

Energy Demand Forecast

You are provided with a daily energy consumption data of UK in a data file. The time series dataset contains 5 years history. You are asked to forecast energy demand for next 12-months period.

- Data Provided: 5-years of United Kingdom energy consumption
- Expected Result – A python model file detailing full analysis process in comments:
 - Data features identification
 - Data treatment process and tests
 - Daily Demand forecasting for next 12-months period and plot your forecast in diagrams
 - Please include your decision reasoning as comment in the code
 - Please include execution instructions

Coin Machine

You are asked to write a coin change algorithm for a new coin machine, which accepts any amount of notes or coins, and dispensing equal value of coins for change.

The coins available in this machine are: Two Pounds, One Pound, 50 Pence, 20 Pence, 10 Pence, 5 Pence, 2 Pence and 1 Pence. The quantity of each type of coin is unlimited.

Write a function in Python, which computes solutions of coin combination. The order of coins does not matter.

Input: a STRING represents money value in below format:

£{Pound}-{Pence}

For Example, £2-30

Output: The number of solutions, which has odd coin count.

For Example

£0-5 can be changed to below

[£0-1, £0-1, £0-1, £0-1, £0-1]

[£0-1, £0-1, £0-1, £0-2]

[£0-1, £0-2, £0-2]

{£0-5}

Therefore, the Output for £0-5 must be 3.

- Compute follow inputs: £0-50, £2-, £10-, (£100- for extra marks)
- Feel free to include Unit Tests
- Feel free to add execution instructions