BIT301 Tutorial Risk Management

Case Study: The Weyland Consortium specializes in the supply and construction of commercial, industrial and residential buildings in Malaysia. The company would like to improve the logistics of supplying the building sites from various factories located around the country.

This can be done by developing a mobile app for Site Managers (at a building site) to request for supplies from the company when needed. This request will be forwarded to the nearest factory which can meet the demand, which will send the requested supplies on a truck (or trucks). Each truck will also be fitted with GPS devices, so the Site Managers will know the current progress of the trucks.

With all the data that is obtained from the sensors and the mobile app, the Weyland Consortium will then develop a cloud based logistical analytics solution that will be able to perform analysis on the current and projected requests for supplies to ensure that delays as well as wastage of supplies can be reduced. The initial research of has narrowed down the selection of the cloud service providers; Amazon Web Services, Oracle Cloud Platform and Google Cloud.

The General Manager of Weyland Consortium, Bryan Stinson, has hired you as the Project Manager to oversee the entire solution from development of the mobile app to installation of the GPS devices. You will work closely with Elizabeth Mills, the Maintenance Manager to install the GPS devices, and your senior software engineer Anson Rose, cloud engineer Karl Johnson and Logistics Manager Mark Yale to develop the mobile app and the logistical analytics solution.
You have been allocated a budget of RM1 million (RM1,000,000) to complete the project within twelve (12) months, beginning November 2022. Mr. Stinson has given you complete control over the project budget but would like to know its progress on a monthly basis.

1. Create a risk register for the project, using the Excel file as a template. Identify potential risks, including risks related to the problems described above.

No	Rank	*Risk*	Description	Category	Risk Response : Strategy, explain	Probability (Scale of 1-10)	Impact (Scale of 1-10)

2. Plot the six risks on a probability/impact matrix. Also assign a numeric value for the probability and impact of each risk on meeting the main project objective. Use a scale of 1 to 10 in assigning values, 1 being low and 10 being high. For a simple risk factor calculation, multiply these two values. Add a column to your risk register to the right of the impact column called risk score. Enter the new data in the risk register.

Part 2:

After perform the risk management tasks above, one of the risk responses would be to spend more time designing and testing the system so that users will want to use it.

Product owner wants to "sell" to the project sponsor the benefit of adding 3 months onto the project timeline for thorough design and testing processes. You decide to use a decision tree to help him.

The values to the organization of good, fair or poor user response to the new application are RM2M, RM500K and –RM200K, respectively.

You determine the following probabilities of the user response based on adding 3 months for thorough testing and design:

User Response	Thorough (Extra 3 months)	Rapid (as per original plan)
Good	0.4	0.1
Fair	0.5	0.2
Poor	0.1	0.7

1) Draw the decision tree for the two possible choices : Thorough and Rapid
2) Calculate the expected monetary value (EMV) for each of the choices
3) If the cost of adding 3 months for thorough design and testing is RM100K, which decision should be made?