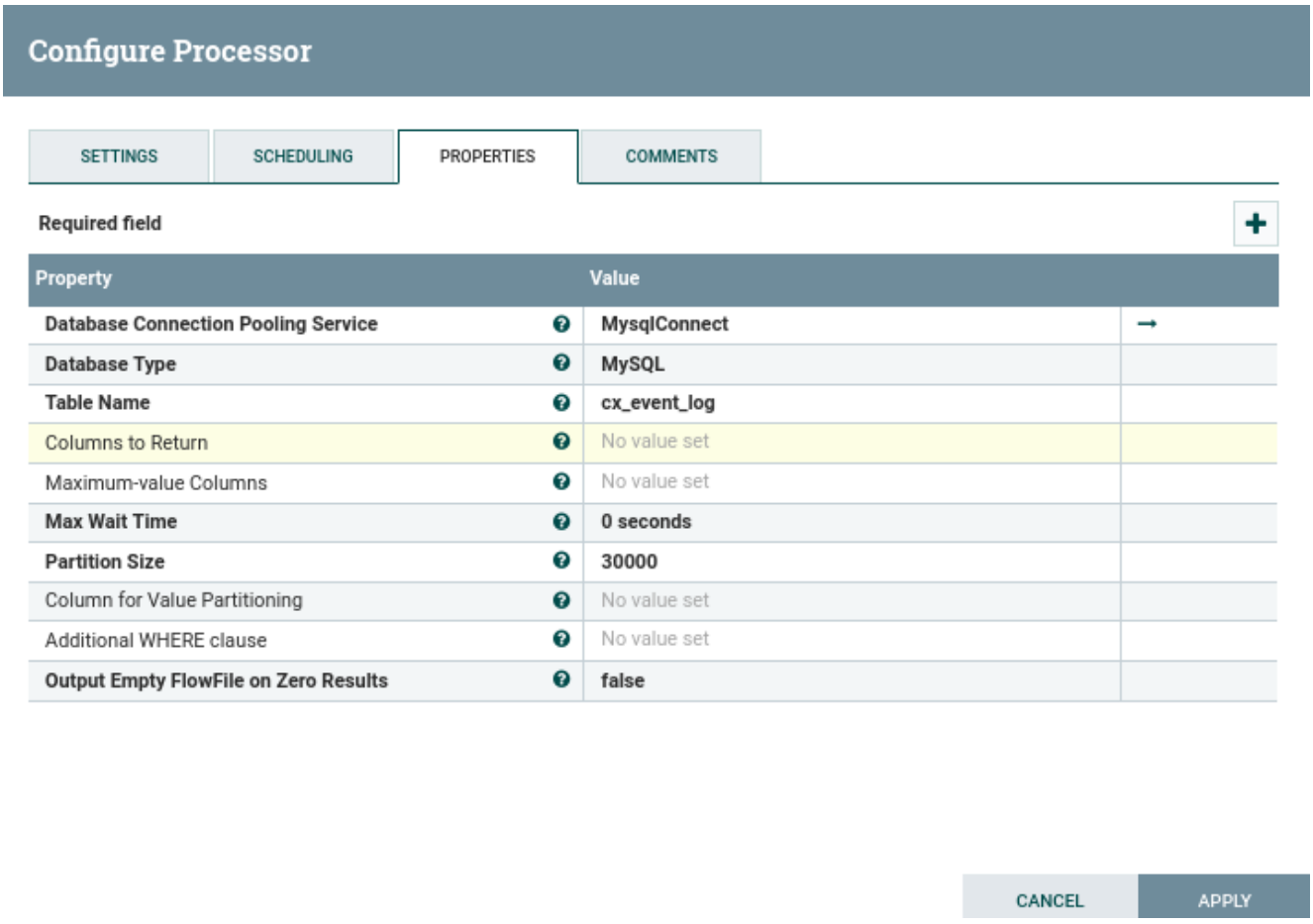
MYSQL to Oracle Flowfiles Template using NIFI:

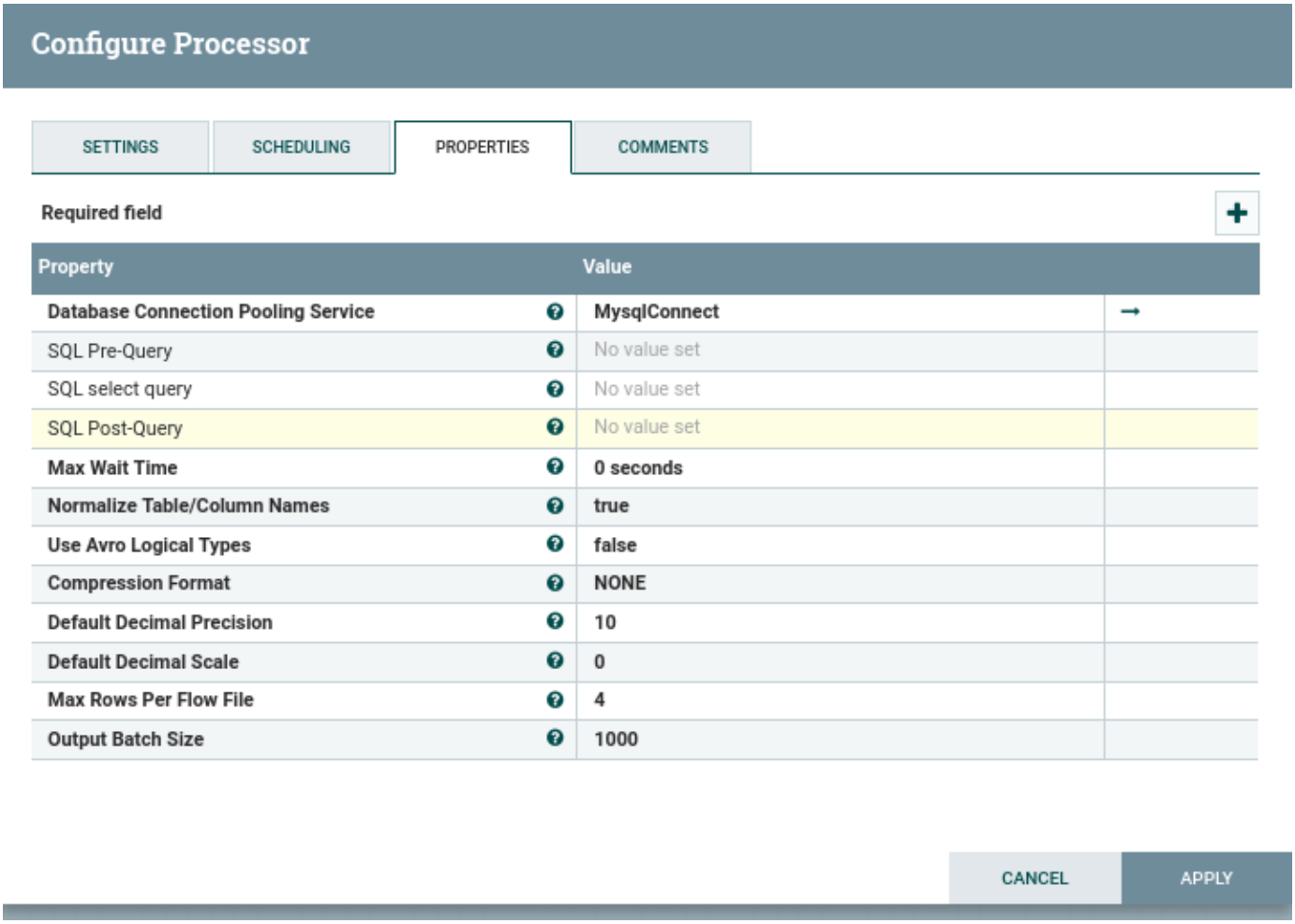
Steps Followed:

1. Used Generate Table Fetch processor and configured partition size to 30000 which is the maximum number of records that is loaded into the memory at once.



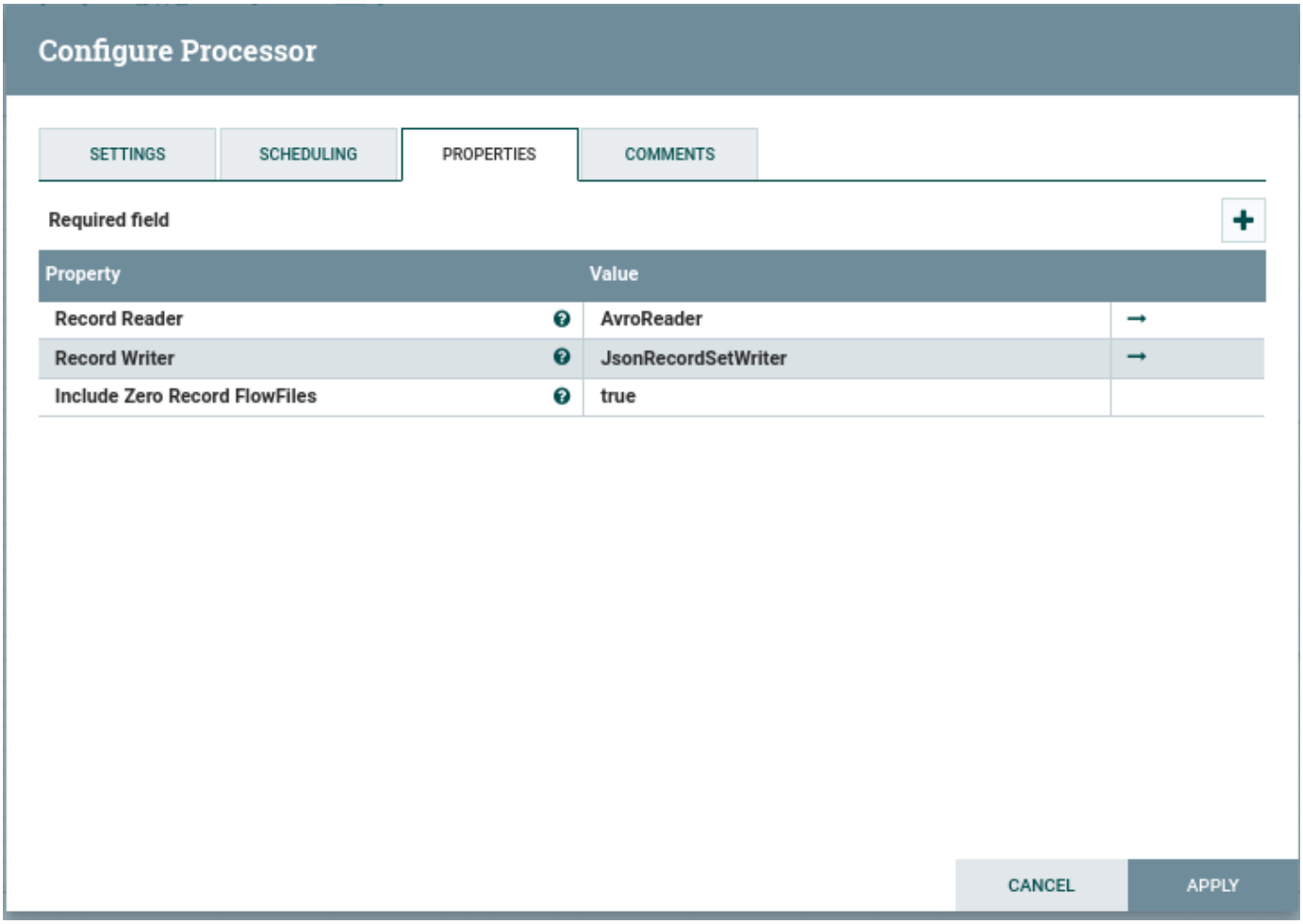
> Cannot use QueryDatabaseTable as it fetches all the records into the memory before seperating it into the flowfiles.

2. Used ExecuteSql processor to execute the sql queries from the previous processor to produce the flowfiles with the records.
   Configuration:
   Max Rows per flow file = 4
   OutputBatchSize = 5 # To increase efficiency chose small numbers.

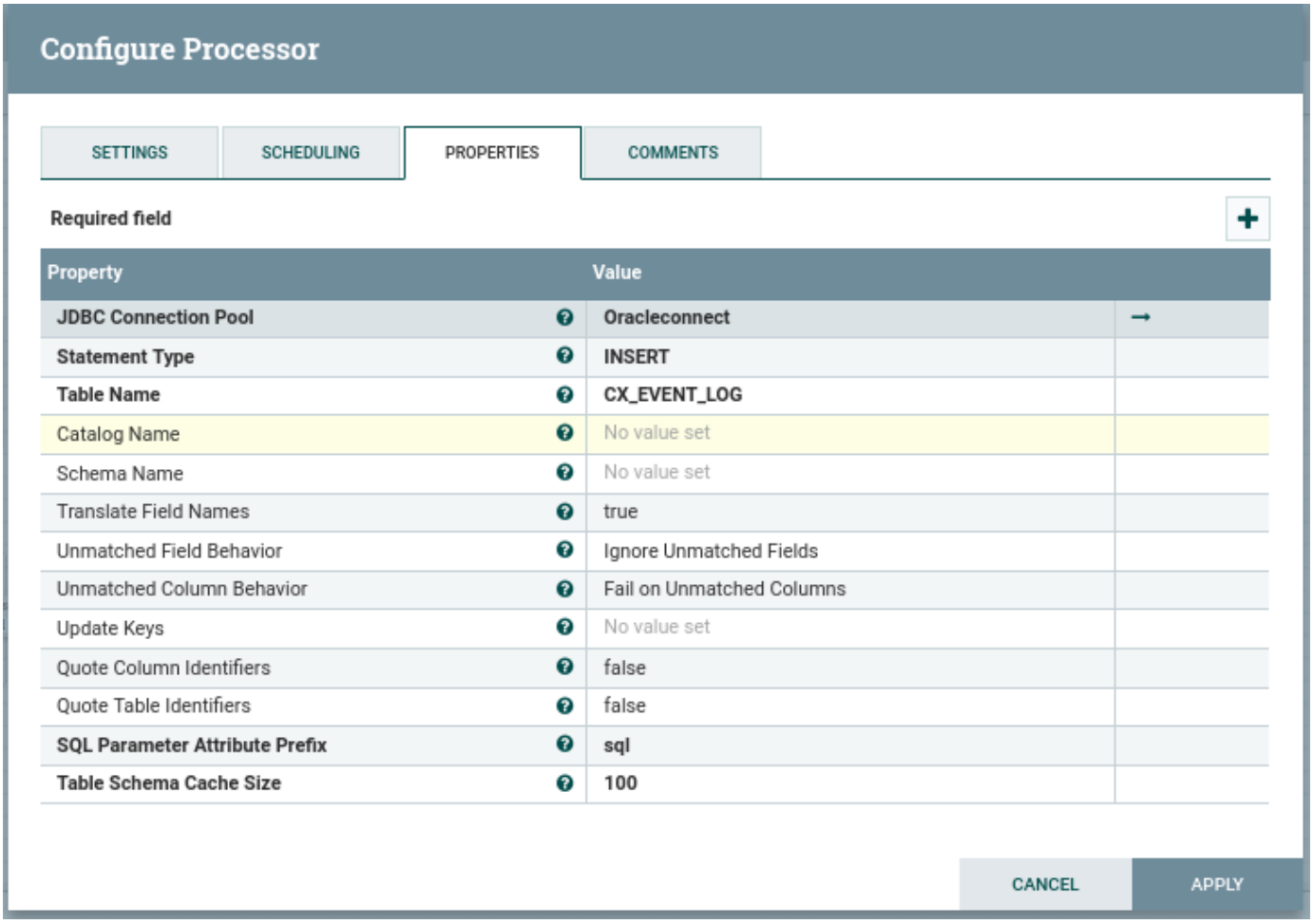


> The following conversions were done to avoid timestamp errors. On direct input of the records obtained from the previous processor into the putDatabaseRecord Processor the date read from the MYSQL database was not being identified as date and hence would produce a date read error on inserting to ORACLE.
>
> Tried accepting as string and converting to date, which worked, but reduced the efficiency and increased the time of the entire conversion, hence went with avro to json conversion which accurately retained the timestamp and date attributes.

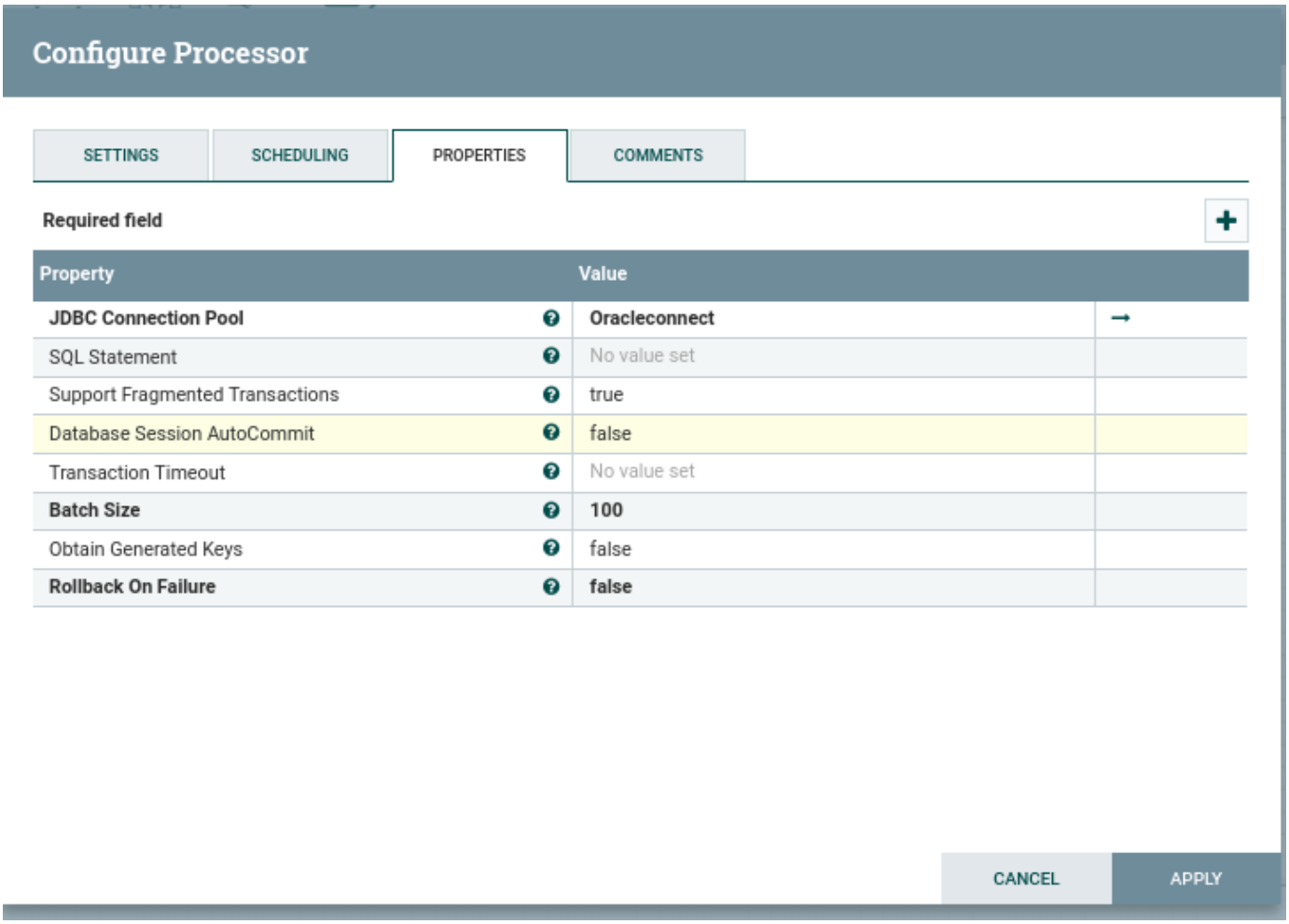
3. Used ConvertRecord processor to read the records in Avro Format and convert to JSON format to preserve the Attribute Types(METADATA).



5. Since the JSON records included the attribute type and also the record converted the JSON records to sql insert statements using CONVERTJSONTOSQL processor.

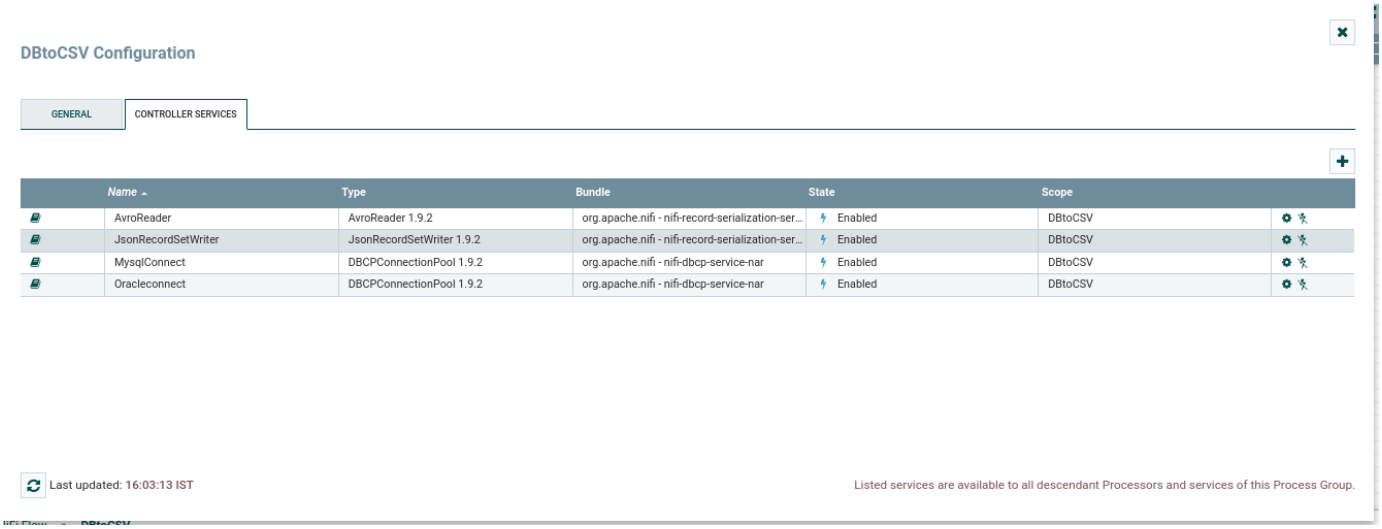


7. Since the SQL INSERT queries had been generated, hence used PUTSQL processor to execute it into the ORACLE database.

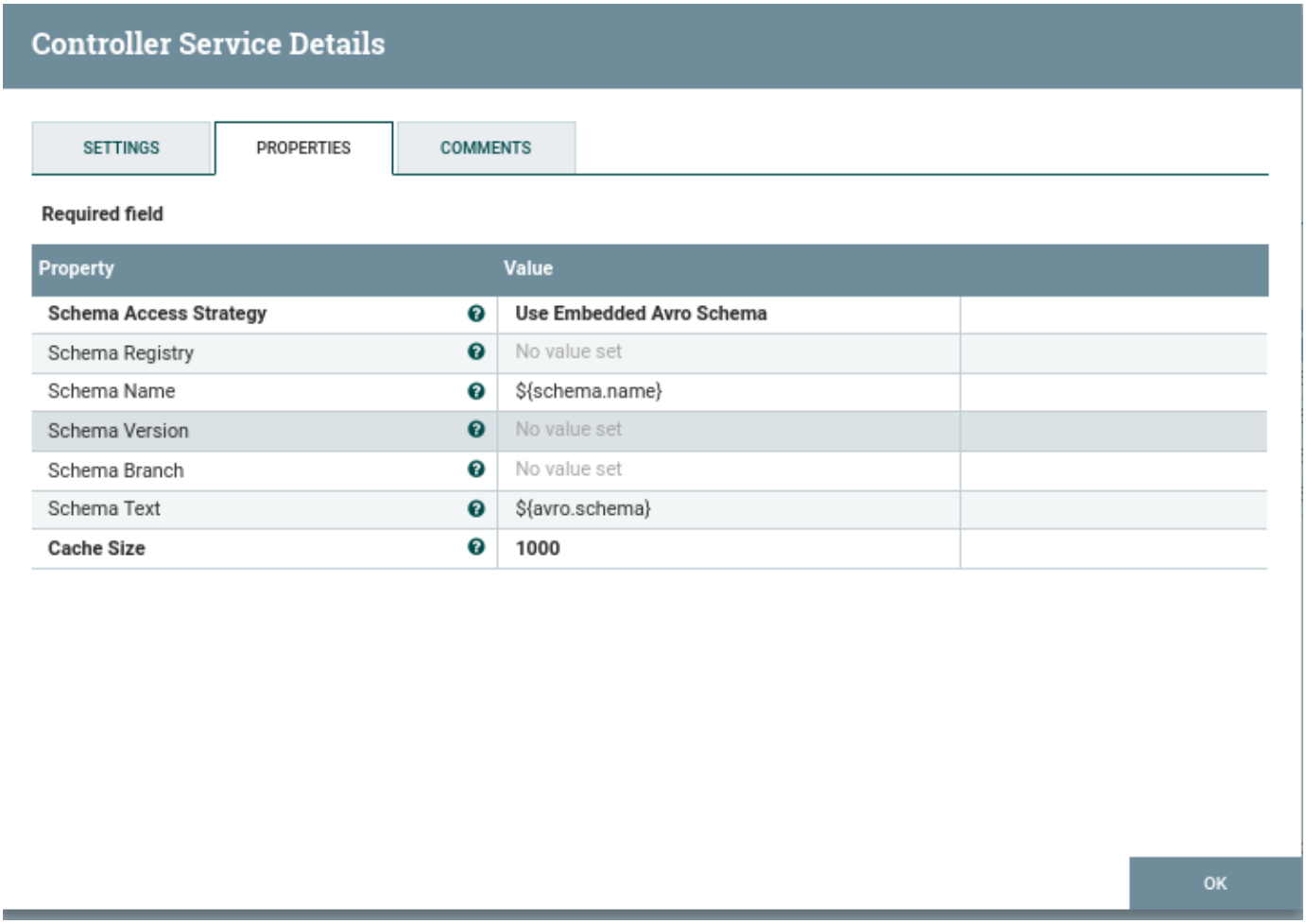


> Didn't use PUTDATABASERECORD processor as it would cause the timestamp error again.

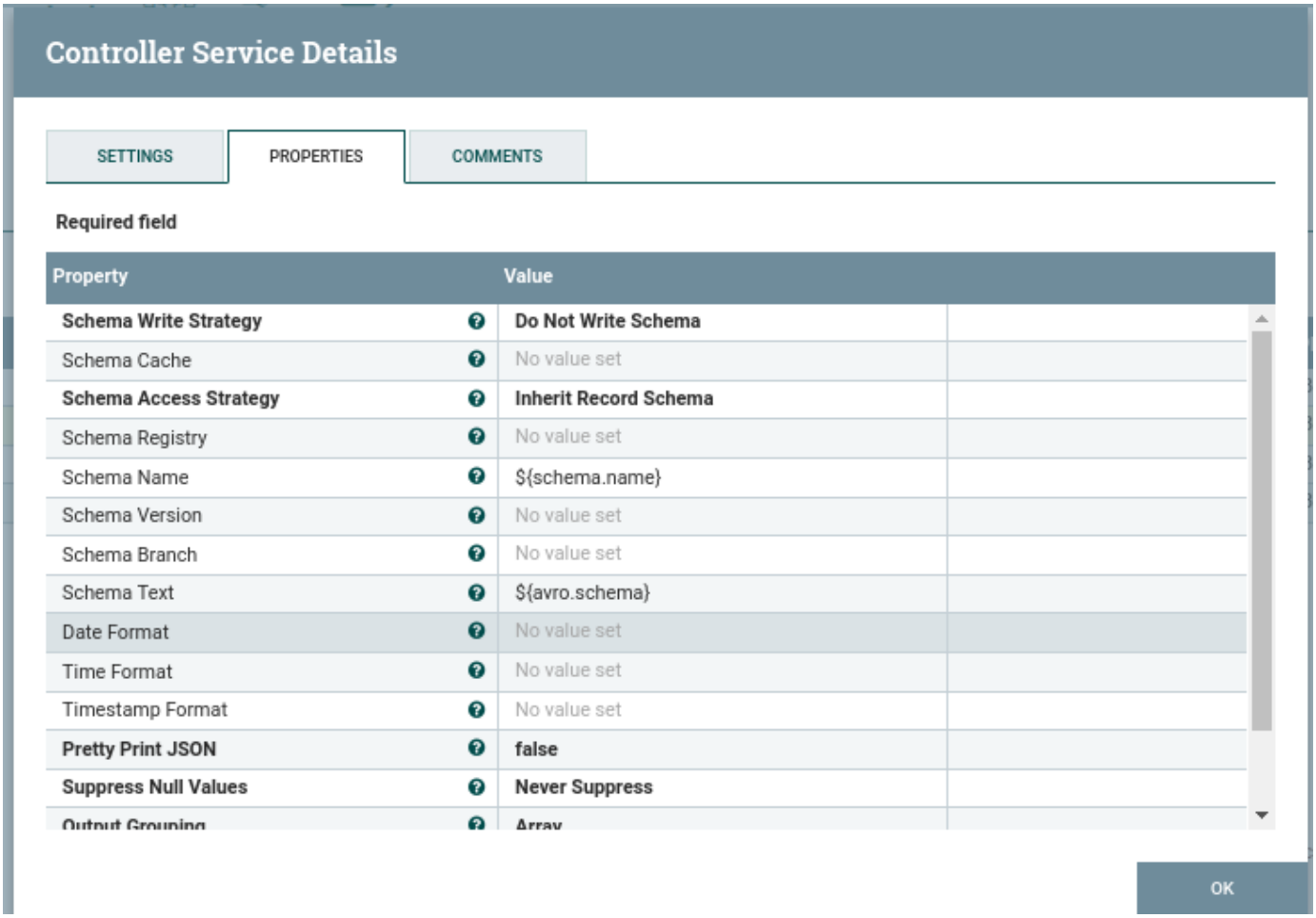
CONTROLLERSERVICES:



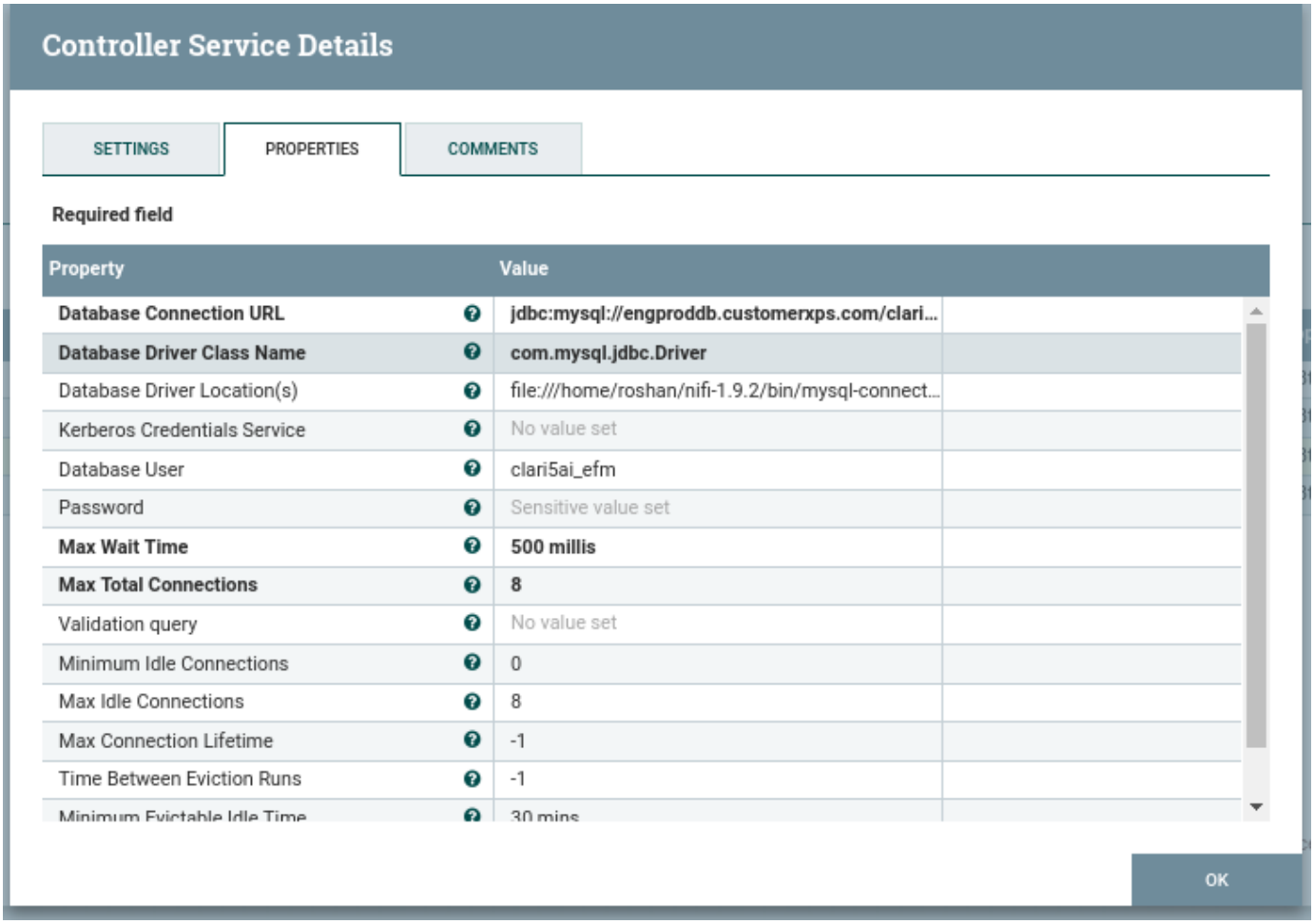
1. Avro Reader Configuration: Default



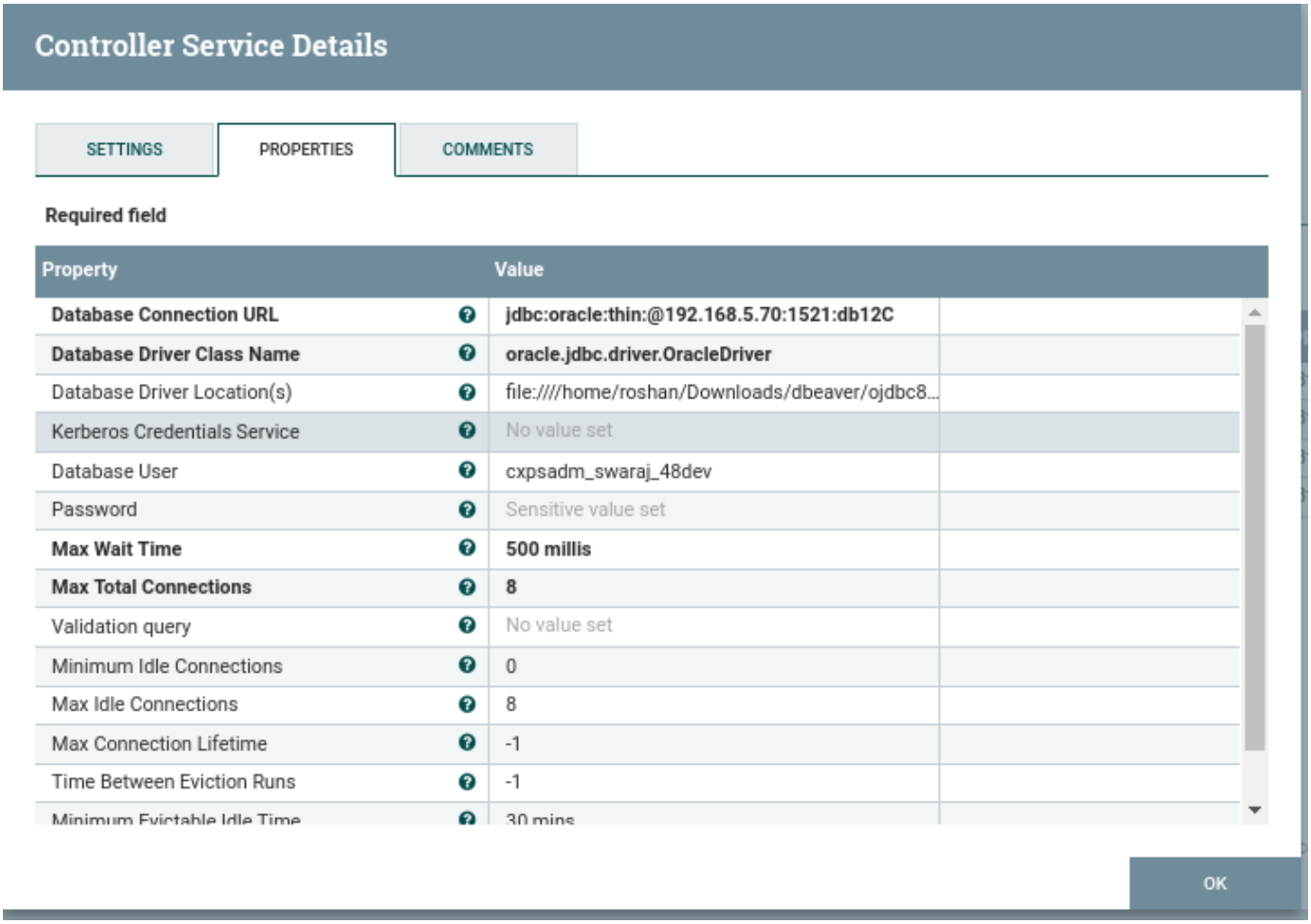
2. JSON record set writer Configuration: Default:



3. DBCONNECTIONPOOL service : MYSQL CONNECTION:



4. DBCONNECTIONPOOL service : ORACLE CONNECTION:


Controller Service Details
SETTINGS
PROPERTIES
COMMENTS
Required field
Property
Value
Database Connection URL
jdbc:oracle:thin:@192.168.5.70:1521:db12C
Database Driver Class Name
oracle.jdbc.driver.OracleDriver
Database Driver Location(s)
file:////home/roshan/Downloads/dbeaver/ojdbc8...
Kerberos Credentials Service
No value set
Database User
cxpsadm_swaraj_48dev
Password
Sensitive value set
Max Wait Time
500 millis
Max Total Connections
8
Validation query
No value set
Minimum Idle Connections
0
Max Idle Connections
8
Max Connection Lifetime
-1
Time Between Eviction Runs
-1
Minimum Evictable Idle Time
30 mins
OK