

DETAILS OF A PLAYER WINDOW

The screen shots of player window and details are explained in this document. The player considered here for explaining the entire procedure is the retailer.

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7	4	20	25		55 23	23	2	25	0	0	Done	
8	5	13	15		40 13	13	2	12	0	0	Done	
9	6	30	32		44 17	17	15	5	0	0	Done	
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11	8	12	28		33 20	20	8	30	0	0	Done	
12	9	5	13		43 9	9	4	9	0	0	Done	
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14	11	30	20		40 31	20	-11	25	11	10	Done	
15	12	9	-2		23 21	0	-23	25	23	9	Done	
10	13	20	-3		22 21	0	-24	22	24	20	Done	
18	14	25	15		31 20	15	-10	10	10	10	Done	
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Fig.1.Screen shot of typical player window

Details of Player spreadsheet in Figure 1.

There are 10 columns in player spreadsheet.

Column "A" (Week) - It shows the ongoing week of the game.

Column "B" (Replenishment Quantity) - It shows the quantity received from upstream.

Column "C" (Inventory @ beginning) - It shows total quantity on hand for the particular ongoing week.

Column "D" (Inventory Position) - It shows inventory @ beginning + order placed in previous week

Column "E" (Customer order) - It shows demand that comes from downstream (For retailer the demand comes from customer).

Column "F" (Allocated Quantity) - It is the shipment quantity from upstream to downstream.

Column "G" (Inventory @end) - It shows total quantity on hand at the end of the week.



Supply chain role play game using Google Spreadsheet

Column "H" (Order placed to Wholesaler) - It shows quantity that is considered as demand from downstream to upstream.

Column "T" (Backorder Quantity/Lost Sales) - It shows shortage quantity that is to be fulfilled later or the shortage quantity which could not be fulfilled by the echelon to the downstream.

Column "J" (Done/Empty) - It shows the game status for that week; Whether the player has placed the order or not. "Done means the order has been placed".

By considering all these parameters, the retailer takes decision and place orders to the wholesaler

In Figure 1 the spreadsheet below has 4 tabs.

- > Contact
- ➢ Game
- ➢ Get Information
- > Chat

Details of the Contact tab:

The Contact tab consists of two options

• Give Contact Information: At the beginning of the game the player has to click on this option, one GUI will be appear as shown below and he/she has to enter their email id and mobile number and click on the submit button so that the information provided by the player get saved.



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6	3	0	27	40		10			30	0	0	Done	
7	4	20	25	55	Enter conta Details	ct			25	0	0	Done	
8	5	13	15	40	Email	bittusingh	1348@amail.com	-	12	0	0	Done	
9	6	30	32	44	Linaii.	Dittusingitu	1040@gmail.com	_	5	0	0	Done	
10	7	25	40	45	Mobile Num	ber 8/142/143	13		5	0	0	Done	
11	8	12	28	33	submit				30	0	0	Done	
12	9	5	13	43					9	0	0	Done	
13	10	5	9	18					20	10	0	Done	
14	11	30	20	40					25	11	10	Done	
15	12	9	-2	23	21	0	-23		25	23	9	Done	
16	13	20	-3	22	21	0	-24	<u>.</u>	22	24	20	Done	
17	14	25	1	23	11		-10		16	10	24	Done	
18	15	25	15	31	29	15	-14	6.	22	14	10	Done	
19	16	15	1	23	26	1	-25		23	25	14	Done	
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Fig.2.Screen shot of typical player window with GUI to provide contact details

• Get Contact Information: Click on this option for getting contact details of all players/partners present in the serial supply chain as shown below.

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1	0	60		Player	Email id	Mobile No.		20	C	0 0	Done	
2	0	42		i layer		MODILE 140.		13	C	0	Done	
3	0	27		W/bolosplor	hittusinah0348@amail.co	0/*******		30	C	0	Done	
4	20	25		Distributor	bittusingh0348@gmail.co	vm 0/********		25	C	0 0	Done	
5	13	15		Eactory	bittusingh0348@gmail.cc	um 0//********		12	C	0 0	Done	
6	30	32		1 actory	bittasingnos+o@ginali.co	ATT 34		5	C	0 0	Done	
7	25	40						5	C	0 0	Done	
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Fig.3.Screen shot of typical player window with contact details of other players

Details of the Game tab:

bittusingh0348@gmail.com retailer 2.1BO ☆ 🖿 Comments 💄 Share File Edit View Insert Format Data Tools Add-ons Help Game Get Information Last edit was 12 days ago 🖶 🗠 🗢 📮 💲 % .0_ .00_ 123 - Arial · ζ · ♥ 🖬 🖬 co - |⊊| · + - Ξ - ΞΞ - 10 Play Performance fx Weel в С Graph F G н J Δ 1 1 2 Order placed to wholesaler Replenishment quantity Invento Back Order Inventory @beginning Allocated quantity Inventory @ end Done/Empty Week Customer order position 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 Master -+ ≣ 0

Click on the Game tab in order to view the three listings available

Fig.4.Screen shot of typical player window with Game tab

The three options available in Game tab are:

Play: Clicking on this icon permits the player to place the order to the upstream for • each week. A GUI appears by clicking on to the Play option where a space is provided for each players to enter their decision.





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				Customer Order: 18						
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				Wholesaler		-				
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Fig.5.Screen shot of typical player window for placing order to upstream

 Performance: Performance tab provides the facility to view the performance evaluation of the supply chain. The Player can see the performance during the game. A GUI which shows the different performance measures of the supply chain is shown below in Figure 6.

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	A	в	1	Fill Rate	0.46	0.37	0.53	0.92			L	N
1 2	Week	Replenishm quantity	2	Variance of Order	172.93	248.11	299.43	583.06		tity Done/Er	npty	_
3 4	1		3	Total End Period Inventory	668	1618	1529	2098		0 Done		
5 6	2		4	Variance of Inventory	694.83	1873.41	1401.98	1765.81		0 Done 0 Done		
7 8	5		5	Tota Cost of Supply Chain		652459				0 Done 0 Done		
9 10 11	7			Other Important Information						0 Done		
12	9			other important mornation						0 Done		
14	11		6	Demand Arose	1059	1067	1023	964		10 Done		
15	12		7	Demand Met From Stock	485	391	536	881		9 Done		
16	13		8	Demand Met From Backorder	574	636	456	78		20 Done		
17	14		9	Demand Met	1059	1027	992	959		24 Done		
18	15		10	Total End Period Inventory Cost	3340	6472	4587	2098		10 Done		
19	16		11	Total Backorder Quantity	1243	1219	535	130		14 Done		
20	1/		12	Total Backorder Quantity Cost	12430	9752	3210	260		6 Done		
21	18		13	Total Inventory Cost	15770	16224	7797	2358		11 Done		
	+ ≣ Master	*	14	Total Transportation Cost	200800	241750	167760	0		۲		

Fig.6.Screen shot of GUI indicating performance measures

• Graph: The software also provides the facility for the players to view the order graph of each player present in the supply chain during the game. By clicking on to the Graph icon a GUI will appear as shown below in Figure 7.



Fig.7.Screen shot of Order Graph

Get Information tab:

There are 2 options provided under the get information tab and they are:

• Parameters: The GUI provides information like initial inventory of each player, lead time and cost details.





Fig.8.Screen shot of Game Parameters

Chat:

By clicking on to the chat option the player is able to communicate with the other players on real time basis. There is a space provided in the GUI for the player to enter the text message which he/she wants to communicate with his/her co-player. As soon as the player clicks on to the submit button an email to the corresponding player is send and thus the other player gets notified with the required information or chat message.



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4	20	25		Enter Message: hi				0	0	Done	
5	13	15		⁻ L		11		0	0	Done	
6	30	32		Submit				0	0	Done	
7	25	40	-					0	0	Done	
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17	6	-19	5	4 17	0	-36	13	36	6	Done	
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Fig.9.Screen shot of spreadsheet with chat option