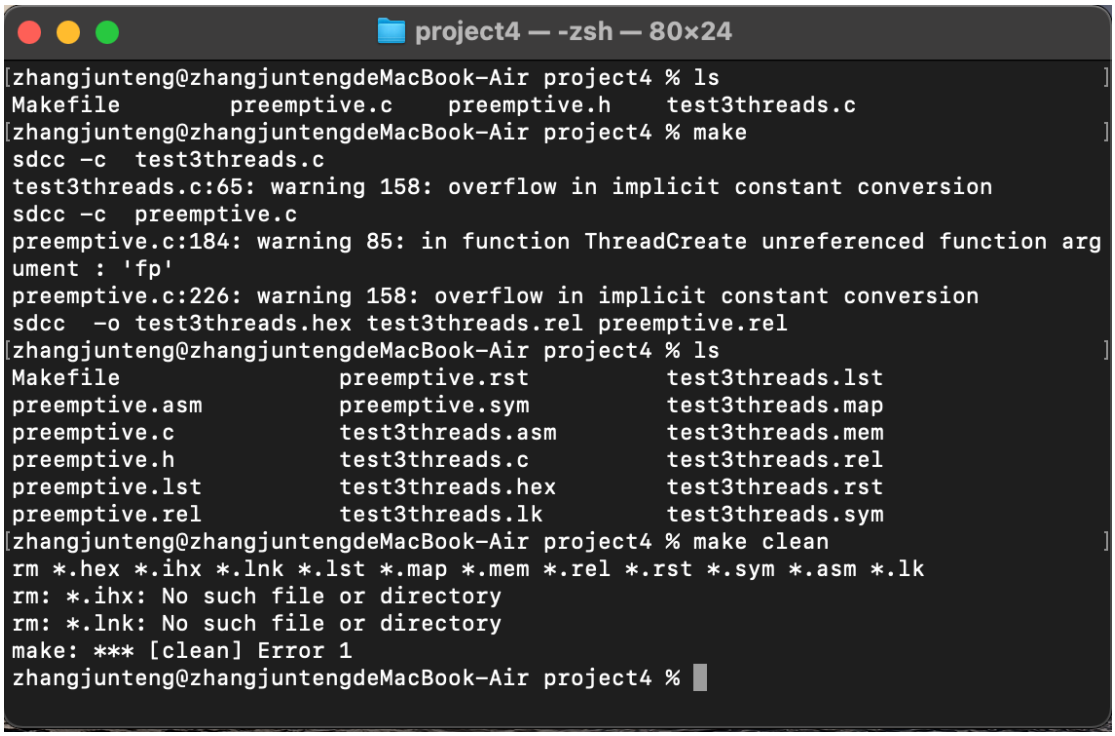
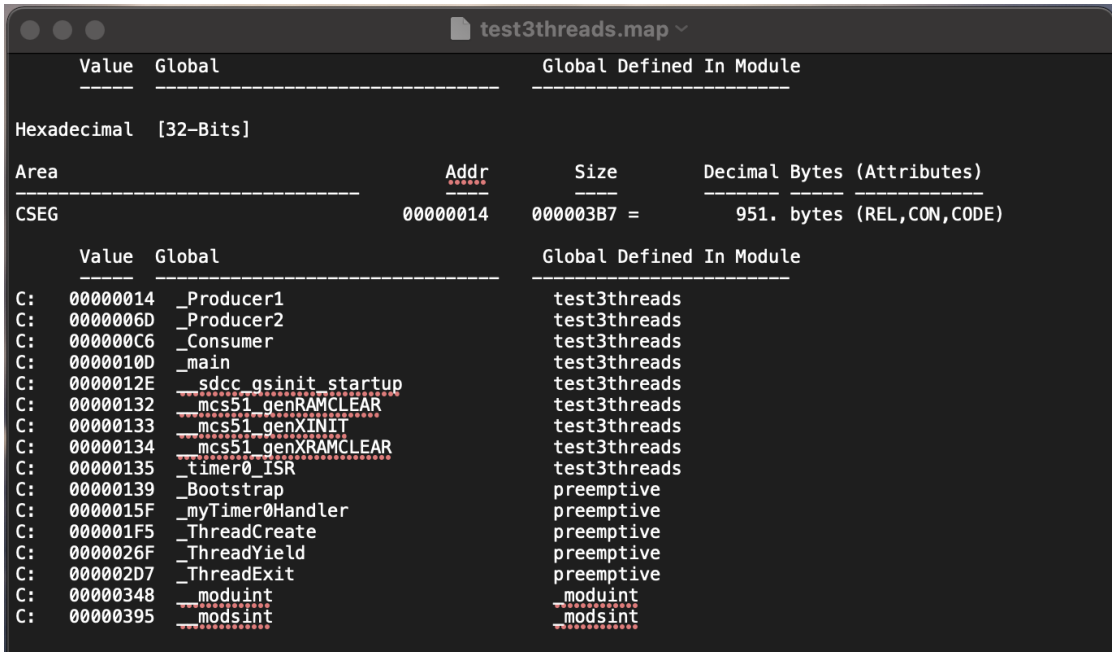
3.1 [2 points] Typescript for compilation



3.2 [18 points] Screenshots and explanation



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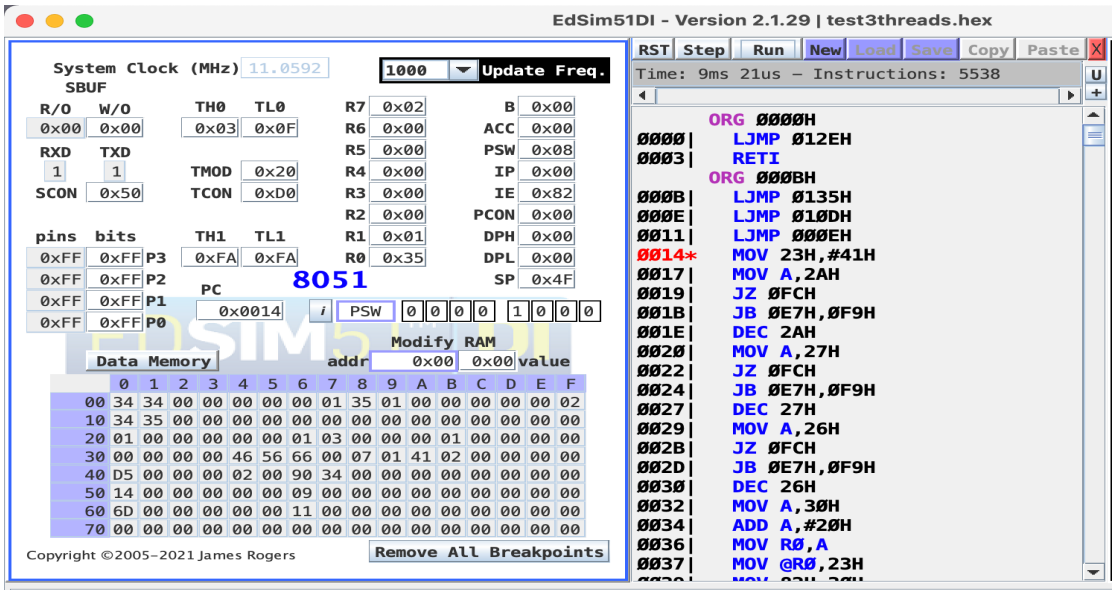
- Take screenshots when the `Producer1` and `Producer2` running and show semaphore changes.

```
__data __at(0x20) char buffer[3];
__data __at(0x23) char Token;
__data __at(0x24) int full;
__data __at(0x26) char mutex;
__data __at(0x27) int empty;
__data __at(0x29) char Token2;
__data __at(0x2A) char turn;
__data __at(0x2B) char turn2;
__data __at(0x30) int in;
__data __at(0x32) int out;
```

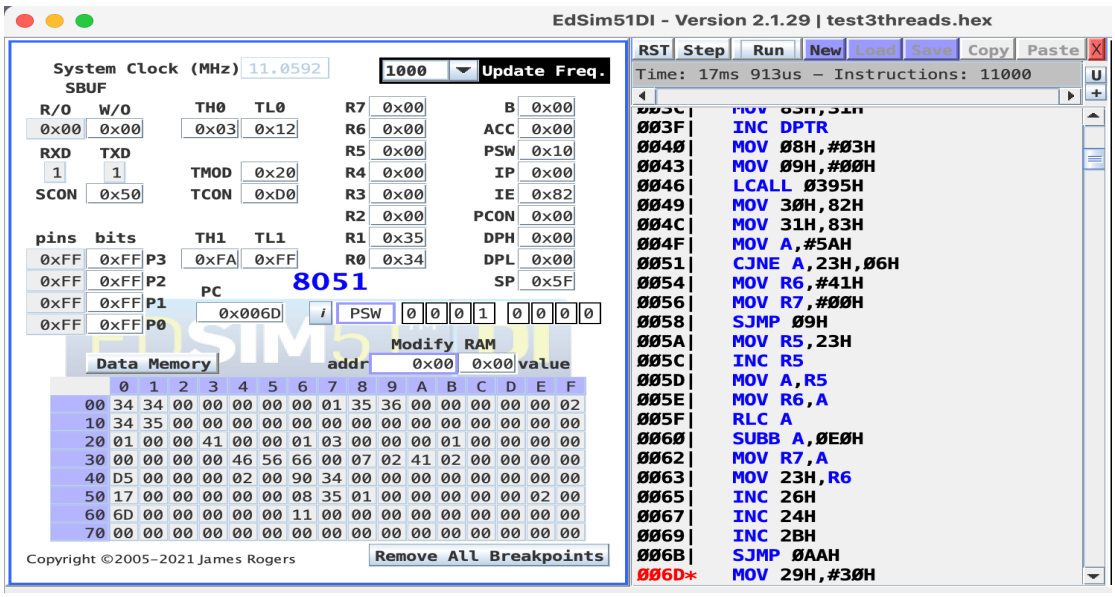
Observing full, Empty and mutex, their address could change during the process!

Turn is used to determined which processes running

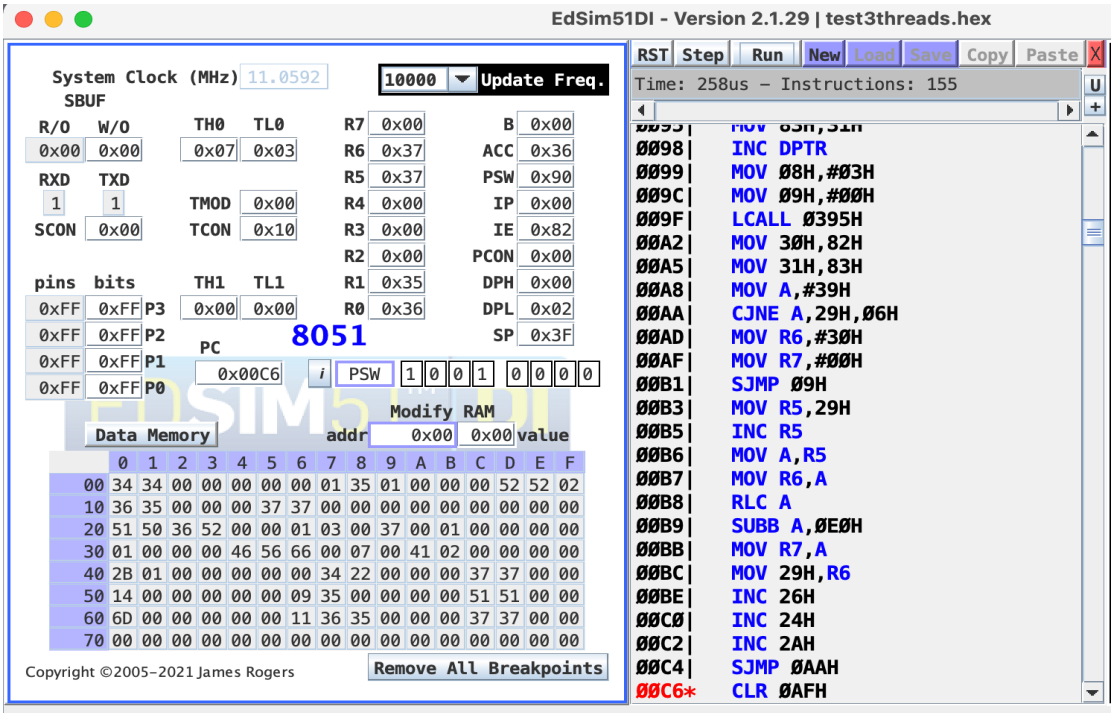
Producer1:

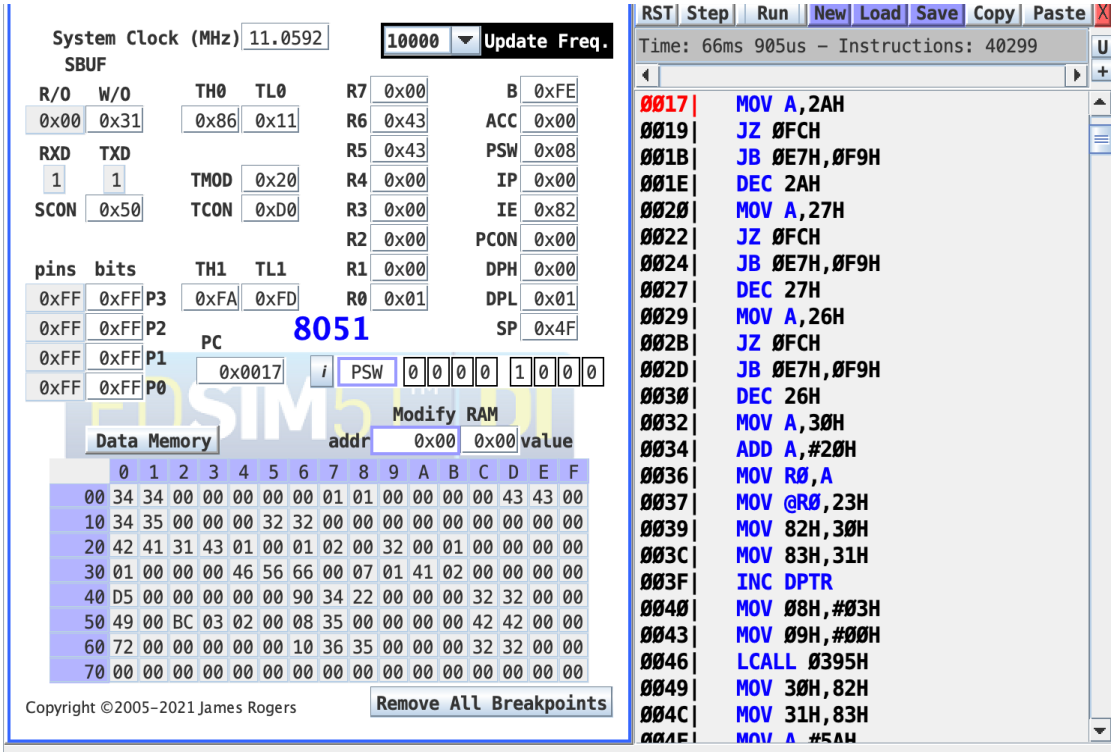


Producer2:



- Take screenshots when the `Consumer` is running and show semaphore changes.





We could observe the address and get to know the situation in semaphore!

- Show and explain UART output to show the unfair version, if any, and the fair version.

Unfair would not be able to take turns in the two process!