INFT3100: Group assignment 2

Group: Tuesday 12-2T2

Group Names and Percentage Peer Evaluation

Ayden Khairis - 16.67%

Brenton Rostam - 16.67%

Ahmed Abdelsalam - 16.67%

Ryan Taylor - 16.67%

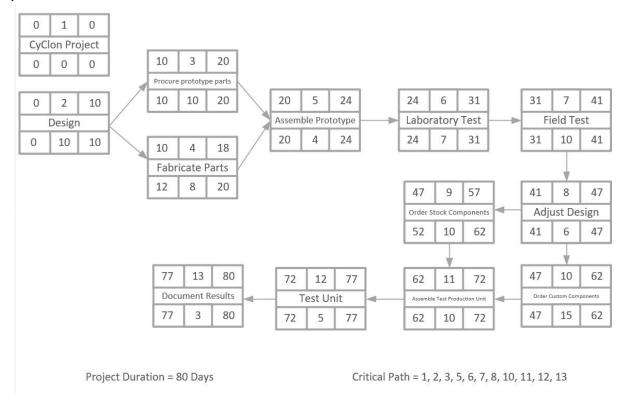
Steven Yi Wook NAM - 16.67%

Matthew Halliday - 16.67%

Collectively as a group we feel we have all contributed equally as we have been to all the tutorials so far and assisted each other wherever possible and kept in regular contact via our Facebook group.

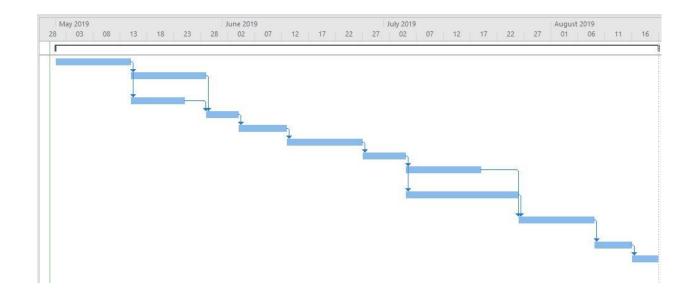
Question 1)

a)



b)

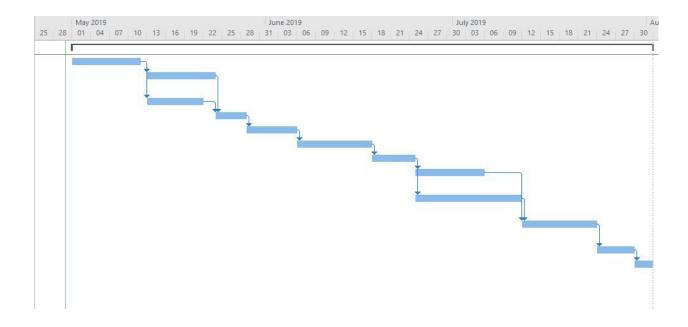
	0	Task Mode ▼	Task Name →	Duration 🕶	Start 🕶	Finish +	Predecessors +	Resource Names ▼	Add New Column 🔻
1		=	△ CyClon Project	80 days	01-05-2019	20-08-2019			
2		-5	Design	10 days	01-05-2019	14-05-2019			
3		-5	Procure Prototype Parts	10 days	15-05-2019	28-05-2019	2		
4		-5	Fabricate Parts	8 days	15-05-2019	24-05-2019	2		
5		-	Assemble Protoyp	4 days	29-05-2019	03-06-2019	3,4		
6		-	Laboratory Test	7 days	04-06-2019	12-06-2019	5		
7		-3	Field Test	10 days	13-06-2019	26-06-2019	6		
8		-5	Adjust Design	6 days	27-06-2019	04-07-2019	7		
9		4	Order Stock Components	10 days	05-07-2019	18-07-2019	8		
10		-3	Order Custom Components	15 days	05-07-2019	25-07-2019	8		
11		-5	Assemble Test Production Unit	10 days	26-07-2019	08-08-2019	9,10		
12		-	Test Unit	5 days	09-08-2019	15-08-2019	11		
13		=	Document Results	3 days	16-08-2019	20-08-2019	12		



- The project will finish on 20/08/2019

c)

	0	Task Mode ▼	Task Name	Duration +	Start 🔻	Finish +	Predecessors 🕶	Resource Names •	Add New Column 🔻
1		-5		80 days	01-05-2019	01-08-2019			
2		=	Design	10 days	01-05-2019	11-05-2019			
3		-3	Procure Prototype Parts	10 days	13-05-2019	23-05-2019	2		
4		-5	Fabricate Parts	8 days	13-05-2019	21-05-2019	2		
5		-	Assemble Protoyp	4 days	24-05-2019	28-05-2019	3,4		
6		-5	Laboratory Test	7 days	29-05-2019	05-06-2019	5		
7		-5	Field Test	10 days	06-06-2019	17-06-2019	6		
8		-	Adjust Design	6 days	18-06-2019	24-06-2019	7		
9		-5	Order Stock Components	10 days	25-06-2019	05-07-2019	8		
10		-5	Order Custom Components	15 days	25-06-2019	11-07-2019	8		
11			Assemble Test Production Unit	10 days	12-07-2019	23-07-2019	9,10		
12		-	Test Unit	5 days	24-07-2019	29-07-2019	11		
13		-5	Document Results	3 days	30-07-2019	01-08-2019	12		



- The project will finish on the 01/08/2019

Question 2)

Team	12-	2 T2								
Discount	0.1	10%								
		2								
	Year 0	Year 1	Year 2	Year 3	Year4	Year 5	Year 6	Year 7	Year 8	Total
	0	1	2	3	4	5	6	7	8	
Value of Benefits	\$0.00	\$43,000.00	\$51,030.00	\$58,000.00	\$65,500.00	\$81,100.00	\$84,700.00	\$85,000.00	\$85,500.00	\$553,830.00
Discount factor	1	0.909090909	0.826446281	0.751314801	0.683013455	0.620921323	0.56447393	0.513158118	0.46650738	
Present Value of Benefits	\$0.00	\$39,090.91	\$42,173.55	\$43,576.26	\$44,737.38	\$50,356.72	\$47,810.94	\$43,618.44	\$39,886.38	\$351,250.58
Development Costs	-\$245,000.00									-\$245,000.00
Ongoing Costs	\$0.00	-\$6,000.00	-\$6,000.00	-\$6,500.00	-\$6,500.00	-\$6,500.00	-\$7,000.00	-\$7,000.00	-\$7,500.00	-\$53,000.00
Discount Factor	1	0.909090909	0.826446281	0.751314801	0.683013455	0.620921323	0.56447393	0.513158118	0.46650738	
Present Value of Costs	-\$245,000.00	-\$5,454.55	-\$4,958.68	-\$4,883.55	-\$4,439.59	-\$4,035.99	-\$3,951.32	-\$3,592.11	-\$3,498.81	-\$279,814.58
PV net of benefits and cost	-\$245,000.00	\$33,636.36	\$37,214.88	\$38,692.71	\$40,297.79	\$46,320.73	\$43,859.62	\$40,026.33	\$36,387.58	\$71,436.01
Cumultive NPV	-\$245,000.00	-\$211,363.64	-\$174,148.76	-\$135,456.05	-\$95,158.25	-\$48,837.52	-\$4,977.90	\$35,048.43	\$71,436.01	
Payback	7	Years	45.39	Days	3					
NPV	\$71,436.01									
					·					
ROI	25.53%									

Question 3)

Question 3A)

Top management was acting incorrectly in making an estimate. The Project Manager's role includes analyzing the project requirements, making a WBS, and using their knowledge from previous project's similar to the mini-tablet to create this estimate. Lauren has "15 years of experience in tablet design and manufacture" which means she is more knowledgeable and has more experience in the creation of a tablet compared to someone in top management.

Question 3B)

Estimating techniques that should be used for this project bottom-up estimates. Phase estimating would be a good estimation technique to use to create this tablet given its objective (the product costing the customer <=\$200) because the project has a high amount of uncertainty. A top-down method that could be used in phase estimating is the apportion method as similar projects have been completed before by Lauren and she has the knowledge required to make an estimate based off past experiences. A bottom-up method that could be used is the range estimator template method. This method would be beneficial given the amount of uncertainty that has been expressed about this project, especially from Project Manager, Lauren.

Question 3C)

The current state of the project is somewhat chaotic with the cost estimate being 20% higher than senior management's estimate. Lauren is trying to find ways to decrease costs by talking to the design, production and marketing managers in regard to cutting these costs which unfortunately didn't provide much benefit. She now has to inform top management that the cost estimate is \$1.25million over the estimate senior management gave.

If I was the project manager, I would double check that the estimates given by both parties are correct before suggesting any resolutions. If the estimates are correct, then I would set a meeting with management to discuss the differences in estimates and which areas could be reviewed to take cuts so the project estimate could be better. I would also suggest a change in scope, specifically a change in project goals, deadlines and costs. The project seems like it's not going to be cost efficient and the idea of having a tablet under \$200 isn't going to work with how the estimates are looking. Therefore, the project goals need to be changed with a possible solution being the cost of the tablet is over \$200 instead of under \$200. This solution means the project might actually make a profit and be worth the time and cost put into it. Another solution to changing the scope be to make the tablet low-quality and/or make the tablet black and white, not colour. Realistically, no company should be making a low-quality product and all technology should be able to screen colour in today's day and age, but it's still a possible solution. These project goal-based solutions could be viable, but it also means the original project goal of making a colour mini tablet for less than \$200 no longer exists.

Question 3D)

If management refuse to change scope, I would ask management the techniques they used to get their estimates and try to gain an understanding as to why their estimates are 20% cheaper than the one created by the project team. I would also ask about their experiences with similar projects to see if they are experienced and knowledgeable about the project.

Question 4)

Manchester United Soccer Club - Risk Response Matrix

No.	Risk	Probability	Con	Rating	Treatment	Residual Probability	Residual Consequences	Residual Rating	Who	When	\$	Status
1	Referees failing to show up at designated matches.	Medium	Medium	Medium	Replace referees.	Low	Low	Low	PM	11/4/2019	500	Complete
2	Fighting between teams during a match.	High	High	High	Penalise Teams.	Medium	Medium	Medium	PM	11/4/2019	200	Pending
3	Pivotal error committed by a referee that determines the outcome of a match.	Medium	High	Medium	Re-match or overtime.	Medium	Medium	Medium	PM	11/4/2019	1000	Complete
4	Abusive behaviour along the sidelines by parents.	Medium	Medium	Medium	Expulsion from match.	Medium	Medium	Medium	PM	11/4/2019	200	Pending
5	Inadequate parking.	High	Medium	High	Temporary Parking spaces.	Low	Medium	Low	PM	11/4/2019	200	Pending
6	Not enough teams signing up for different age brackets.	Medium	Medium	Medium	Call up teams from a different league.	Medium	Medium	Medium	PM	11/4/2019	200	Pending
7	Serious Injury to a player or spectator	High	High	High	Ambulance.	Medium	Medium	Medium	PM	11/4/2019	200	Pending

Assumptions

- -Replacement referees are always on standby if a referee fails to turn up for duty.
- -If a referee commits a pivotal error there is a re-match or the match resumes into overtime (if the error is discovered) otherwise a re-match is scheduled after post match investigation.