INTELLIMIND
Quick Answers to Top Financial Questions

**1. Problem description (50)**

**Objective:**

The part of the sample problem is to process text feeds and generate necessary results.

**Pre-requisite:**

We will provide sample text data for the exercise.

**Process:**

1. Pre-process text data
2. Generate sentiment score for each document [ +ve, -ve, neutral ]
3. Perform Named Entity Recognition within text data
4. Write test cases for above code
5. Explain your code/requirements via markdown document
6. Check-in code to personal git repo

**Scoring criterion:**

- Git knowledge - 5
- Code style - 5
- Clean code - 10
- Knowledge of test-driven development - 15
- Use of python libraries - 15

**Output:** Repo containing python code and markdown document

**Note:** Students are free to use either python 2 or 3 versions.

**2. Design a SIRI challenge (50)**

As a part of the design challenge, each student requires to draw block diagram describing various components required to design system similar to SIRI, Alexa or Cortana.

**For ex.**

The system may contain components such as

a. Language understanding
b. Question template generation
c. Finding answer
d. …

One needs to think out-of-the box and come up with their own version of the system.

**Output:** One block diagram image as PNG or PDF document.

**Scoring criterion:**

1. Concepts
2. Innovation
3. Details

**Final Submission:** In the end, each student must share their personal repo containing code, markdown document and block diagram image.

**3. Sample Resources:**

**Markdown**

https://github.com/adam-p/markdown-here/wiki/Markdown-Cheatsheet

**Github**

https://services.github.com/on-demand/downloads/github-git-cheat-sheet.pdf

**NLP Resources**

https://www.analyticsvidhya.com/blog/2017/01/ultimate-guide-to-understand-implement-natural-language-processing-codes-in-python/

https://likegeeks.com/nlp-tutorial-using-python-nltk/

**Python TDD**

https://medium.freecodecamp.org/learning-to-test-with-python-997ace2d8abe

https://dzone.com/articles/tdd-python-5-minutes

https://www.blog.pythonlibrary.org/2011/03/09/python-102-an-intro-to-tdd-and-unittest/

**Sentiment Analysis Resources**

https://github.com/xiamx/awesome-sentiment-analysis

**Image drawing**

https://www.draw.io/

https://cloud.smartdraw.com/

**Python Style Guide**

https://google.github.io/styleguide/pyguide.html

https://www.python.org/dev/peps/pep-0008/