***“Database\_Interaction.py*” – Documentation**

# Description:

This file contains a DB\_Operator class which, as name suggests, take care of communication between a SQL database and python programs. Purpose of having this operator is to free users from having to program two different languages simultaneously to focus on python end, also standardised functions reduce the risk of contaminating the database.

# Dependencies:

* pandas
* sqlite3

# Class Function Descriptions:

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| --- | --- | --- | --- |
| **Function Name** | **Inputs** | **Output** | **Description** |
| Constructor | Database Name (str) | None | DB\_Operator is constructed by connecting to an existing Database in the current working directory |
| create\_new\_table | table\_name (str), columns (list), var\_type (str) | None | Creates a new table in the connected database. Table will use the table name provided. Created table will have corresponding columns as provided in the list. Content of table will be of type provided, default value for var\_type is ‘text’ |
| DF\_to\_new\_table | Dataframe (pd.df), tablename (str) | None | This function either creates a new table with the tablename provided and contents from the DataFrame provided, or it appends the dataframe contents to the bottom of an existing table is the table already exists. |
| read\_entire\_table | tablename (str) | pd.df | This function reads an entire table named by tablename, and returns all contents of the table in the form of a pandas dataframe |
| Select\_rows | tablename (str),  find (list),  by (str) | pd.df | This function will go to the table named by ‘*tablename’*, look for the column as index by ‘*by’,* and track down the rows where the values matches the elements in ‘*find’*. ‘*by’* has a default value of ‘Asset’ because it is most commonly used as unique IDs (ticker names). |
| disconnect | None | None | Disconnect with the Database. |