Exploratory Data Analysis Project Proposal

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Introduction

Using data science in the stock market is not new, but that doesn't apply for Saudi Stock Exchange (Tadawul), It needs to be explored and studied deeply, so we can cluster companies based on its behavior during the good and bad days. Also we can identify the days with a very large number of trades and try to understand the reason behind it. Finally we can predict the stocks prices.

Columns

The data are taken from the https://www.kaggle.com/salwaalzahrani/saudi-stock-exchange-tadawul.The following table explains the dataset in detail:

Columns	Describtion	Data type
Symbl	The symbol or the reference number of the company	Integer
name	Name of the company	String
trading_name	The trading name of the company	String
sectoer	The sector in which the company operates	String
date	The date of the stock price	String
open	The opening price	Integer
high	The highest price of the stock at that day	Integer
low	The lowest price of the stock at that day	Integer
close	The closing price	Integer
change	The change in price from the last day	Integer
Per_change	The percentage of the change	Integer
volume_traded	The volume of the trades for the day	Integer
value_traded	The value of the trades for the day	Integer
no_trades	The number of trades for the day	Integer

Tools

To explore and analyze the data, I will use the following tools:

Tool	Description
Python programing	commonly used for developing websites and software, task automation, data analysis, and data visualization
NumPy	Python library used for working with arrays
Pandas	Open source Python package that is most widely used for data science
Matplotlib	cross-platform, data visualization and graphical plotting library for Python and its numerical extension NumPy
PowerPoint	The program uses slides to convey information rich in multimedia
Jupyter Notebook	one of the ideal tools to help you to gain the data science skills you need

Questions

No.	Questions
1	What the maximum opening in the Saudi Stock Market(Tadawul)?
2	What is the highest and lowest performance day in the Saudi Stock Market(Tadawul)?
3	What are the top five companies in the Saudi Stock Market(Tadawul)?
4	What are the top ten companies which were the biggest exchanges?
5	What is the most sectoer in the Saudi stock market(Tadawul)?