Lab 2

Task 1 – Setup and configure Apache cordova on your desktop/laptop

a. Do a research on how to install Apache Cordova
b. Install the Apache Cordova according to research
c. Write a step by step process based on your successful experience on How to install Apache Cordova

Task 2 – Your First Apache Cordova Application

a. Create a folder where your Apache Cordova Project will be stored
    1. Open command prompt
    2. Type : cd Desktop
    3. Type: mkdir cordovaProject
    4. Type: cd cordovaProject

b. Now you are in the cordovaProject working area. Your C prompt will look like:

    C:\Users\Desktop\cordovaProject>

c. Create a new Cordova Project by the following command
    1. cordova create Task2Hello io.csm3103.lab2 Task2
    2. cd Task2Hello

d. Add android platform to the project
    1. cordova platform add browser

e. Add browser platform to the project
    1. Cordova platform add browser

f. Test your first Cordova Project on browser
    1. cordova run browser

g. Test your first Cordova project on android

Task3 – Simple eventListener in Cordova Project

1. Create new cordova project call Task3
2. Open file explorer and explore your project folder and goto to /www/js folder
3. Open index.js file and add the following code

```
document.addEventListener('volumedownbutton', onVolumeKeyDown, false);

function onVolumeKeyDown(){
    alert("You press volume down!");
}

document.addEventListener('backbutton',onBackButton,false);

function onBackButton(e){
    e.preventDefault();
    alert("back button pressed!");
}
```

4. Run your app
5. Press volume down button
6. Press Back Button
7. What is the purpose of e.preventDefault()
8. Do some research on how to add two controls to you index.js to do the following:
    a. Handle volume up button
    b. Handle menu button

Task 4 – Cordova Plugin use case (Simple Geolocation)

1. Create new cordova project
2. Goto your project
3. Add the following code to index.html

```
<button id="getPosition">Current Position</button>
<button id="watchPosition">Watch Position</button>
```

4. Open index.js and add the following code inside the ready function

```
document.getElementById("getPosition").addEventListener("click", getPosition);

function getPosition(){
    var options = {
        enableHighAccuracy: true,
        maximumAge: 3600000
    }

    var watchID = navigator.geolocation.getCurrentPosition(onSuccess, onError, options);

    function onSuccess(position){
        alert('Latitude: '          + position.coords.latitude          + '\n' +
         'Longitude: '         + position.coords.longitude         + '\n' +
         'Altitude: '          + position.coords.altitude          + '\n' +
         'Accuracy: '          + position.coords.accuracy          + '\n' +
         'Altitude Accuracy: ' + position.coords.altitudeAccuracy  + '\n' +
         'Heading: '           + position.coords.heading           + '\n' +
         'Speed: '             + position.coords.speed             + '\n' +
         'Timestamp: '         + position.timestamp                + '\n');
    };

    function onError(error) {
      alert('code: '    + error.code    + '\n' + 'message: ' + error.message + '\n');
    }
}
```

```
document.getElementById("watchPosition").addEventListener("click", watchPosition);

function watchPosition() {
    var options = {
       maximumAge: 3600000,
       timeout: 3000,
       enableHighAccuracy: true,
    }
    var watchID = navigator.geolocation.watchPosition(onSuccess, onError, options);

    function onSuccess(position) {
       alert('Latitude: '          + position.coords.latitude          + '\n' +
          'Longitude: '         + position.coords.longitude         + '\n' +
          'Altitude: '          + position.coords.altitude          + '\n' +
          'Accuracy: '          + position.coords.accuracy          + '\n' +
          'Altitude Accuracy: ' + position.coords.altitudeAccuracy  + '\n' +
          'Heading: '           + position.coords.heading           + '\n' +
          'Speed: '             + position.coords.speed             + '\n' +
          'Timestamp: '         + position.timestamp                + '\n');
    };

    function onError(error) {
       alert('code: '    + error.code    + '\n' +'message: ' + error.message + '\n');
    }
}
```

5. It is best to test this code using physical device
6. Enable developer mode. Press Android version 7 times)
7. Enable usb debugging in developer option
8. Enable always on in developer option
9. Connect your device with usb
10. And run cordova