

YARN :

1. Run MapReduce Program and capture the application Id of the job.

```
$ yarn jar hadoop-mapreduce-examples-3.0.0-cdh6.2.1.jar wordcount /user/$USER/surbhiagrawal  
/user/$USER/surbhi_output_new2/
```

```
[march8lab23@ip-10-1-1-204 jars]$ yarn application --list  
WARNING: YARN_OPTS has been replaced by HADOOP_OPTS. Using value of YARN_OPTS.  
23/08/21 10:28:24 INFO client.RMProxy: Connecting to ResourceManager at ip-10-1-1-204.ap-south-1.compute.internal/10.1.1.204:8032  
Total number of applications (application-types: [], states: [SUBMITTED, ACCEPTED, RUNNING] and tags: []) : 3  
Application-Id Application-Name Application-Type User Queue State  
Final-State Progress Tracking-URL  
application_1690645061962_1016 Spark shell SPARK shreyakulk31edu root.default RUNNING  
UNDEFINED 10% http://ip-10-1-1-204.ap-south-1.compute.internal:18088/history/application_1690645061962_1016/1  
application_1690645061962_1024 Spark shell SPARK abhishekba15edu root.default RUNNING  
UNDEFINED 10% http://ip-10-1-1-204.ap-south-1.compute.internal:18088/history/application_1690645061962_1024/1  
application_1690645061962_0901 Spark shell SPARK gschaitrat20edu root.default RUNNING  
UNDEFINED 10% http://ip-10-1-1-204.ap-south-1.compute.internal:18088/history/application_1690645061962_0901/1  
[march8lab23@ip-10-1-1-204 jars]$
```

2. Re run the MapReduce program and kill the application using the yarn command.

```
at java.security.AccessController.doPrivileged(Native Method)  
at javax.security.auth.Subject.doAs(Subject.java:422)  
at org.apache.hadoop.security.UserGroupInformation.doAs(UserGroupInformation.java:1875)  
at org.apache.hadoop.ipc.Server$Handler.run(Server.java:2680)  
  
at org.apache.hadoop.ipc.Client.getRpcResponse(Client.java:1499)  
at org.apache.hadoop.ipc.Client.call(Client.java:1445)  
at org.apache.hadoop.ipc.Client.call(Client.java:1355)  
at org.apache.hadoop.ipc.ProtobufRpcEngine$Invoker.invoke(ProtobufRpcEngine.java:228)  
at org.apache.hadoop.ipc.ProtobufRpcEngine$Invoker.invoke(ProtobufRpcEngine.java:116)  
at com.sun.proxy.$Proxy13.getBlockLocations(Unknown Source)  
at org.apache.hadoop.hdfs.protocolPB.ClientNamenodeProtocolTranslatorPB.getBlockLocations(ClientNamenodeProtocolTranslatorPB.java:30  
1)  
at sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method)  
at sun.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:62)  
at sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:43)  
at java.lang.reflect.Method.invoke(Method.java:498)  
at org.apache.hadoop.io.retry.RetryInvocationHandler.invokeMethod(RetryInvocationHandler.java:422)  
at org.apache.hadoop.io.retry.RetryInvocationHandler$Call.invokeMethod(RetryInvocationHandler.java:165)  
at org.apache.hadoop.io.retry.RetryInvocationHandler$Call.invoke(RetryInvocationHandler.java:157)  
at org.apache.hadoop.io.retry.RetryInvocationHandler$Call.invokeOnce(RetryInvocationHandler.java:95)  
at org.apache.hadoop.io.retry.RetryInvocationHandler.invoke(RetryInvocationHandler.java:359)  
at com.sun.proxy.$Proxy14.getBlockLocations(Unknown Source)  
at org.apache.hadoop.hdfs.DFSClient.callGetBlockLocations(DFSClient.java:853)  
... 17 more  
  
13/07/26 12:52:18 INFO mapreduce.Job: map 0% reduce 0%  
13/07/26 12:52:18 INFO mapreduce.Job: Job job_1685754149182_7609 failed with state KILLED due to: Application application_1685754149182_7609  
was killed by user march8lab23 at 10.1.1.204  
13/07/26 12:52:18 INFO mapreduce.Job: Counters: 0  
[march8lab23@ip-10-1-1-204 jars]$
```

3. List all the applications which are RUNNING state

```
WARNING: YARN_OPTS has been replaced by HADOOP_OPTS. Using value of YARN_OPTS.
13/07/26 12:50:29 INFO client.RMProxy: Connecting to ResourceManager at ip-10-1-1-204.ap-south-1.compute.internal/10.1.1.204:8032
Exception in thread "main" java.lang.IllegalArgumentException: Invalid ApplicationId prefix: _. The valid ApplicationId should start with prefix application
    at org.apache.hadoop.yarn.api.records.ApplicationId.fromString(ApplicationId.java:112)
    at org.apache.hadoop.yarn.client.cli.ApplicationCLI.killApplication(ApplicationCLI.java:605)
    at org.apache.hadoop.yarn.client.cli.ApplicationCLI.killApplication(ApplicationCLI.java:585)
    at org.apache.hadoop.yarn.client.cli.ApplicationCLI.run(ApplicationCLI.java:293)
    at org.apache.hadoop.util.ToolRunner.run(ToolRunner.java:76)
    at org.apache.hadoop.util.ToolRunner.run(ToolRunner.java:90)
    at org.apache.hadoop.yarn.client.cli.ApplicationCLI.main(ApplicationCLI.java:102)
[march8lab23@ip-10-1-1-204 ~]$ yarn application --kill application_1685754149182_7608
WARNING: YARN_OPTS has been replaced by HADOOP_OPTS. Using value of YARN_OPTS.
13/07/26 12:50:41 INFO client.RMProxy: Connecting to ResourceManager at ip-10-1-1-204.ap-south-1.compute.internal/10.1.1.204:8032
Application application_1685754149182_7608 has already finished
[march8lab23@ip-10-1-1-204 ~]$ yarn application --kill application_1685754149182_7609
WARNING: YARN_OPTS has been replaced by HADOOP_OPTS. Using value of YARN_OPTS.
13/07/26 12:52:17 INFO client.RMProxy: Connecting to ResourceManager at ip-10-1-1-204.ap-south-1.compute.internal/10.1.1.204:8032
Killing application application_1685754149182_7609
13/07/26 12:52:17 INFO impl.YarnClientImpl: Killed application application_1685754149182_7609
[march8lab23@ip-10-1-1-204 ~]$ yarn application --list --appStates RUNNING
WARNING: YARN_OPTS has been replaced by HADOOP_OPTS. Using value of YARN_OPTS.
13/07/26 12:55:14 INFO client.RMProxy: Connecting to ResourceManager at ip-10-1-1-204.ap-south-1.compute.internal/10.1.1.204:8032
Total number of applications (application-types: [], states: [RUNNING] and tags: []) : 2

```

Application-Id	Application-Name	Application-Type	User	Queue	State
Final-State	Progress	Tracking-URL			
application_1685754149182_7612	word count	MAPREDUCE	march8lab23	root.default	RUNNING
UNDEFINED	5% http://ip-10-1-2-175.ap-south-1.compute.internal:38253				
application_1685754149182_7570	Spark shell	SPARK	dhinkumart58edu	root.default	RUNNING
UNDEFINED	10% http://ip-10-1-1-204.ap-south-1.compute.internal:18088/history/application_1685754149182_7570/1				

```
[march8lab23@ip-10-1-1-204 ~]$
```

4. View the logs of any of the jobs which are already completed.

```
End of LogType:stdout
*****

End of LogType:prelaunch.err
*****

Container: container_1685754149182_7612_01_000022 on ip-10-1-2-40.ap-south-1.compute.internal_8041
LogAggregationType: AGGREGATED
=====
LogType:prelaunch.out
LogLastModifiedTime:Wed Jul 26 12:56:03 +0000 2023
LogLength:70
LogContents:
Setting up env variables
Setting up job resources
Launching container

End of LogType:prelaunch.out
*****

End of LogType:stderr
*****

End of LogType:stdout
*****

[march8lab23@ip-10-1-1-204 ~]$
```