Group 8 Milestone 4 Decision Support Tool

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Introduction

- Many occasions throughout university and in the workplace require group work

- There are many benefits to working with a group, however it can also be difficult to get everyone on the same page

- The purpose of the MSCI 100 term project is to create a decision support tool in Excel to help students plan and execute group projects

- The goal for the decision support tool is to optimize the amount of effort and time each group member puts into the project so that the team works as effectively and efficiently as possible

Identifying the Problem

- Inability to create a proper schedule/timeline for the project.
- Group members lacking time management towards their individual tasks.
- Lack of communication between group members.
- Assigning tasks to group members who lack the skills to complete said tasks.
- Poor monitoring of project progress.

The Decision Support Tool

- Skills Manager
  - Overview on required skills that should be learned or developed more
- Schedule Manager
  - Displays availability of group members and identifies the optimal time to schedule a group meeting
- Task Assigner
  - Delegates tasks to team members based on skills
- Activities Sheet
  - Updates progress status as checkpoints are met, counts down days until deliverables are due, indicates urgency/priorities
- Gantt Chart
  - Visual representation of overall progress

Skills Manager

Run the system

Group Members	Coding	Documenting	Analyzing	Designing
		Skills →		
seran	FALSE	TRUE	TRUE	FALSE
anday	FALSE	TRUE	FALSE	FALSE
christine	FALSE	FALSE	TRUE	TRUE
sonnelly	FALSE	TRUE	FALSE	FALSE
kareemah	TRUE	FALSE	TRUE	TRUE

group members	Coding	Documenting	Analyzing	Designing	#skills that member	min criteria	
							2
seran	X	seran	seran	X	2	0
anday	X	anday	X	X	1	1
christine	X	X	christine	X	1	1
sonnelly	sonnelly	sonnelly	X	X	2	0
kareemah	kareemah	X	kareemah	X	2	0
min criteria	2	3	3	0		
2	0	-1	-1	2		

Group members	#skills they need to practice to be effective
seran	0
anday	1
christine	1
sonnelly	0
kareemah	0
sum	2

Skills	#members that need to practice that skill
Coding	0
Documenting	-1
Analyzing	-1
Designing	2
sum	2

members that need to practice a skill

skills that must be

Schedule Manager

Monday		MEMBERS			
time	anday	seran	christine	sonnelly	kareemah
7:00	busy	FREE	FREE	FREE	FREE
8:00	FREE	busy	busy	busy	busy
9:00	busy	FREE	busy	FREE	FREE
10:00	busy	busy	FREE	busy	busy
11:00	FREE	FREE	busy	FREE	FREE
12:00	busy	busy	FREE	busy	busy
13:00	busy	FREE	busy	busy	busy
14:00	FREE	busy	busy	FREE	FREE
15:00	FREE	FREE	FREE	busy	busy
16:00	busy	busy	busy	FREE	FREE
17:00	busy	FREE	FREE	busy	busy
18:00	FREE	free	FREE	FREE	FREE
19:00	busy	FREE	busy	busy	busy
20:00	busy	busy	FREE	busy	busy
True/false	TRUE	TRUE	FALSE	FALSE	FALSE

time	anday	seran	christine	sonnelly	kareemah	
7:00	busy	FREE				
8:00	FREE	busy				
9:00	busy	FREE				
10:00	busy	busy				
11:00	FREE	FREE				AVAILABLE
12:00	busy	busy				
13:00	busy	FREE				
14:00	FREE	busy				
15:00	FREE	FREE				AVAILABLE
16:00	busy	busy				
17:00	busy	FREE				
18:00	FREE	free				AVAILABLE
19:00	busy	FREE				
20:00	busy	busy				

Tuesday		MEMBERS			
time	anday	seran	christine	sonnelly	kareemah
7:00	busy	FREE	FREE	FREE	FREE
8:00	Free	busy	busy	busy	busy
9:00	busy	FREE	busy	FREE	FREE
10:00	busy	busy	FREE	busy	busy
11:00	Free	FREE	busy	FREE	busy
12:00	busy	busy	FREE	busy	busy
13:00	busy	FREE	busy	busy	FREE
14:00	Free	busy	busy	FREE	busy
15:00	Free	FREE	FREE	busy	FREE
16:00	busy	busy	busy	FREE	busy
17:00	busy	FREE	FREE	busy	busy
18:00	FREE	busy	FREE	FREE	FREE
19:00	busy	FREE	busy	busy	busy
20:00	busy	busy	FREE	busy	FREE
2 True/false	FALSE	FALSE	TRUE	TRUE	FALSE

time	anday	seran	christine	sonnelly	kareemah	
7:00			FREE	FREE		AVAILABLE
8:00			busy	busy		
9:00			busy	FREE		
10:00			FREE	busy		
11:00			busy	FREE		
12:00			FREE	busy		
13:00			busy	busy		
14:00			busy	FREE		
15:00			FREE	busy		
16:00			busy	FREE		
17:00			FREE	busy		
18:00			FREE	FREE		AVAILABLE
19:00			busy	busy		
20:00			FREE	busy		

Task Assigner

max hours a day to work on the project   2

TASKS	hours	today's date	deadline	days remain	Hours per da	# of individu	Coding	Documenting	Analyzing	Designing
TASK1	20	11/20/2019	11/22/2019	2.00	10.00	6				
TASK2	5	11/20/2019	11/23/2019	3.00	1.67	1				
TASK3	15	11/20/2019	11/24/2019	4.00	3.75	2				
TASK4	20	11/20/2019	11/25/2019	5.00	4.00	3				
TASK5	11	11/20/2019	11/26/2019	6.00	1.83	1				
TASK6	9	11/20/2019	11/27/2019	7.00	1.29	1				
TASK7	8	11/20/2019	11/28/2019	8.00	1.00	1				
TASK8	4	11/20/2019	11/29/2019	9.00	0.44	1				

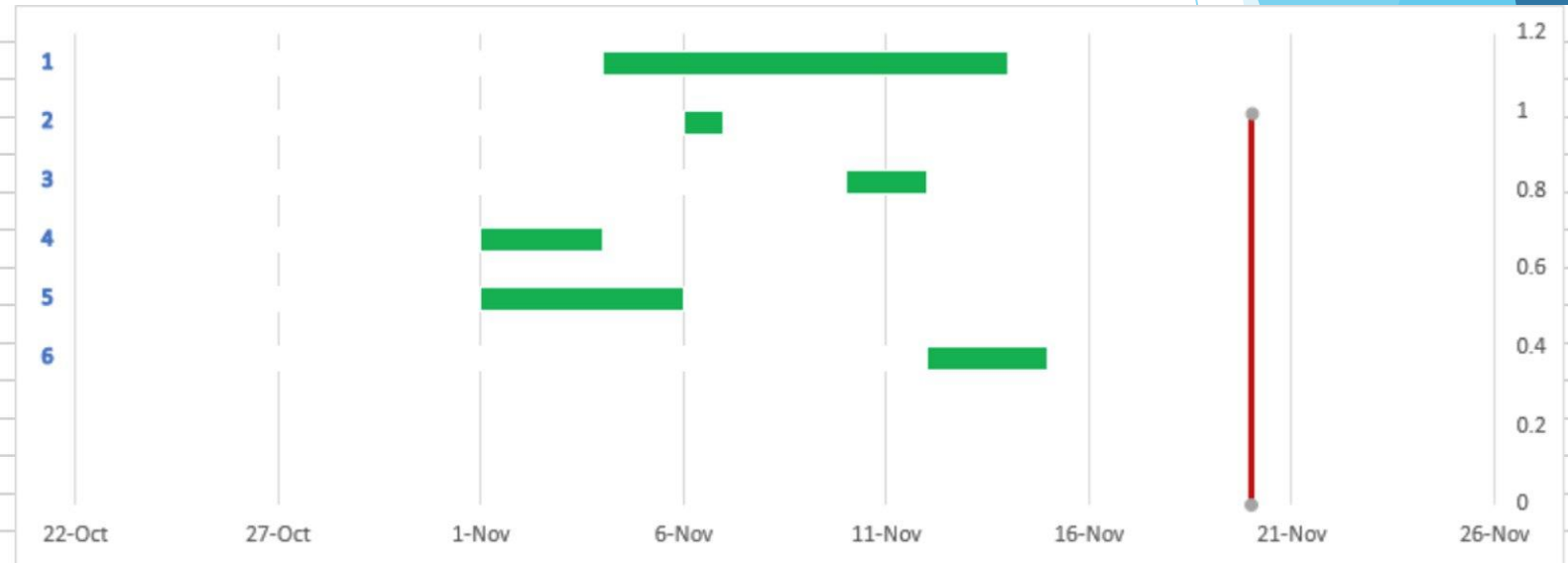|			
FALSE	TRUE	TRUE	FALSE
FALSE	TRUE	FALSE	FALSE
FALSE	FALSE	TRUE	TRUE
FALSE	TRUE	FALSE	FALSE
TRUE	FALSE	TRUE	TRUE

Activities

Start Date	Finish Date	Days Left	Group member n	Checkpoint 1 cor	Checkpoint 2 cor	Checkpoint 3 cor	Checkpoint 4 cor	# Checkpoints do	Total # checkpoi	Progress		Urgency N	STATUS
4-Nov	14-Nov	-6.00	Group	TRUE	FALSE			1	2		50%	-6.00	LATE
6-Nov	7-Nov	-13.00	Anday	TRUE	TRUE	TRUE		3	3		100%	-6.49	LATE
10-Nov	12-Nov	-8.00	Christine					0		#DIV/0!		#DIV/0!	#DIV/0!
1-Nov	4-Nov	-16.00	Kareemah					0		#DIV/0!		#DIV/0!	#DIV/0!
1-Nov	6-Nov	-14.00	Seran					0		#DIV/0!		#DIV/0!	#DIV/0!
12-Nov	15-Nov	-5.00	Sonnelly					0		#DIV/0!		#DIV/0!	#DIV/0!

Gantt Chart

Activity	Start Date	Number of days
1	4-Nov	10
2	6-Nov	1
3	10-Nov	2
4	1-Nov	3
5	1-Nov	5
6	12-Nov	3

DO NOT CHANGE THE VALUES IN THIS BOX

X	Y
11/20/2019	0
11/20/2019	1

Gantt Chart allows for the group members to visualize the progress that needs to be done for each task and at what point in the task completion cycle they should be at

Conclusion

- The decision support tool increases the effectiveness and efficiency of working on a group project

- The tool is easy to follow and user friendly

- Helps alleviate some common issues when working in groups

  - Time management, communication, delegation of tasks etc.