

Goal 5: Optimize existing program to include better error handling (currently my code barfs on a primary key constraint if executed more than once a day) and to properly use pandas.

Currently my code fails if run more than once a day due to the date field in the DB being a primary key:

```
[parker@parker python-analyze-stock-market]$ ./stock-rsi.py symbols
[*****100%*****] 180 of 180 completed
Traceback (most recent call last):
  File "/usr/local/lib/python3.8/site-packages/mysql/connector/connection_cext.py", line 487, in cmd_query
    self._cmysql.query(query,
_mysql_connector.MySQLInterfaceError: Duplicate entry '2021-05-21' for key 'stocks.PRIMARY'
```

During handling of the above exception, another exception occurred:

```
Traceback (most recent call last):
  File "./stock-rsi.py", line 96, in <module>
    insert_rsi(today_Y_M_D, symbol_rsi_list_of_tuples)
  File "./stock-rsi.py", line 51, in insert_rsi
    cursor.execute(insert_rsi_query)
  File "/usr/local/lib/python3.8/site-packages/mysql/connector/cursor_cext.py", line 264, in execute
    result = self._cnx.cmd_query(stmt, raw=self._raw,
  File "/usr/local/lib/python3.8/site-packages/mysql/connector/connection_cext.py", line 491, in cmd_query
    raise errors.get_mysql_exception(exc.errno, msg=exc.msg,
mysql.connector.errors.IntegrityError: 1062 (23000): Duplicate entry '2021-05-21' for key 'stocks.PRIMARY'
[parker@parker python-analyze-stock-market]$
```

Because I run this code multiple times a day during open stock market hours, and because, ugh, I'm lazy...I created a new version of the program, called "stock-rsi-nodb.py" and commented out the bits calling mysql. Something of a hack job.

To correct, I added a try/except clause that calls out the error, but proceeds and prints my RSI data. See commit here in GitHub: <https://github.com/olivelawn/python-analyze-stock-market/commit/a22ffaa477881c99676125b16a7c4658aeee5dc8>

The program now runs properly multiple times a day. I can delete my "stock-rsi-nodb.py" hack now.

```
[parker@parker python-analyze-stock-market]$ ./stock-rsi.py symbols | head
[*****100%*****] 180 of 180 completed
Exception caught with mysql.connector, skipping mysql transaction: 1062 (23000): Duplicate entry '2021-05-21' for key
'stocks.PRIMARY'
EBKDY 83.8
CVS 80.88
MDLZ 73.47
ADDYY 71.5
ALL 70.71
TGT 70.16
WMB 69.94
F 69.38
```

I 100% didn't do anything about improving my understanding of pandas. I ran out of time. I'd still like to get to it at some point.