Lab 6

1)Step 22

2)Step 35 – file sizes

```
./session01/array03/channel072/rplhighpass_b59f.hkl
./session01/array03/channel072/rpllfp_6eca.hkl
./session01/array03/channel072/rplraw_d41d.hkl
./session01/array03/channel093/rplhighpass_b59f.hkl
./session01/array03/channel093/rpllfp_6eca.hkl
./session01/array03/channel093/rplraw_d41d.hkl
(env1) [ec2-user@ip-10-0-0-253 20181105]$ find . -name "*.hkl" | grep -v -e spiketrain -e mountains | wc -l
53
[(env1) [ec2-user@ip-10-0-0-253 20181105]$ find . -name "*.hkl" | grep -v -e spiketrain -e mountains | xargs ls -hl
-rw-rw-r-- 1 ec2-user ec2-user  630M Oct 19 07:49 ./session01/array01/channel009/rplhighpass_b59f.hkl
-rw-rw-r-- 1 ec2-user ec2-user   22M Oct 19 07:48 ./session01/array01/channel009/rpllfp_6eca.hkl
-rw-rw-r-- 1 ec2-user ec2-user  630M Oct 19 07:37 ./session01/array01/channel009/rplraw_d41d.hkl
-rw-rw-r-- 1 ec2-user ec2-user  630M Oct 19 08:32 ./session01/array01/channel031/rplhighpass_b59f.hkl
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-rw-rw-r-- 1 ec2-user ec2-user  630M Oct 19 08:29 ./session01/array01/channel031/rplraw_d41d.hkl
-rw-rw-r-- 1 ec2-user ec2-user  630M Oct 19 08:32 ./session01/array02/channel034/rplhighpass_b59f.hkl
-rw-rw-r-- 1 ec2-user ec2-user   22M Oct 19 08:32 ./session01/array02/channel034/rpllfp_6eca.hkl
-rw-rw-r-- 1 ec2-user ec2-user  630M Oct 19 08:29 ./session01/array02/channel034/rplraw_d41d.hkl
-rw-rw-r-- 1 ec2-user ec2-user  630M Oct 19 08:33 ./session01/array02/channel056/rplhighpass_b59f.hkl
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-rw-rw-r-- 1 ec2-user ec2-user  630M Oct 19 08:34 ./session01/array04/channel119/rplhighpass_b59f.hkl
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-rw-rw-r-- 1 ec2-user ec2-user  630M Oct 19 08:31 ./session01/array04/channel120/rplraw_d41d.hkl
-rw-rw-r-- 1 ec2-user ec2-user  129M Oct 19 08:37 ./session01/eyelink_24d5.hkl
-rw-rw-r-- 1 ec2-user ec2-user   61K Oct 19 08:26 ./session01/rplparallel_d41d.hkl
-rw-rw-r-- 1 ec2-user ec2-user   12M Oct 19 08:37 ./session01/unity_71bf.hkl
-rw-rw-r-- 1 ec2-user ec2-user   29M Oct 19 08:34 ./sessioneye/array01/channel009/rplhighpass_b59f.hkl
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-rw-rw-r-- 1 ec2-user ec2-user 1022K Oct 19 08:32 ./sessioneye/array04/channel120/rpllfp_6eca.hkl
-rw-rw-r-- 1 ec2-user ec2-user   29M Oct 19 08:31 ./sessioneye/array04/channel120/rplraw_d41d.hkl
-rw-rw-r-- 1 ec2-user ec2-user  5.3M Oct 19 08:35 ./sessioneye/eyelink_24d5.hkl
-rw-rw-r-- 1 ec2-user ec2-user   27K Oct 19 07:21 ./sessioneye/rplparallel_d41d.hkl
(env1) [ec2-user@ip-10-0-0-253 20181105]$
```

3)Step 35 – spike sorting

```
./session01/array03/channel072/rplraw_d41d.hkl
./session01/array03/channel093/rplhighpass_b59f.hkl
./session01/array03/channel093/rpllfp_6eca.hkl
./session01/array03/channel093/rplraw_d41d.hkl
(env1) [ec2-user@ip-10-0-0-253 20181105]$ find . -name "*.hkl" | grep -v -e spiketrain -e mountains | wc -l
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-rw-rw-r-- 1 ec2-user ec2-user   29M Oct 19 08:34 ./sessioneye/array03/channel093/rplhighpass_b59f.hkl
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-rw-rw-r-- 1 ec2-user ec2-user   29M Oct 19 08:31 ./sessioneye/array03/channel093/rplraw_d41d.hkl
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-rw-rw-r-- 1 ec2-user ec2-user  5.3M Oct 19 08:35 ./sessioneye/eyelink_24d5.hkl
-rw-rw-r-- 1 ec2-user ec2-user   27K Oct 19 07:21 ./sessioneye/rplparallel_d41d.hkl
[(env1) [ec2-user@ip-10-0-0-253 20181105]$ find mountains -name "firings.mda" | wc -l
8
(env1) [ec2-user@ip-10-0-0-253 20181105]$
```

4)Step 36

```
(env1) [ec2-user@ip-10-0-0-253 20181105]$ tail pipe-slurm*.out
/data/picasso/20181105/session01/array04/channel120/cell02
spikecount
4012
Object created
Object saved to file spiketrain_d41d.hkl
time.struct_time(tm_year=2021, tm_mon=10, tm_mday=19, tm_hour=9, tm_min=18, tm_sec=8, tm_wday=1, tm_yday=292, tm_isdst=0)
3083.8568348884583
{
    "MessageId": "cc4cef23-1c17-5a83-a847-b6cb9385fdf5"
}
(env1) [ec2-user@ip-10-0-0-253 20181105]$
```

5)Time taken for the job to complete

Time = 3084 seconds
which is equivalent to 51 minutes 24 seconds

6)Time it will take to process 110 channels
3084/8*110 = 42405 seconds
which is equivalent to 11 hours 46 mins 45 seconds

7)EC2 Dashboard

8) Elastic Compute Cloud charges

Cost & Usage Reports	
Cost Categories	
Cost allocation tags	

▸ Credits

Your invoiced total will be displayed once an invoice is issued.

Details   + Expand All

AWS Service Charges			$0.00
▸ CloudWatch			$0.00
▸ Data Transfer			$0.00
▸ DynamoDB			$0.00
▾ Elastic Compute Cloud			$0.00
▸ No Region			-$33.72
▾ Asia Pacific (Singapore)			$33.72
Amazon Elastic Compute Cloud running Linux/UNIX			$0.25
$0.00 per Linux t2.micro instance-hour (or partial hour) under monthly free tier		130.782 Hrs	$0.00
$0.088 per On Demand Linux c5a.large Instance Hour		2.863 Hrs	$0.25
$0.098 per On Demand Linux c5.large Instance Hour		0.041 Hrs	$0.00
EBS			$33.47
$0.00 per GB-month of General Purpose (SSD) provisioned storage under monthly free tier		30.000 GB-Mo	$0.00
$0.00 per GB-Month of snapshot data stored under monthly free tier		1.000 GB-Mo	$0.00
$0.05 per GB-Month of snapshot data stored - Asia Pacific (Singapore)		356.192 GB-Mo	$17.81
$0.12 per GB-month of General Purpose SSD (gp2) provisioned storage - Asia Pacific (Singapore)		130.479 GB-Mo	$15.66
▸ Key Management Service			$0.00
▸ Lambda			$0.00
▸ Route 53			$0.00
▸ Simple Notification Service			$0.00
▸ Simple Queue Service			$0.00
▸ Simple Storage Service			$0.00

(side navigation: Cost Management, Cost Explorer, Budgets, Budgets Reports, Savings Plans, Preferences, Billing preferences, Payment methods, Consolidated billing, Tax settings)

9) AWS credits

AWS Billing > Credits

Credits Info   Redeem credit

Tuesday, October 19, 2021 at 6:10:45 PM GMT+8

Credits   Last 6 months of inactive credits

Summary

Total amount remaining	Total amount used	Active credits
$400.00	$0.00	1

Credits Info

🔍 Find a credit   ‹ 1 › ⚙

Expiration date ▼	Credit name ▽	Amount used ▽	Amount remaining ▽	Applicable products ▽
07/31/2023	National University of Singapore	$0.00	$400.00	See complete list of services

(side navigation: Home, Billing, Bills, Payments, Credits, Purchase orders, Cost & Usage Reports, Cost Categories, Cost allocation tags, Cost Management, Cost Explorer, Budgets, Budgets Reports, Savings Plans, Preferences, Billing preferences, Payment methods, Consolidated billing, Tax settings)

10) Budgets Overview