

Python Data Analytics Certificate

Group Project Guideline

Within what you learnt from this course and your strength in your profession, write an essay (1,500-1,800 English or Chinese words) to:

1. Elaborate an issue, problem or discovery with adequate visualization, and
2. Introduce possible solutions, tactics or suggestions, and
3. Conclude a plan along with visualization and proof, to persuade an authority such as, investor, government, boss, or key holder for an action.

You should also prepare a PowerPoint for a 20-minute presentation.

Submission documents should include:

1. Essay in 1,500-1,800 words in English or Chinese
2. Relevant dataset, i.e. csv, tsv, sql, db
3. Relevant python code and/or notebook
4. PowerPoint
5. Other needed materials

Topics consideration: Economy, Stock Market, Business, Government Policy, Manufacturing, Environmental, Energy, Education, etc.

Requirements:

1. Data size and horizon must be convincing
2. Form your group with diverse background classmate
3. 3 to 4 people in a group
4. Quote all your references and data source at the end of essay (no word count in this part)
5. Make yourself proud for this project and ready to present for your next new job interview.

Marking scheme:

	Fail (0-30%)	Fair (30%-50%)	Good (50-70%)	Outstanding (70%-100%)	Sub-total
Data, code (30%)	Data size is small and bias	Code is incomplete and occur over 5 bugs	Sounds persuasive data, bugs free code	Outstanding visualization, data, and coding technics	
Analysis quality (30%)	Bias and improper analysis	Lack of explanation or irrelevant explanation	Demonstrate essential materials and logic sequence analysis	Very good understanding of subject matter and illustration	

Understandable, accountable, feasible, reliable, persuasible and presentable (10%)	Very hard to follow, solution or decision are far from reality. Hard to convince	Make the points but sounds wishful thinking. Ambiguous	Good to read, easy to follow. Proper ways to express ideas.	Cover adequate scope of area and excellent discovery. Persuasive analysis and decision.	
Document quality (10%)	Did not submit all needed document	Poor appearance of design and difficult to read	Good design with neat document	Adequate and well-prepared document, supporting and references	
Presentation and Q&A (10%)	Presentation time shorter than 15 mins or did not answer question at all.	Poor time management. Clumsy and repeated points.	Enjoyable presentation flow. Answer question properly.	Able to take to lead while present and communicate with audience interactively as well. Pitch talks alike.	
Teamwork and passion (10%)	Someone obviously did not contribute. Someone dominated almost everything.	Poor collaboration in teams, or lack of confidence.	Good command of teamwork. Members showed their effort in the project.	All team-players. Each one takes the role perfectly. Passionate and confident in the presentation.	
Total score:					

Document submission deadline: 2024-09-04

Presentation date: 2024-09-04

根據你從這門課程中學到的知識和你的專業長處，寫一篇文章（1,500-1,800 個英文或中文單詞），以：

1. 用充分的可視化來闡述一個問題或發現，以及
2. 介紹可能的解決方案、策略或建議，以及
3. 制定一個計劃以及可視化和證明，以說服投資者、政府、老闆或關鍵持有者等權威機構採取行動。

您還應該為 20 分鐘的演示文稿準備一個 PowerPoint。

提交材料應包括：

1. 1,500-1,800 字的中或英文論文
2. 相關數據集，i.e. csv, tsv, sql, db
3. 相關的 python 代碼和/或筆記本
4. 幻燈片
5. 其他所需材料

主題考慮：經濟、股票市場、商業、政府政策、製造業、環境、能源、教育等。

要求：

1. 數據規模和範圍須令人信服
2. 與不同背景的同學組成您的小組
3. 3 至 4 人一組
4. 在文章末尾引用您所有的參考文獻和資料來源（這部分不計算字數）
5. 讓自己為這個專案感到自豪，並準備好參加下一次新的工作面試。

評分方案：

	失敗 (0-30%)	一般 (30%-50%)	良好 (50-70%)	優秀 (70%-100%)	小計
資料、代碼 (30%)	數據量小且有偏差	代碼不完整，出現超過 5 個 bug	聽起來很有說服力的數據，無錯誤的代碼	出色的可視化、數據和編碼技術	
分析品質 (30%)	偏差和不正確的分析	缺乏解釋或不相關的解釋	演示基本材料和邏輯序列分析	對主題和插圖有很好的理解	
可理解、負責、可行、可靠、有說服力和形象 (10%)	很難遵循，解決方案或決定與現實相去甚遠。很難說服	提出觀點，但聽起來一廂情願。模糊	好讀，易於理解。表達想法的正確方式。	覆蓋足夠的區域範圍和出色的發現。有說服力的分析和決策。	

文件品質 (10%)	沒有提交所有需要的檔	設計外觀不佳，難以閱讀	好的設計，整潔的文檔	充分和準備充分的文件、支持和參考資料	
演示和問答 (10%)	演講時間短於 15 分鐘或根本沒有回答問題。	時間管理不善。笨拙和重複的觀點。	愉快的演示流程。正確回答問題。	能夠在演示時發揮領導作用，並與觀眾進行互動交流。推銷談話一樣。	
團隊合作和激情 (10%)	顯然有人沒有做出貢獻。有人幾乎主宰了一切。	團隊協作不力，或缺乏信心。	良好的團隊合作能力。成員們展示了他們在專案中的努力。	所有團隊合作者。每個人都完美地扮演了這個角色。對演講充滿激情和自信。	
總分：					