# **Project 1**

# **Assignment 1**

# **Database Systems**

**NAME : VINAY BATHULA**

**STUDENT ID : L30080730**

**SCHOOL : LEWIS UNIVERSITY**

**PROFESSOR : MATTHEW CLAVELLI**

**GITHUB URL : https://github.com/VinayBathula4999/database\_system**

**SQL ENV : MATTHEW CLAVELLI**

My company, [XYZ], is a custom home builder with approximately 50 employees. We have offices in two cities: Arora and Naperville. Our supply chain consists of the following:

* **Raw materials:**
* Lumber: We source lumber from two suppliers, Weyerhaeuser Lumber and Georgia-Pacific Lumber.
* Drywall: We source drywall from two suppliers, United States Gypsum and National Gypsum.
* Windows: We source windows from two suppliers, Pella Windows and Andersen Windows.
* Manufacturing: We manufacture our homes in a factory located in Arora.
* Distribution: We ship our homes to customers throughout the United States.

Our website allows customers to select various designs of the home they want to build. After they log in to our site, they can place an order. This order checks the database for the appropriate materials and schedules the home for construction.

The webserver is the 'front end' of the company. Clients begin their connection with the webserver. Connections from the webserver are filtered with an external firewall.

The application server goes inside the company network and contains most standard applications including serving the API's to the website. Fortunately, the firewall is configured to allow those API's to go through.

The email server and employee server likewise are inside the company network. The employee server branches out to a LAN where internal clients connect. There are two clients connected to the LAN.

The IDS/IPS machine is a protection device that connects all of the tiers together. It provides protection against intrusions and other network attacks.

The DBMS server and database itself are well-protected inside the network. They are behind the IDS/IPS layer which provides a lot of protection.