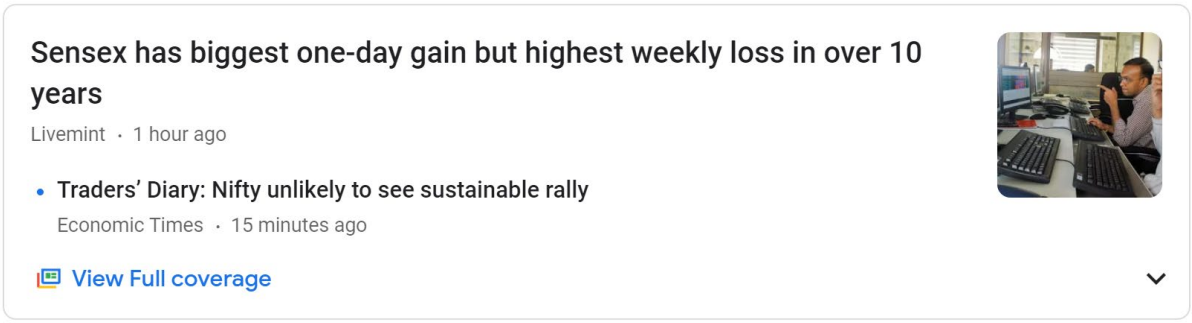
^^^ To open hyperlink, press ctrl + left click or simply right click and copy hyperlink address.

^^^You are welcome to use any python package available and make sure to create a text file listing all the python packages to be installed. This news scrapper will help you as a reference if you are new.

Solve as many questions and its parts as possible and scoring will be based on it.

1) Write a web scraper to collect google news (from here).



A sample screenshot of the google news is shown above. Both, main news and sub news are to be collected from the whole page. This news is to be preprocessed, summarized, and stored in separate tables. Write a small function to search exact words like surge, acquisitions, and IPO (initial public offering), print the sentences if search matched. Search exact words should be carried out on raw news text and not on summarized one.

** you need to store main news and sub news in different tables which should have news title, summarized news text, datetime, and URL. Collect all the news but print the only head of the tables for visualization. Pandas package would be helpful.

** Have a look at the reference at the top for news summarization.

2) Write a web scraper to collect the following real-time data for 20-30 min continuously with a refresh frequency of 30 sec. Use the column "%chg" of real-time collected data (open the link to look at the table) to alert when the **difference between** the %chg at two fixed time instances (2 minute or so) of the respective company crosses 2 percent. Writing this alert as a separate function is preferable. Import this library and implement any of the following technical indicators. Create seperate table for indicators.

** Table in question 2 will be updated real time only through Mon-Fri, 9:15 - 15:30, i.e. market hours. Many of you have this doubt why the real time table is static.
** You may want to use NumPy of size [time x row x column], so that it can facilitate subtraction between values of two fixed time instances.
** If this suggestion helps to implement Stockstats indicator: Use Last price at the beginning as Open, and Close at the end of each time instance. You can implement your way though.

*** you can name or rename any table/column as per your convenience.