Cloud Computing Assignment 4

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Output Screen shots:

1a: Screenshot of Zookeeper Server having started.

```
(base) pes2ug20cs455@pes2ug20cs455:/opt/apache-zookeeper-3.8.0-bin$ gedit config/zoo.cfg
(base) pes2ug20cs455@pes2ug20cs455:/opt/apache-zookeeper-3.8.0-bin$ bin/zkServer.sh start
ZooKeeper JMX enabled by default
Using config: /opt/apache-zookeeper-3.8.0-bin/bin/../conf/zoo.cfg
Starting zookeeper ... STARTED
(base) pes2ug20cs455@pes2ug20cs455:/opt/apache-zookeeper-3.8.0-bin$
```

2a: Screenshot of Listing of the created Znodes

```
ACL is not valid : null
[zk: localhost:2181(CONNECTED) 2] create -s /pes2ug20cs455_seq
Created /pes2ug20cs455_seq0000000000
[zk: localhost:2181(CONNECTED) 3] create -e /pes2ug20cs455_eph
Created /pes2ug20cs455_eph
[zk: localhost:2181(CONNECTED) 4] ls /
[pes2ug20cs455_eph, pes2ug20cs455_seq0000000000, zookeeper]
[zk: localhost:2181(CONNECTED) 5]
```

2b: Screenshot of Listing of the deleted ephemeral node

```
JLine support is enabled
[zk: localhost:2181(CONNECTED) 0] ls /
[pes2ug20cs455_seq0000000000, zookeeper]
[zk: localhost:2181(CONNECTED) 1]
```
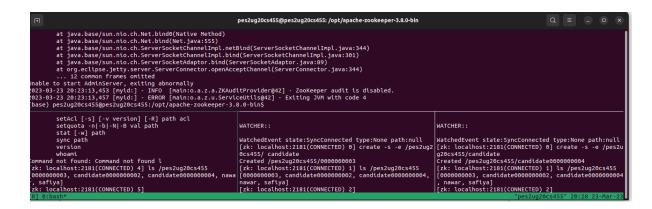
2c: Screenshot of Data and Metadata associated with the created sequential znode.

```
[zk: localhost:2181(CONNECTED) 3] get -s /pes2ug20cs455_seq0000000000
null
cZxid = 0x4
ctime = Tue Mar 21 21:18:45 IST 2023
mZxid = 0x4
mtime = Tue Mar 21 21:18:45 IST 2023
pZxid = 0x4
cversion = 0
dataVersion = 0
aclVersion = 0
ephemeralOwner = 0x0
dataLength = 0
numChildren = 0
[zk: localhost:2181(CONNECTED) 4]
```
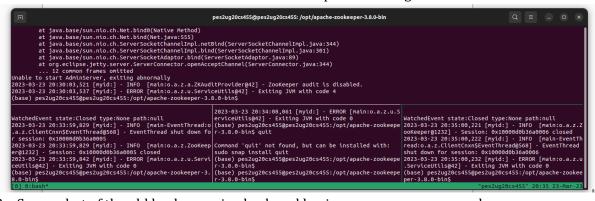
2d: Screenshot of Listing of all the children nodes

```
Node does not exist: /parents
[zk: localhost:2181(CONNECTED) 11] ls /pes2ug20cs455
[nawar, safiya]
[zk: localhost:2181(CONNECTED) 12]
```

3a: Screenshot of each of the clients listing all the znodes

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

3c: Screenshot of the old leader coming back and having a new sequence number.


```
WATCHER::

WatchedEvent state:SyncConnected type:None path:null
[zk: localhost:2181(CONNECTED) 0] create -s -e /pes2ug20cs455/newnode
Created /pes2ug20cs455/newnode0000000005
```