**Polymer Project**

Basic setup links:

* <https://www.polymer-project.org/1.0/docs/tools/polymer-cli#element-imports>
* <https://www.polymer-project.org/1.0/start/first-element/intro>

Prerequisites for Polymer framework:

* I selected Windows 64-bit.
* Install Node.js @ <https://nodejs.org/en/download/>
* Install git @ <https://git-scm.com/downloads>

For web apps:

* npm install -g gulp bower

Sample output:

npm WARN deprecated minimatch@2.0.10: Please update to minimatch 3.0.2 or higher to avoid a RegExp D

oS issue

npm WARN deprecated minimatch@0.2.14: Please update to minimatch 3.0.2 or higher to avoid a RegExp D

oS issue

npm WARN deprecated lodash@1.0.2: lodash@<3.0.0 is no longer maintained. Upgrade to lodash@^4.0.0.

npm WARN deprecated graceful-fs@1.2.3: graceful-fs v3.0.0 and before will fail on node releases >= v

7.0. Please update to graceful-fs@^4.0.0 as soon as possible. Use 'npm ls graceful-fs' to find it in

the tree.

C:\Users\Tom\AppData\Roaming\npm\gulp -> C:\Users\Tom\AppData\Roaming\npm\node\_modules\gulp\bin\gulp

.js

C:\Users\Tom\AppData\Roaming\npm\bower -> C:\Users\Tom\AppData\Roaming\npm\node\_modules\bower\bin\bo

wer

gulp@3.9.1 C:\Users\Tom\AppData\Roaming\npm\node\_modules\gulp

├── interpret@1.0.1

├── pretty-hrtime@1.0.2

├── deprecated@0.0.1

├── archy@1.0.0

├── minimist@1.2.0

├── tildify@1.2.0 (os-homedir@1.0.1)

├── v8flags@2.0.11 (user-home@1.1.1)

├── semver@4.3.6

├── chalk@1.1.3 (escape-string-regexp@1.0.5, supports-color@2.0.0, ansi-styles@2.2.1, has-ansi@2.0.0

, strip-ansi@3.0.1)

├── orchestrator@0.3.7 (stream-consume@0.1.0, sequencify@0.0.7, end-of-stream@0.1.5)

├── vinyl-fs@0.3.14 (strip-bom@1.0.0, vinyl@0.4.6, defaults@1.0.3, through2@0.6.5, mkdirp@0.5.1, gra

ceful-fs@3.0.9, glob-stream@3.1.18, glob-watcher@0.0.6)

├── liftoff@2.3.0 (lodash.isstring@4.0.1, lodash.isplainobject@4.0.6, lodash.mapvalues@4.6.0, rechoi

r@0.6.2, extend@3.0.0, flagged-respawn@0.3.2, resolve@1.1.7, fined@1.0.1, findup-sync@0.4.2)

└── gulp-util@3.0.7 (array-differ@1.0.0, array-uniq@1.0.3, lodash.\_reescape@3.0.0, lodash.\_reinterpo

late@3.0.0, lodash.\_reevaluate@3.0.0, beeper@1.1.0, object-assign@3.0.0, replace-ext@0.0.1, has-gulp

log@0.1.0, fancy-log@1.2.0, vinyl@0.5.3, gulplog@1.0.0, lodash.template@3.6.2, through2@2.0.1, multi

pipe@0.1.2, dateformat@1.0.12)

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Install Polymer CLI:

* npm install –g polymer-cli

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unzip polymer-starter-kit-xxx (PSK)

Set and prepare files for the server, need to do once only if successful.

* **Note**: Copy the files from PSK lite (polymer-starter-kit-**light**-1.3.0.zip) bower\_components onto <PSK>\app. The gulp expects some files/directories at that bower folder.

cd onto PSK directory

* npm install
* bower install

...\polymer-starter-kit-1.3.0>**gulp**

Sample output:

Using gulpfile C:\Projects\Polymer\polymer-starter-kit-1.3.0\gulpfile.js

Starting 'clean'...

Finished 'clean' after 395 ms

Starting 'default'...

Starting 'ensureFiles'...

Finished 'ensureFiles' after 391 µs

Starting 'copy'...

Starting 'styles'...

styles all files 120 B

Finished 'styles' after 1.43 s

copy all files 1.05 MB

Finished 'copy' after 2.02 s

Starting 'images'...

Starting 'fonts'...

Starting 'html'...

Finished 'fonts' after 1.46 s

gulp-imagemin: Minified 9 images (saved 1.27 kB - 1.9%)

images all files 65.21 kB

Finished 'images' after 5.59 s

html all files 1.53 MB

Finished 'html' after 4.54 s

Starting 'vulcanize'...

vulcanize all files 509.2 kB

Finished 'vulcanize' after 2.84 s

Finished 'default' after 11 s

Start the local web server. This will open a web page in your web browser (**http://localhost:5000/)**.

* **gulp serve**

Sample output:

Working directory changed to C:\Projects\Polymer\polymer-starter-kit-1.3.0

Using gulpfile C:\Projects\Polymer\polymer-starter-kit-1.3.0\gulpfile.js

Starting 'styles'...

styles all files 120 B

Finished 'styles' after 1.9 s

Starting 'serve'...

Finished 'serve' after 1.85 s

[PSK] Access URLs:

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Local: http://localhost:5000

External: http://192.168.0.19:5000

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UI: http://localhost:3001

UI External: http://192.168.0.19:3001

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[PSK] Serving files from: .tmp

[PSK] Serving files from: app

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Below is for running element demo…

Change to directory containing the Polymer Starter Kit (PSK) directory:

* C:\Projects\Polymer\polymer-starter-kit-1.3.0> polymer serve

Sample output:

Starting Polyserve...

serving on port: 8080

from root: C:\Projects\Polymer\polymer-starter-kit-1.3.0

Files in this directory are available under the following URLs

applications: http://localhost:8080

reusable components: <http://localhost:8080/components/polymer-starter-kit/>

Possible error: cannot find bower.json file.

**Google Map Integration**

Prerequisites:

* Install Polymer
* Use Google Web Components

Links:

* + <https://codelabs.developers.google.com/codelabs/polymer-maps/index.html?index=..%2F..%2Findex#0>
  + <https://elements.polymer-project.org/browse?package=google-web-components>
  + <https://elements.polymer-project.org/elements/google-map>

Steps:

* cd <PSK directory>
* ...\polymer-starter-kit-1.3.0> bower install GoogleWebComponents/google-map –save
* Get the Maps API key @ <https://developers.google.com/maps/documentation/javascript/get-api-key> . My key is:
  + Name: Map Browser key
  + Key: AIzaSyBtl3l6IRtEBBsi9PjCY3OWcd3t3UU9VLE
  + Created: 8-14-2016
* Using an API key @ <https://developers.google.com/maps/documentation/javascript/get-api-key#premium-key> . I selected the Standard API, skip the Premium plan and rest of the web page.

Authentication for Google Maps APIs Premium Plan customers…

* Register your application for Google Map.
* Add credentials to your project @ <https://console.developers.google.com/apis/credentials/wizard?api=maps_backend&project=just-plate-140406> .
* I chose Google Maps JavaScript API.

**Firebase Deployment**

* AAAAAAAAAAAAAA
* firebase login
* firebase init.

Sample output:

? What Firebase CLI features do you want to setup for this folder?

(\*) Database: Deploy Firebase Realtime Database Rules

>(\*) Hosting: Configure and deploy Firebase Hosting sites

I selected:

* Configure and deploy Firebase Hosting sites
* Create a new project
* file used for Database rules – database.rules.json

Sample Output:

Before we get started, keep in mind:

\* You are currently outside your home directory

? Are you ready to proceed? Yes

? What Firebase CLI features do you want to setup for this folder? Database: Deploy Firebase Realtime Database Rules, Hosting: Configure and deploy Firebase Hosting sites

=== Project Setup

First, let's associate this project directory with a Firebase project.

You can create multiple project aliases by running firebase use --add,

but for now we'll just set up a default project.

? What Firebase project do you want to associate as default? [create a new project]

=== Database Setup

Firebase Realtime Database Rules allow you to define how your data should be

structured and when your data can be read from and written to.

? What file should be used for Database Rules? **database.rules.json**

+ Database Rules for undefined have been downloaded to database.rules.json.

Future modifications to database.rules.json will update Database Rules when you run

firebase deploy.

=== Hosting Setup

Your public directory is the folder (relative to your project directory) that will contain Hosting assets to uploaded with firebase deploy. If you have a build process for your assets, use your build's output directory.

? What do you want to use as your public directory? public

? Configure as a single-page app (rewrite all urls to /index.html)? Yes

+ Wrote public/index.html

i Writing configuration info to **firebase.json**...

i Writing project information to **.firebaserc**...

+ Firebase initialization complete!

Project creation is only available from the Firebase Console

Please visit https://console.firebase.google.com to create a new project,

then run firebase use --add

Q: Add an alias to an existing project (optional):

A: Via web browser:

* <https://console.firebase.google.com/> OR
* <https://console.firebase.google.com/project/just-plate-140406/hosting/main>
* firebase deploy

Sample output:

=== Deploying to 'just-plate-140406'...

i deploying database

+ database: rules ready to deploy.

i starting release process (may take several minutes)...

+ Deploy complete!

Hosting Site: https://just-plate-140406.firebaseapp.com

Dashboard: https://console.firebase.google.com/project/just-plate-140406/overview

Visit the URL above or run firebase open

Q: Make a custom domain

A: <https://console.firebase.google.com/project/just-plate-140406/hosting/main> and select Connect Custom Domain link.

Results:

* Home link: https://just-plate-140406.firebaseapp.com/
* https://console.firebase.google.com/project/just-plate-140406/hosting/main

Q:

A:

Q:

A:

Q:

A: