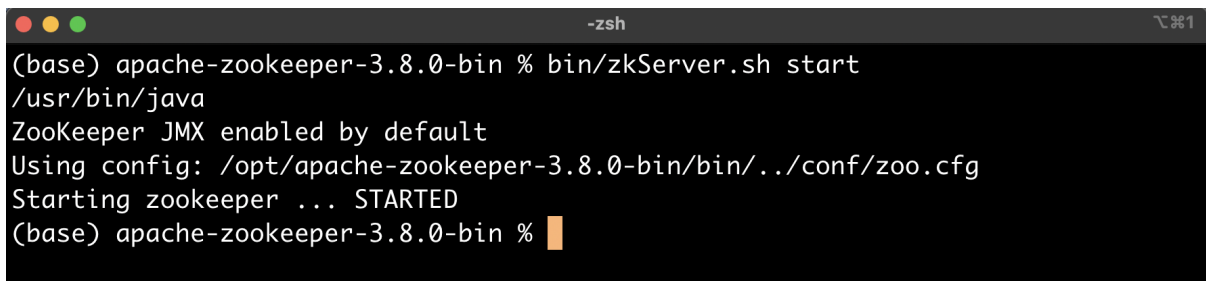# Assignment 4 - Introduction to Apache Zookeeper

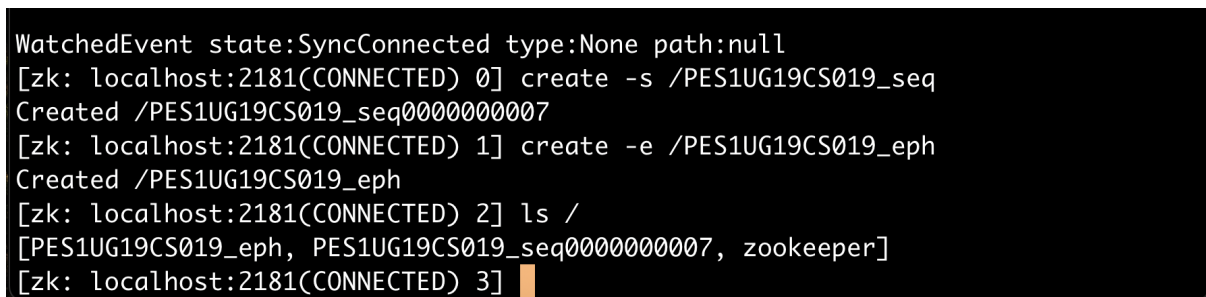Name   : Abhishek Aditya BS
SRN   : PES1UG19CS019
Section   : VI semester 'A' section

1a.jpg - Screenshot of Zookeeper Server having started

```
-zsh                                                          ⌥⌘1
(base) apache-zookeeper-3.8.0-bin % bin/zkServer.sh start
/usr/bin/java
ZooKeeper JMX enabled by default
Using config: /opt/apache-zookeeper-3.8.0-bin/bin/../conf/zoo.cfg
Starting zookeeper ... STARTED
(base) apache-zookeeper-3.8.0-bin %
```
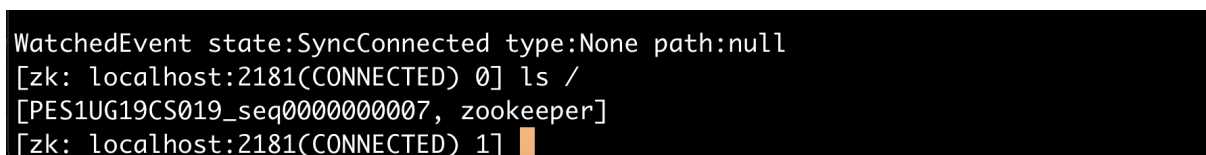
2a.jpg - Screenshot of Listing of the created ZNodes

```
WatchedEvent state:SyncConnected type:None path:null
[zk: localhost:2181(CONNECTED) 0] create -s /PES1UG19CS019_seq
Created /PES1UG19CS019_seq0000000007
[zk: localhost:2181(CONNECTED) 1] create -e /PES1UG19CS019_eph
Created /PES1UG19CS019_eph
[zk: localhost:2181(CONNECTED) 2] ls /
[PES1UG19CS019_eph, PES1UG19CS019_seq0000000007, zookeeper]
[zk: localhost:2181(CONNECTED) 3]
```

2b.jpg - Screenshot of Listing of the deleted ephemeral node

```
WatchedEvent state:SyncConnected type:None path:null
[zk: localhost:2181(CONNECTED) 0] ls /
[PES1UG19CS019_seq0000000007, zookeeper]
[zk: localhost:2181(CONNECTED) 1]
```

2c.jpg - Screenshot of Data and Metadata associated with the created sequential znode.

```
[zk: localhost:2181(CONNECTED) 1] get -s /PES1UG19CS019_seq0000000007
null
cZxid = 0x38
ctime = Mon Apr 11 09:25:20 IST 2022
mZxid = 0x38
mtime = Mon Apr 11 09:25:20 IST 2022
pZxid = 0x38
cversion = 0
dataVersion = 0
aclVersion = 0
ephemeralOwner = 0x0
dataLength = 0
numChildren = 0
[zk: localhost:2181(CONNECTED) 2]
```

2d.jpg - Screenshot of Listing of all the children nodes

```
[zk: localhost:2181(CONNECTED) 6] ls /PES1UG19CS019
[Abhishek, Aditya]
[zk: localhost:2181(CONNECTED) 7]
```

3a.jpg - Screenshot of each of the clients listing all the znodes

```
2022-04-11 09:46:02,593 [myid:] - INFO  [main:o.a.z.s.p.FileTxnSnapLog@479] - Snapshotting: 0x5f to /opt/apache-zoo
keeper-3.8.0-bin/data/version-2/snapshot.5f
2022-04-11 09:46:02,593 [myid:] - INFO  [main:o.a.z.s.ZooKeeperServer@547] - Snapshot taken in 0 ms
2022-04-11 09:46:02,596 [myid:] - INFO  [ProcessThread(sid:0 cport:2181)::o.a.z.s.PrepRequestProcessor@138] - PrepR
equestProcessor (sid:0) started, reconfigEnabled=false
2022-04-11 09:46:02,596 [myid:] - INFO  [main:o.a.z.s.RequestThrottler@75] - zookeeper.request_throttler.shutdownTi
meout = 10000 ms
2022-04-11 09:46:02,602 [myid:] - INFO  [main:o.a.z.s.ContainerManager@84] - Using checkIntervalMs=60000 maxPerMinu
te=10000 maxNeverUsedIntervalMs=0
2022-04-11 09:46:02,602 [myid:] - INFO  [main:o.a.z.a.ZKAuditProvider@42] - ZooKeeper audit is disabled.
2022-04-11 09:46:05,753 [myid:] - INFO  [SyncThread:0:o.a.z.s.p.FileTxnLog@285] - Creating new log file: log.60
```

```
WatchedEvent state:SyncConnected type:
None path:null
[zk: localhost:2181(CONNECTED) 0] crea
te /PES1UG19CS019
Created /PES1UG19CS019
[zk: localhost:2181(CONNECTED) 1] crea
te -se /PES1UG19CS019/candidate
Created /PES1UG19CS019/candidate000000
0000
[zk: localhost:2181(CONNECTED) 2] ls /
PES1UG19CS019
[candidate0000000000, candidate0000000
001, candidate0000000002]
[zk: localhost:2181(CONNECTED) 3]
```

```
, negotiated timeout = 30000

WATCHER::

WatchedEvent state:SyncConnected type:
None path:null
[zk: localhost:2181(CONNECTED) 0] crea
te -se /PES1UG19CS019/candidate
Created /PES1UG19CS019/candidate000000
0001
[zk: localhost:2181(CONNECTED) 1] ls /
PES1UG19CS019
[candidate0000000000, candidate0000000
001, candidate0000000002]
[zk: localhost:2181(CONNECTED) 2]
```

```
ca0002, negotiated timeout = 30000

WATCHER::

WatchedEvent state:SyncConnected type
:None path:null
[zk: localhost:2181(CONNECTED) 0] cre
ate -se /PES1UG19CS019/candidate
Created /PES1UG19CS019/candidate00000
00002
[zk: localhost:2181(CONNECTED) 1] ls
/PES1UG19CS019
[candidate0000000000, candidate000000
0001, candidate0000000002]
[zk: localhost:2181(CONNECTED) 2]
```

3b.jpg - Screenshot of the Watched Event and the Zookeeper Server logs.