Data Science Project Schedule

9/26 22:00 Form the teams. Each team consists of at most 5 members and at least 3 members. The team leader turns in a one-page slide with team member names.

If the second course provided by FinTech Space is delivered on 10/02, then {

10/10 22:00 Turn in the project proposal in 3 pages of slides containing the project's possible title and abstract.

10/11 The team leader presents the project proposal within 5 minutes. }

If the second course provided by FinTech Space is delivered on 10/16, then {

10/17 22:00 Turn in the project proposal in 3 pages of slides containing the project's possible title and abstract.

10/18 The team leader presents the project proposal within 5 minutes. }

Will update the schedule soon.

Grading principles

This is a project for the data science course, and the goals of the expected teaching effect are as follows

**Graduate Program Learning Goals** (goals covered by this course are indicated by checks):

|  |  |  |
| --- | --- | --- |
| ✓ | 1 | Graduate students should be able to appreciate data analysis approaches and to present research findings/ results effectively in speaking and in writing. |
| ✓ | 2 | Graduate students should be able to integrate different functional areas in solving data analysis problems. |
| Graduate students should be able to analyze data effectively and to recommend effective statistical methods. |
|  | 3 | Graduate students should be able to demonstrate leadership skills as a data analysis team leader. |
| Graduate students should be able to identify ethical dilemmas and to determine necessary courses of action. |
|  | 4 | Graduate students should possess a global data science perspective and an awareness of the global business. |
| ✓ | 5 | Graduate students should be able to coordinate actions and solve problems jointly with other members of a professional team. |

1. The content of the report slide is clearly described.
2. Prepare your report on stage and explain it clearly.
3. Give full play to the benefits of team division of labor and cooperation to solve problems together.
4. The topic content and presentation should conform to Jeff Hammerbacher’s Model of Data Science Work.
5. There must be sufficient review and comparison of relevant field knowledge (literature).
6. Proposal competitions focus on creativity, value, feasibility, and data verification.

The data available from FinTech Space

◼ 申請使用之API項目：(供應商名稱\_提供的API/服務名稱)

(請參考玖、數位沙盒實證項目清單填寫)

(A1)供應商:臺灣證券交易所。API/服務項目:上市即時行情。

(A2)供應商:臺灣期貨交易所。API/服務項目期貨/選擇權即時行情。

(A3)供應商:時報資訊。API/服務項目股票歷史資料和三年基金歷史資料。

(A4)供應商:台灣經濟新報。API/服務項目高風險股票篩選模組和實價登錄模組。

(A5)供應商:全曜財經資訊。API/服務項目CMoney Taiwan ESG Rating TOP 100。

(A6)供應商:意藍資訊。API/服務項目OpView社群口碑。

◼ 創新實證應用範圍：

智能理財: 彈性整合上述申請項目API (A1)~(A5)的資料內容，以機器學習模型和深度學習演算法進行大數據分析，建構股票、期貨、不動產投資之高階智能理財(Robo-Advisor or Smart financial management) Advance Integrated-API模組(AI-API)。

市場價值評估及信貸評估: 在申請項目(A6)設定特定目標族群，例如人氣100名網紅、人氣100名電商、追蹤其社群資料的每周變化，評估其社群媒體市場價值和持續影響力，計算信用價值評等(credit value score)和市場價值評等(market value score)，建立social networking evaluation API (SoNet-API)。

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The project proposals that are not based on the data from FinTech Space will be approved when the study goal is consistent with the data science work of the Hammerbacher’s model.

The progress of the project should follow the time schedule of this course.

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To identify your target problem, you should first gain the domain knowledge.

Step 1: Search web pages, ask ChatGPT, read papers, and discuss with teammates.

Step 2: Try to instrument (select and organize) data sources

Step 2: Repeat Step I and Step II

Step 3: Write down the project proposal

Step 4: Repeat Step 1 – Step 3, modify the project proposal.

In your proposal, the following items should be included.

1. Give a brief title of the project

(2) What target problems do your team want to solve?

(3) Why the target problem is important?

(4) To whom it is valuable?

(5) What parts are new?

(6) List all the references you used. (web pages, ChatGPT, papers, thesis, …)