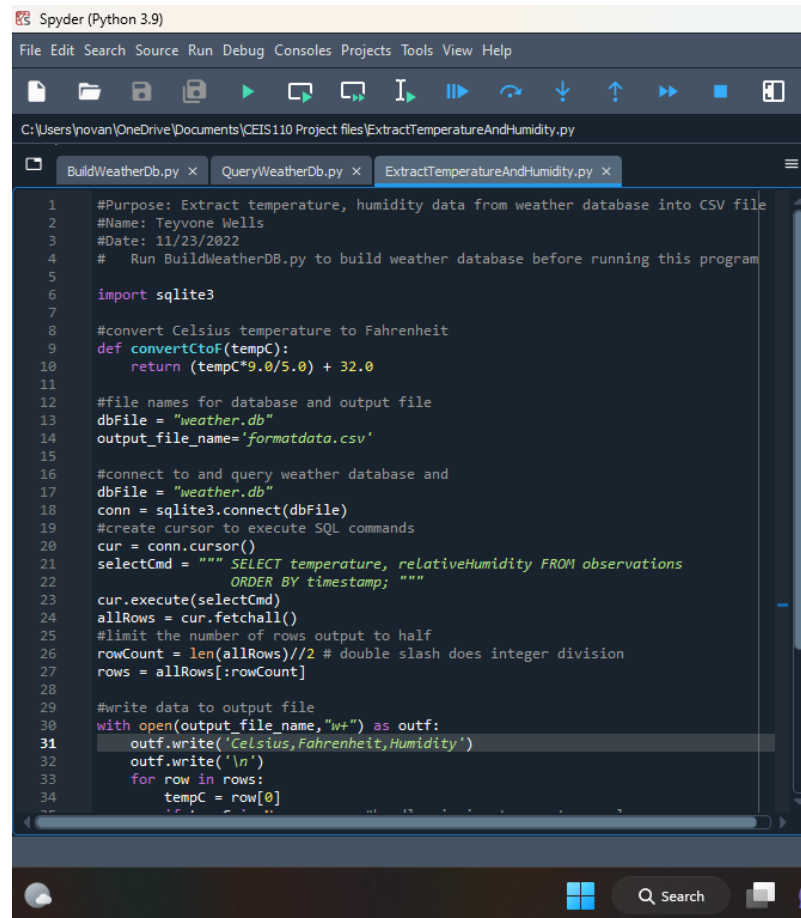


Python code

ExtractTempHumidity.py Python code



```
1 #Purpose: Extract temperature, humidity data from weather database into CSV file
2 #Name: Teyvone Wells
3 #Date: 11/23/2022
4 # Run BuildWeatherDB.py to build weather database before running this program
5
6 import sqlite3
7
8 #convert Celsius temperature to Fahrenheit
9 def convertCtoF(tempC):
10     return (tempC*9.0/5.0) + 32.0
11
12 #file names for database and output file
13 dbFile = "weather.db"
14 output_file_name='formatdata.csv'
15
16 #connect to and query weather database and
17 dbFile = "weather.db"
18 conn = sqlite3.connect(dbFile)
19 #create cursor to execute SQL commands
20 cur = conn.cursor()
21 selectCmd = """ SELECT temperature, relativeHumidity FROM observations
22                 ORDER BY timestamp; """
23 cur.execute(selectCmd)
24 allRows = cur.fetchall()
25 #limit the number of rows output to half
26 rowCount = len(allRows)//2 # double slash does integer division
27 rows = allRows[:rowCount]
28
29 #write data to output file
30 with open(output_file_name,"w+") as outf:
31     outf.write('Celsius,Fahrenheit,Humidity')
32     outf.write('\n')
33     for row in rows:
34         tempC = row[0]
```