Adapt plugins for the app

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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

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

```shell
/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/wordselect (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

You are using an unsupported command-line flag: --disable-web-security. Stability and security will suffer.
Chrome developer tools
The debugger statement

```javascript
var that = this;
var result = {

  componentInit: function() {
    debugger;

    /**
    * If the question is in a readonly state, e.g. after being
    * answered or in the review page then stop any further
    * selections.
    *
    * @param {NodeList} draggables
    * @param {MouseEvent} event
    * @return {string} value of target
    **/
    function pickAnswerOption(draggables, event) {
      /* If the question is in a readonly state, e.g. after being
       * answered or in the review page then stop any further
       * selections.
       */
      if (event.currentTarget.classList.contains('readonly')) {
        return false;
      }
    }
```
Files to add

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

Like extended HTML

```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
$addons = array(
    "qtype_YOURQYPENNAME" => array(
        "handlers" => array( // Different places where the add-on will display content.
            'YOURQYPENNAME' => array( // Handler unique name (can be anything).
                'displaydata' => array(…
            ),
            'delegate' => 'CoreQuestionDelegate', // Delegate (where to display the link to the add-on).
            'method' => 'mobile_get_YOURQYPENNAME',
            'offlinefunctions' => array(…
                ), // Function needs caching for offline.
            'styles' => array(…
        ),
    ),
);
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
Any Questions?

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