**Python interview homework**

Your job is to create a new Jupyter Python notebook(s) (.ipynb file(s)) in **Python 3**. There are 3 files provided that you will use as sources. Your notebook should load everything it needs and display the data required

**Files description**

**posi**ti**on\_details.xlsx** - contains info about each position, multiple times if it has different instruments and info about metrics (*DELTA* + *GAMMA*)

**instrument\_details.docx** - contains a dictionary, with *Instrument\_Id* as key and instrument info as values. The data is in .json format. You can copy them into .json before loading.

**pnl.xlsx** - contains *PnL* metric (profit & loss) for each position (through *Posi*ti*on\_Id*), which is a matrix calculated for both *PriceChange* and *Vola*ti*lityChange*

**What to do**

Go over the source data to make sure you understand them. Then, your job is to create a data visualization of the data through Python notebooks. You’re not allowed to change the source file structure (apart from the instrument\_details that can be copied into .json). It’s up to you how you separate these tasks (one notebook or multiple). The notebooks will be used by people who don’t know the source data well, so make sure to explain what the details are showing.

**Tasks**

* Create a table that shows the positions and their *DELTA* and *GAMMA*.
* Create a table that shows *DELTA* by each sector.
* Create a table from task #1, but allow the user to filter on instrument *Type*
* Create a table showing top 10 positions contributing to risk (*DELTA* column, both the most positive and most negative)
* Create a table allowing user to specify *PriceChange* and *Vola*ti*lityChange* filter and show the total PnL per each region
* Create a chart for the table from task #5