IT1244 - Tutorial 06 Group 04

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Title: Stock Market Prediction

Objective:

- Build the most accurate prediction model that is able to decide whether to buy a stock at the end of the week, by comparing the Friday's closing price to next week's closing price.

How to use the project:

1. Dataset provided (stocks.csv) in "Data".

2. Run DataCleaning.Rmb with working directory in the "Data" file.

- Output: weekly_change_binary.csv and weekly_change_nonbinary.csv [csv files are included in "Data" as well]

3. Run stockmarket_prediction_models.ipynb with working directory in the "Data" file.

- # Overview

3.1. Importing libraries

3.2. Data Preparation

- Non-Binary Data

- Binary Data

3.3. Prediction Models

- 3.1. Neural Network (Non-Binary)

- 3.2. Logistic Regression

- 3.3. Stochastic Gradient Descent Classifier

- 3.4. K Nearest Neighbor Classifier

3.4. Tuning Logistic Regression

- 4.1. Solver ('liblinear', 'lbfgs', 'newton-cg')

- 4.2. Proportion of train data and test data (80-20, 70-30, 90-10)

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