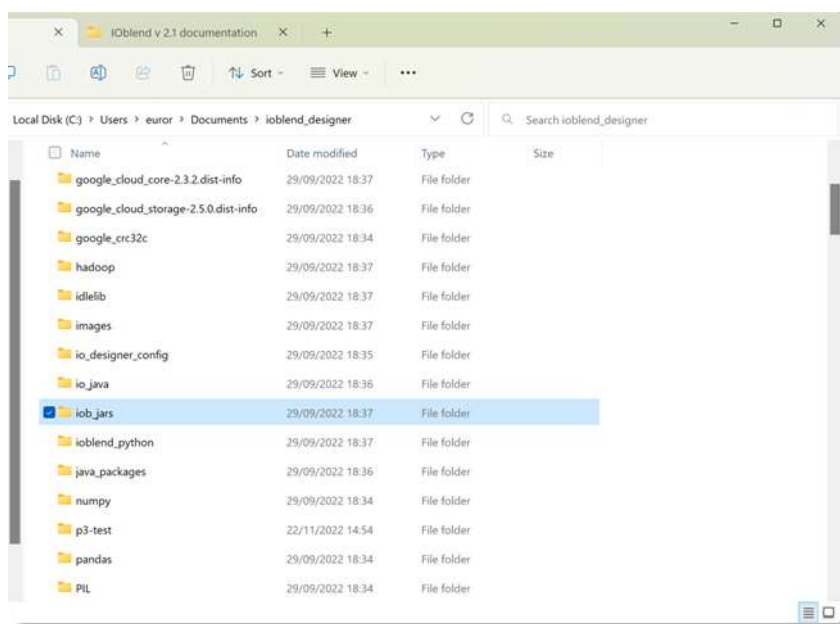




## Process For Adding New JDBC Database

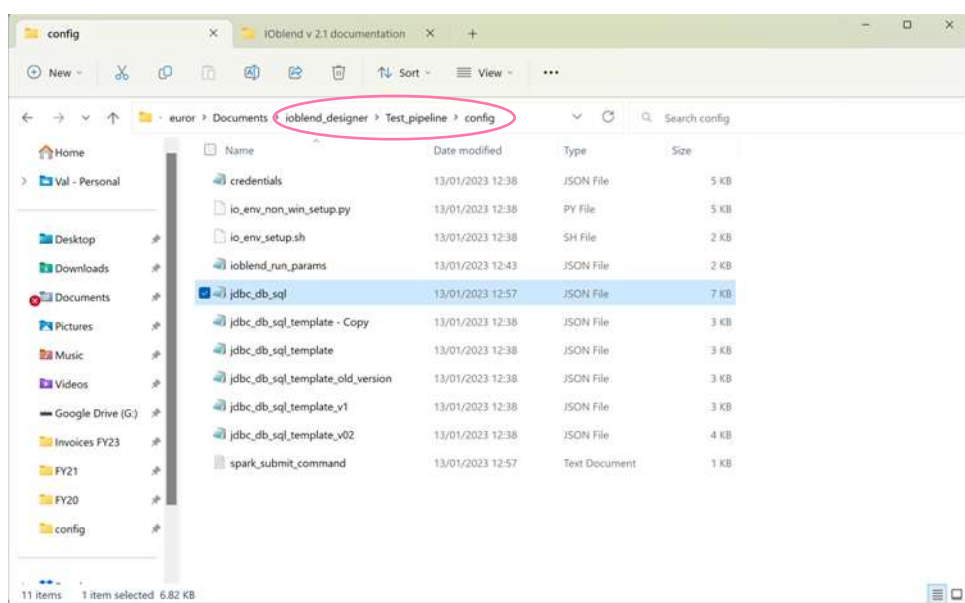
In this section we will describe how to add new JDBC connections for data sources and sinks within IOblend. You will need to have access to the databases setup and granted to you beforehand. You will also need to check the database documentation for specific instructions on the particulars of the process (*read below*):

- 1) First, locate the IOblend folder (*where it is installed on your machine*). There you will find an **io\_b\_jars** subfolder on the list.



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- 2) copy the new **JDBC jar** for your database into this folder, e.g. for Snowflake <https://docs.snowflake.com/en/user-guide/jdbc-download.html>. (Note: **job\_jars** folder has already been added by IOblend into the **classpath**)
- 3) From the JDBC documentation for your database find the **driver name** that the DB provider instructs you to use
- 4) Using the same JDBC documentation for the new database, work out your **URL connection string**
- 5) Navigate to your **playbook** location and find **config** subfolder. This is a folder IOblend would have created for your projects when you first performed the installation (see the [installation](#) and [run parameter](#) guides)



Locate and open the file **jdbc\_db\_sql** in Notepad. Copy an existing entry for another jdbc db (we suggest you copy the provided bigquery one – see below). Add this copy to the bottom of the file and change the name to be the same as the **drivername** for the new JDBC connection

```

com.microsoft.sqlserver.jdbc.SQLServerDriver": {"sel_limit": "select * from #dbtable where #column_name >= '#lower_limit' and #column_name
com.simba.googlebigquery.jdbc.Driver": {"mod_col": "alter table #table_name modify column #col_name #col_value",
"view": "create or replace view #dbtable as(with cte as (SELECT #t_cols, ROW_NUMBER() OVER (PARTITION BY #pkeys ORDER BY #eventkeys) AS i
"primary_key": "alter table #table_name add primary key(#column_names)",
"foreign_key": "alter table #table_name add constraint FK_#table_name foreign key(#fkeys) references #reference_key_table(#rkeys)",
"create_table_simple": {"create_statement": "create table IF NOT EXISTS #table_name (#col_def)",
"col_name_datatype_sep": ",", "col_def": "#col_name #col_data_type",
dbToSparkTypes": {"varchar": {"sparkType": "StringType", "format": null},
"string": {"sparkType": "StringType", "format": null},
"bit": {"sparkType": "ByteType", "format": null},
"bool": {"sparkType": "BooleanType", "format": null},
"boolean": {"sparkType": "BooleanType", "format": null},
"int": {"sparkType": "IntegerType", "format": null},
"int64": {"sparkType": "IntegerType", "format": null},
"int64": {"sparkType": "LongType", "format": null},
"integer": {"sparkType": "IntegerType", "format": null},
"numeric": {"sparkType": "IntegerType", "format": null},
"float64": {"sparkType": "FloatType", "format": null},
"decimal": {"sparkType": "DecimalType", "format": null},
"datetime": {"sparkType": "TimestampType", "format": "dd-MM-yyyy HH:mm:ss"},
"timestamp": {"sparkType": "TimestampType", "format": "dd-MM-yyyy HH:mm:ss"},
"date": {"sparkType": "DateType", "format": "yyyy-MM-dd"},
"float64": {"sparkType": "DoubleType", "format": null},
"jdbcSourceReadSqlTemplate": "with iob_cte as (SELECT #t_cols FROM #table_name where #eventkey > #key_from and #eventkey <=#key_to #prima
"utc_function": "UNIX_SECONDS",
"sink_insert_statement": {"sql": "insert into #table_name(#col_names) values #val_param",
"val_param_sep": ",", "row_seperator_start": "(", "row_seperator_end": ")", "between_row_seperator": ","},
"nosOfParallelWrites": 600
},

```

6) Within this file, under dbToSparkTypes, check that **all** your new database data types that you'll be using have been **mapped to a Spark data type**. If you miss one - don't worry, when you run IOblend it will generate an error and tell you which datatype mapping is missing. Save and exit.

```

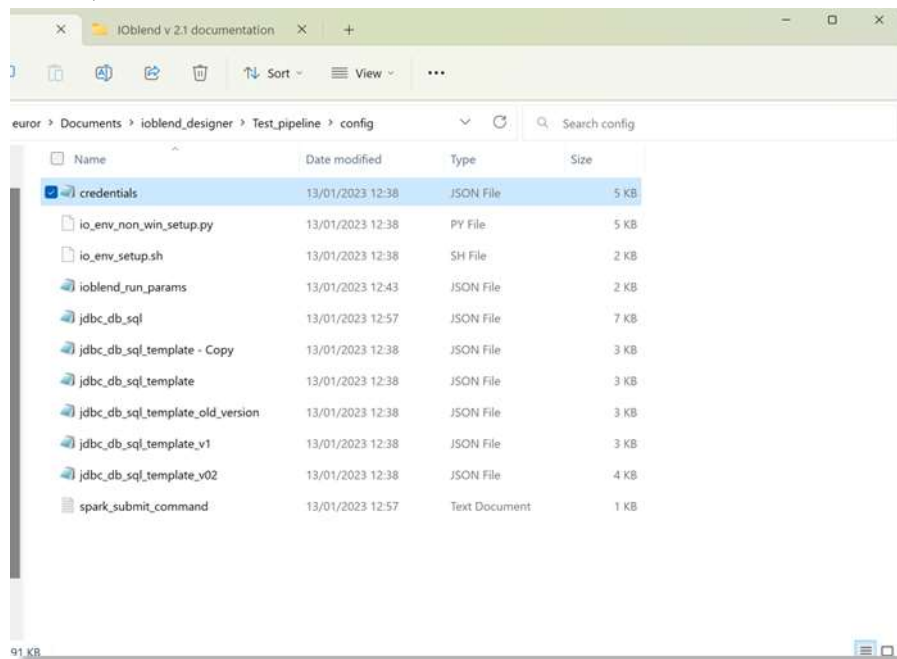
com.simba.googlebigquery.jdbc.Driver": {"mod_col": "alter table #table_name modify column #col_name #col_value",
"view": "create or replace view #dbtable as(with cte as (SELECT #t_cols, ROW_NUMBER() OVER (PARTITION BY #pkeys ORDER BY #eventkeys) AS i
"primary_key": "alter table #table_name add primary key(#column_names)",
"foreign_key": "alter table #table_name add constraint FK_#table_name foreign key(#fkeys) references #reference_key_table(#rkeys)",
"create_table_simple": {"create_statement": "create table IF NOT EXISTS #table_name (#col_def)",
"col_name_datatype_sep": ",", "col_def": "#col_name #col_data_type",
dbToSparkTypes": {"varchar": {"sparkType": "StringType", "format": null},
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"float64": {"sparkType": "DoubleType", "format": null},
"jdbcSourceReadSqlTemplate": "with iob_cte as (SELECT #t_cols FROM #table_name where #eventkey > #key_from and #eventkey <=#key_to #prima
"utc_function": "UNIX_SECONDS",
"sink_insert_statement": {"sql": "insert into #table_name(#col_names) values #val_param",
"val_param_sep": ",", "row_seperator_start": "(", "row_seperator_end": ")", "between_row_seperator": ","},
"nosOfParallelWrites": 600
},

```

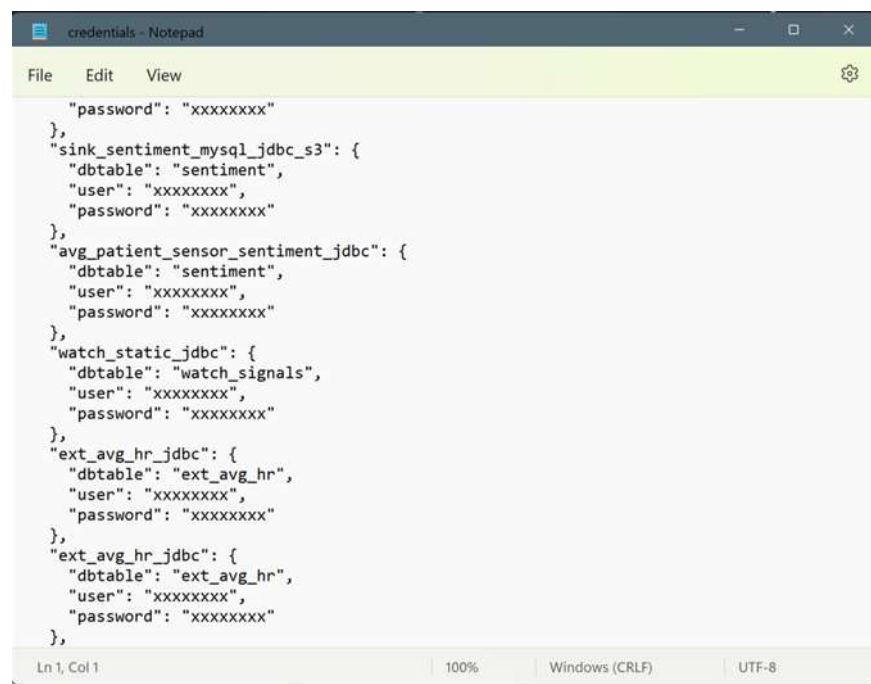
7) Run IOblend. Open existing or create a new playbook and add the new **source** or **sink** that will be connecting to the new JDBC database

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- 8) Once you've created the playbook component, **add an entry into the credentials file** for the new source or sink with the username and password or key token, as needed.



Note: if you are using username and password, this **does not** need to be added to the URL. Please enter these details in the **credentials file**. If using a token, the username **must** be called 'token' (see *example credential files*)



- 9) Congratulations, you can now run your playbook component!

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