IB Computer Science 2
Firebase Studio supplement

These worksheets assume local execution on macOS. If you are using the Google Firebase Studio GNU/Linux cloud environment, make the following adjustments.

Application-layer protocols

Worksheet step (2)

1. Linux does not allow binding to low port numbers. Instead of binding to the standard HTTP port, bind to one of the alternate HTTP ports with the command: `nc -l 8080`
2. Firebase will immediately make a request to the Web server, causing it to print several lines of text. Restart it by pressing Ctrl+C then rerunning the same command; this time no additional lines should print.
3. Instead of going to `localhost/file`, copy the URL by opening the **Firebase Studio** panel on the left, expanding **Backend Ports**, and clicking the **Copy to clipboard** button next to port **8080**.
4. Open a new browser tab, paste the URL, add a `/file` to the end, and hit enter. After noting down what happens, leave the tab open but switch back to the Firebase Studio.

Worksheet step (4)

Visiting the page caused a request for: `http://`**`127.0.0.1:8080`**`/file`
Use this information to answer the question.

Concurrency

Worksheet step (7)

Instead of opening Activity Monitor, click the **Split Terminal** button in the upper-right corner of the Firebase Studio terminal. In the new terminal, run the command: `top`

Memory allocation

Extra time

Instead of opening Activity Monitor, click the **Split Terminal** button in the upper-right corner of the Firebase Studio terminal. In the new terminal, run the command: `top`

Virtual memory

Note that the Virtual memory and Paging sections do not work on Firebase Studio because of a platform-imposed limit on the amount of lockable memory. To use them, students would have to be working locally on a macOS or GNU/Linux system.

Signals

Instead of running `man signal`, use `man 7 signal`