Case 1: Project Selection and Developing a Business Case

Overview

In this case study, we will perform two separate tasks: project selection and developing a business case. In Task 1, we perform project selection after evaluating multiple projects using the weighted scoring model. Following this in Task 2, we develop a business case for the project that we select in Task 1.

Task 1: Project Selection

In this task, we apply the weighted scoring model to evaluate four projects and determine which project to choose. The projects are as shown in Table 1.1.

Project	Name
1	FIT3161_Ting_Automatic Identification of Autism Spectrum Disorder from Brain Networks Using Graph Deep Learning
2	FIT3161_MeeChin_Online Forum Analytics_3 topics
3	FIT3161_Raphael_When Machines learn Crypto
4	FIT3161_Mei Kuan_Gender Bias AI

Table 1.1: The projects to evaluate

We will apply the following criteria to evaluate the projects in Table 1.1.

Criteria	Description
Knowledge of topic	Knowledge of topic refers to the familiarity and awareness of the concepts associated with the project topic. A higher level of knowledge indicates a greater level of understanding of the fields related to the topic.
Social impact	Social impact refers to the change to address a pressing social challenge. A higher social impact indicates that the project can lead to a more positive change to society.
Technical ease	Technical ease refers to the level of easiness for the technical aspect of the project. A higher technical ease indicates that the project is easier to be implemented.
Project flexibility	Project flexibility refers to the degree of freedom that the project team has in determining the direction of the project. A higher level of project flexibility indicates that the project is more open-ended, allowing more room for exploration.

Table 1.2: The criteria used to evaluate the projects

Using the criteria shown in Table 1.2, we have evaluated the projects in Table 1.1 as shown in Table 1.3.

Criteria	Project 1	Project 2	Project 3	Project 4
Knowledge of topic	Low	Medium	Low	High
Social impact	High	Low	Medium	Very high
Technical ease	Medium	High	Very low	Medium
Project flexibility	Low	High	Medium	High

Table 1.3: The evaluation of each project

We will now design a scoring system for each criterion.

Scoring system

For each criteria, we will assign a score as shown in Table 1.4:

Rating	Score
Very high	10.0
High	7.5
Medium	5
Low	2.5
Very low	0.0

Table 1.4: The scoring system

This scoring system will be consistently applied across all criteria.

This leads to the weighted scoring model as shown in Table 1.5.

Weighted Scoring Model for Gender Bias AI

Prepared by: YAP Jin Heng, GOH Kang Qi, CHOO Kah Poh Alika

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Criteria	Weight	Project 1	Project 2	Project 3	Project 4
Knowledge of topic	35%	2.50	5.00	2.50	7.50
Social impact	25%	7.50	2.50	5.00	10.00
Technical ease	20%	5.00	7.50	0.00	5.00
Project flexibility	20%	2.50	7.50	5.00	7.50
Weighted Project Scores	**100%**	**4.25**	**5.38**	**3.13**	**7.63**

Table 1.5: The weighted scoring model