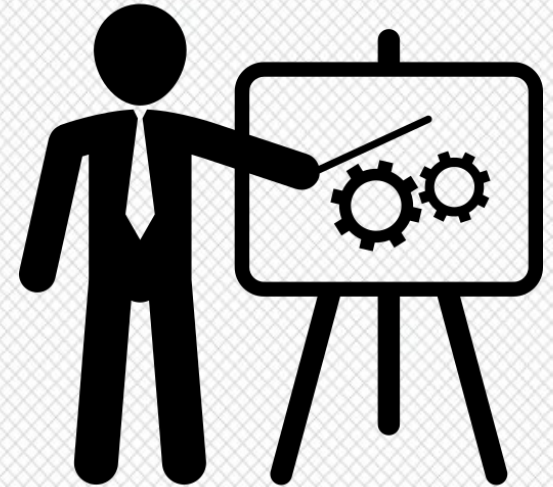


Tap to select


```
27 $addons = array(
28     ... "qtype_YOURQTYPENAME" => array(
29         ... "handlers" => array( // Different places where the add-on will display content.
30             ... 'YOURQTYPENAME' => array( // Handler unique name (can be anything).
31 +             ... 'displaydata' => array( ...
35             ... ),
36             ... 'delegate' => 'CoreQuestionDelegate', // Delegate (where to display the link to the add-on).
37             ... 'method' => 'mobile_get_YOURQTYPENAME',
38 +             ... 'offlinefunctions' => array( ...
41             ... ), // Function needs caching for offline.
42 +             ... 'styles' => array( ...
49             ... )
50         ... ),
51     ... )
52 );
```

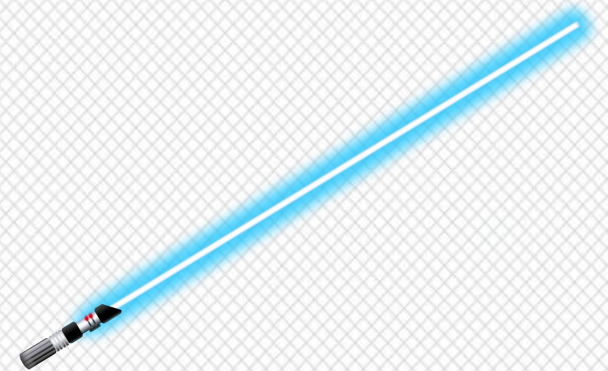

Where to show the output

- 'delegate' => 'CoreCourseModuleDelegate'
- 'delegate' => 'CoreQuestionDelegate'
- 'delegate' => 'CoreMainMenuDelegate'



Use the source

- See how the core plugins are written
- They use ES6/Typescript
- Not quite the same as plugins

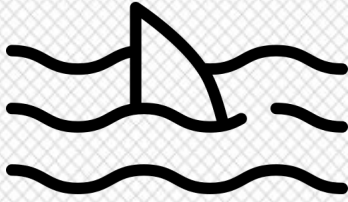


Testing on IOS and Android

- Mostly compatible
- IOS seemed to have more quirks
- Test on the real thing



Fin



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Any Questions?