

### Install Hadoop/Oozie on AWS VMs:

- Create EC2 Instance:
  - select ubuntu OS
  - architecture 64 bit
  - instance type -t2.xlarge 16gb
  - key pair vockey
  - network setting -Edit
  - select type as all traffic and source type anywhere
  - storage 80GB
  - click launch instance
- Please add private ip addresses as below on all machines at /etc/hosts using root  
ex:

172.31.80.189	master
172.31.80.153	slave1
172.31.89.24	slave2
- Install softwares on all machines. Below are commands

```
sudo apt-get update
sudo apt-get install openjdk-8-jdk -y
sudo apt-get install unzip
sudo apt-get install maven -y
```
- Generate public key of Master and add it to all machines authorized\_keys file

```
ssh-keygen -t rsa -P "" -f ~/.ssh/id_rsa
cat ~/.ssh/id_rsa.pub
```

Note: added key manually to slave machines
- Upload and untar Hadoop tar on master and copy to slaves  
Ex: scp hadoop.tar.gz slave1:~  
scp hadoop.tar.gz slave2:~
- create below users on master

```
sudo addgroup hadoop
sudo adduser ubuntu hadoop
sudo adduser --ingroup hadoop oozie
sudo adduser oozie sudo
```
- untar Hadoop tar and create directories for hadoop

```
sudo tar zxvf hadoop.tar.gz --directory /usr/local
rm hadoop.tar.gz
sudo mkdir -p /usr/local/hdata/dfs/name
sudo mkdir -p /usr/local/hdata/dfs/data
```

- change permissions of /usr/local folder

master machine:

```
sudo chown -R ubuntu:hadoop /usr/local/
```

slaves machine:

```
sudo chown -R ubuntu /usr/local/
```

- add below environmental variables to bashrc file on all machines.

```
export JAVA_HOME=/usr/lib/jvm/java-8-openjdk-amd64
export HADOOP_HOME=/usr/local/hadoop-2.10.2
export PATH=$PATH:$HADOOP_HOME/bin
export PATH=$PATH:$HADOOP_HOME/sbin
export HADOOP_MAPRED_HOME=$HADOOP_HOME
export HADOOP_COMMON_HOME=$HADOOP_HOME
export HADOOP_HDFS_HOME=$HADOOP_HOME
export YARN_HOME=$HADOOP_HOME
export HADOOP_COMMON_LIB_NATIVE_DIR=$HADOOP_HOME/native
export HADOOP_OPTS="-Djava.library.path=$HADOOP_HOME/native"
export HADOOP_CLASSPATH=${JAVA_HOME}/lib/tools.jar
command: source ~/.bashrc
```

- On Master format HDFS

```
hdfs namenode -format
```

you can check Hadoop setup complete or not with below

Master:

```
start-dfs.sh
```

```
start-yarn.sh
```

```
jps
```

```
Last login: Fri Aug 5 02:10:33 2022 from 73.226.206.119
ubuntu@ip-172-31-80-189:~$ source ~/.bashrc
ubuntu@ip-172-31-80-189:~$ start-dfs.sh
22/08/05 19:28:19 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
Starting namenodes on [master]
master: starting namenode, logging to /usr/local/hadoop-2.10.2/logs/hadoop-ubuntu-namenode-ip-172-31-80-189.out
slave2: starting datanode, logging to /usr/local/hadoop-2.10.2/logs/hadoop-ubuntu-datanode-ip-172-31-89-24.out
slave1: starting datanode, logging to /usr/local/hadoop-2.10.2/logs/hadoop-ubuntu-datanode-ip-172-31-80-153.out
Starting secondary namenodes [0.0.0.0]
0.0.0.0: starting secondarynamenode, logging to /usr/local/hadoop-2.10.2/logs/hadoop-ubuntu-secondarynamenode-ip-172-31-80-189.out
22/08/05 19:28:34 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
ubuntu@ip-172-31-80-189:~$ start-yarn.sh
starting yarn daemons
starting resourcemanager, logging to /usr/local/hadoop-2.10.2/logs/yarn-ubuntu-resourcemanager-ip-172-31-80-189.out
slave1: starting nodemanager, logging to /usr/local/hadoop-2.10.2/logs/yarn-ubuntu-nodemanager-ip-172-31-80-153.out
slave2: starting nodemanager, logging to /usr/local/hadoop-2.10.2/logs/yarn-ubuntu-nodemanager-ip-172-31-89-24.out
ubuntu@ip-172-31-80-189:~$ jps
14592 ResourceManager
14848 Jps
14221 NameNode
14447 SecondaryNameNode
ubuntu@ip-172-31-80-189:~$ █
```

slaves:

jps

```
ubuntu@ip-172-31-89-24:~$ source .bashrc
ubuntu@ip-172-31-89-24:~$ jps
14011 DataNode
14174 NodeManager
14366 Jps
ubuntu@ip-172-31-89-24:~$
```

Then stop Hadoop nodes.

Stop-yarn.sh

Stop-dfs.sh

### Oozie installation and setup

- **We will setup oozie on only Master machine**

- **Please execute below**

```
wget https://dlcdn.apache.org/oozie/5.2.1/oozie-5.2.1.tar.gz
wget https://dlcdn.apache.org/oozie/5.2.1/oozie-5.2.1.tar.gz
sudo mkdir /usr/local/temp
sudo chmod 777 -R /usr/local/temp
tar zxvf oozie-5.2.1.tar.gz --directory /usr/local/temp
cd /usr/local/temp/oozie-5.2.1/bin/
./mkdistro.sh -Dhadoop.version=2.10.2 -DskipTests
```

```
cd /usr/local/temp/oozie-5.2.1/distro/target/oozie-5.2.1-distro/oozie-5.2.1
mkdir libext
cd libext
wget http://archive.cloudera.com/gplextras/misc/ext-2.2.zip
```

- Please copy hadoop jars to oozie

```
cp $HADOOP_HOME/share/hadoop/common/*.jar .
cp $HADOOP_HOME/share/hadoop/common/lib/*.jar .
cp $HADOOP_HOME/share/hadoop/hdfs/*.jar .
cp $HADOOP_HOME/share/hadoop/hdfs/lib/*.jar .
cp $HADOOP_HOME/share/hadoop/mapreduce/*.jar .
cp $HADOOP_HOME/share/hadoop/mapreduce/lib/*.jar .
cp $HADOOP_HOME/share/hadoop/yarn/*.jar .
cp $HADOOP_HOME/share/hadoop/yarn/lib/*.jar .
```

- Move installation to /usr/local folder

```
sudo mkdir /usr/local/oozie
cd /usr/local/temp/oozie-5.2.1/distro/target/oozie-5.2.1-distro
sudo mv oozie-5.2.1 /usr/local/oozie
```

```
sudo chown -R oozie:hadoop /usr/local/temp
sudo chown -R oozie:hadoop /usr/local/oozie
```

- Add oozie environmental variables to bashrc file with oozie user

```
su oozie
cd ~
nano .bashrc
```

```
export OOZIE_HOME=/usr/local/oozie/oozie-5.2.1
export PATH=$PATH:$OOZIE_HOME/bin
```

```
source .bashrc
```

- Add below to oozie-site.xml on master with oozie user

File: \$OOZIE\_HOME/conf/oozie-site.xml

```
<property>
  <name>oozie.service.HadoopAccessorService.hadoop.configurations</name>
  <value>*/usr/local/hadoop-2.10.2/etc/hadoop</value>
</property>
<property>
  <name>oozie.service.WorkflowAppService.system.libpath</name>
  <value>hdfs:///user/${user.name}/share/lib</value>
</property>
```

- Add below to core-site.xml on master with ubuntu user

File : \$HADOOP\_HOME/etc/hadoop/core-site.xml

```
<!-- OOZIE -->
<property>
  <name>hadoop.proxyuser.oozie.hosts</name>
  <value>*</value>
</property>
<property>
  <name>hadoop.proxyuser.oozie.groups</name>
  <value>*</value>
</property>
```

- Run oozie-setup.sh on master with oozie user

- Start nodes on master with ubuntu user

```
start-dfs.sh
start-yarn.sh
```

```
hdfs dfs -mkdir -p /user/oozie
hdfs dfs -chown oozie /user/oozie
hdfs dfs -chmod -R 777 /
```

- run below to setup Hadoop jars with oozie and start oozie

```
oozie-setup.sh sharelib create -fs hdfs://master:8020
oozied.sh start
```

```

Setting up oozie DB
Validate DB Connection
SLF4J: Class path contains multiple SLF4J bindings.
SLF4J: Found binding in [jar:file:/usr/local/oozie/oozie-5.2.1/lib/slf4j-log4j12-1.6.6.jar!/org/slf4j/impl/StaticLoggerBinder.class]
SLF4J: Found binding in [jar:file:/usr/local/oozie/oozie-5.2.1/lib/slf4j-reload4j-1.7.36.jar!/org/slf4j/impl/StaticLoggerBinder.class]
SLF4J: Found binding in [jar:file:/usr/local/oozie/oozie-5.2.1/libext/slf4j-reload4j-1.7.36.jar!/org/slf4j/impl/StaticLoggerBinder.class]
SLF4J: See http://www.slf4j.org/codes.html#multiple_bindings for an explanation.
SLF4J: Actual binding is of type [org.slf4j.impl.Log4jLoggerFactory]
DONE
DB schema exists
The SQL commands have been written to: /tmp/ooziedb-52809099819085144590.sql
Existing PID file found during start.
Removing/clearing stale PID file.
Oozie server started - PID: 14992.
oozie@ip-172-31-80-189:/home/ubuntu$

```

## Run sample jobs on oozie

- Please extract oozie sample code

```

cd /usr/local/temp/oozie-5.2.1/examples/target
tar xzvf oozie-examples-5.2.1-examples.tar.gz

```

- change job.properties to have master details(change localhost to master)

```

# See the License for the specific language governing permissions and
# limitations under the License.
#

nameNode=hdfs://master:8020
resourceManager=master:8032
queueName=default
examplesRoot=examples

oozie.wf.application.path=${nameNode}/user/${user.name}/${examplesRoot}/apps/map-reduce/workflow.xml
outputDir=map-reduce
oozie@ip-172-31-80-189:/usr/local/temp/oozie-5.2.1/examples/target$

```

- Create folder at hdfs  
hdfs dfs -put examples /user/oozie

- stop oozie and start Hadoop

oozied.sh stop ( with oozie user)

```

stop-yarn.sh
stop-dfs.sh

```

(restart instances)

```

start-dfs.sh
start-yarn.sh

```

- run job at oozie  
cd /usr/local/temp/oozie-5.2.1/examples/target

```

oozied.sh start
oozie job -oozie http://master:11000/oozie -config ./examples/apps/map-reduce/job.properties -run

```

```

outputDir=map-reduce
oozie@ip-172-31-80-189:/usr/local/temp/oozie-5.2.1/examples/target$ oozie job -oozie http://master:11000/oozie -config ./examples/apps/map-reduce/job.properties -run
SLF4J: Class path contains multiple SLF4J bindings.
SLF4J: Found binding in [jar:file:/usr/local/oozie/oozie-5.2.1/lib/slf4j-log4j12-1.6.6.jar!/org/slf4j/impl/StaticLoggerBinder.class]
SLF4J: Found binding in [jar:file:/usr/local/oozie/oozie-5.2.1/lib/slf4j-reload4j-1.7.36.jar!/org/slf4j/impl/StaticLoggerBinder.class]
SLF4J: Found binding in [jar:file:/usr/local/oozie/oozie-5.2.1/libext/slf4j-reload4j-1.7.36.jar!/org/slf4j/impl/StaticLoggerBinder.class]
SLF4J: See http://www.slf4j.org/codes.html#multiple_bindings for an explanation.
SLF4J: Actual binding is of type [org.slf4j.impl.Log4jLoggerFactory]
job: 0000000-220805194228784-oozie-oozi-W
oozie@ip-172-31-80-189:/usr/local/temp/oozie-5.2.1/examples/target$

```

```

oozie@ip-172-31-80-189:/usr/local/temp/oozie-5.2.1/examples/target$ hdfs dfs -ls /user/oozie
22/08/05 20:00:47 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
Found 3 items
drwxr-xr-x - oozie supergroup 0 2022-08-05 01:47 /user/oozie/examples
drwxr-xr-x - oozie supergroup 0 2022-08-05 19:50 /user/oozie/oozie-oozi
drwxr-xr-x - oozie supergroup 0 2022-08-05 01:36 /user/oozie/share
oozie@ip-172-31-80-189:/usr/local/temp/oozie-5.2.1/examples/target$ hdfs dfs -ls /user/oozie/examples
22/08/05 20:01:08 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
Found 4 items
drwxr-xr-x - oozie supergroup 0 2022-08-05 01:38 /user/oozie/examples/apps
drwxr-xr-x - oozie supergroup 0 2022-08-05 01:38 /user/oozie/examples/input-data
drwxr-xr-x - oozie supergroup 0 2022-08-05 19:50 /user/oozie/examples/output-data
drwxr-xr-x - oozie supergroup 0 2022-08-05 01:38 /user/oozie/examples/src
oozie@ip-172-31-80-189:/usr/local/temp/oozie-5.2.1/examples/target$ hdfs dfs -ls /user/oozie/examples/input-data
22/08/05 20:01:26 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
Found 2 items
drwxr-xr-x - oozie supergroup 0 2022-08-05 01:38 /user/oozie/examples/input-data/rawLogs
drwxr-xr-x - oozie supergroup 0 2022-08-05 01:38 /user/oozie/examples/input-data/text
oozie@ip-172-31-80-189:/usr/local/temp/oozie-5.2.1/examples/target$ hdfs dfs -ls /user/oozie/examples/output-data
22/08/05 20:01:38 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
Found 1 items
drwxr-xr-x - oozie supergroup 0 2022-08-05 19:50 /user/oozie/examples/output-data/map-reduce
oozie@ip-172-31-80-189:/usr/local/temp/oozie-5.2.1/examples/target$ hdfs dfs -ls /user/oozie/examples/output-data/map-reduce
22/08/05 20:01:52 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
Found 2 items
-rw-r--r-- 2 oozie supergroup 0 2022-08-05 19:50 /user/oozie/examples/output-data/map-reduce/_SUCCESS
-rw-r--r-- 2 oozie supergroup 1547 2022-08-05 19:50 /user/oozie/examples/output-data/map-reduce/part-00000
oozie@ip-172-31-80-189:/usr/local/temp/oozie-5.2.1/examples/target$ hdfs dfs -get /user/oozie/examples/output-data/map-reduce/part-00000
22/08/05 20:02:21 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
get: 'part-00000': File exists
oozie@ip-172-31-80-189:/usr/local/temp/oozie-5.2.1/examples/target$ cat part-00000
0 To be or not to be, that is the question;
42 Whether 'tis nobler in the mind to suffer
84 The slings and arrows of outrageous fortune,
129 or to take arms against a sea of troubles,
172 And by opposing, end them. To die, to sleep;
217 No more; and by a sleep to say we end
255 The heart-ache and the thousand natural shocks
302 That flesh is heir to ? 'tis a consummation
346 Devoutly to be wish'd. To die, to sleep;
387 To sleep, perchance to dream. Ay, there's the rub,
438 For in that sleep of death what dreams may come,
487 When we have shuffled off this mortal coil,
531 Must give us pause. There's the respect
571 That makes calamity of so long life,
608 For who would bear the whips and scorns of time,
657 Th'oppressor's wrong, the proud man's contumely,
706 The pangs of despised love, the law's delay,
751 The insolence of office, and the spurns
791 That patient merit of th'unworthy takes,
832 When he himself might his quietus make
871 With a bare bodkin? who would fardels bear,
915 To grunt and sweat under a weary life,
954 But that the dread of something after death,
999 The undiscovered country from whose bourn
1041 No traveller returns, puzzles the will,
1081 And makes us rather bear those ills we have
1125 Than fly to others that we know not of?
1165 Thus conscience does make cowards of us all,
1210 And thus the native hue of resolution
1248 Is sicklied o'er with the pale cast of thought,
1296 And enterprises of great pitch and moment
1338 With this regard their currents turn awry,
1381 And lose the name of action.
oozie@ip-172-31-80-189:/usr/local/temp/oozie-5.2.1/examples/target$

```

Output :

hdfs dfs -ls /user/oozie/examples

hdfs dfs -ls /user/oozie/examples/output-data/map-reduce

hdfs dfs -get /user/oozie/examples/output-data/map-reduce/part-00000


```

22/08/05 20:02:21 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
get: 'part-00000': File exists
oozie@ip-172-31-80-189:/usr/local/temp/oozie-5.2.1/examples/target$ cat part-00000
0 To be or not to be, that is the question;
42 Whether 'tis nobler in the mind to suffer
84 The slings and arrows of outrageous fortune,
129 or to take arms against a sea of troubles,
172 And by opposing, end them. To die, to sleep;
217 No more; and by a sleep to say we end
255 The heart-ache and the thousand natural shocks
302 That flesh is heir to ? 'tis a consummation
346 Devoutly to be wish'd. To die, to sleep;
387 To sleep, perchance to dream. Ay, there's the rub,
438 For in that sleep of death what dreams may come,
487 When we have shuffled off this mortal coil,
531 Must give us pause. There's the respect
571 That makes calamity of so long life,
608 For who would bear the whips and scorns of time,
657 Th'oppressor's wrong, the proud man's contumely,
706 The pangs of despised love, the law's delay,
751 The insolence of office, and the spurns
791 That patient merit of th'unworthy takes,
832 When he himself might his quietus make
871 With a bare bodkin? who would fardels bear,
915 To grunt and sweat under a weary life,
954 But that the dread of something after death,
999 The undiscovered country from whose bourn
1041 No traveller returns, puzzles the will,
1081 And makes us rather bear those ills we have
1125 Than fly to others that we know not of?
1165 Thus conscience does make cowards of us all,
1210 And thus the native hue of resolution
1248 Is sicklied o'er with the pale cast of thought,
1296 And enterprises of great pitch and moment
1338 With this regard their currents turn awry,
1381 And lose the name of action.
oozie@ip-172-31-80-189:/usr/local/temp/oozie-5.2.1/examples/target$

```

lobaXterm by subscribing to the professional edition here: <https://mobaxterm.mobatek.net>

- Oozie console: <http://<IP>:11000/oozie>  
Note :use public ip address of Master machine
- Also the check resource manager: <http://<IP>:8088>  
Note :use public ip address of Master machine



## All Applications

Cluster

- About
- Nodes
- Node Labels
- Applications
- NEW
- NEW SAVING
- SUBMITTED
- ACCEPTED
- RUNNING
- FINISHED
- FAILED
- KILLED
- Scheduler
- Tools

**Cluster Metrics**

Apps Submitted	4	Apps Pending	0	Apps Running	4	Apps Completed	0	Containers Running	4	Used Resources	<memory 0 B, vCores 0>	Total Resources	<memory 16 GB, vCores 16>	Reserved Resources	<memory 0 B, vCores 0>	Physical Memory	9
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**Cluster Nodes Metrics**

Active Nodes	2	Decommissioning Nodes	0	Decommissioned Nodes	0	Lost Nodes	0	Unhealthy Nodes	0	Rebooted Nodes	0
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**Scheduler Metrics**

Scheduler Type	Capacity Scheduler	Scheduling Resource Type	[-<name=memory-mb default-unit=Mi type=COUNTABLE>, <name=vcores default-unit= type=COUNTABLE>]	Minimum Allocation	<memory 1024, vCores 1>	Maximum Allocation	<memory 8192, vCores 4>
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Show 20 entries

ID	User	Name	Application Type	Queue	Application Priority	StartTime	LaunchTime	FinishTime	State	FinalStatus	Running Containers	Allocated CPU VCores	Allocated Memory MB	Allocated GPUs	Reserved CPU VCores	Reserved Memory MB	Reserved GPUs	Quota
application_165972751417_0004	dr who	get-shell	YARN	default	-1	Fri Aug 5 16:01:52 -0400 2022	Fri Aug 5 16:01:52 -0400 2022	Fri Aug 5 16:02:30 -0400 2022	FAILED	FAILED	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.1
application_165972751417_0003	oozie	oozie action T=map-reduce-Wf=map-reduce-wf.Ammi-node ID=00000000-220805194228784-0026-002-W	MAPREDUCE	default	0	Fri Aug 5 15:50:35 -0400 2022	Fri Aug 5 15:50:42 -0400 2022	Fri Aug 5 15:50:56 -0400 2022	FINISHED	SUCCEEDED	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.1
application_165972751417_0002	oozie	oozie launcher T=map-reduce-Wf=map-reduce-wf.Ammi-node ID=00000000-220805194228784-0026-002-W	Oozie Launcher	default	0	Fri Aug 5 15:50:31 -0400 2022	Fri Aug 5 15:50:32 -0400 2022	Fri Aug 5 15:50:36 -0400 2022	FINISHED	SUCCEEDED	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.1
application_165972751417_0001	dr who	get-shell	YARN	default	-1	Fri Aug 5 15:42:51 -0400 2022	Fri Aug 5 15:42:52 -0400 2022	Fri Aug 5 15:42:54 -0400 2022	FAILED	FAILED	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.1

Showing 1 to 4 of 4 entries

### Setup app for flight data :

- Copy data from localhost to Master EC2 at /home/ubuntu/
- Unzip Data.zip file
  - unzip Data.zip

```

bzip2 -d 1987.csv.bz2
bzip2 -d 1988.csv.bz2
bzip2 -d 1989.csv.bz2
bzip2 -d 1990.csv.bz2
bzip2 -d 1991.csv.bz2
bzip2 -d 1992.csv.bz2
bzip2 -d 1993.csv.bz2
bzip2 -d 1994.csv.bz2
bzip2 -d 1995.csv.bz2
bzip2 -d 1996.csv.bz2
bzip2 -d 1997.csv.bz2
bzip2 -d 1998.csv.bz2
bzip2 -d 1999.csv.bz2
bzip2 -d 2000.csv.bz2
bzip2 -d 2001.csv.bz2
bzip2 -d 2002.csv.bz2
bzip2 -d 2003.csv.bz2
bzip2 -d 2004.csv.bz2
bzip2 -d 2005.csv.bz2
bzip2 -d 2006.csv.bz2
bzip2 -d 2007.csv.bz2
bzip2 -d 2008.csv.bz2

```

- create directory flight app
 

```
cd /usr/local/temp/oozie-5.2.1/examples/target/examples/apps
```

```
/usr/local/temp/oozie-5.2.1/examples/target/examples/apps$ mkdir flightapp
```

Copy sample files to this folder

```
Cd flightapp
cp -R ../map-reduce/* .
cd lib
rm *
```

- copy code jar this lib folder

```
cp /home/ubuntu/flight.jar /usr/local/temp/oozie-5.2.1/examples/target/examples/apps/flightapp/lib
```

- change job.properties as below

```
nameNode=hdfs://master:8020
```

```
resourceManager=master:8032
```

```
queueName=default
```

```
examplesRoot=examples
```

```
oozie.wf.application.path=${nameNode}/user/${user.name}/${examplesRoot}/apps/flightapp/workflow.xml
```

```
outputDir=FlightApp
```

```
oozie@ip-172-31-80-189:/usr/local/temp/oozie-5.2.1/examples/target/examples/apps/flightapp$ vi job.properties
```

```
oozie@ip-172-31-80-189:/usr/local/temp/oozie-5.2.1/examples/target/examples/apps/flightapp$ cat job
```

```
job-with-config-class.properties job.properties
```

```
oozie@ip-172-31-80-189:/usr/local/temp/oozie-5.2.1/examples/target/examples/apps/flightapp$ cat
job.properties
```

- copy workflow.xml to flightapp folder
- start oozie

```
oozied.sh start
```

- and setup share lib

```
oozie-setup.sh sharelib create -fs hdfs://master:8020
```

- upload data /home/ubuntu/Data folder to :/usr/local/temp/oozie-5.2.1/examples/target/examples/input-data/flightappdata
- upload examples folder to hdfs  
hdfs dfs -put examples /user/oozie

- Run Job  
oozie job -oozie http://master:11000/oozie -config ./examples/apps/flightapp/job.properties -run

```
oozie@ip-172-31-80-189:/usr/local/temp/oozie-5.2.1/examples/target/examples/input-data$ cd ...
oozie@ip-172-31-80-189:/usr/local/temp/oozie-5.2.1/examples/target/examples$ cd ...
oozie@ip-172-31-80-189:/usr/local/temp/oozie-5.2.1/examples/target$ oozie job -oozie http://master:11000/oozie -config ./examples/apps/flightapp/job.properties -run
SLF4J: Class path contains multiple SLF4J bindings.
SLF4J: Found binding in [jar:file:/usr/local/oozie/oozie-5.2.1/lib/slf4j-log4j12-1.6.6.jar!/org/slf4j/impl/StaticLoggerBinder.class]
SLF4J: Found binding in [jar:file:/usr/local/oozie/oozie-5.2.1/lib/slf4j-reload4j-1.7.36.jar!/org/slf4j/impl/StaticLoggerBinder.class]
SLF4J: Found binding in [jar:file:/usr/local/oozie/oozie-5.2.1/libext/slf4j-reload4j-1.7.36.jar!/org/slf4j/impl/StaticLoggerBinder.class]
SLF4J: See http://www.slf4j.org/codes.html#multiple_bindings for an explanation.
SLF4J: Actual binding is of type [org.slf4j.impl.Log4jLoggerFactory]
job: 0000002-220806004121505-oozie-oozi-W
```