**Problem 3.2:**

**Every Monday at 08:30** = 30 8 \* \* 1 /home/date-script.sh

**Every workday, every 30 minutes, from 8:15 to 17:45** = 15-45/30 8-17 \* \* 1-5 /home/date-script.sh

**Last day of every month** **at 17:30** = 59 23 28-31 \* \* [ "$(date +\%d -d tomorrow)" == "01" ] && /home/date-script.sh

A screen shot of a computer

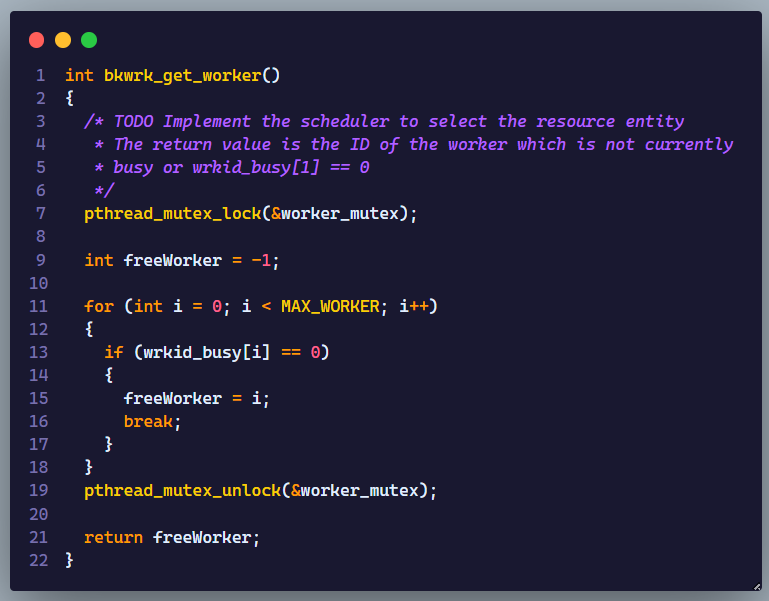
Description automatically generated\

**Problem 4.1:**

I firstly initialize a mutex

A computer screen shot of a black background

Description automatically generated

Lock and unlock adding will keep the program from running without waiting the process

And here is the result :

A screenshot of a computer program

Description automatically generated

**Problem 4.2 :**

A screenshot of a computer program

Description automatically generatedI won’t mention the code in here.