Assignment 2 MCDM

1. You can select one of the listed scenarios and use any open-source MCDM software of your choice. You should start with the identification of appropriate criteria and sub-criteria for making a decision and you can make necessary assumptions as needed.

Assumption:

There was a company that needed an IT vendor. The company had specific criteria that they wanted the vendor to meet - Service Quality, Security, and Financial. There were four companies they were considering, each with their own strengths and weaknesses in these areas.

- Company A was known for their exceptional Service Quality and Security measures, but they were not very competitive in Financial. This is a common trade-off in the technology industry, where high-quality systems and infrastructure can come with a higher price tag.
- Company B, on the other hand, was the best in terms of Financial. They had competitive pricing that could potentially save the company money. However, they were only so-so in terms of Security. This can be a concern for businesses that rely heavily on their IT systems to run their operations smoothly.
- Company C was doing well in Financial, but they were only normal in Service Quality and Security measures. This could be a concern for businesses that need their IT systems to function at a high level to meet their customers' needs.
- Company D had not been mentioned yet, but they were the last option on the table. They were average in all three criteria, but not exceptional in any one area.

Whereas criteria & sub-criteria are as follows.

- Criteria 1: Service Quality
  - o Sub-criteria 1: Responsiveness
  - o Sub-criteria 2: Customer Satisfaction Record
  - o Sub-criteria 3: SLA Compliance
- Criteria 2: Security
  - o Sub-criteria 1: Data Security
  - o Sub-criteria 2: Network Security
  - o Sub-criteria 3: Confidentiality
- Criteria 3: Financial
  - o Sub-criteria 1: Pricing & Costs
  - o Sub-criteria 2: Payment Terms
  - o Sub-criteria 3: Financial Stability
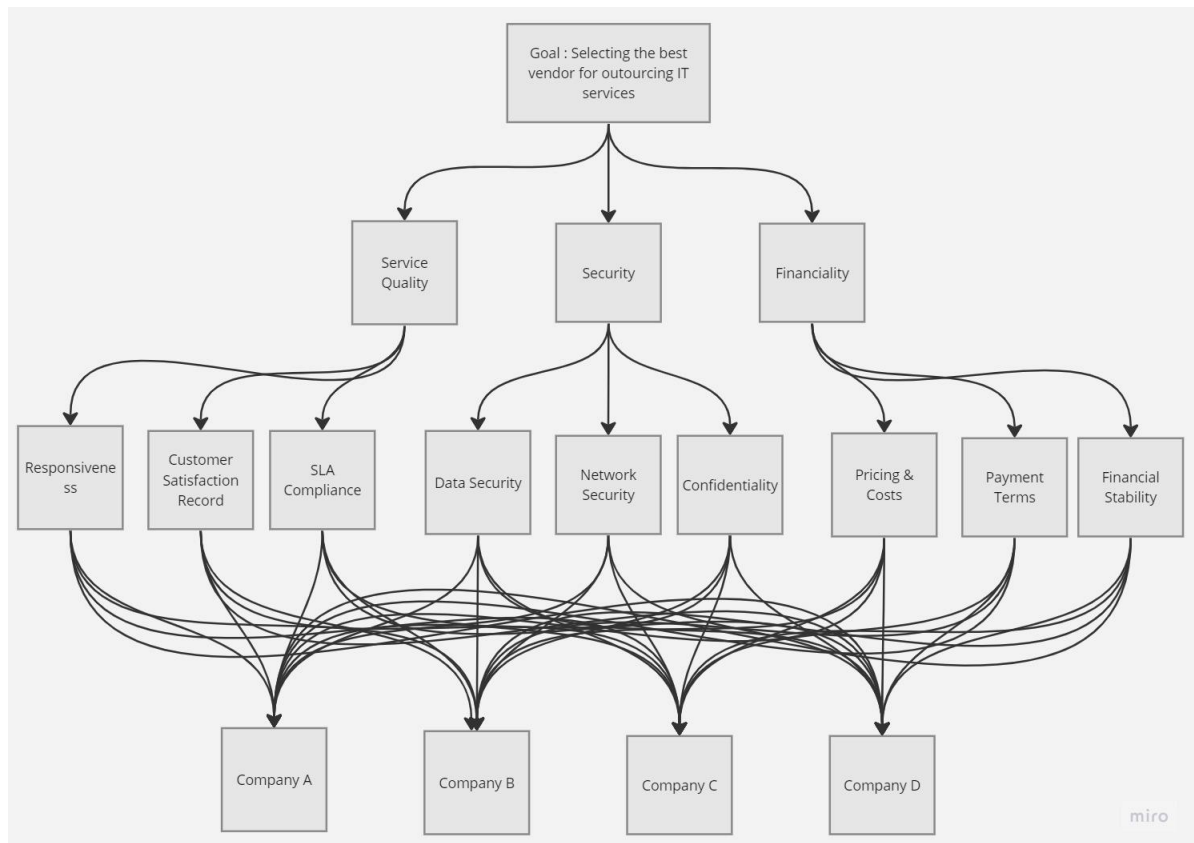
Setup score in SuperDecisions

Criteria	Sub-criteria	Company A	Company B	Company C	Company D
Service Quality	Responsiveness	10	4	6	5
	Customer Satisfaction	9	6	4	4
	SLA Compliance	9	4	5	4
Security	Data Security	9	6	9	4
	Network Security	7	6	7	7
	Confidentiality	7	9	6	7
Financial	Pricing & Costs	3	7	8	9
	Payment Terms	4	5	9	6
	Financial Stability	6	10	6	5

2, You need to identify 4 choices and test your system to select the most suitable one. You need to submit a report to describe this system and how the system concludes the evaluation.
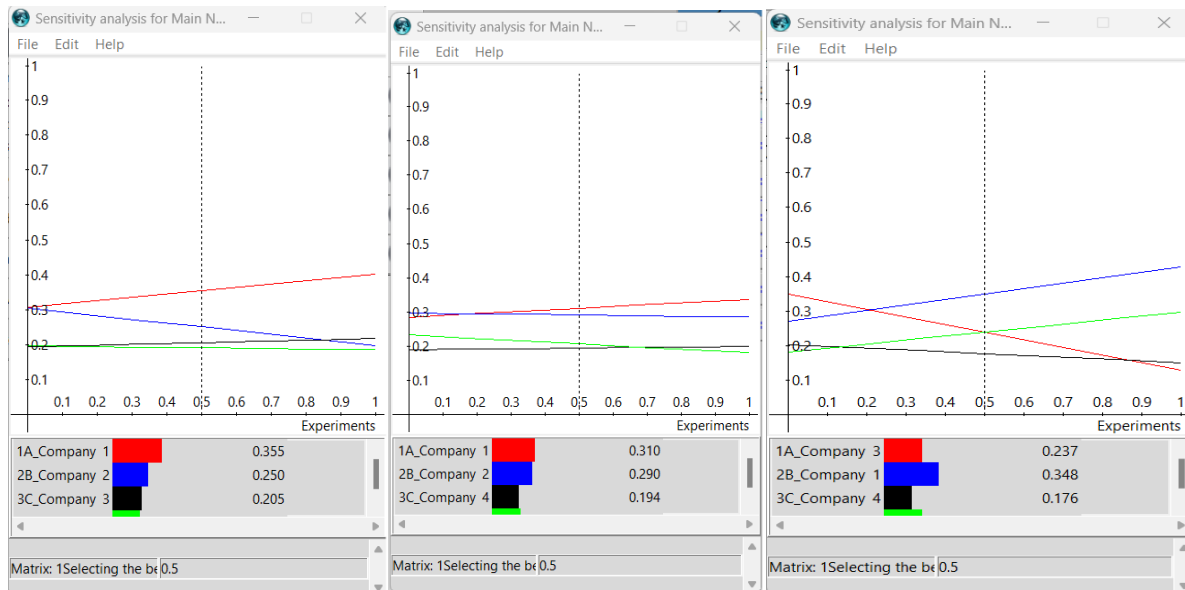
In this case, the MCDM analysis suggests that while Company A may have the best Service Quality and Security, it may not be the best option in terms of Financiality. On the other hand, Company B may be the best option in terms of Financiality but may trade off with Service Quality or Security. Analysis can help decision-makers to identify the strengths and weaknesses of each company and make a more informed decision based on their priorities and preferences.