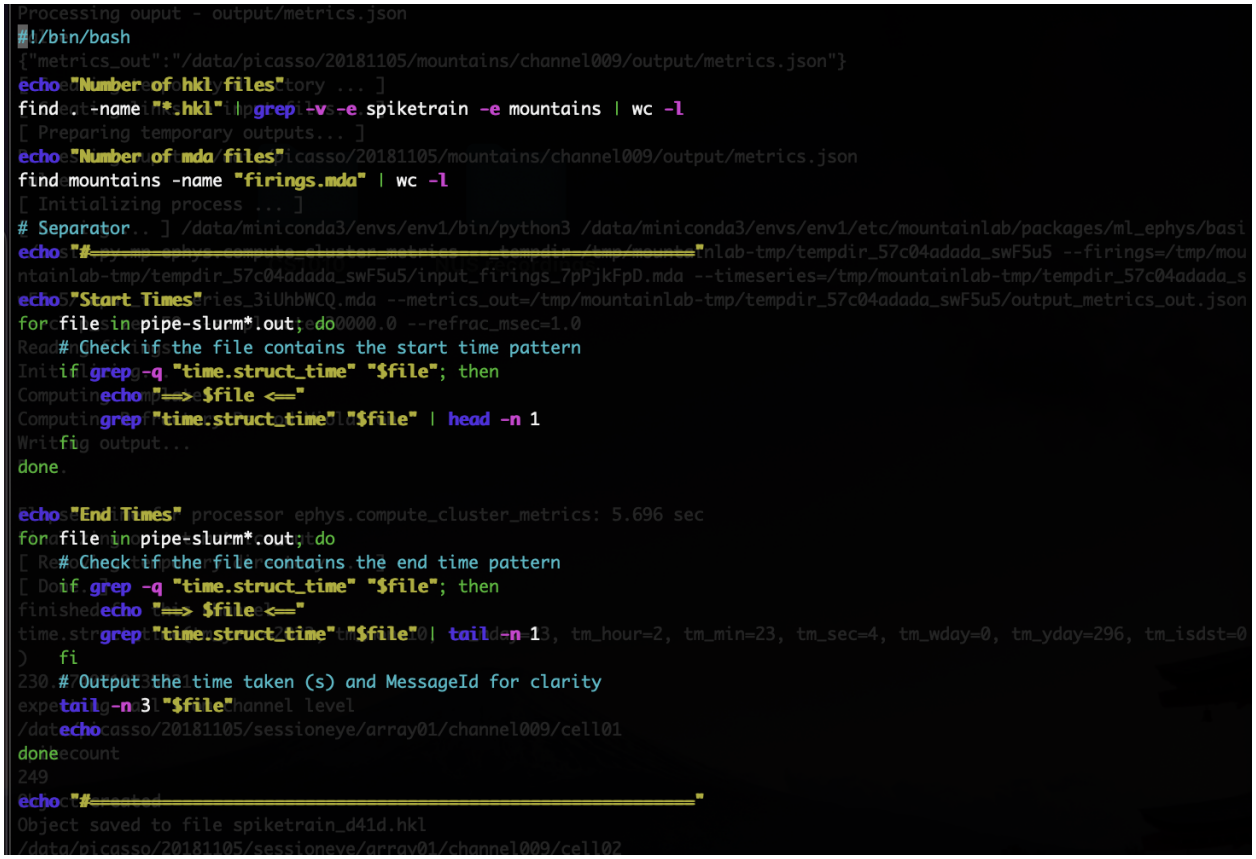
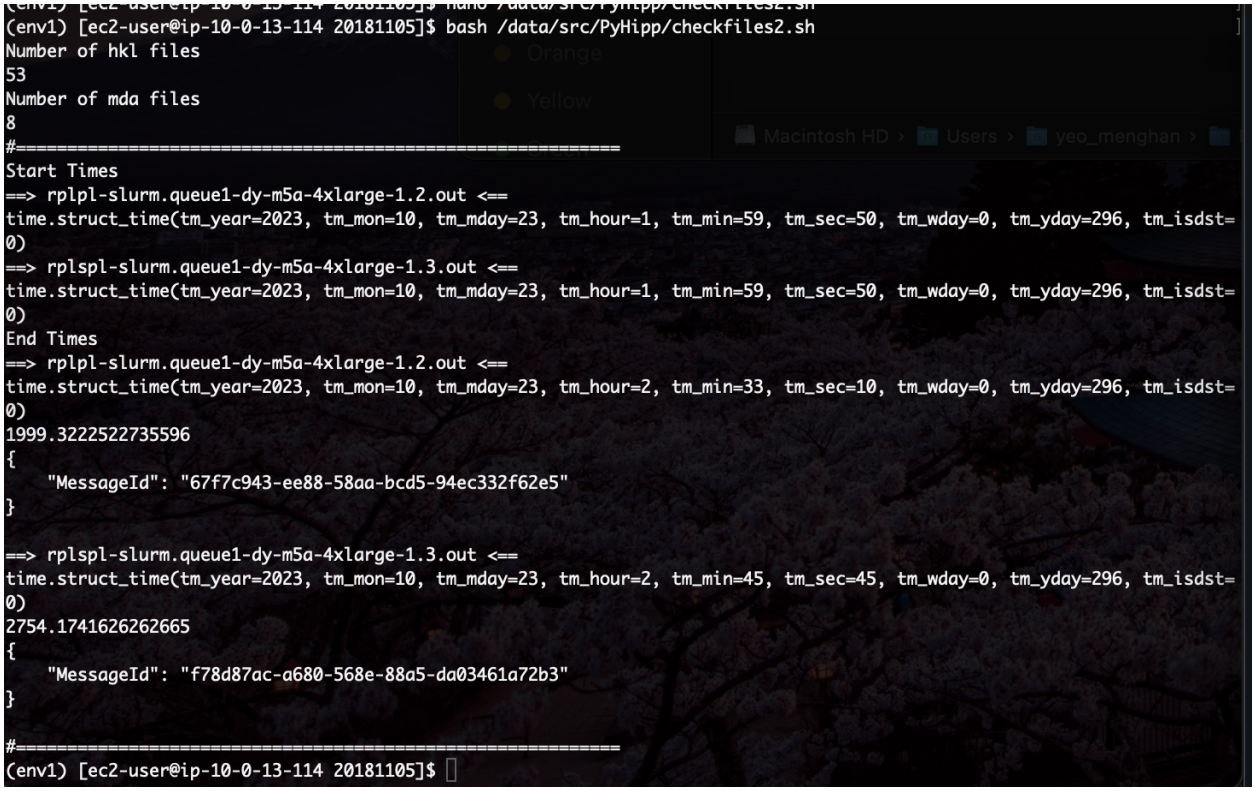
Yeo Meng Han
A0251772A
EE3801 Lab 6A

Submit the following task for lab report for Part B:

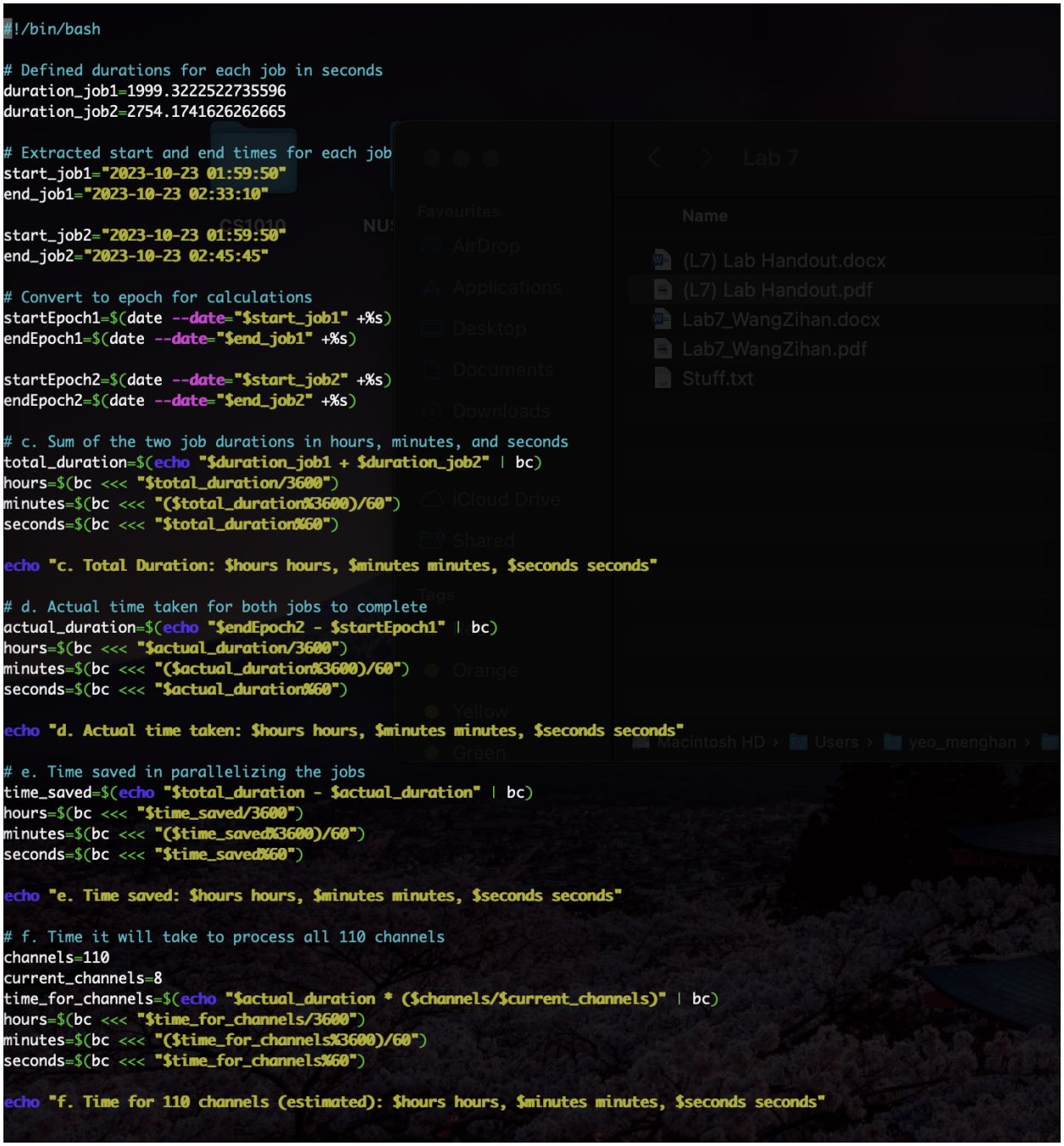
Step 14
checkfiles2.sh



checkfiles2.sh output:



Calculations:



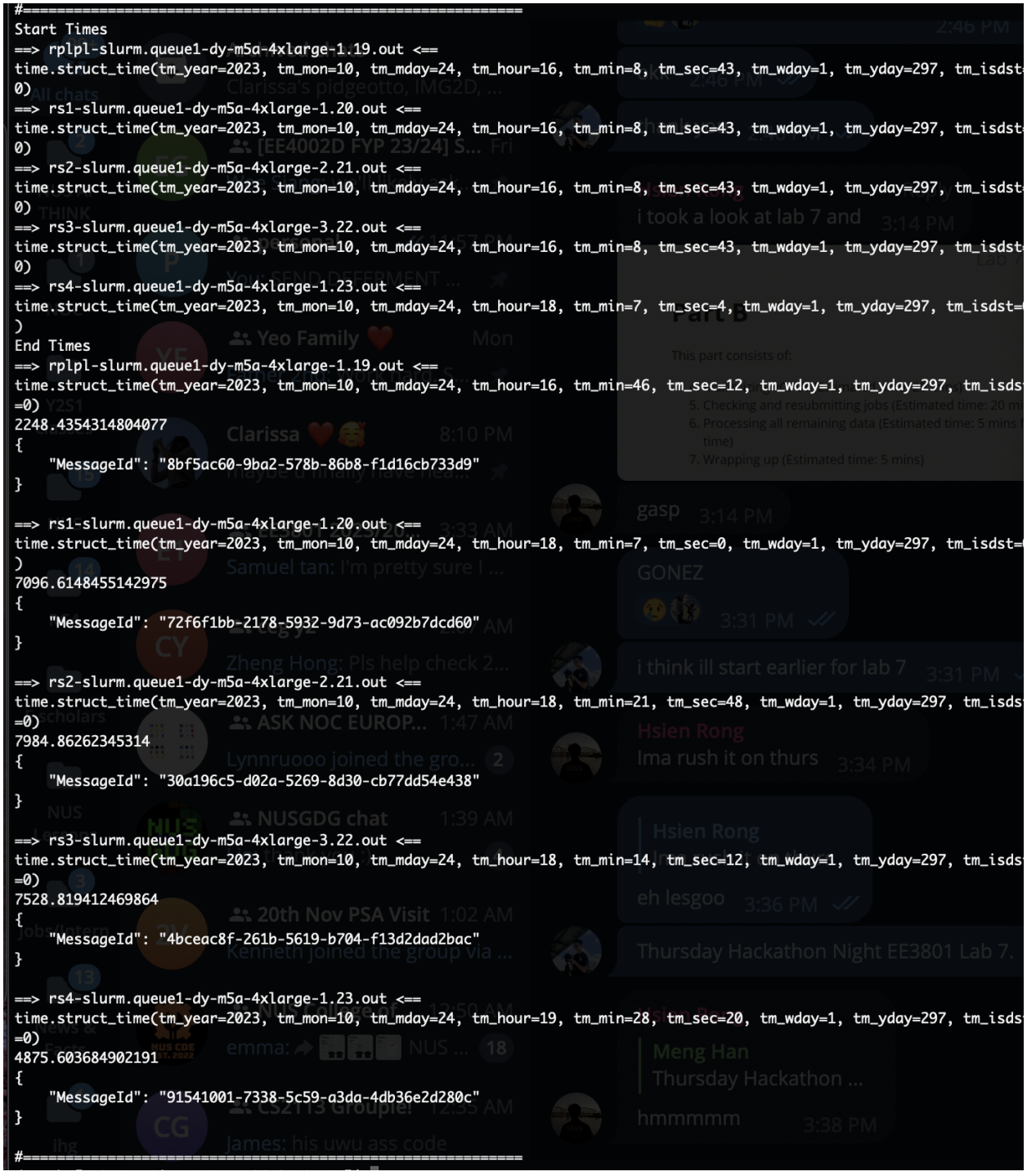
```bash
#!/bin/bash

# Defined durations for each job in seconds
duration_job1=1999.3222522735596
duration_job2=2754.1741626262665

# Extracted start and end times for each job
start_job1="2023-10-23 01:59:50"
end_job1="2023-10-23 02:33:10"

start_job2="2023-10-23 01:59:50"
end_job2="2023-10-23 02:45:45"

# Convert to epoch for calculations
startEpoch1=$(date --date="$start_job1" +%s)
endEpoch1=$(date --date="$end_job1" +%s)

startEpoch2=$(date --date="$start_job2" +%s)
endEpoch2=$(date --date="$end_job2" +%s)

# c. Sum of the two job durations in hours, minutes, and seconds
total_duration=$(echo "$duration_job1 + $duration_job2" | bc)
hours=$(bc <<< "$total_duration/3600")
minutes=$(bc <<< "($total_duration%3600)/60")
seconds=$(bc <<< "$total_duration%60")

echo "c. Total Duration: $hours hours, $minutes minutes, $seconds seconds"

# d. Actual time taken for both jobs to complete
actual_duration=$(echo "$endEpoch2 - $startEpoch1" | bc)
hours=$(bc <<< "$actual_duration/3600")
minutes=$(bc <<< "($actual_duration%3600)/60")
seconds=$(bc <<< "$actual_duration%60")

echo "d. Actual time taken: $hours hours, $minutes minutes, $seconds seconds"

# e. Time saved in parallelizing the jobs
time_saved=$(echo "$total_duration - $actual_duration" | bc)
hours=$(bc <<< "$time_saved/3600")
minutes=$(bc <<< "($time_saved%3600)/60")
seconds=$(bc <<< "$time_saved%60")

echo "e. Time saved: $hours hours, $minutes minutes, $seconds seconds"

# f. Time it will take to process all 110 channels
channels=110
current_channels=8
time_for_channels=$(echo "$actual_duration * ($channels/$current_channels)" | bc)
hours=$(bc <<< "$time_for_channels/3600")
minutes=$(bc <<< "($time_for_channels%3600)/60")
seconds=$(bc <<< "$time_for_channels%60")

echo "f. Time for 110 channels (estimated): $hours hours, $minutes minutes, $seconds seconds"
```

Calculations output:
c. Total Duration: 1 hours, 19 minutes, 13.4964148998261 seconds
d. Actual time taken: 0 hours, 45 minutes, 55 seconds
e. Time saved: 0 hours, 33 minutes, 18.4964148998261 seconds
f. Time for 110 channels (estimated): 9 hours, 56 minutes, 55 seconds

Step 62

Part a: checkfiles2.sh number of files created:

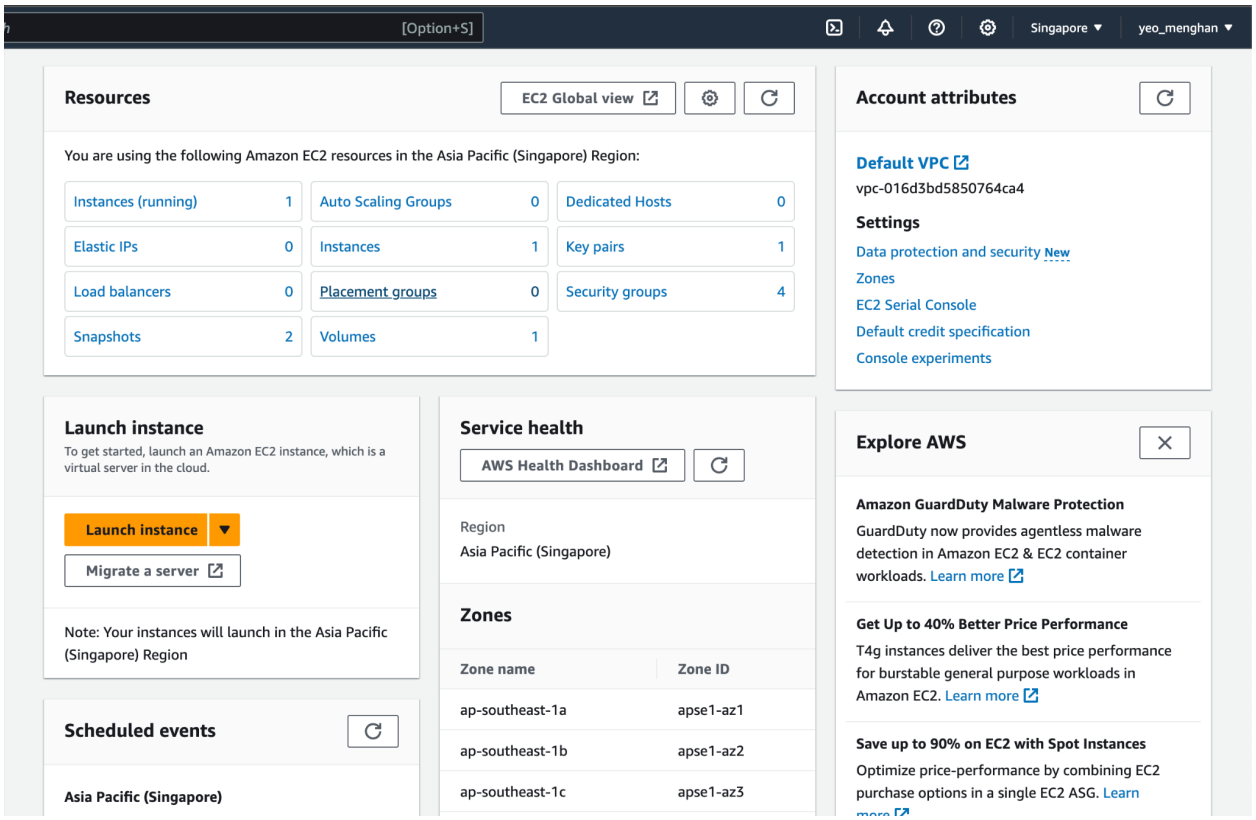
Part b: checkfiles2.sh start and end times



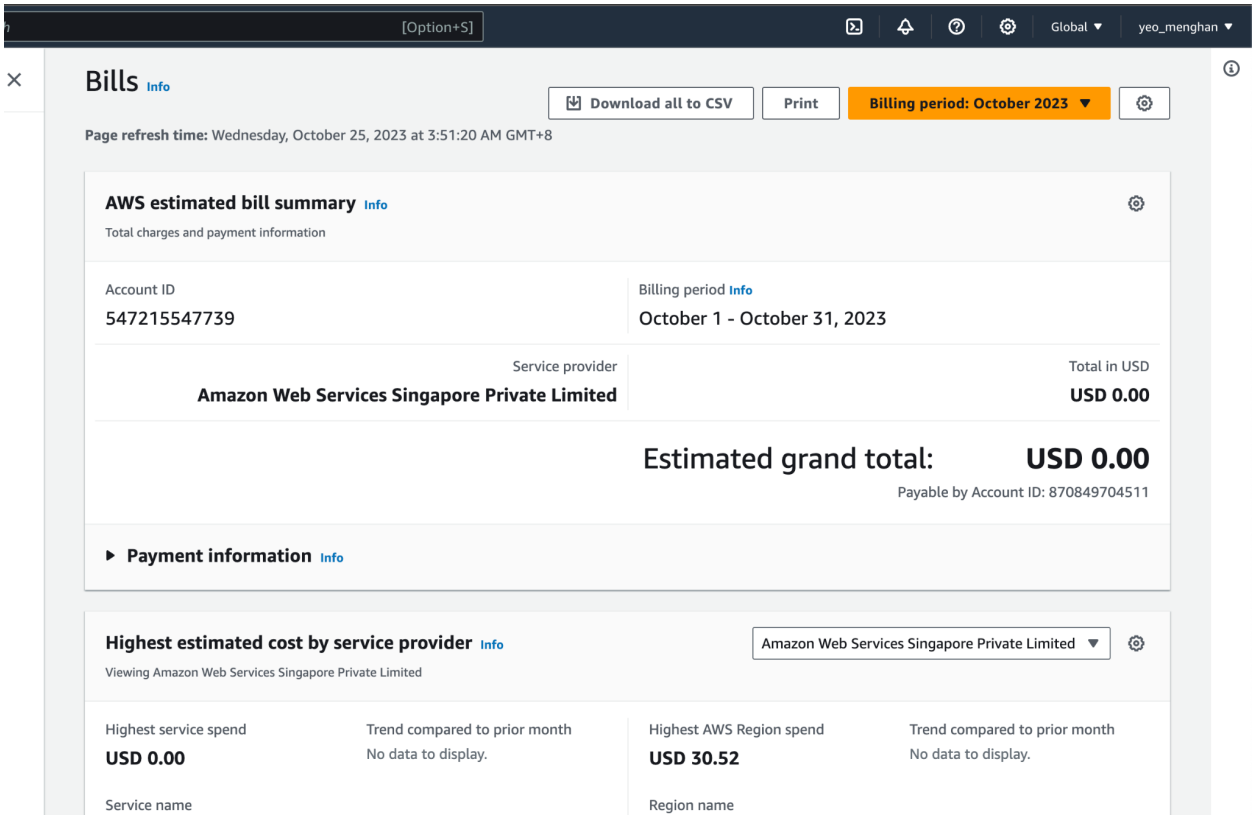
```
#=====================================================
Start Times
==> rplpl-slurm.queue1-dy-m5a-4xlarge-1.19.out <==
time.struct_time(tm_year=2023, tm_mon=10, tm_mday=24, tm_hour=16, tm_min=8, tm_sec=43, tm_wday=1, tm_yday=297, tm_isdst=
0)
==> rs1-slurm.queue1-dy-m5a-4xlarge-1.20.out <==
time.struct_time(tm_year=2023, tm_mon=10, tm_mday=24, tm_hour=16, tm_min=8, tm_sec=43, tm_wday=1, tm_yday=297, tm_isdst=
0)
==> rs2-slurm.queue1-dy-m5a-4xlarge-2.21.out <==
time.struct_time(tm_year=2023, tm_mon=10, tm_mday=24, tm_hour=16, tm_min=8, tm_sec=43, tm_wday=1, tm_yday=297, tm_isdst=
0)
==> rs3-slurm.queue1-dy-m5a-4xlarge-3.22.out <==
time.struct_time(tm_year=2023, tm_mon=10, tm_mday=24, tm_hour=16, tm_min=8, tm_sec=43, tm_wday=1, tm_yday=297, tm_isdst=
0)
==> rs4-slurm.queue1-dy-m5a-4xlarge-1.23.out <==
time.struct_time(tm_year=2023, tm_mon=10, tm_mday=24, tm_hour=18, tm_min=7, tm_sec=4, tm_wday=1, tm_yday=297, tm_isdst=
)
End Times
==> rplpl-slurm.queue1-dy-m5a-4xlarge-1.19.out <==
time.struct_time(tm_year=2023, tm_mon=10, tm_mday=24, tm_hour=16, tm_min=46, tm_sec=12, tm_wday=1, tm_yday=297, tm_isds
=0)
2248.4354314804077
{
    "MessageId": "8bf5ac60-9ba2-578b-86b8-f1d16cb733d9"
}

==> rs1-slurm.queue1-dy-m5a-4xlarge-1.20.out <==
time.struct_time(tm_year=2023, tm_mon=10, tm_mday=24, tm_hour=18, tm_min=7, tm_sec=0, tm_wday=1, tm_yday=297, tm_isdst=
)
7096.6148455142975
{
    "MessageId": "72f6f1bb-2178-5932-9d73-ac092b7dcd60"
}

==> rs2-slurm.queue1-dy-m5a-4xlarge-2.21.out <==
time.struct_time(tm_year=2023, tm_mon=10, tm_mday=24, tm_hour=18, tm_min=21, tm_sec=48, tm_wday=1, tm_yday=297, tm_isds
=0)
7984.86262345314
{
    "MessageId": "30a196c5-d02a-5269-8d30-cb77dd54e438"
}

==> rs3-slurm.queue1-dy-m5a-4xlarge-3.22.out <==
time.struct_time(tm_year=2023, tm_mon=10, tm_mday=24, tm_hour=18, tm_min=14, tm_sec=12, tm_wday=1, tm_yday=297, tm_isds
=0)
7528.819412469864
{
    "MessageId": "4bceac8f-261b-5619-b704-f13d2dad2bac"
}

==> rs4-slurm.queue1-dy-m5a-4xlarge-1.23.out <==
time.struct_time(tm_year=2023, tm_mon=10, tm_mday=24, tm_hour=19, tm_min=28, tm_sec=20, tm_wday=1, tm_yday=297, tm_isds
=0)
4875.603684902191
{
    "MessageId": "91541001-7338-5c59-a3da-4db36e2d280c"
}

#=====================================================
```

Repeat these steps from Lab 5:

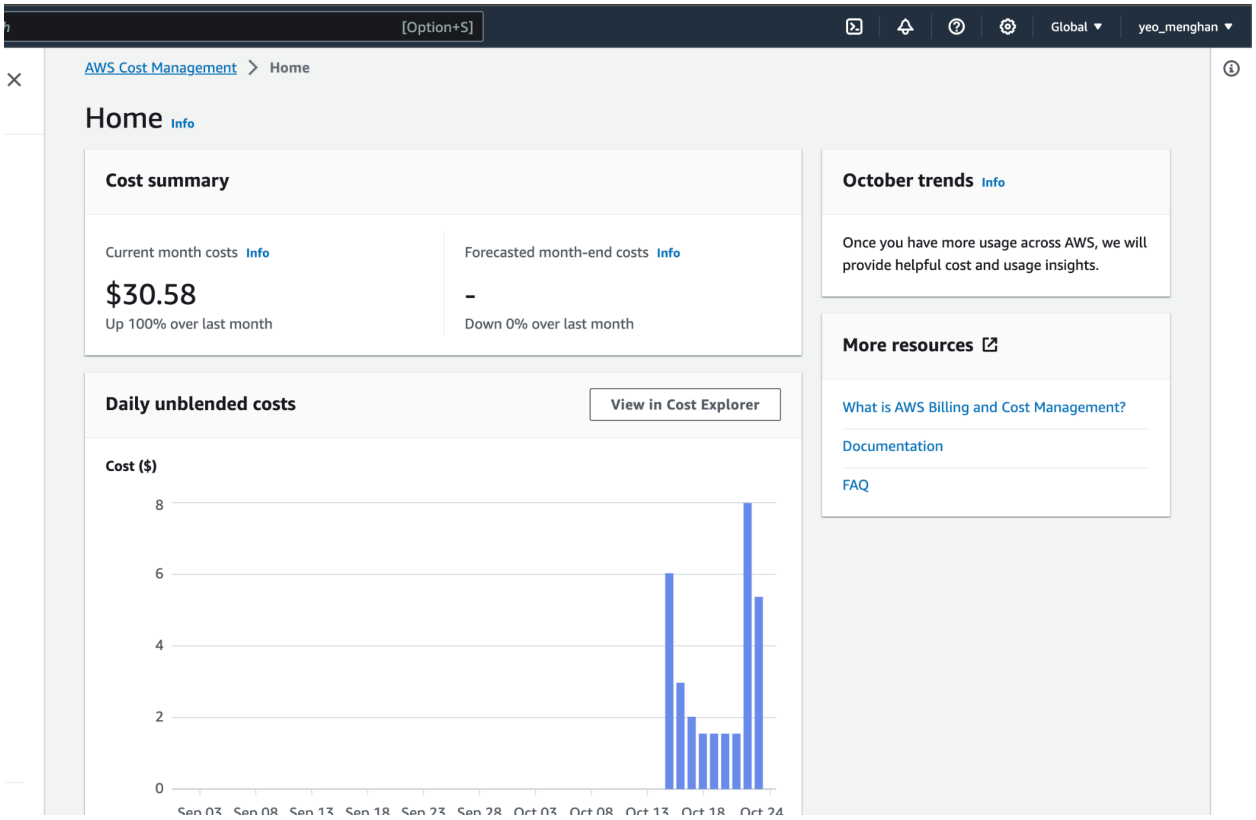
Step 34 (showing that you only have 1 instance and 1 volume running)



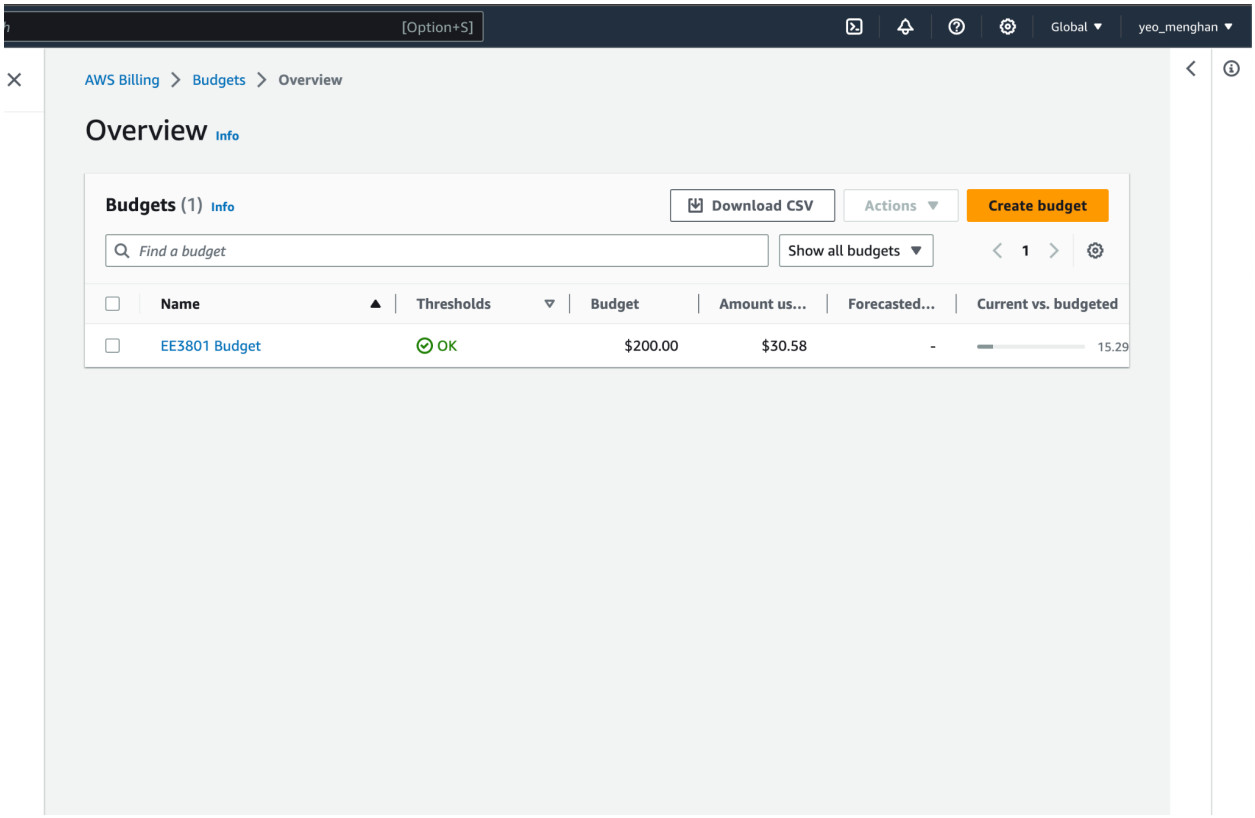
Step 36


[Option+S]
Global
yeo_menghan
Bills Info
Download all to CSV
Print
Billing period: October 2023
Page refresh time: Wednesday, October 25, 2023 at 3:51:20 AM GMT+8
AWS estimated bill summary Info
Total charges and payment information
Account ID
547215547739
Billing period Info
October 1 - October 31, 2023
Service provider
Amazon Web Services Singapore Private Limited
Total in USD
USD 0.00
Estimated grand total:
USD 0.00
Payable by Account ID: 870849704511
Payment information Info
Highest estimated cost by service provider Info
Viewing Amazon Web Services Singapore Private Limited
Amazon Web Services Singapore Private Limited
Highest service spend
USD 0.00
Trend compared to prior month
No data to display.
Highest AWS Region spend
USD 30.52
Trend compared to prior month
No data to display.
Service name
Region name

Step 37


[Option+S]
Global
yeo_menghan
AWS Cost Management
Home
Home Info
Cost summary
Current month costs Info
$30.58
Up 100% over last month
Forecasted month-end costs Info
-
Down 0% over last month
October trends Info
Once you have more usage across AWS, we will provide helpful cost and usage insights.
More resources
What is AWS Billing and Cost Management?
Documentation
FAQ
Daily unblended costs
View in Cost Explorer
Cost ($)
8
6
4
2
0
Sep 03
Sep 08
Sep 13
Sep 18
Sep 23
Sep 28
Oct 03
Oct 08
Oct 13
Oct 18
Oct 24

Step 75


[Option+S]
Global
yeo_menghan
AWS Billing
Budgets
Overview
Overview
Info
Budgets (1) Info
Download CSV
Actions
Create budget
Find a budget
Show all budgets
1
Name
Thresholds
Budget
Amount us...
Forecasted...
Current vs. budgeted
EE3801 Budget
OK
$200.00
$30.58
-
15.29