

```
import csv
```

```
import sqlite3
```

```
connectionSQLite = sqlite3.connect('Task4_GitRepo/forage-walmart-task-4/shipment_database.db')
```

```
cursorSQLite = connectionSQLite.cursor()
```

```
cursorSQLite.execute("DELETE FROM shipment")
```

```
connectionSQLite.commit()
```

```
cursorSQLite.execute("DELETE FROM product")
```

```
connectionSQLite.commit()
```

```
class ShippingDataClass1:
```

```
    def __init__(self, data: list):
```

```
        self.origin_warehouse = data[0]
```

```
        self.destination_store = data[1]
```

```
        self.product = data[2]
```

```
        self.on_time = data[3]
```

```
        self.product_quantity = data[4]
```

```
        self.driver_identifier = data[5]
```

```
        self.product_id = None
```

```
# CSV FILE 0
```

```
with open('Task4_GitRepo/forage-walmart-task-4/data/shipping_data_0.csv', newline='') as shippingDataFile1:
```

```
    reader = csv.reader(shippingDataFile1, delimiter=',', quotechar='"')
```

```
    skipFirstRow = True
```

```
    productId = 1000
```

```
    shipmentId = 1000
```

```
    for row in reader:
```

```
        if skipFirstRow is True:
```

```

        skipFirstRow = False

    else:

        data = ShippingDataClass1(row)

        # Check if the product already has an ID

        res = cursorSQLite.execute(f"SELECT id FROM product WHERE name='{data.product}'")

        resProductId = res.fetchone()

        # If it doesn't, create one and add it to the product table

        if resProductId is None:

            string = f"INSERT INTO product VALUES ({productId}, '{data.product}')"

            cursorSQLite.execute(string)

            connectionSQLite.commit()

            data.product_id = productId

            productId += 1

        # else add existing productId to the data storage

    else:

        data.product_id = resProductId[0]

        # Retrieve the productID

        string = f"INSERT INTO shipment VALUES ({shipmentId}, {data.product_id}, {data.product_quantity}, '{data.origin_warehouse}', '{data.destination_store}')"

        cursorSQLite.execute(string)

        connectionSQLite.commit()

        shipmentId += 1

```

```

class ShippingDataClass2:

```

```

    def __init__(self, data: list):

        self.shipment_identifier = data[0]

        self.origin_warehouse = data[1]

        self.destination_store = data[2]

        self.driver_identifier = data[3]

        self.product = None

```

```

        self.on_time = None

        self.product_id = None

        self.product_quantity = 0

    def addMoreData(self, data: list):

        self.product = data[1]

        self.on_time = data[2]

        self.product_quantity += 1

# CSV FILE 1 AND 2

# Store data from csv 2 in a dict

shippingDataDict = {}

with open('Task4_GitRepo/forage-walmart-task-4/data/shipping_data_2.csv', newline='') as shippingDataFile2:

    reader = csv.reader(shippingDataFile2, delimiter=',', quotechar='"')

    skipFirstRow = True

    for row in reader:

        if skipFirstRow is True:

            skipFirstRow = False

        else:

            data = ShippingDataClass2(row)

            shippingDataDict.update({data.shipment_identifier: data})

with open('Task4_GitRepo/forage-walmart-task-4/data/shipping_data_1.csv', newline='') as shippingDataFile3:

    reader = csv.reader(shippingDataFile3, delimiter=',', quotechar='"')

    skipFirstRow = True

    for row in reader:

        if skipFirstRow is True:

            skipFirstRow = False

```

else:

Collect the data and merge the duplicates

shipment_id = row[0]

data: ShippingDataClass2 = shippingDataDict[shipment_id]

data.addMoreData(row)

for key in shippingDataDict:

data = shippingDataDict[key]

res = cursorSQLite.execute(f"SELECT id FROM product WHERE name='{data.product}'")

resProductId = res.fetchone()

If it doesn't, create one and add it to the product table

if resProductId is None:

string = f"INSERT INTO product VALUES ({productId}, '{data.product}')"

cursorSQLite.execute(string)

connectionSQLite.commit()

data.product_id = productId

productId += 1

else add existing productId to the data storage

else:

data.product_id = resProductId[0]

Retrieve the productID

string = f"INSERT INTO shipment VALUES ({shipmentId}, {data.product_id},
{data.product_quantity}, '{data.origin_warehouse}', '{data.destination_store}')"

cursorSQLite.execute(string)

connectionSQLite.commit()

shipmentId += 1