

## **Individual Assignment 1: Supply Chain Simulation Assignment**

10 POINTS MAX

### **Objective:**

This assignment simulates a beer supply chain with four roles: Retailer, Wholesaler, Distributor (Supplier), and Factory. You will work in a group of 4, with each member assigned a specific role. The objective is to fulfill customer demand efficiently by accurately forecasting and communicating orders throughout the supply chain. After the simulation you will individually analyze your own performance and report the outcomes using the instructions below.

### **Assignment Description:**

- The simulation is played using a web based simulation
- The lecturer will share the URL for the simulation at the start of class
- Each student selects a single role: Retailer, Wholesaler, Distributor (Supplier), or Factory.
- Each round represents a specific time period (e.g., week).
- At the beginning of each round, review customer demand from downstream customer.
- To complete the round place an order to the upstream partners in the supply chain.
- Complete at least 50 periods of the simulation.
- Write a 1 page report using the instructions below.

### **Report Requirements:**

The one page report should be clearly separated into two parts, the first will analyze the outcomes of the simulation and the second will make a prediction about how the game will change if a new variable is introduced.

- A. Briefly explain what transpired in your assigned role during the simulation. Did you experience stockouts? Did you overstock? You may include 1-2 screenshots of any relevant data from the game. Discuss one or two ways your performance could have been improved. (e.g., better forecasting methods, earlier order placement).
  
- B. Then predict the potential impact of increasing the number of retailers from 1 to 3. Discuss both threats and opportunities associated with increasing the number of retailers. How might this affect demand variability, lead times, and overall supply chain efficiency?

**Note:** Points are not awarded on game performance but on quality of analysis and reflection.

### **Submission:**

The report should be submitted as a single PDF document by the specified due date.