Troubleshoot manual

1. bash: ng: command not found

Solution:
Use npm instead of ng. Npm wraps ng command.
So instead of using ng serve, you can also use npm start. So instead of ng e2e, you can run with npm run e2e.

2. The feature did not match any files

[11:33:23] W/configParser - pattern ./e2e/features/*/*.feature did not match any files.
[11:33:23] E/launcher - Spec patterns did not match any files.
[11:33:23] E/launcher - Error: Spec patterns did not match any files.
Solution:
Check the protractor.conf.js. In the configuration, it is defined where all of the feature files are located.
The spec in the file is defined as

```
specs: [
    './e2e/features/*/*.feature'
],
```

The location of all feature files are in ./e2e/features/*.feature

It should be

```
specs: [
    './e2e/features/**/*.feature'
],
```

There is a difference between using * and **. When we use **, it will match all folders and files within that directory.

3. E/launcher - Error: Error: When config.framework is custom, config.frameworkPath is required.

Solution:
1. Install "protractor-cucumber-framework"

```
npm install --save-dev protractor-cucumber-framework
```

2. add frameworkPath configuration in protractor.conf.js

```
frameworkPath: require.resolve('protractor-cucumber-framework'),
```

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4. [11:49:23] E/launcher - Error: Error: ENOENT: no such file or directory, open '/Projects/qa-test-assessment-master/test-reports/cucumber-test-results.json'

Solution:
1. Install protractor cucumber reporter plugin

```
npm install --save-dev protractor-simple-
cucumber-html-reporter-plugin
```

2. add in protractor.conf.js
```
plugins: [
    {
      package: "protractor-simple-cucumber-html-reporter-plugin",
      options: {
        // read the options part for more options
        automaticallyGenerateReport: true,
        removeExistingJsonReportFile: true
      }
    }
  ]
```

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5. e/launcher - error: spawn unknown system error -86

If you run "npm run e2e" and you got this error. Please take a look at the stacktrace. And if you see closely to the stacktrace, it can be originated from task : Create Webdriver session. Apparently there was an update of the chrome driver from 86 to 87. It appears that chromedriver now supports Apple Silicon ARM architecture. And until chrome version 86 there was only one version for mac64 chrome driver. But since chrome version 87, there are two binaries chrome which are mac64 and mac64_m1. But this issues have been fixed https://github.com/angular/webdriver-manager/issues/476.

What we should do in our local environment is:

1. Remove the package-lock.json and node_modules

2. Do npm install again

3. And try to do npm run e2e.