Scenario 10

Problem-statement :

The client is able to produce to the `international_orders` topic but receives an error while producing and consuming from `domestic_orders` using the following commands -

Observation :

Brokers are down and connect ,control-center, schema-registry are also down due to certification validity.
After that when goes to inside the container kfkclient produce some messages to

Errors :

WARN [Producer clientId=console-producer] Connection to node 2 (kafka2/172.20.0.6:19093) could not be established. Broker may not be available. (org.apache.kafka.clients.NetworkClient)

kafka-console-producer --bootstrap-server kafka1:19092 --producer.config /opt/client/client.properties --topic <topic>

kafka-console-consumer --bootstrap-server kafka1:19092 --consumer.config /opt/client/client.properties --from-beginning --topic <topic>

Aproach / Method :

TLS (renewal of certificates)
Check the logs, role-bindings and mapping correct ports

Detailed Solution :

1. **Renewal of certificates** :
   While I up the docker-compose first I observed the kafka-brokers are down and then I logged the each containers then I have got the ssl certificate errors .then I have checked the certificate validities and passwords and correct

paths and matched . I pointed out that error was due to certificate validity they have expired .
Then I have renewed the certificates of all brokers by using commands
Commands :

> keytool -keystore kafka.server.keystore.jks -alias localhost -certreq -file kafka-broker-new.csr

> openssl x509 -req -CA ~/tasks/cp-sandbox/certs/ca-cert -CAkey ~/tasks/cp-sandbox/certs/ca-key -in kafka-broker-new.csr -out kafka-broker-new-signed-cert.pem -days 365 -CAcreateserial

> keytool -keystore kafka.server.keystore.jks -alias localhost -import -file kafka-broker-new-signed-cert.pem

Again then I have checked the certificates and then watched the validate the expiry date its good and updated for 365 days.

2. **Debugging with the server port mappings and role-bindings :**
> After the docker-compose up I logged the kfkclient container wheather topics are created or not using this command >>
>> docker logs kfkclient

> While I go inside the container using
> docker exec -it <container-id> bash in bash mode and tried to produce the messages to the international_orders one warn has come and then prompted me to produce messages

> But when I tried to produce messages to the domestic_orders I have got the errors like

I have checked the kafka2 broker server.properties and findout the miss matching ports mapping and then resolved 19093 >> 29092 and saved the server.properties

```
#       listeners = PLAINTEXT://your.host.name:9092
listeners=CLIENT://:29092,BROKER://:29093,TOKEN://:29094

# Listener name, hostname and port the broker will advertise to clients.
# If not set, it uses the value for "listeners".
advertised.listeners=CLIENT://kafka2:19093,BROKER://kafka2:29093,TOKEN://kafka2:29094

# security.inter.broker.protocol=SSL
inter.broker.listener.name=BROKER
```

And added the some roles to the user for the domestic_orders as DeveloperRead and DeveloperWrite role .
Then again run the commands I have abled to produce and consume now I am able to do those

Conclusion :

- ☐ Renew the certificates first and check the wheather brokers are running or not
- ☐ Update the server.properties advertised.listners to set the correct ports
- ☐ Add some role bindings to the user to produce and consume messages for the domestic-orders topic