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Pizza Supreme

Scenario

A large pizza business makes pizzas and sells them. The pizzas are manufactured and kept in cold storage for not more than two weeks. The business is split into a number of functional units. There is Production Control, Manufacturing, Stores, Accounts, Sales, Shipping and Purchasing. Production Control are responsible for organising which pizzas to produce in what order and in what quantity. They need to schedule the production of the pizzas according to the current and expected sales orders together with the number of pizzas already in Stores. Manufacturing take the raw materials from the Stores and manufacture pizzas returning the completed goods to the Stores. Accounts deal with the payments for the pizzas when delivered to the customer and the payment to the suppliers of the raw materials. Sales deal with customer orders whilst Purchasing organise the buying of raw material from suppliers. Shipping manage the packing and delivery of the goods to the customer with a delivery note. When a sales order is received by sales they record what is being ordered and by whom. They also record the details of the expected date of delivery. Production Control access this information and make sure that, if required, pizzas are produced by Manufacturing and are ready in Stores for when the delivery needs to be made. After the delivery is made Accounts make sure that the customer receives an invoice and that payment for the invoice is received at which time a receipt is issued. Purchasing look at the current stock of raw materials and by using current stock levels, supplier turn around times and quantity to be ordered decide what needs to be ordered on a daily basis. Their aim is never to run out of an ingredient but to minimise the amount of raw material kept in stock.

Functional Requirements:

1. Customers

- a) Create a new order.
- b) Customize a pizza by:
 - i. View a list of available ingredients.
 - ii. Add an ingredient to a custom pizza.
 - iii. Remove an ingredient from a custom pizza
 - iv. Get graphical feedback from selected ingredients. A photo of a pizza will contain the newly selected ingredient combined with previously selected ingredients.
- c) Add a custom pizza to an order.
- d) Change the amount of a custom pizza.
- e) Delete a custom pizza from an order.
- f) See the total price of an order.
- g) Choose a delivery date and time that is up to two weeks ahead.
- h) Add the name and address of the customer
- i) Clear the current order to start a new one.
- j) Confirm the order.

2. Employees

- a) Log in and out.
- b) View a list of available orders and their custom pizzas.
- c) Mark order as “prepared”.
- d) Mark order as “delivered”.
- e) Mark order as “failed to deliver”.

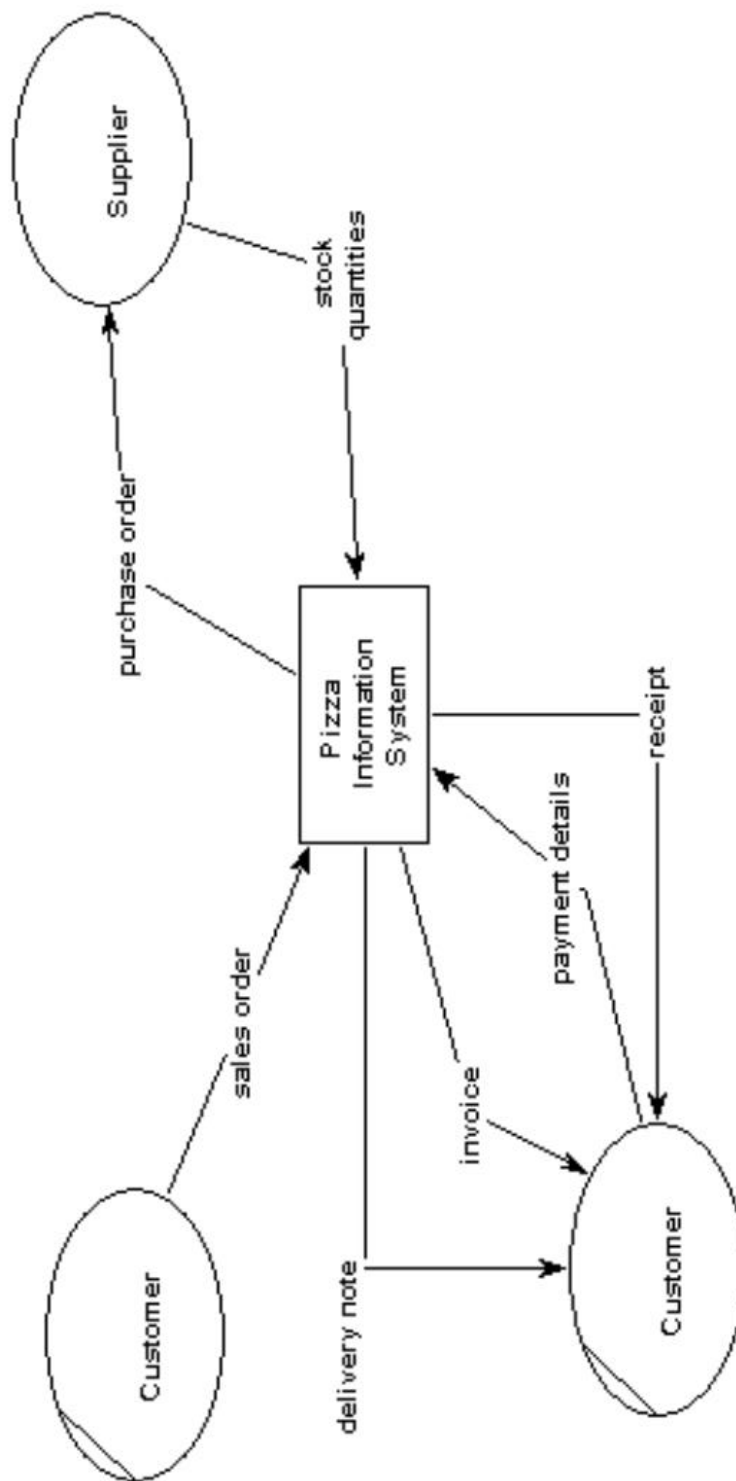
3. Administrators

- a) Log in and out.
- b) Add/delete/edit orders.
- c) Add/delete/edit ingredients.
- d) Add/delete/edit other users.
- e) View an order log.

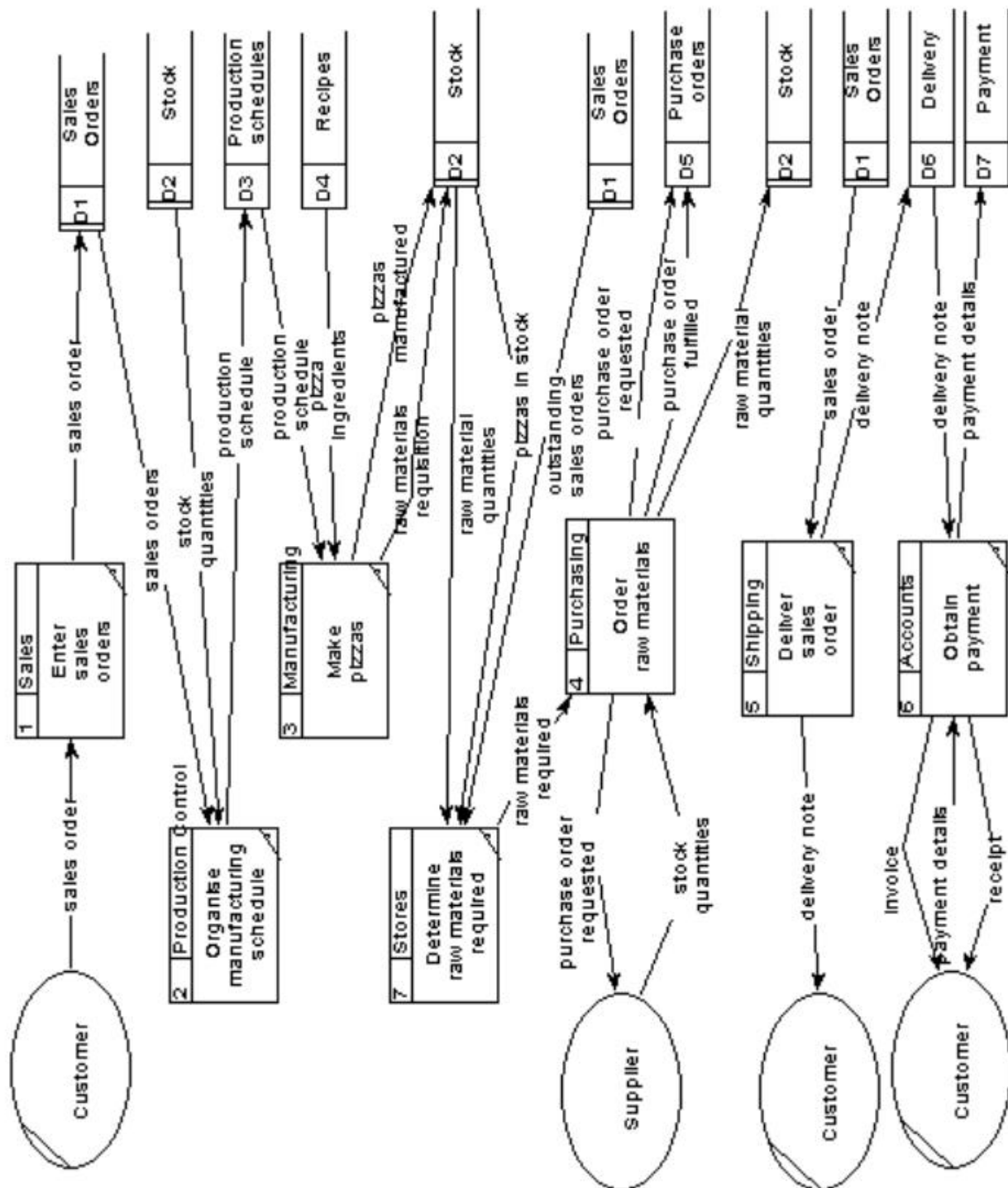
Non-functional requirements

1. Run the system as a database with a website as user interface (operational requirement).
2. Access the system 24 hours a day, seven days a week (performance requirement).
3. Response in a low response time, preferably shorter than second, with a maximum of five seconds.
4. View order logs which could have a higher response time (of seconds) as the log increases in size over time.
5. Due to the low complexity of the system, no problems with response time are expected.
6. Issue a sessionID for customers for their visit, which is used to identify them while using the system.
7. Store a timestamp for every action customers take. From time to time a service on the server will scan sessionID's and timestamps.
8. Delete SessionIDs which have not been active for more than three hours and delete their corresponding ordering information.

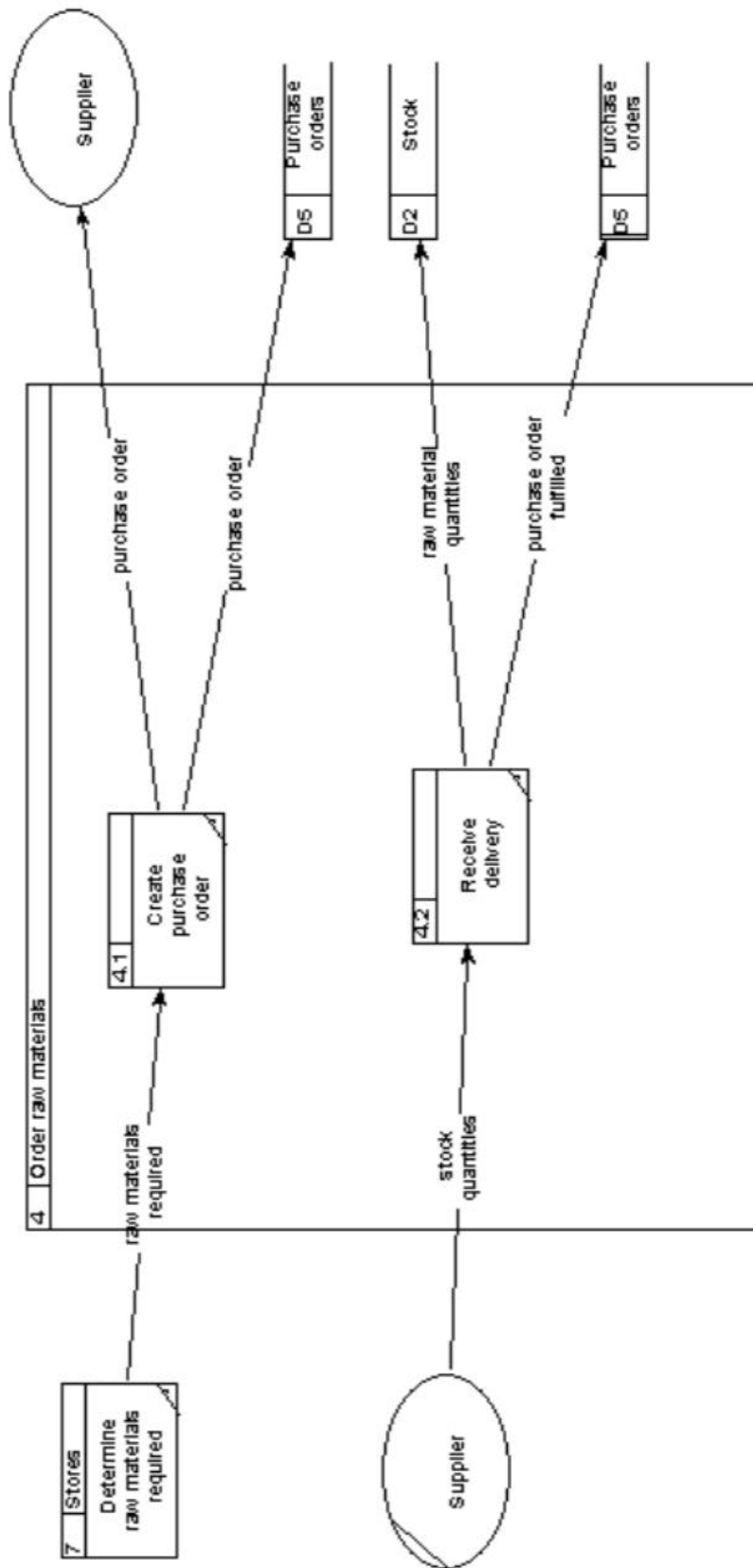
Context Diagram



Level 1



Level 2 for Process 4



Entity Relationship Diagram (ERD)

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