DESCRIPTION & LEARNING OBJECTIVES

The “Whipped Cool” game simulates a supply chain wherein participants compete individually and also in teams!

For every person or component in a supply chain, the value of maximizing customer service and profits is well understood. But the value of taking an integrated approach to managing the entire supply chain is not so obvious and hence rarely practiced. In 1960, MIT developed “The Beer Game”, a role-playing simulation to clarify the advantages of taking an integrated approach to managing the supply chain; which particularly demonstrates the value of sharing information across the various supply chain components. The simulation – “Whipped Cool” – is a realistic, modern and highly customizable version of “The Beer Game”.

The simulation is a simplified supply chain, consisting of a single Restaurant, a single City Manager which supplies the Restaurant, a single Region Manager which supplies the City Manager and a single Factory which makes the product and supplies the Region Manager. Each component in the supply chain has unlimited storage capacity and there is a fixed supply lead time and order delay time between each component. Also, each component has its own selling price, cost price, inventory holding cost and back-order cost.

The simulation is highly customizable as the number of components in the supply chain can be reduced from 4 to 3 by removing the City Manager and information sharing can also be allowed. The vacant places are filled by computer players. Also, selling price, cost price, inventory holding cost, back-order cost, supply lead time and order delay time can all be set at the time of creation of the simulation. The default values are as follows-

Parameter	Factory	Region Manager	City Manager	Restaurant
Name of Downstream Customer	Region Manager	City Manager	Restaurant	People
Time to Receive Order Placed by Downstream Customer	0	0	0	NA
Name of Upstream Supplier	Machines	Factory	Region Manager	City Manager
Time to Receive Order Delivery from Upstream Supplier	1	2	2	1
Purchase Cost	10	15	20	25
Selling Price	15	20	25	40
Inventory Holding Charge	4	3	2	1
Unfilled Order Charge	1	2	3	4
Unfilled Order Remains	Yes	Yes	Yes	No

Order Constraint (in units)	50	100	100	50
Starting Inventory Level	6	8	12	24

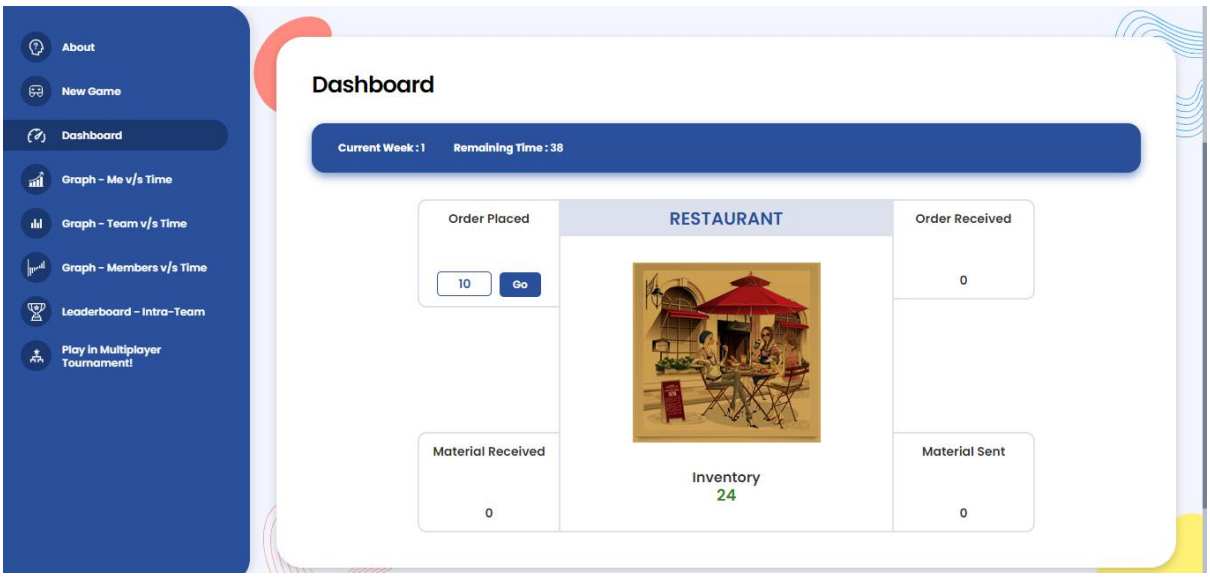
*The demand from Customer at the Restaurant is also customizable and is available with the Instructor. Also, number of weeks to be played can also be set.

DESCRIPTION OF GAME DECISIONS

Each supply chain member orders some amount from its upstream supplier. Depending upon order placement time by respective downstream customer, the order arrives at the supplier. Once the order arrives, the supplier attempts to fill it with available inventory; and then depending upon order delivery time to respective downstream customer, there is an additional delay before the material being shipped arrives.

Each week, each component in the supply chain tries to meet the demand of the downstream component. At each period, each component in the supply chain is charged a certain cost per item of unfulfilled demand. Also, at each period, each component is charged a certain inventory holding cost per item with it. Depending on the tournament setup by the instructor, unfilled orders will remain with some or all the components in the supply chain.

The goal of the Restaurant, City Manager, Region Manager and Factory, is to minimize total cost, individually & for the system.

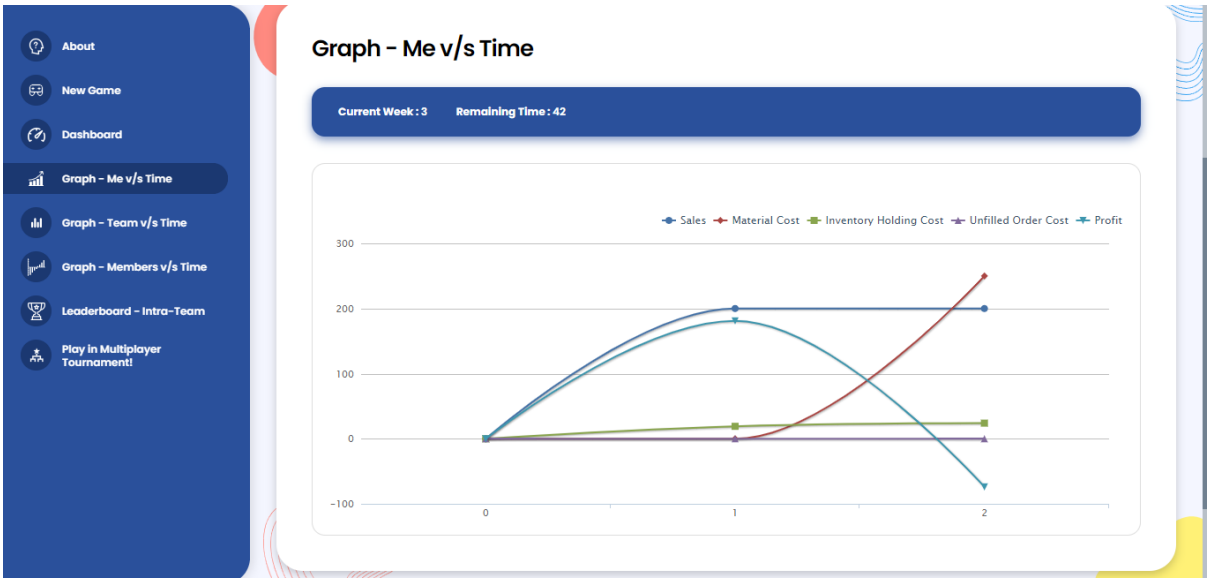


DESCRIPTION OF GAME SCREENS

The screen description is intended to give you a preview of what's in store for you in the game. It is critical to clearly understand the screens here although there is no replacement of in-game practice.

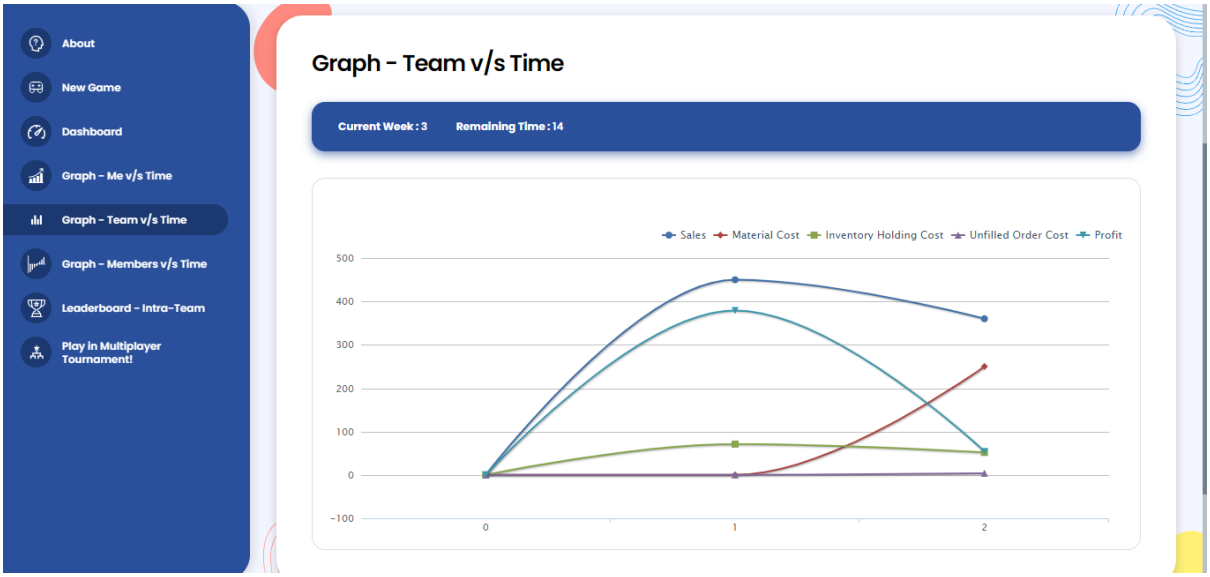
Graph (Me v/s Time)

The graph shows values of Sales, Material Cost, Inventory Holding Cost, Unfilled Order Cost and Profit registered by you in every single time period.



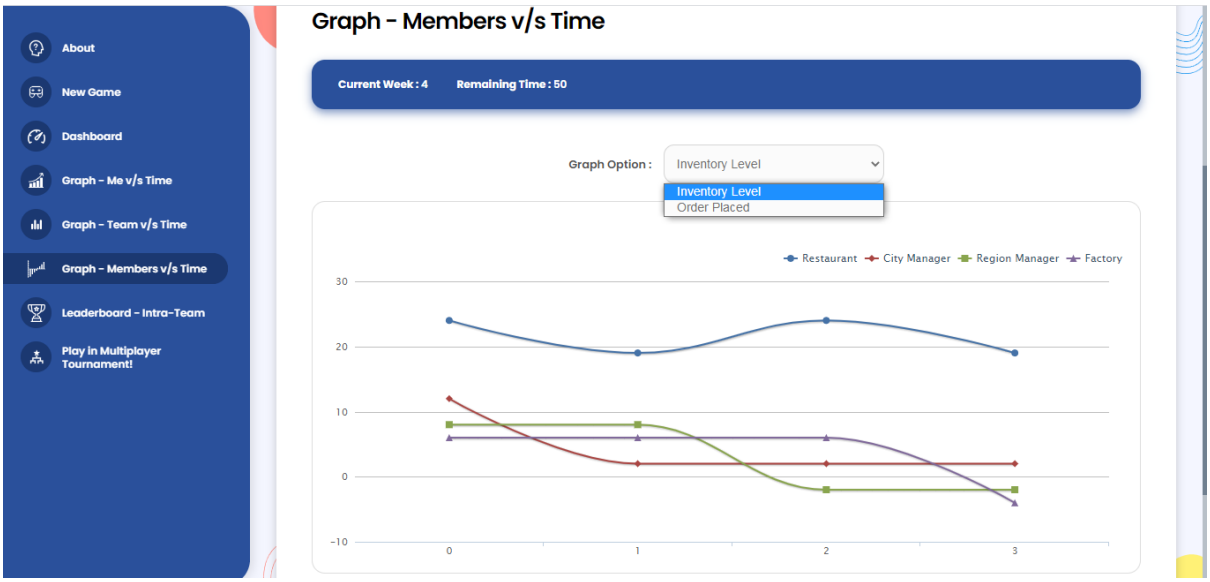
Graph (Team v/s Time)

The graph shows values of Sales, Material Cost, Inventory Holding Cost, Unfilled Order Cost and Profit registered by various competing teams in every single time period.



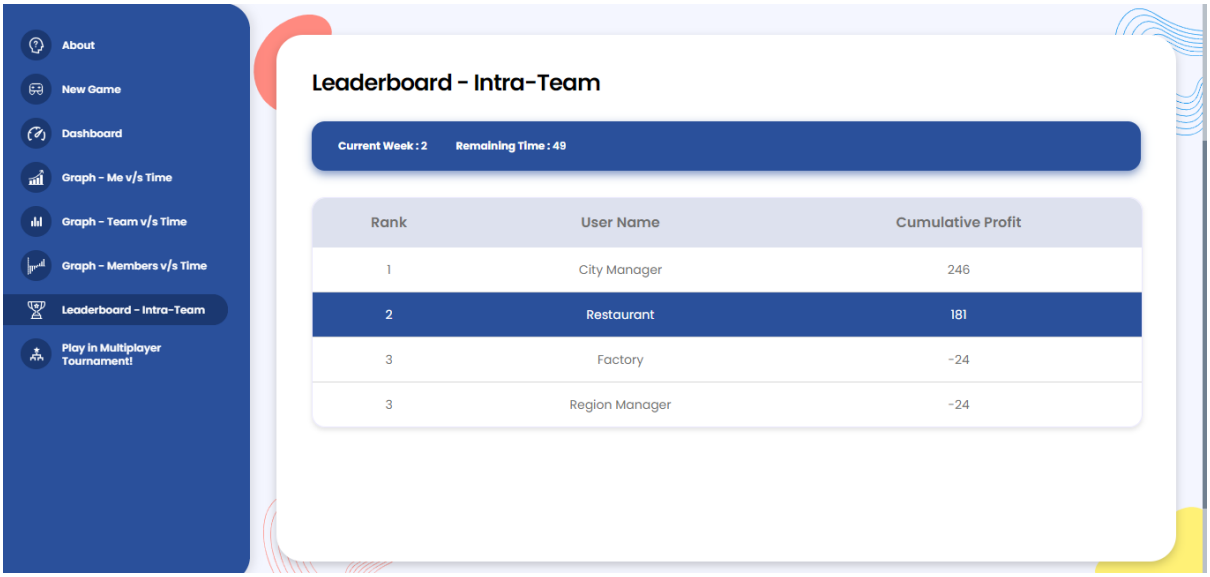
Graph (Members v/s Time)

The graph shows values of Inventory Level and Order Placed by each of your Team Members in every single time period. This screen is available only when Information Sharing is allowed by your instructor.



Leaderboard – Intra-Team

The page will display all the team members in descending order of cumulative profits.



Leaderboard – Inter-Team

The page will display all the teams in descending order of cumulative profits. This screen is available only in Tournament.