React Native Barcode Scanning Shopping App

francis.booth@hcl.com

March 24th, 2020

- Explain the use case(s)
- Define pre-requisites of what is needed to support/run app
- Create step-by-step documentation on setting up pre-requisites
- Create step-by-step documentation on setting up / installing the app
- Create step-by step documentation on setting up / running the app
- Produce end-to-end video of usage

Purpose / UseCase: Demonstrate the ability to integrate a REACT-Native application with HCL Commerce v9. The use case is that the user can scan barcodes (CODE-128), add these items to the cart, and prepare for checkout with a registered user.

Technology Knowledge Requirements: nginx, npm, node.js, REACT-Native, expo, and HCL Commerce REST APIs

Installation & Set Up

1. HCL Commerce v9 installed, running, and visible from the environment. localhost is preferred.
2. Install nginx and configure the nginx server to operate as a HTPS/SSL termination proxy.

a. Install nginx for Windows - nginx v1.17.9 - docs here - https://nginx.org/en/docs/
    i. http://nginx.org/download/nginx-1.17.9.zip
b. Configure nginx.conf located in the C:\nginx\nginx-1.17.8\conf directory
c. Add the following entries to listen on cleartext alternate ports to bypass the SSL verification because iOS and Android require adding of certs to the keystore.

```
    server {
        listen 4443;
        location / {
#            resolver 127.0.0.1;
            proxy_ssl_verify off;
            proxy_pass https://10.0.0.1:443$uri$is_args$args;
        }
    }

    server {
        listen 8843;
        location / {
#            resolver 127.0.0.1;
            proxy_ssl_verify off;
            proxy_pass https://10.0.0.1:8443$uri$is_args$args;
        }
    }

    server {
        listen 7738;
        location / {
#            resolver 127.0.0.1;
            proxy_ssl_verify off;
            proxy_pass https://10.0.0.1:3738$uri$is_args$args;
        }
    }
```

    d. Start nginx v1.17.8 - nginx installation instructions here - https://nginx.org/en/docs/
3. Install Git for Windows – providing this project is committed to GIT
    a. Download git for Windows - https://gitforwindows.org/
    b. I recommend using gitBash – and then (when checked in code) - clone and checkout this project
    c. Checkout / clone pull this project – needs to be in GIT
4. Install Visual Studio v1.43.0 https://code.visualstudio.com/
    a. Follow the installation instructions - https://code.visualstudio.com/docs/setup/windows
5. Install node.js version v10.19.0
    a. Installed Node.js - download version v10.19.0

    https://nodejs.org/en/download/releases/

    Or https://nodejs.org/download/release/v10.19.0/
6. Install npm version 6.13.4 - see video - https://www.youtube.com/watch?v=WnS7dcY5Hys
7. install expo - v3.13.5 - see video - https://www.youtube.com/watch?v=WnS7dcY5Hys

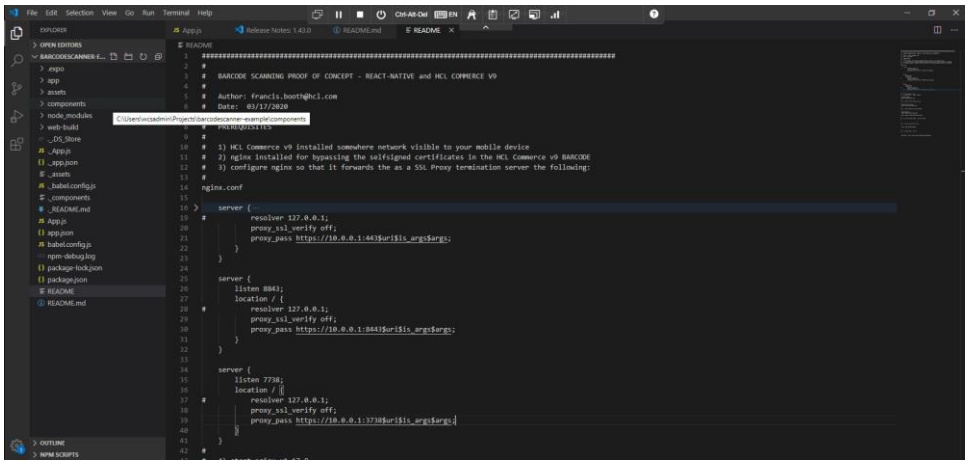
Follow this video on youtube. Video Help - https://www.youtube.com/watch?v=WnS7dcY5Hys

Checkout Code and Setup Project

1. Recommend the following project path in the BDA
    a. Create the C:\Users\wcsadmin\Projects
2. Checkout from the git repository this code base into this directory (to be published) - should look like this - C:\Users\wcsadmin\Projects\barcodescanner-example
3. Start the VS Code application and then add as a workspace project – so it looks like this – VSCode Documentation – Learn

vsCode basics here it is an IDE...https://code.visualstudio.com/docs/getstarted/introvideos

4. The project should look like this:



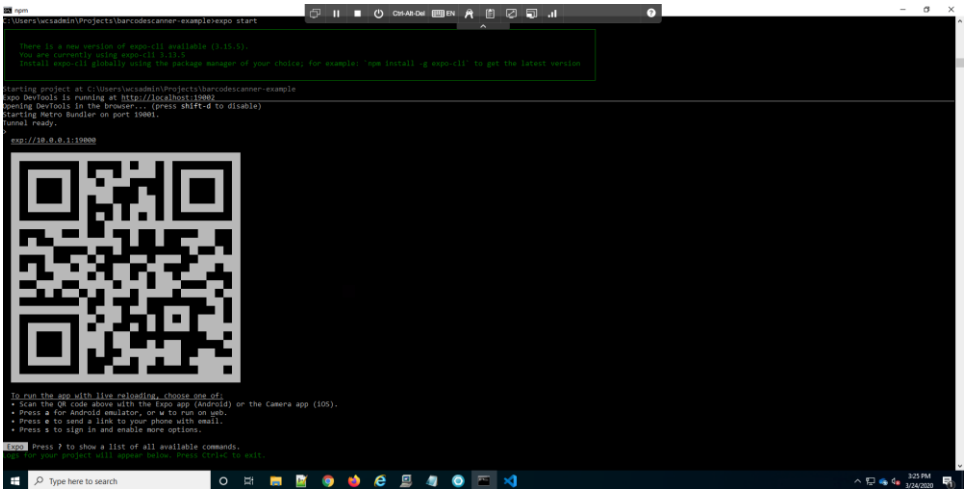
5. Then start expo local server using this command line command from the project's barcode directory(C:\Users\wcsadmin\Projects\barcodescanner-example)

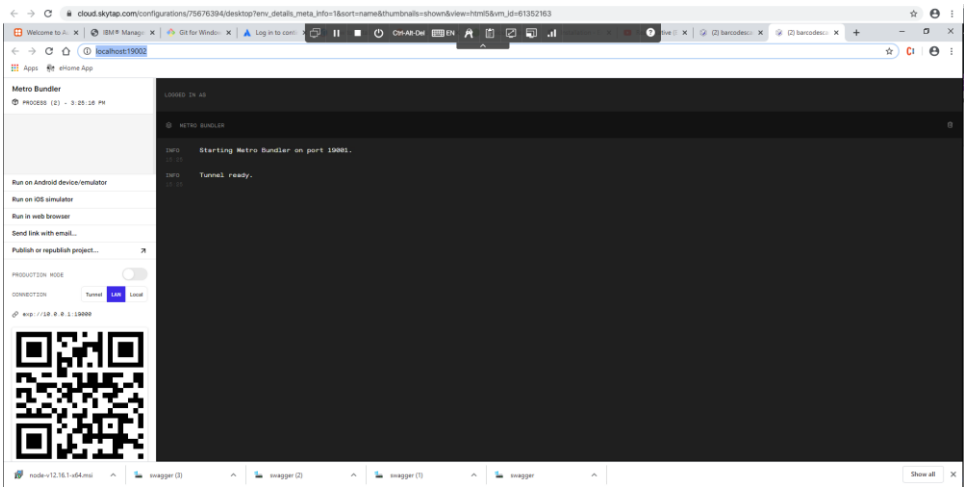
```
C:\Users\wcsadmin\Projects\barcodescanner-example>dir
Volume in drive C has no label.
Volume Serial Number is CCBE-951A

Directory of C:\Users\wcsadmin\Projects\barcodescanner-example

03/17/2020  12:32 PM    <DIR>          .
03/17/2020  12:32 PM    <DIR>          ..
02/21/2020  04:38 PM             6,148 .DS_Store
03/17/2020  11:28 AM    <DIR>          .expo
02/21/2020  04:38 PM               120 ._.DS_Store
02/28/2020  07:07 PM               213 ._App.js
02/21/2020  04:22 AM               213 ._app.json
02/28/2020  10:23 AM               213 ._assets
02/21/2020  04:22 AM               213 ._babel.config.js
02/21/2020  04:22 AM               213 ._components
02/21/2020  04:22 AM               213 ._README.md
03/09/2020  09:51 AM    <DIR>          app
02/28/2020  07:07 PM            14,570 App.js
02/21/2020  04:22 AM               704 app.json
03/09/2020  09:44 AM    <DIR>          assets
```

```
02/21/2020  04:22 AM               104 babel.config.js
03/09/2020  09:44 AM    <DIR>          components
03/09/2020  09:44 AM    <DIR>          node_modules
03/09/2020  07:26 PM         1,861,578 npm-debug.log
02/28/2020  06:17 PM           325,688 package-lock.json
02/28/2020  06:17 PM               581 package.json
03/17/2020  12:53 PM             1,655 README
02/21/2020  04:22 AM               904 README.md
03/09/2020  09:51 AM    <DIR>          web-build
              16 File(s)      2,213,330 bytes
               8 Dir(s)  10,516,291,584 bytes free
```

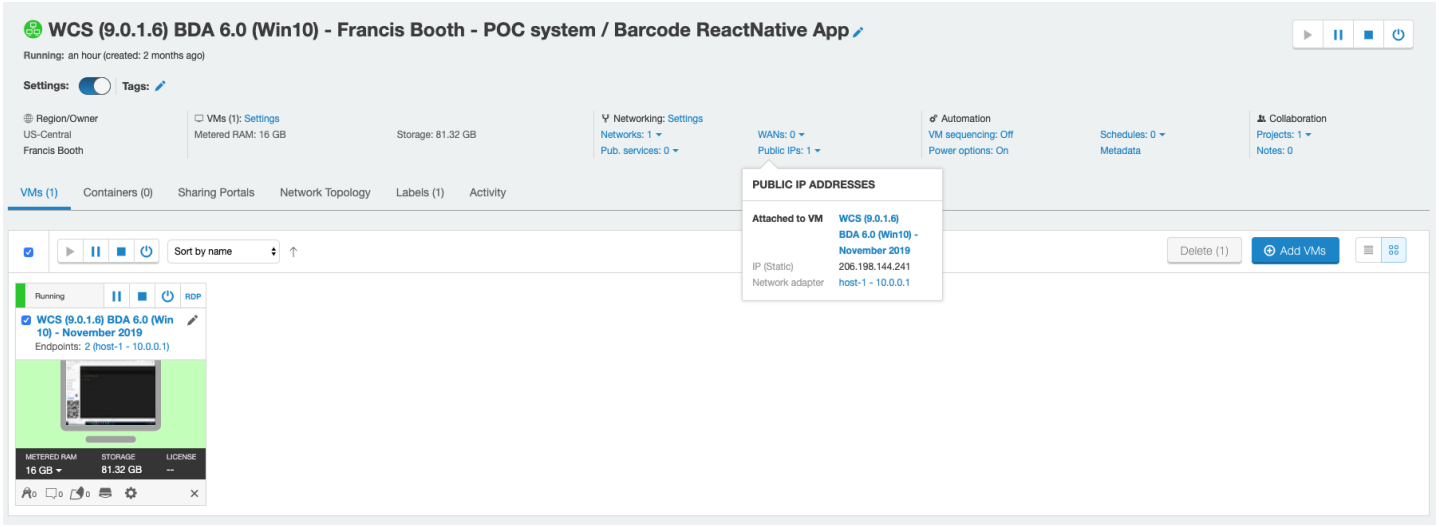
```
C:\Users\wcsadmin\Projects\barcodescanner-example>expo start
```

6. Then the expo server will start – note the QR code will point to the internal IP Address- example URL, exp://10.0.0.1:19000

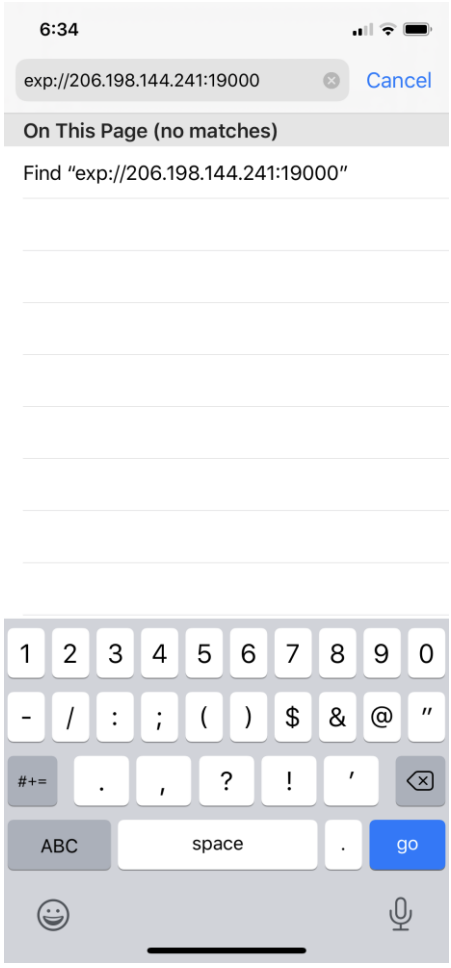


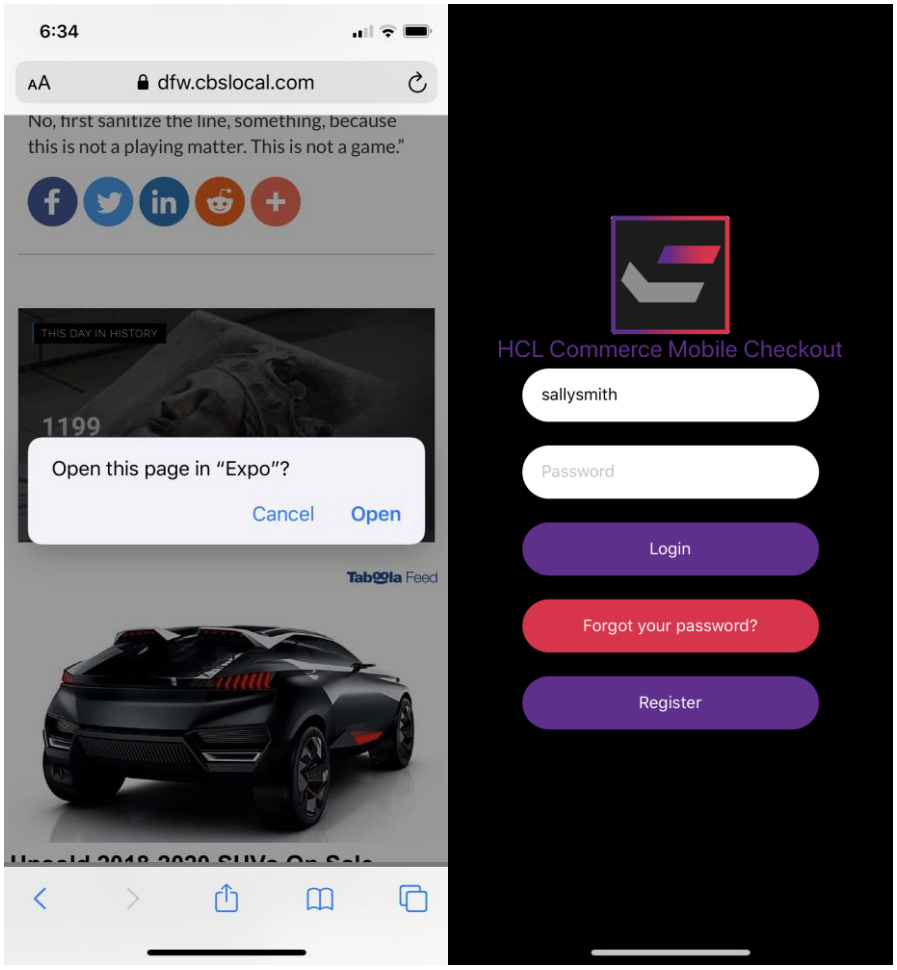


7. With your iPhone or android device install the expo app client.
    a. IOS – Apple Store - https://apps.apple.com/us/app/expo-client/id982107779
    b. Android – Google Store - https://play.google.com/store/apps/details?id=host.exp.exponent&hl=en_US
    c. Install the expo client
8. Make sure you have network visibility to the expo server. If in a BDA use the external IP Address, for instance my BDA is 206.198.144.241.



9. scan the QR code or in a browser on your device connect to: exp://206.198.144.241:19000


6:34
exp://206.198.144.241:19000
Cancel
On This Page (no matches)
Find “exp://206.198.144.241:19000”
1 2 3 4 5 6 7 8 9 0
- / : ; ( ) $ & @ ”
#+= . , ? ! ’
ABC
space
.
go



10. Username: sallysmith Password: passw0rd
11. Use the application scanning barcode (CODE-128) where the value is the SKU string as a generated barcode. Use this site for the barcode generation. https://barcode.tec-it.com/en/Code128
12. Here is a video of the Barcode scanning application at work. https://hclo365-my.sharepoint.com/:v:/r/personal/francis_booth_hcl_com/Documents/Attachments/HCLCommerceMobileShoppingApp-B2C.mov?csf=1&e=d6QXyD