## Meeting Minutes For Group 2

Meeting Minutes 13/11/2022

Times recorded in GMT

9:00 Team meeting starts

9:55 Everyone's area of focus:

- Lee: Bayes' Theorem + CVSS based on CAPEC
- James + Celine: Explore Monte Carlo Simulation + align to effects of digitalisation changes
- Marios + Mbali: Business strategy including supply chain, DR, legal aspects
- 10:14 Next team meeting tentatively same time on Sunday
- 10:15 Arrange next meeting with Doug in 2 weeks to discuss if we're on the right direction
- 10:16 Meeting adjourned

Meeting Minutes 20/11/2022

Times recorded in GMT

10:00 Team meeting starts

- 10:15 Team discusses about using diagrams, more technical and implementation details
- 10:20 Monte Carlo Simulation (MCS) sample run through by James, mentions consider risk matrix
- 10:28 From Lee Doug recommends use Topsis as Bayes' only limits to 2 hypotheses
- 10:35 Topsis run through by Lee, from CAPEC vulnerabilities, focus is on supply chain
- 11:20 Decide on group check-in meeting date-time with Doug lock in Tuesdays for the next 2 weeks at 11am GMT
- 11:27 From generic to specific for MCS includes overall, more than just supply chains
- 11:41 MCS focuses on financial justification, i.e. profits/risk of loss, TOPSIS focuses on ranking best implementation

- 11:46 Discussion and mapping Executive Summary checklist requirements to Module Units learnings
- 11:48 A few of us reflect on module content
- 11:57 Meeting adjourned

Meeting Minutes 24/11/2022

Times recorded in GMT

- 11:30 Team meeting starts
- 11:33 Doug joins Group 1's meeting with Doug officially starts
- 11:35 Our raised question: How can we justify the quantitative data from qualitative resources in Monte Carlo Simulation (MCS)?
- 11:36 Doug: MCS uses widely available probability distributions to get a prediction, there is an equation, neutron releases represent a random event. Establishing the type of probability distribution that fits our situation. Example in lecturecast inventory using Yasai. Gives you the probability that a certain event will happen with a certain quantity e.g. minimise the number of reordering/stock.

## eckstein.rutgers.edu/om/word-problems/inventory.html

## "Dynamic" Simulation Example: Inventory

You sell a product for which monthly demand is Poisson with a mean of 400. The units cost you \$1,500 each, and you sell them for \$2,800. You can carry inventory from month to month, and estimate your inventory holding cost as \$10 per unit left in inventory at the end of a month.

Every time you order, there is a fixed cost of \$600, plus the \$1,500 per unit cost of the products ordered.

You want to simulate a 24-month period, at the outset of which you have 700 units in stock. For every unit in stock at the end of this period, you assess a "salvage" credit of \$1,500.

You are considering ordering policies of the following form: if the ending inventory for a given month is less than or equal to some "threshold" value R, immediately order another Q units. For simplicity, assume that these units become available immediately at the beginning of the next month.

Your boss asks you to evaluate the following possible combinations of R and Q. Which one seems to yield the highest expected profit over the 24 month period?

Policy	R	Q
1	400	800
2	400	1000
3	400	1200
4	500	1000
5	500	1200
6	600	1000
7	600	1200

For each policy, you also wish to estimate the probability of having a "stockout" at some time during the 24 month period. A "stockout" means that there is insufficient stock to meet customer demand.

This example uses the Poisson model, and has 2 variables (R, Q).

MCS is meant to give you the probabilities for you to use them elsewhere, not constructing the probabilities. We should look at the variables and map them.

Possible variables:

- Location where Pampered Pets places new factories
- Production
- Deliver
- Number of years/days

11:48 Question on RPO/RTO and DR, design diagram for cloud model.

Doug: Yes, good for discussion. Get an **idea on indicative and relative costs.** When you go for a cloud alternative - it's not Nirvana, there's tradeoffs. How to choose solutions (if there's no need for one, not just choose the easiest to build solution) - vendor lock-in, flexible system, real-world proposal, put into business terms. Consider financial implications, no need to give a cost, bear in mind the implications.

11:50 CAPEC, TOPSIS question. Doug: No need to go into maths.

11:54 Question on report layout. Doug's suggestion: main body of report 2k words - exec summary. Addresses questions (inc. any data needed), present results - details in appendix. Bullet points are fine. Use tables.

11:58 Final seminar is a group presentation.

12:00 e-portfolio question - what is needed to get a distinction. Doug: If you did all the activities - max of 20 marks, roughly 20% of the e-portfolio. 20% on collaboration - discussions, dedicated activities for e-portfolio that counts for participation, seminars. Reflection which is in the last seminar. Other % such as the use of references.

12:10 Group meeting with Doug adjourned

12:34 Team meeting adjourned

Meeting Minutes 27/11/2022

Times recorded in GMT

9:00 Team meeting starts

9:10 Discussion about DR solution architecture - NetApp + VMware likely too costly (150k) compared to AWS + VMware

9:15 Include Business Impact Analysis (BIA) for Business Continuity (BC) Plan along with DR solution 9:20 Discussion about MCS Inventory and stock cost/profit 9:48 Discussion about executive summary outline 10:01 Team meeting adjourned Meeting Minutes 1/12/2022 Times recorded in GMT. Note that the following minutes are not exhaustive. 11:30 Team meeting with Doug starts 11:32 Mention of DR discussion 11:35 Discussion on TOPSIS, relating to Bayesian probability with supply chains - conditional probability change, how it affects product quality 11:37 Yasai, inventory problem 11:39 MCS is a modelling tool 11:50 Link to spreadsheet or in Appendix, include YT videos. 11:52 If we are too limited by words, DR diagram and some comments on it. Glossary in Appendix. 12:00 Team meeting adjourned Meeting Minutes 2/12/2022 Times recorded in GMT

10:30 Team meeting for DR Diagram peer review starts

11:00 Discuss executive summary outline		
11:40 Team meeting adjourned		
Meeting Minutes 4/12/2022		
Times recorded in GMT		
9:00 Team meeting starts		
9:20 Discuss overall executive summary references, appendix, DR components		
10:00 Team meeting adjourned		
Meeting Minutes 6/12/2022		
Times recorded in GMT		
9:00 Team meeting starts		
9:05 Reflect on assignment 2 executive summary submission		
9:15 Unit 12 Seminar 6 Presentation Discussion		

9:50 Team meeting adjourned