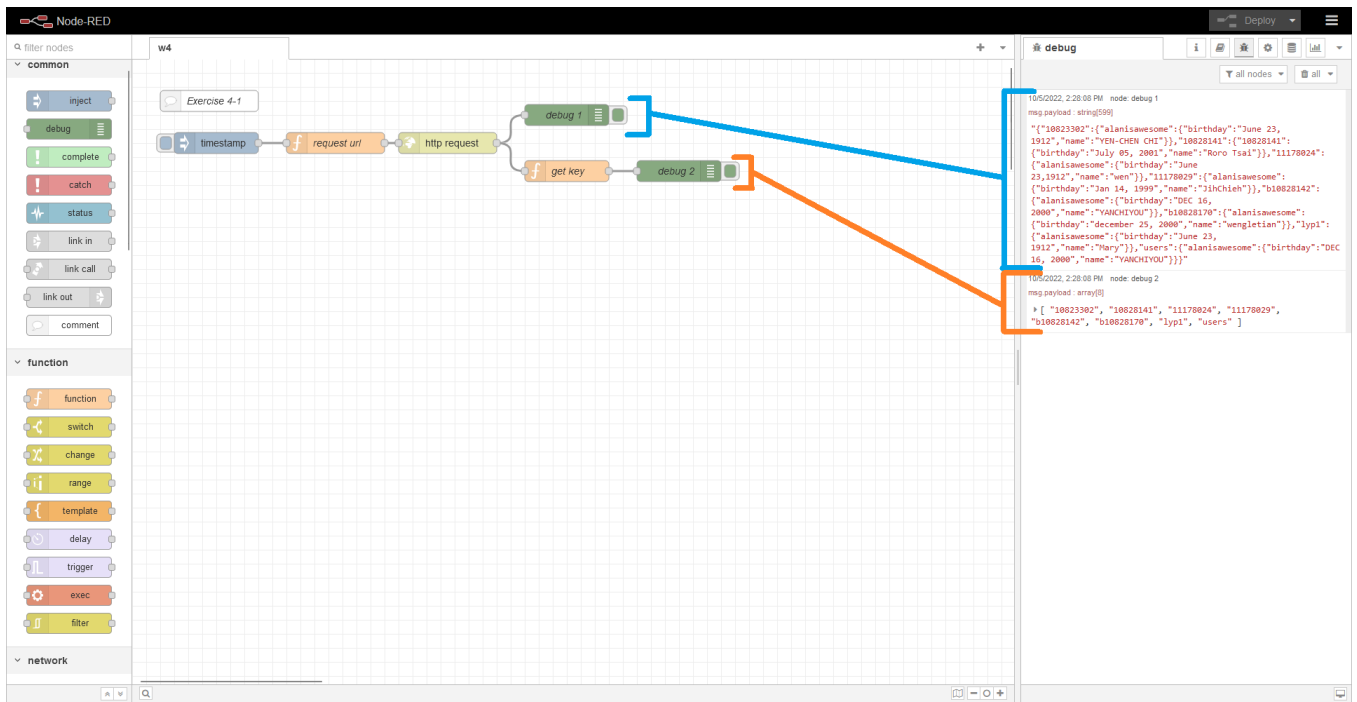


# 物聯網實務第四周作業

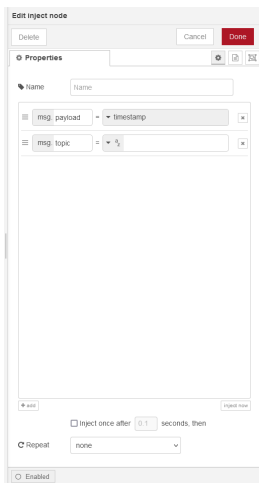
電機四乙10828241 陳大荃

October 5, 2022

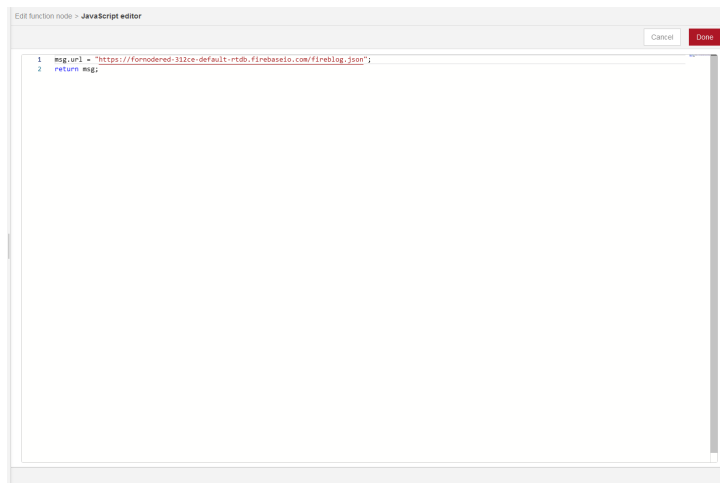
## Exercise 4-1



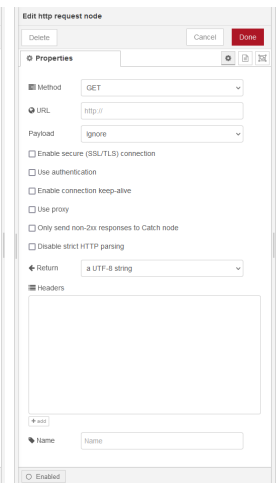
(a) Node-RED Flow



(b) node: timestamp



(c) node: request url



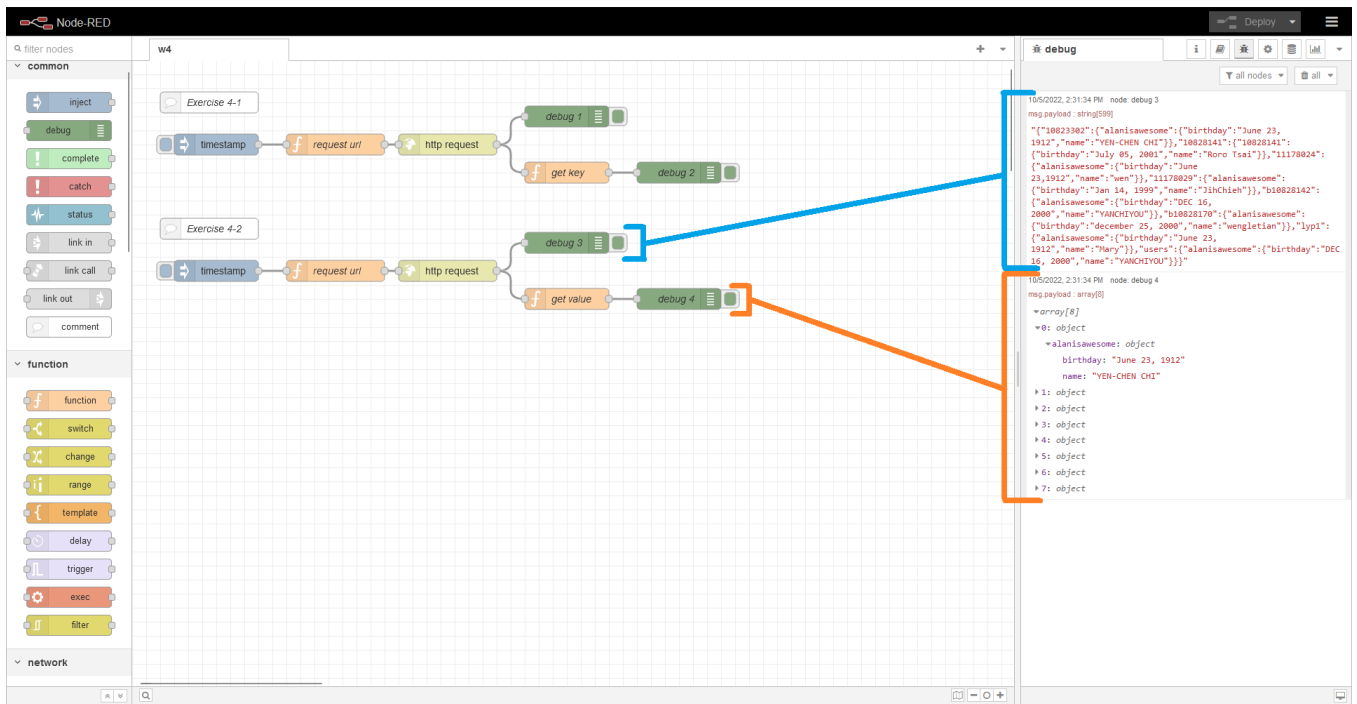
(d) node: http request



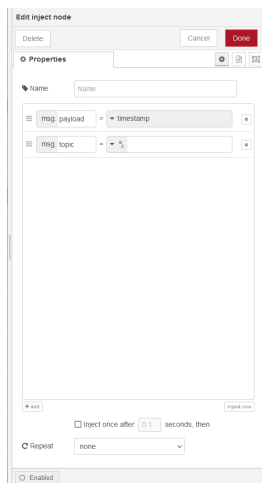
(e) node: get key

Figure 1: Request keys from firebase.

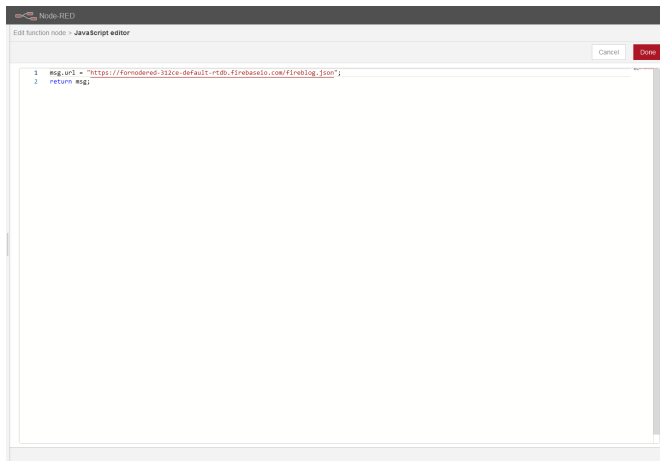
## Exercise 4-2



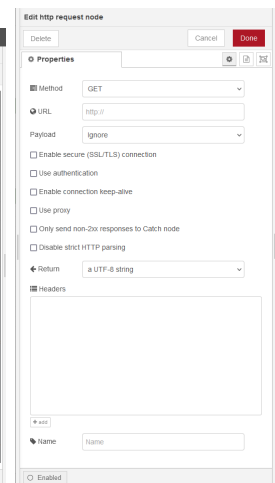
(a) Node-RED Flow



(b) node: timestamp



(c) node: request url



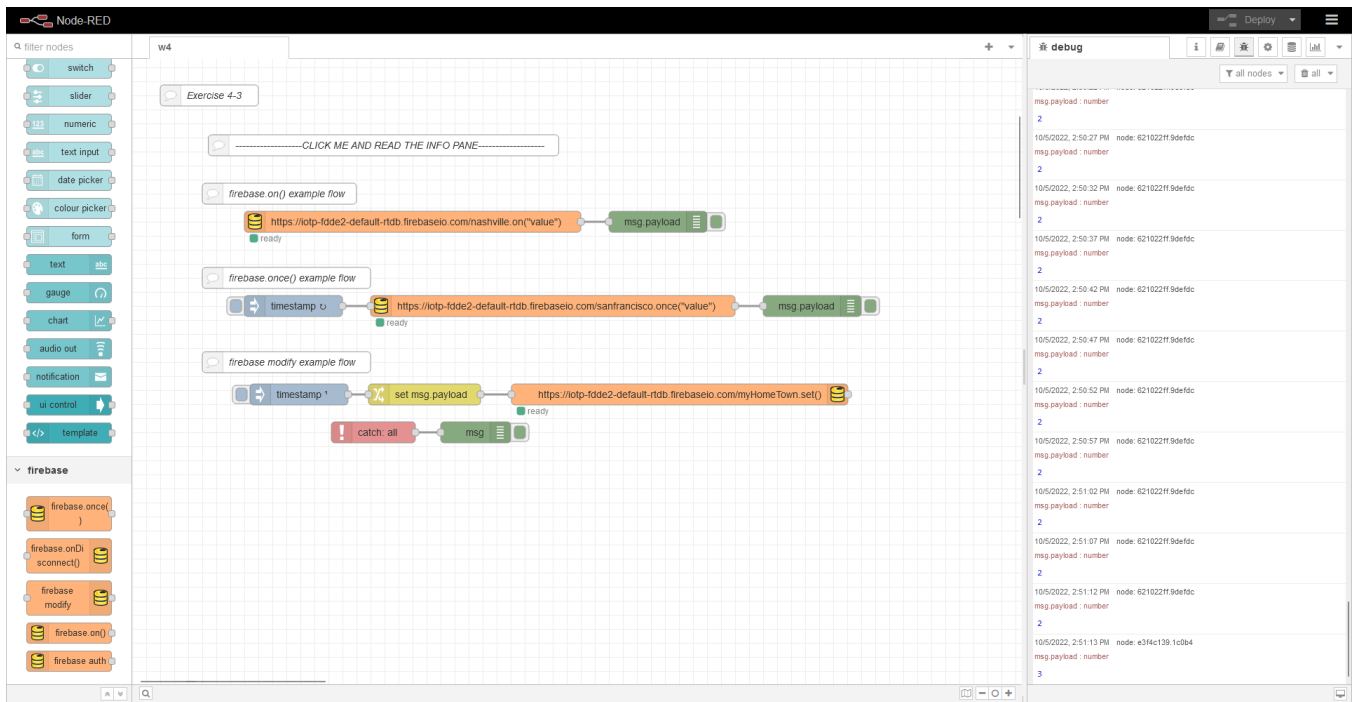
(d) node: http request



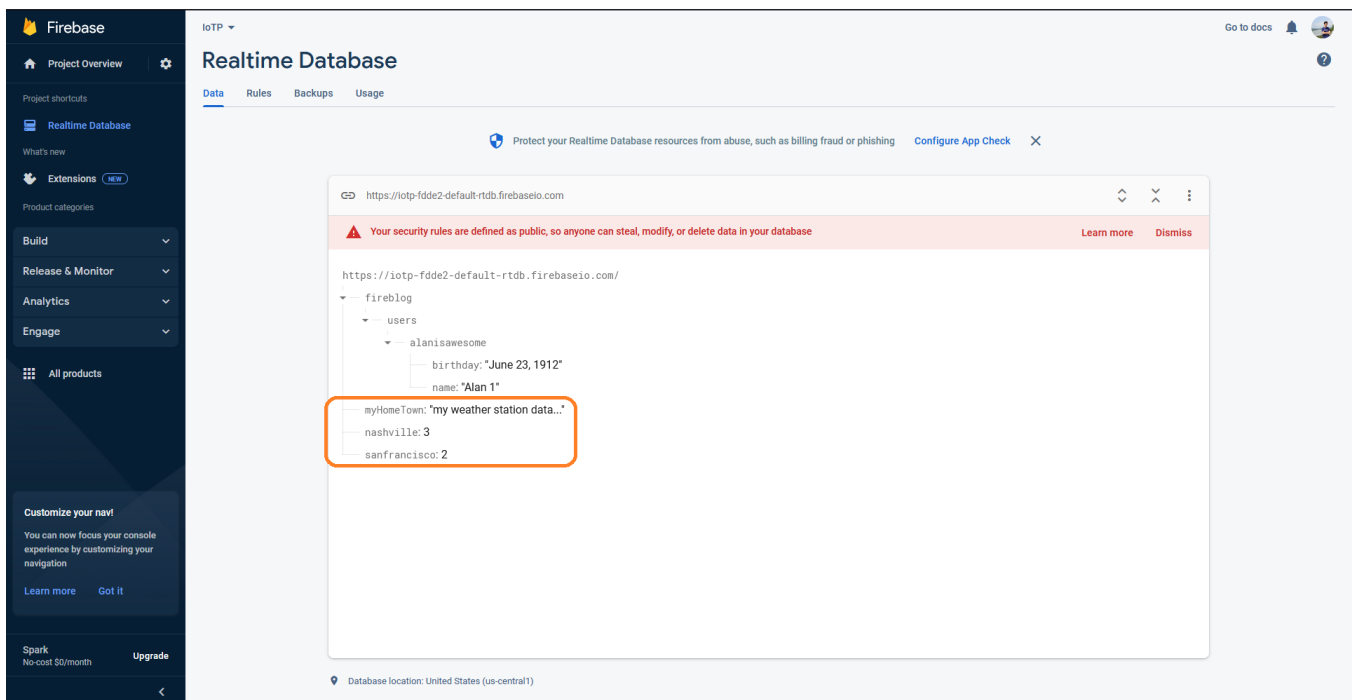
(e) node: get value

Figure 2: Request values from firebase.

## Exercise 4-3

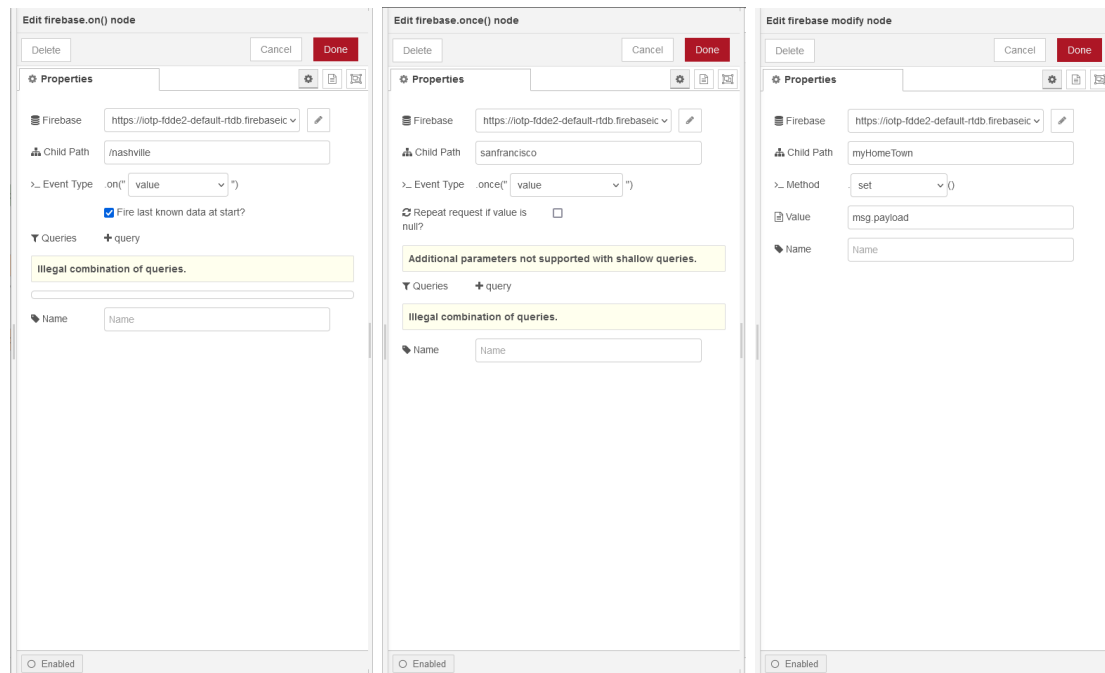


(a) Node-RED Flow



(b) Firebase Realtime Database

Figure 3: node-red-contrib-firebase.



(a) node: firebase.on()

(b) node: firebase.once()

(c) node: firebase.modify()

Figure 4: node-red-contrib-firebase.

## Exercise 4-4

```

454  /** Allow the Function node to load additional npm modules directly */
455  functionExternalModules: true,
456
457  /** The following property can be used to set predefined values in Global Context.
458   * This allows extra node modules to be made available with in Function node.
459   * For example, the following:
460   *   functionGlobalContext: { os:require('os') }
461   * will allow the `os` module to be accessed in a Function node using:
462   *   global.get("os")
463   */
464  functionGlobalContext: {
465    // os:require('os'),
466    cryptojs: require('crypto-js'),
467  },
468
469  /** The maximum number of messages nodes will buffer internally as part of their
470   * operation. This applies across a range of nodes that operate on message sequences.
471   * defaults to no limit. A value of 0 also means no limit is applied.
472   */
473  //nodeMessageBufferMaxLength: 0,
474

```

(a) crypto-js: settings

Figure 5: Setup crypto-js.