```python
# Hausarbeit IU Akademie Programmieren mit Python
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# Benötigte Importe
from Lib.Data_import import DataToImport
import sqlalchemy as sql
from Lib.DataWriteToDB import DataToDatabase
import os
from Lib.Search_Function import lookupthings
from Lib.Visualize import ShowInPlot


def extract_tablename(path):
    result = os.path.basename(path)
    result = result[:-4]
    return result


DataBaseName = "IU_Hausarbeit.db"

engine = sql.create_engine("sqlite+pysqlite:///" + DataBaseName, echo=True)
connection = engine.connect()

train_data = DataToImport()
ideal_data = DataToDatabase()

''' ideal.csv importieren und in DB bringen'''
ideal_data.importieren("ideal.csv")
Tablename = extract_tablename("ideal.csv")
ideal_data.create_table(Tablename, ideal_data, connection)
ideal_data.data_to_table(Tablename, ideal_data, connection)

''' Trainingsdaten importieren und in DB bringen'''
train_data.importieren("train.csv")
Tablename = extract_tablename("train.csv")
train_data_to_DB = DataToDatabase()
train_data_to_DB.create_table(Tablename, train_data, connection)
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38 train_data_to_DB.data_to_table(Tablename, train_data
   , connection)
39
40 ''' Trainingsdaten in ideal.csv suchen '''
41 ideal_4_data = lookupthings()
42 ideal_4_data.lookup_train_in_ideal(train_data,
   ideal_data)
43 ideal_4_data_to_DB = DataToDatabase()
44 ideal_4_data_to_DB.create_table('four_of_ideal',
   ideal_4_data, connection)  # eigtl nicht nötig
45 ideal_4_data_to_DB.data_to_table('four_of_ideal',
   ideal_4_data, connection)     # eigtl nicht nötig
46
47
48 ''' Testdaten importieren um mit idealen 4 zu
   vergleichen'''
49 test_data_to_DB = DataToDatabase()
50 test_data_compare = lookupthings()
51 ''' import und Weiterverarbeitung mit Kind-Klasse '''
52 test_data_to_DB.importieren("test.csv")
53 Tablename = extract_tablename("test.csv")
54
55 test_data_compare.lookup_test_in_ideal4(
   test_data_to_DB, ideal_4_data)
56 test_data_to_DB.create_table(Tablename,
   test_data_compare, connection)
57 test_data_to_DB.data_to_table(Tablename,
   test_data_compare, connection)
58
59 ShowData = ShowInPlot()
60 test_data_to_DB.y[0] = test_data_to_DB.x
61 train_data.y[0] = train_data.x
62 ShowData.show_id4_plus_test(ideal_4_data,
   test_data_to_DB, train_data, 'x', 'y', 'ideal 4 vs
   test Data')
63
64 print("Saved plotts to folder")
65 print("DONE")
66
```