

Architecture and agent definition Multiagent and Agent System

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1 Architecture

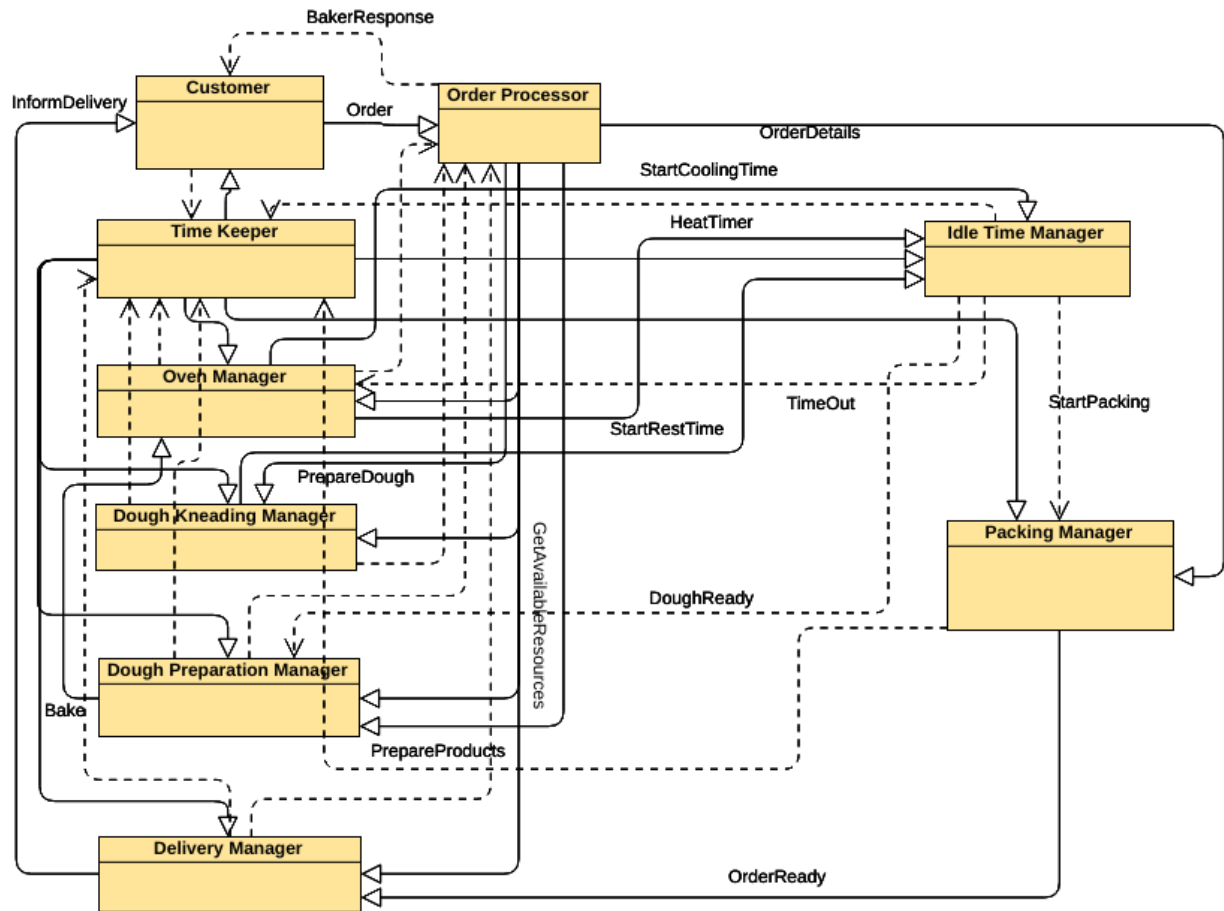


Figure 1: Architecture diagram explaining the interaction between customer and bakery agents

2 Agent descriptions

2.1 Customer

- **Stage:** Order
- **Agent/Object:** Agent
- **Static/Dynamic:** Static
- **Behaviour:** PlaceOrder
- **Messages in:**
 - Proposal (Sender: OrderProcessor)
 - RejectCFP (Sender: OrderProcessor)
 - RejectOrder (Sender: OrderProcessor)
- **Messages out:**
 - RequestProposal (Receiver: OrderProcessor)
 - OrderPlacement (Receiver: OrderProcessor)

2.2 Order Processor

- **Stage:** Order
- **Agent/Object:** Agent
- **Static/Dynamic:** Static
- **Behaviour:** CFPServer, OrderServer
- **Messages in:**
 - RequestProposal (Sender: Customer)
 - OrderPlacement (Sender: Customer)
- **Messages out:**
 - Proposal (Receiver: Customer)

- RejectCFP (Receiver: Customer)
- RejectOrder (Receiver: Customer)
- OrderInfo (Receiver: PackagingManager)

2.3 Oven Manager

- **Stage:** OrderProcessing
- **Agent/Object:** Agent
- **Static/Dynamic:** Static
- **Behaviour:** TBD

2.4 Dough Kneading Manager

- **Stage:** OrderProcessing
- **Agent/Object:** Agent
- **Static/Dynamic:** Static
- **Behaviour:** TBD

2.5 Idle Time Manager

- **Stage:** OrderProcessor
- **Agent/Object:** Agent
- **Static/Dynamic:** Static
- **Behaviour:** TBD

2.6 Dough Preparation Manager

- **Stage:** OrderProcessing
- **Agent/Object:** Agent
- **Static/Dynamic:** Static

- Behaviour: TBD

2.7 Packaging Manager

- Stage: OrderProcessing
- Agent/Object: Agent
- Static/Dynamic: Static
- Behaviour: TBD

2.8 Delivery Manager

- Stage: Delivery
- Agent/Object: Agent
- Static/Dynamic: Static
- Behaviour: TBD

2.9 Time Keeper

- Stage: Order, OrderProcessing, Delivery
- Agent/Object: Agent
- Static/Dynamic: Static
- Behaviour: TBD

2.10 Order

- Stage: Order
- Agent/Object: Object
- Static/Dynamic: Dynamic

2.11 Truck

- **Stage:** Delivery
- **Agent/Object:** Object
- **Static/Dynamic:** Static

2.12 Product

- **Stage:** Order, OrderProcessing, Delivery
- **Agent/Object:**
- **Static/Dynamic:**

2.13 Location

- **Stage:** Delivery
- **Agent/Object:** Object
- **Static/Dynamic:** Dynamic

2.14 StreetNetwork

- **Stage:** Delivery
- **Agent/Object:** Object
- **Static/Dynamic:** Static