Notes for DMDD Class on 7th October 2022

One project that we would work on would be Getting Key Financial ratios using Python(https://medium.datadriveninvestor.com/how-to-get-financial-ratios-using-python-18131b63ef29)
In terms of programming we would have to import two packages i.e requests and json.

API vs web scraping -
API provides data formatted as JSON directly from server.
JSON is a kind of dictionary and APIs pass the data to the requestor in this format.

We can use the APIs from https://site.financialmodelingprep.com/developer/docs/ for company financial statements. We can parse this JSON using 'json' python package.
After parsing, we would have to insert this into our database.
We would have a robot which would compute financial ratios every quarter as they are published.

This is a form of RESTFUL response which we would get on making a request to the api with an api_token. We would get a JSON in response from the service. If we do not pass api_token(obtained after registering on financialModelingPrep website), we would get a 403 response.
Example api - https://financialmodelingprep.com/api/v3/income-statement-growth/AAPL?apikey=YOUR_API_KEY&limit=40

We can build a robot which fetches stock data probably once or twice everyday to fetch the price ticker data which can be another indicator for company financial health.

For scraping tweets, we can use the api at https://python-twitter.readthedocs.io/en/latest/searching.html.

For the projects, we should start writing scripts to web scrape and fetch data.
For files received as csv, 'Pandas' can be used to read them.

Start building database in agile style where we build a small initial database and start populating it with the web scraped data. And we can iteratively make the databases bigger as we progress.

We can also calculate the financial ratios using the formulae listed at https://github.com/aiskunks/Jobs_Database/blob/main/Finance/Finance_Resources/Key_Financial_Formulas.pdf.

For **Modelling One - Ten English Questions for your database** assignment, put in your team name, title should be your project name. Clearly write down each point and make it understandable with a description so that TAs could understand and grade it.

Upcoming assignment is going to be about scraping web data from the web. For people with less knowledge about Python, they could take help from the people who have volunteered to contribute to jobs database.