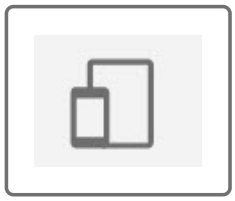
5.3.7 Make Adjustments for Mobile

The folks at Taskmaster would like the app to still function on mobile devices. We've already implemented a responsive layout thanks to Bootstrap, but does all of this new jQuery UI interactivity work on mobile? Let's find out.

In Chrome, open the DevTools and click on the Device Toolbar button, which looks like this:

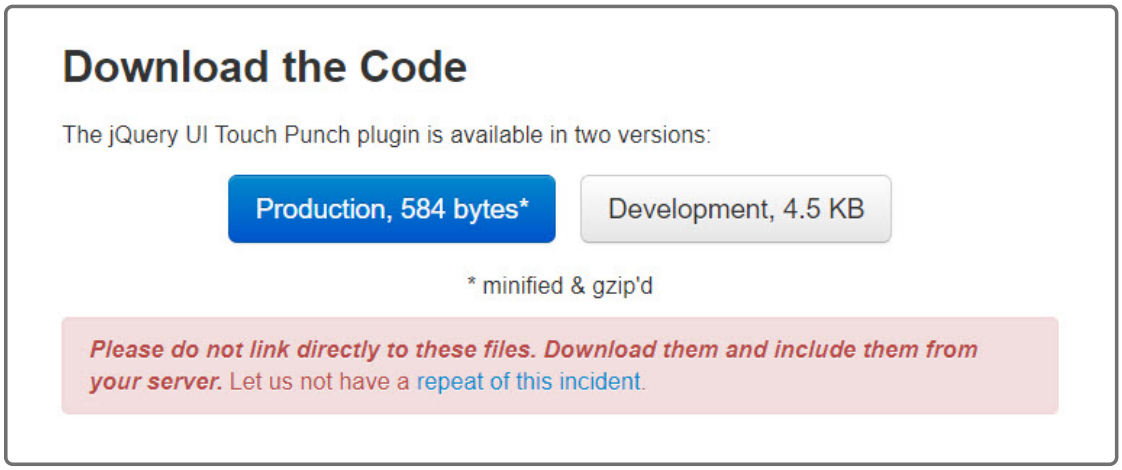


Refresh the page while in mobile view so Chrome can load it as if it were on a mobile device. Try to drag one of the tasks. Strangely, you can't! The problem is that mobile devices have their own set of touch events separate from browser events, and jQuery UI doesn't support these events out of the box.

Do a quick Google search for "jquery ui touch events," and you'll most likely come across a library called **jQuery UI Touch Punch (http://touchpunch.furf.com/)** . The thing about web development is that

there's usually a library fix for everything. As you've seen already, libraries can be extremely useful and helpful, but they do come at a cost. Another library means more code the browser has to download, and libraries can further add to your project's technical debt.

Touch Punch is a very light add-on to jQuery UI, though, and won't require any JavaScript code changes on our part, so it's safe to use. However, we should be mindful of each library's intended use. The Touch Punch website displays the following message:



The author asks that developers don't link directly to the provided JavaScript file. So we have two options:

- Download the Touch Punch `.js` file and include it with our project code.
- Search for an actual CDN link.

We've already used cdnjs for other libraries, and cdnjs does have a link for Touch Punch, so we'll go with that route.

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There are certainly pros and cons when using CDN URLs. Downloading assets from another source can speed up your own webpage's initial load time. This is particularly true if users have visited other webpages linking to the same CDN. The resources would be cached from previous visits and would not need to be downloaded again when visiting your webpage.

The risk is that your webpage is now beholden to the CDN's upkeep. It's not likely to happen, but there is the possibility that the CDN could go down or the contents of the files could change without warning. In future modules, we'll look at other ways to add libraries to a project, but know that CDNs are generally safe to use.

Update the Taskmaster `index.html` file to include one more `<script>` element for Touch Punch:

```
<script src="https://cdnjs.cloudflare.com/ajax/libs/jquery/3.4.1/jquer
<script src="https://cdnjs.cloudflare.com/ajax/libs/jqueryui/1.12.1/jq
<!-- add touch punch here -->
<script src="https://cdnjs.cloudflare.com/ajax/libs/jqueryui-touch-pun
<script src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.15.0/u
<script src="https://cdnjs.cloudflare.com/ajax/libs/twitter-bootstrap/
<script src="./assets/js/script.js"></script>
```

Similar to how jQuery UI needed to load after jQuery, Touch Punch needs to load after jQuery UI. Save and refresh the browser with the mobile preview still open. Drag-and-drop works again! Take a moment to celebrate getting this feature fully working. You've earned it.

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