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Nobl9

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Food for Thought: What Restaurants Can Teach Us About Reliability

Food Service is Very Old



Restaurants in China - 12th Century



Sobrino de Botín - 1725

BOTÍN

GALDOS
RECORDO ESTE
RESTAURANTE EN
FORTUNATA Y JACINTA
LA CAMARA DE COMERCIO
E INDUSTRIA
MADRID - V - 1974

HORNO
DE
ASAR

CUCHILLEROS
17

RESTAURANTE SOBRINO de BOTIN HORNO de ASAR CUCHILLEROS 17

RESTAURANTE
BOTIN
Tfno.- 91 60 42 17

HORNO DE ASAR



People learn over time and
we can learn from each
other.



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A Feast with Friends



What Can Go Wrong?



Wrong Order



Badly Cooked

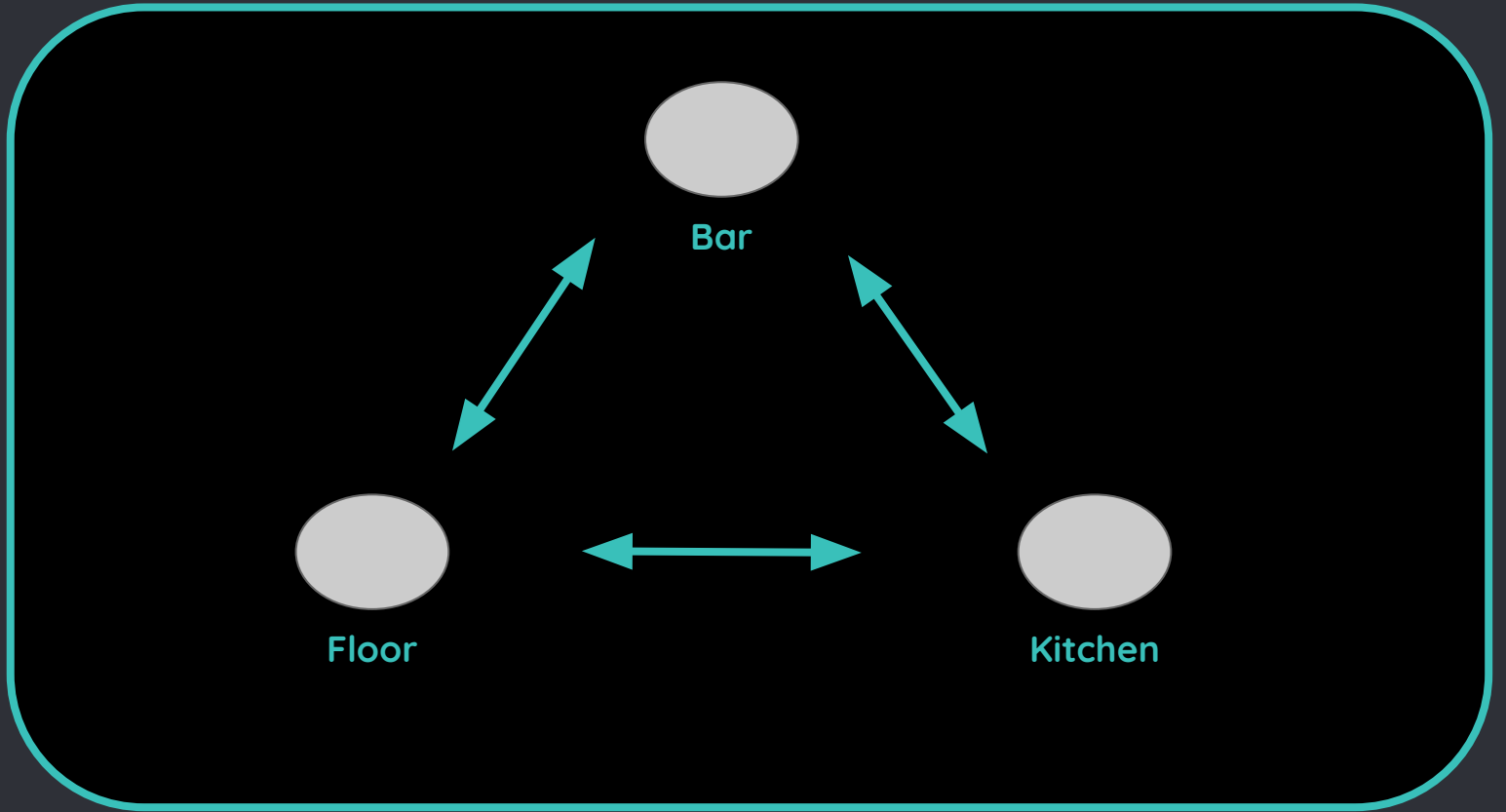


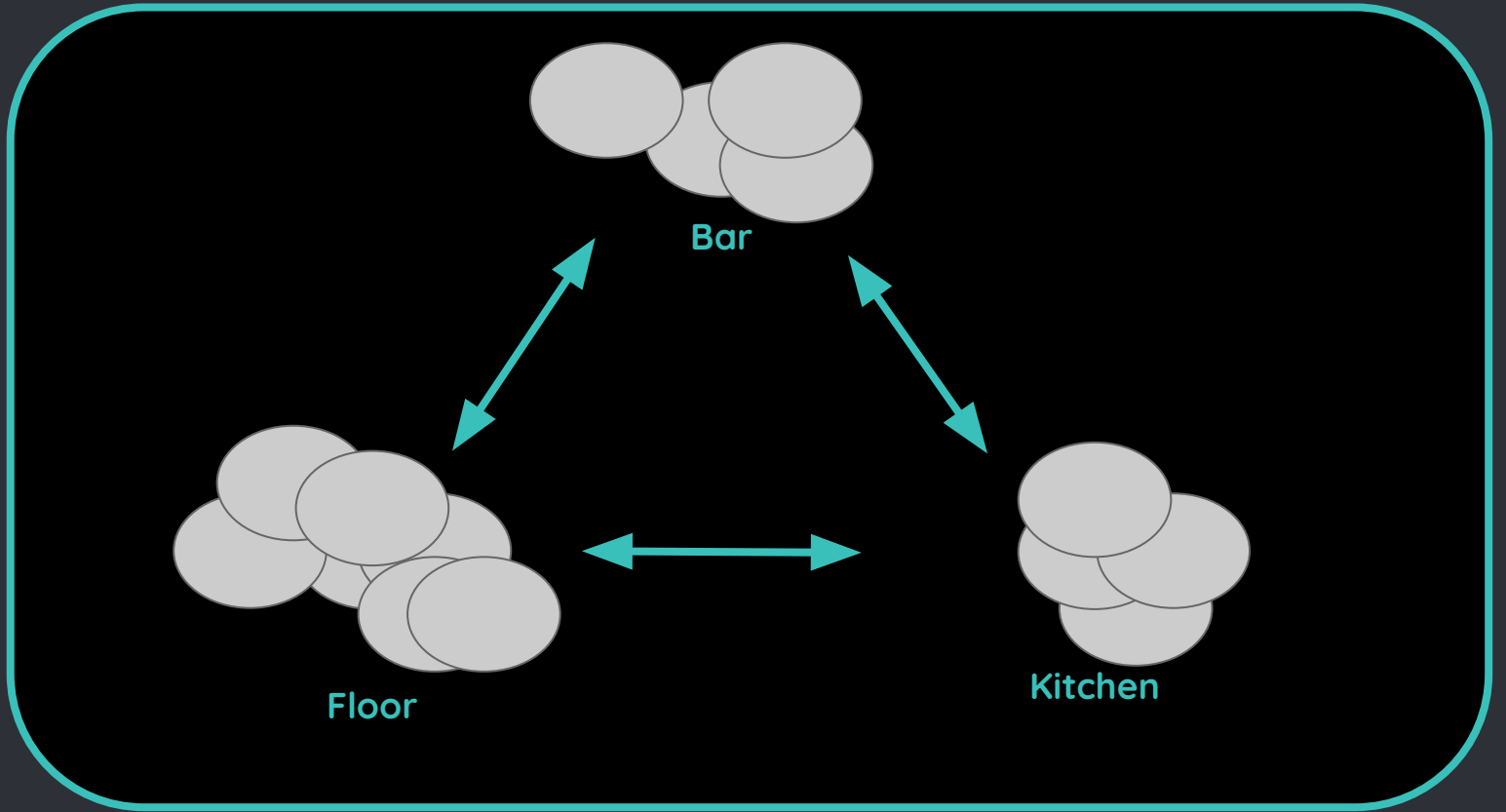
Incorrect Bill

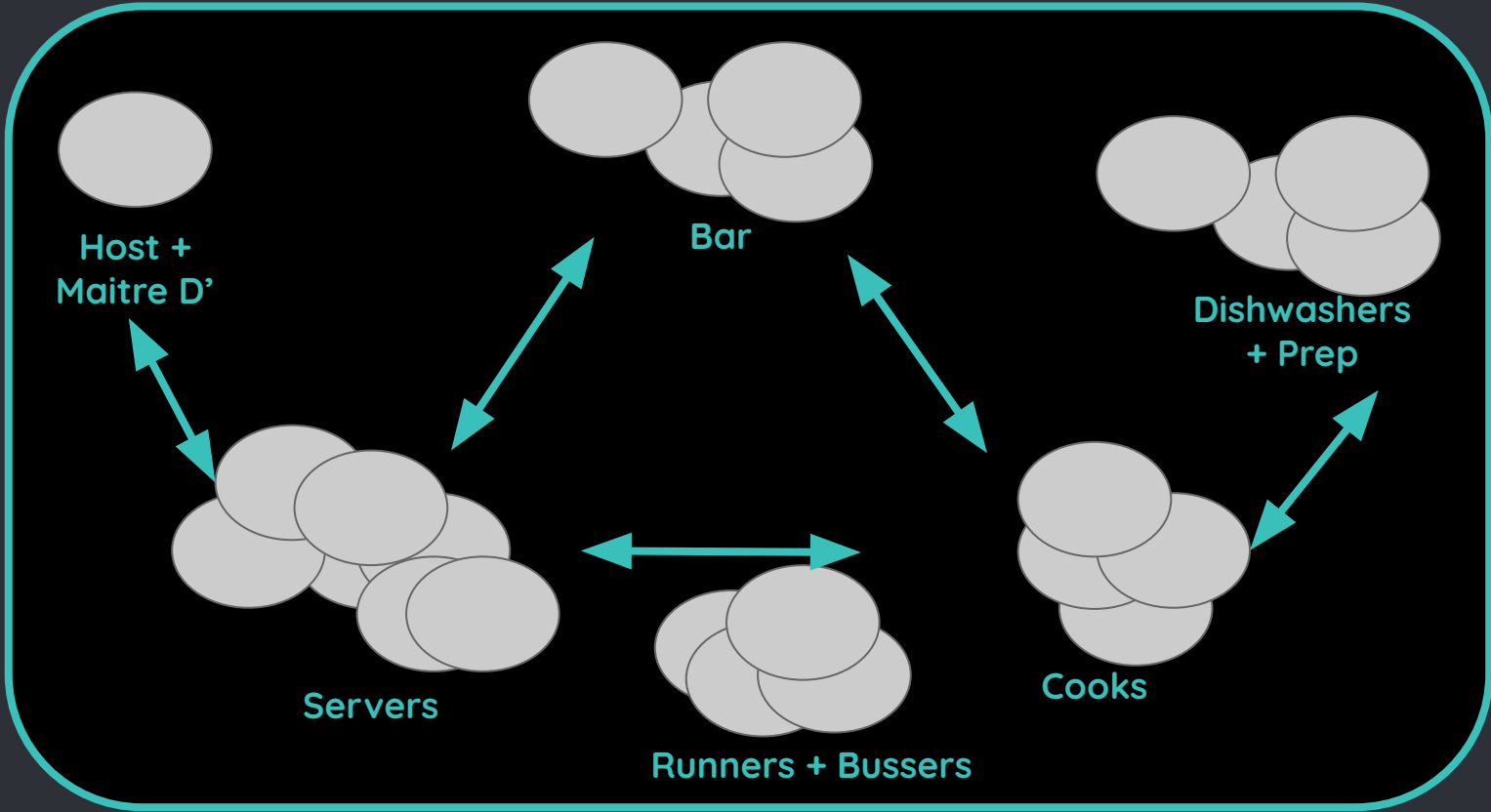


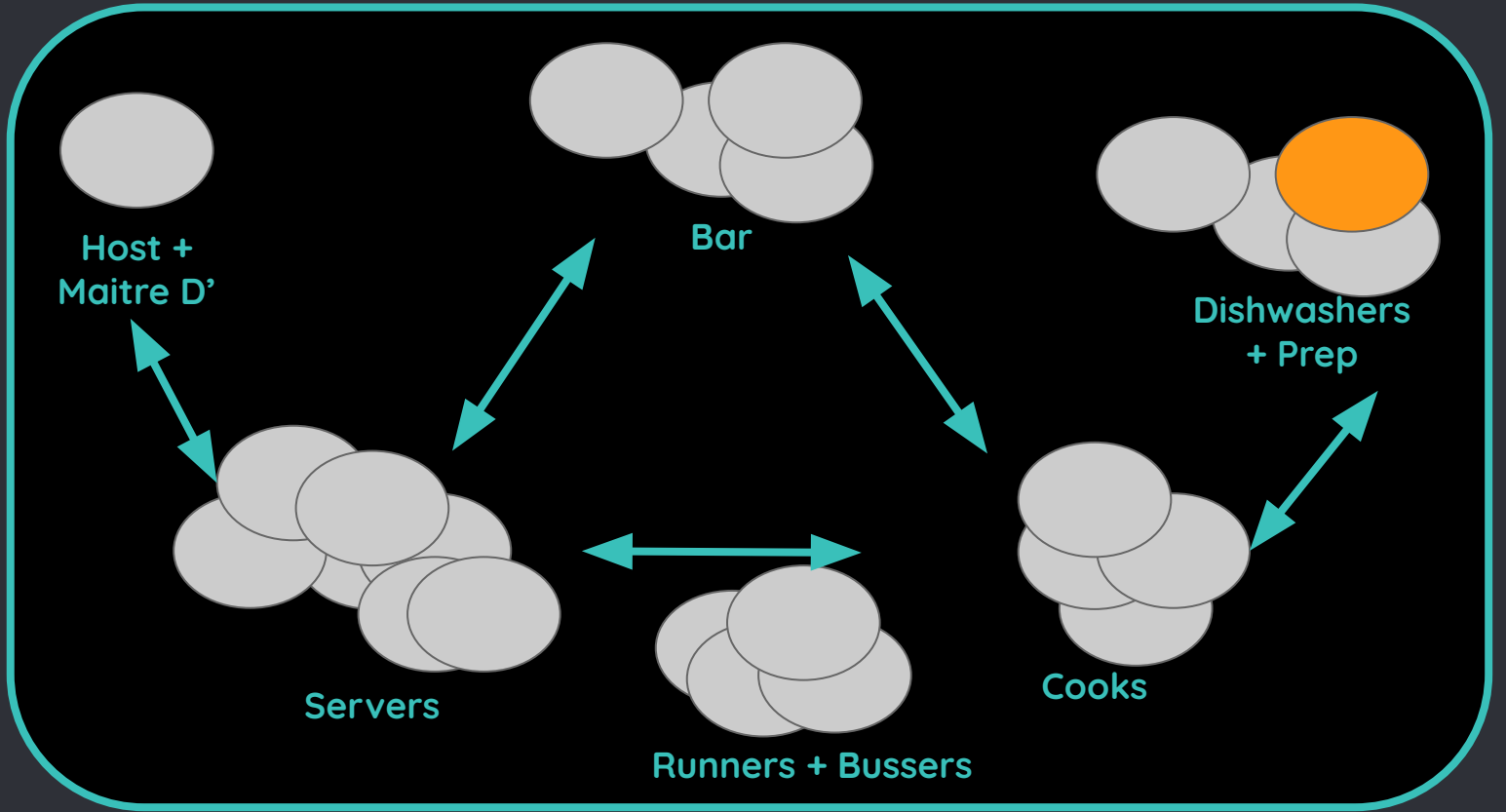
Good Restaurants are Reliable









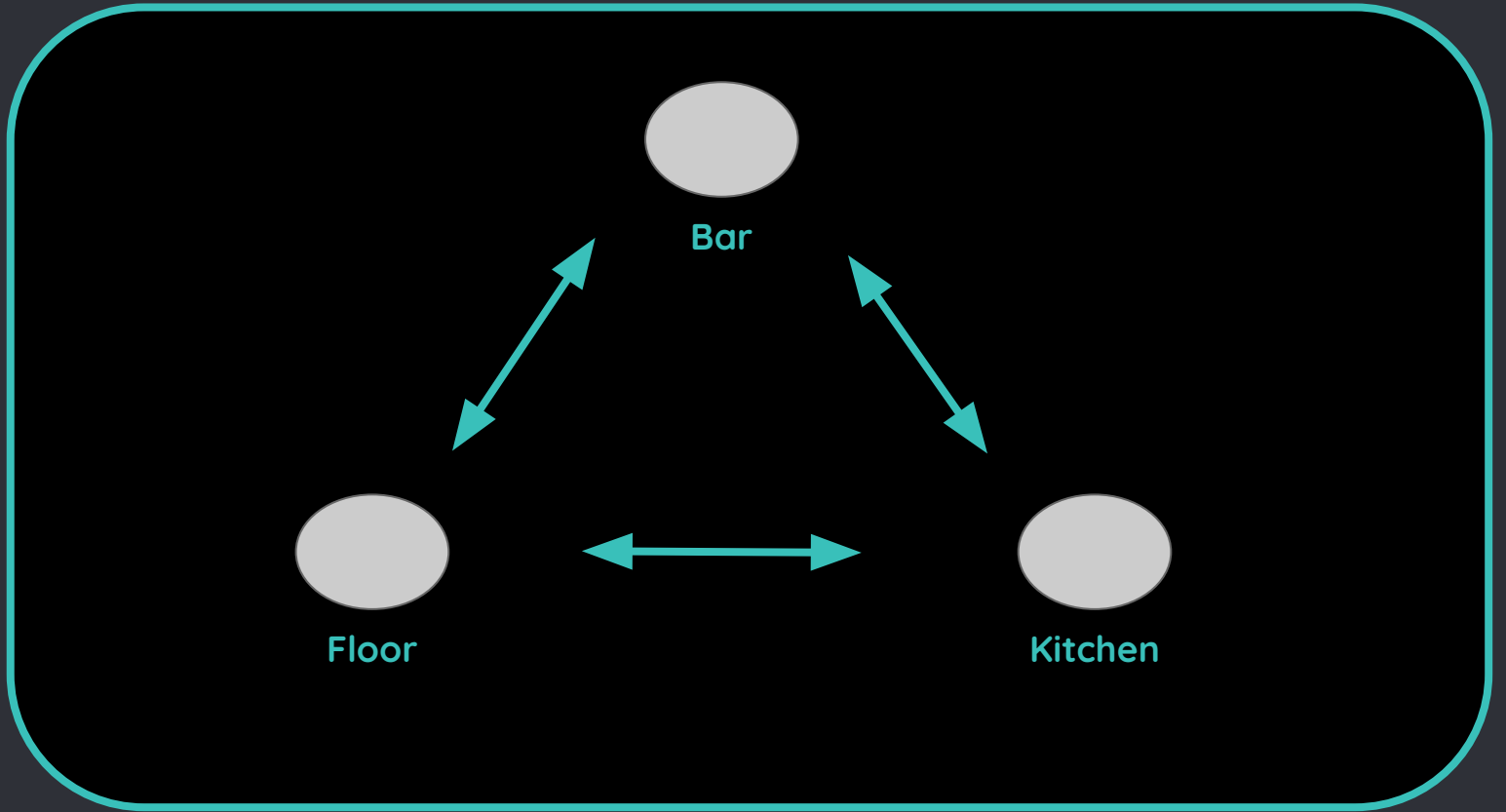


An overhead view of a group of people sitting around a wooden table in a restaurant, eating a meal. The table is set with various dishes including a burger, a crab, a steak, a sandwich, and dumplings. The text "Complex Systems are Everywhere" is overlaid in the center in a bold, orange font.

Complex Systems are
Everywhere



Restaurants are complex systems made up of component complex systems.



● The Floor

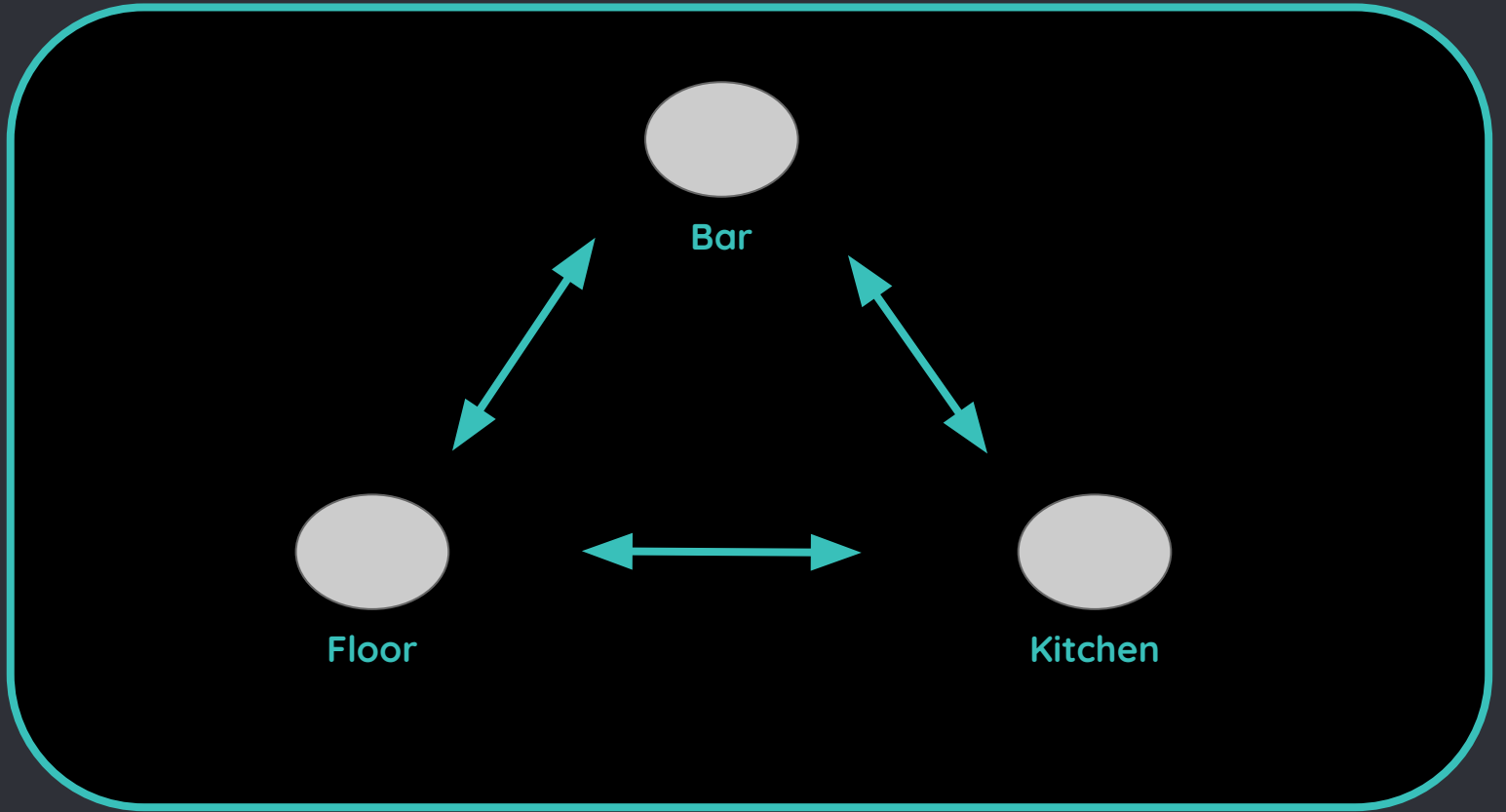
- Primary interaction for most customers
- Takes requests and fulfills them
- Has dependencies on the bar and the kitchen

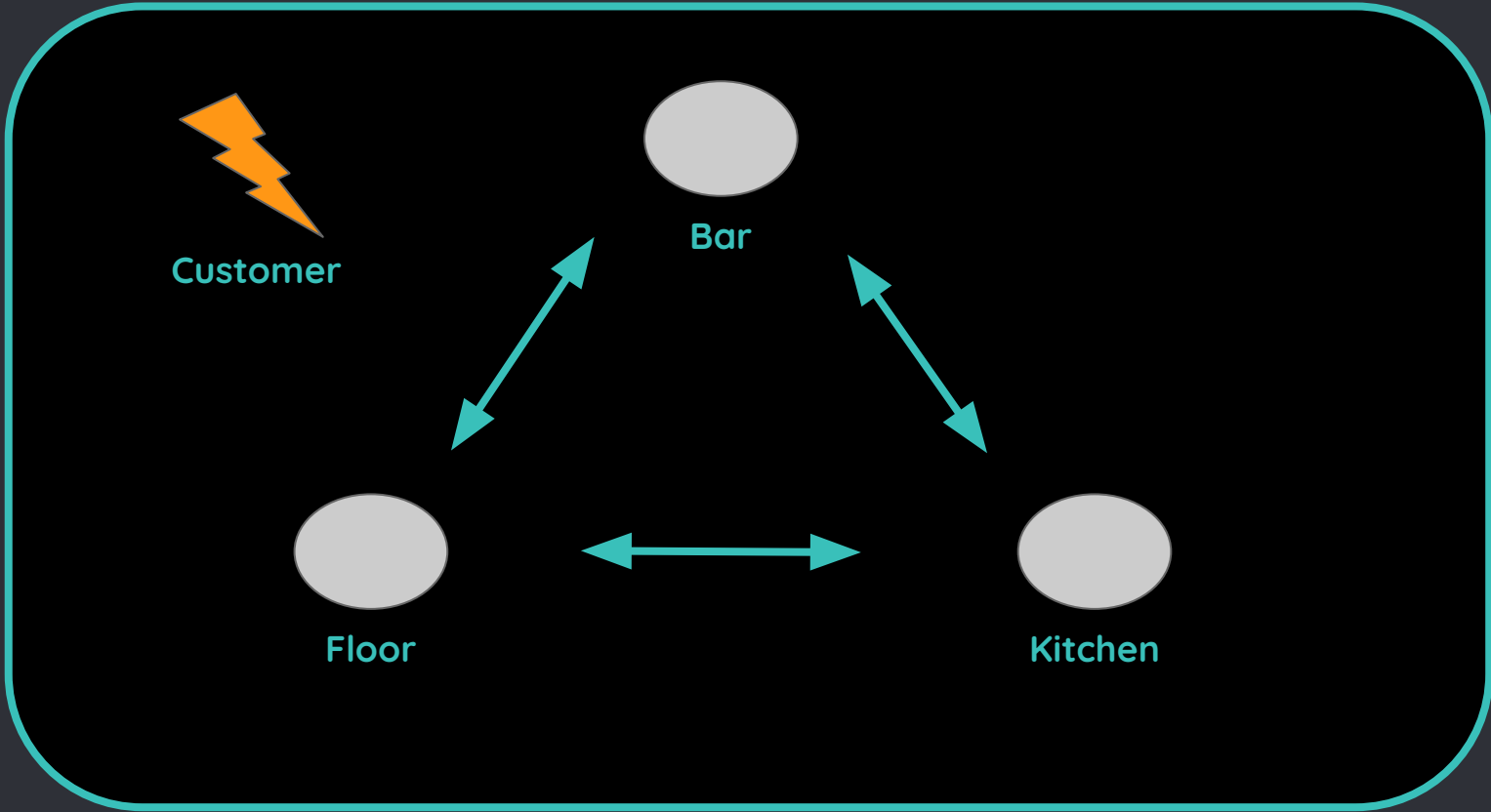
● The Bar

- Primary interaction for some customers
- Secondary interaction for others
- Often required for the floor to operate
- Soft dependency on the kitchen

● The Kitchen

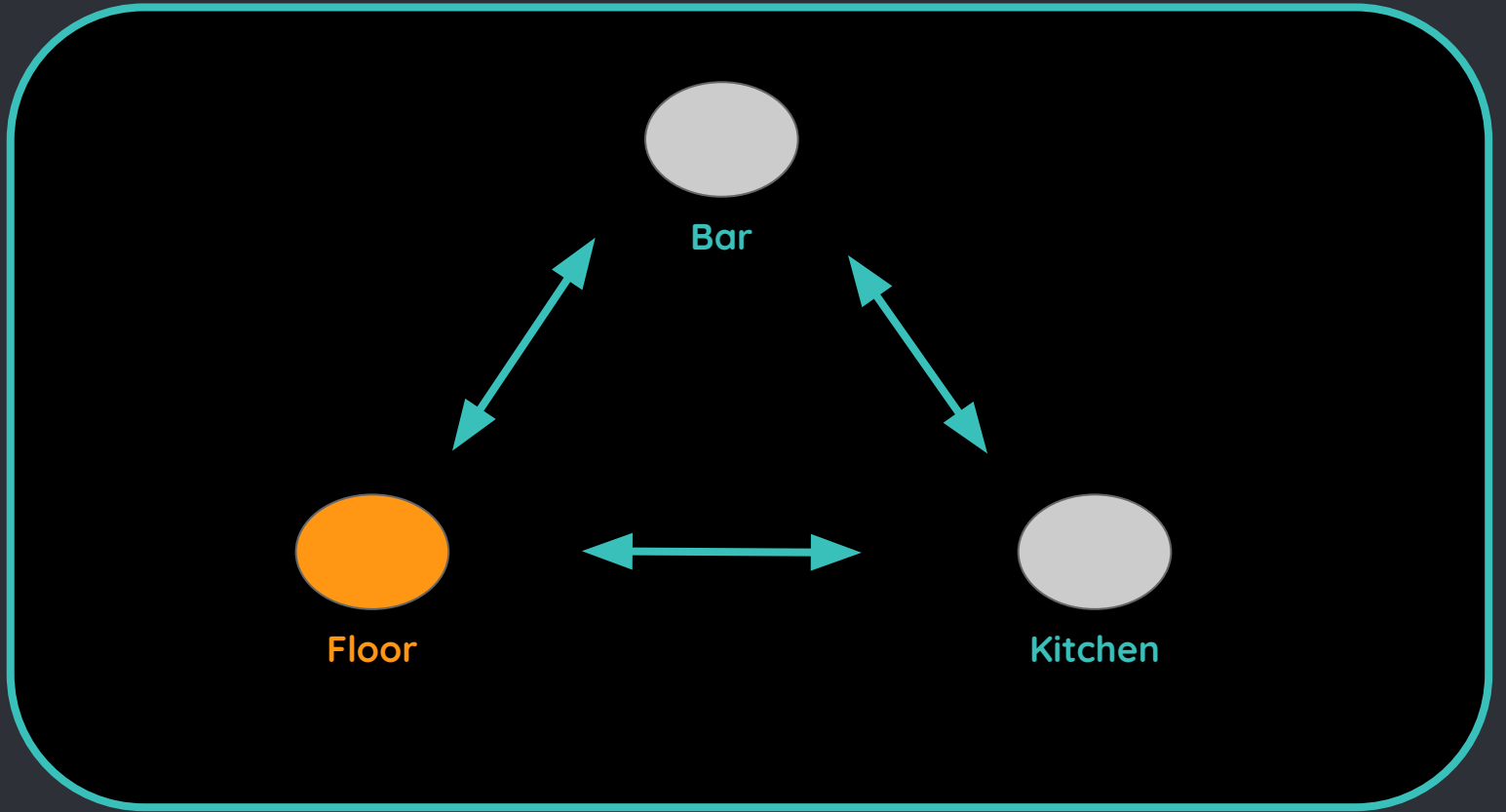
- No direct customer interaction
- Most important backing service
- Always required for the floor to operate
- Sometimes required for the bar to operate







How Things Fail at Restaurants



Service Problems



Failures on the Floor

- Food delivered late
- Badly cooked food
- Wrong food brought out
- Instructions not followed

● Food Delivered Late

○ Problem:

- Food takes longer than customer requirements

Equivalence:

- Latency

● Food Delivered Late

○ Solution:

- Hire more kitchen staff
- Hire runners
- Seat better number of customers per section

● Food Delivered Late

○ Solution:

- Hire more kitchen staff (*resources*)
- Hire runners (*routing service*)
- Seat better number of customers per section (*load balancing*)

● Badly Cooked Food

○ Problem:

- Food is not acceptable

Equivalence:

- Errors

● Badly Cooked Food

○ Solution:

- Hire more staff
- Simplify recipes
- Remove difficult dishes

● Badly Cooked Food

○ Solution:

- Hire more staff (*resources*)
- Simplify recipes (*refactoring*)
- Remove difficult dishes
(*deprecation*)

● Wrong Food Brought Out

○ Equivalence:

- Data correctness

Solution:

- Hire an expediter

Wrong Food Brought Out

Equivalence:

- Data correctness

Solution:

- Hire an expediter (*verification*)

● Instructions Not Followed

○ Equivalence:

- Bug

Solution:

- Fix the dish ASAP

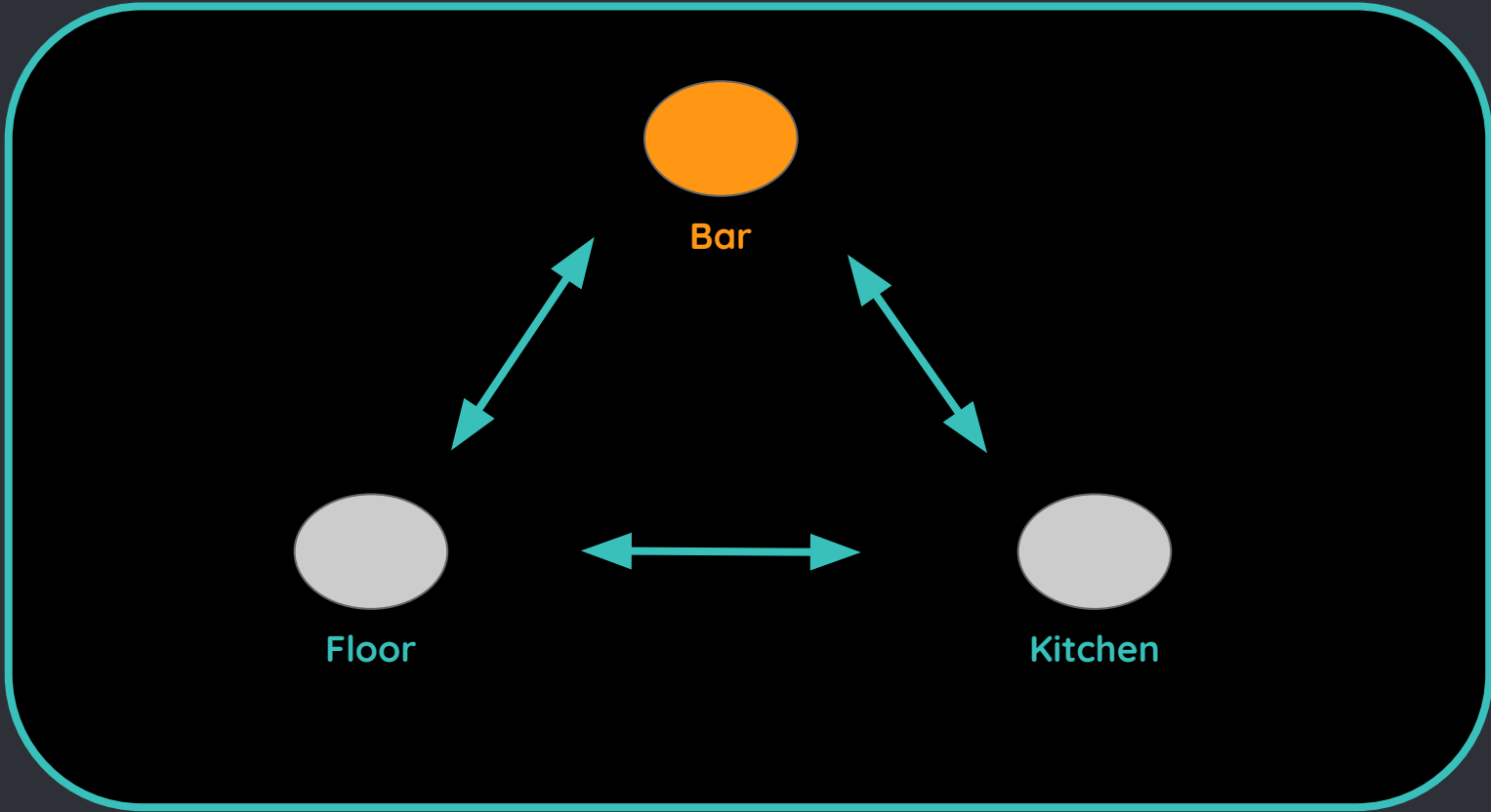
● Instructions Not Followed

○ Equivalence:

- Bug

Solution:

- Fix the dish ASAP (*quick feedback loops and releases*)



Complexity Problems

A close-up photograph of a bartender in a dimly lit bar, pouring a drink from a metal shaker into a glass. The bartender is wearing a dark shirt and has their hair pulled back. The background is filled with shelves of bottles and warm, bokeh-style lighting. The text 'Complexity Problems' is overlaid in a bold, orange, sans-serif font across the upper middle of the image.

● The Bar vs The Floor

- Requests are ad-hoc
- Ambiguous load requirements
- Latency requirements stricter
- Primary data source

Failures at the Bar

- Drinks made late
- Wrong drink mixed
- Customers greeted/served late
- Customers not consulted correctly

● Multiple User Classes

- Servers
- Direct Customers

Multiple Direct Customer Classes

- Beer/Wine
- Simple Mixed Drinks
- Advanced Mixed Drinks
- Non-alcoholic Drinks

Serving Complex Needs

A vibrant, low-angle shot of a bar scene. In the foreground, a hand holds a glass of beer with a thick head of foam. A splash of golden beer is captured mid-air, creating a dynamic focal point. In the background, several people are smiling and raising their glasses in a toast. The lighting is warm and bokeh-filled, with vertical light tubes and blurred background lights. The overall mood is festive and social.

Beer/Wine Drinkers

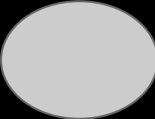
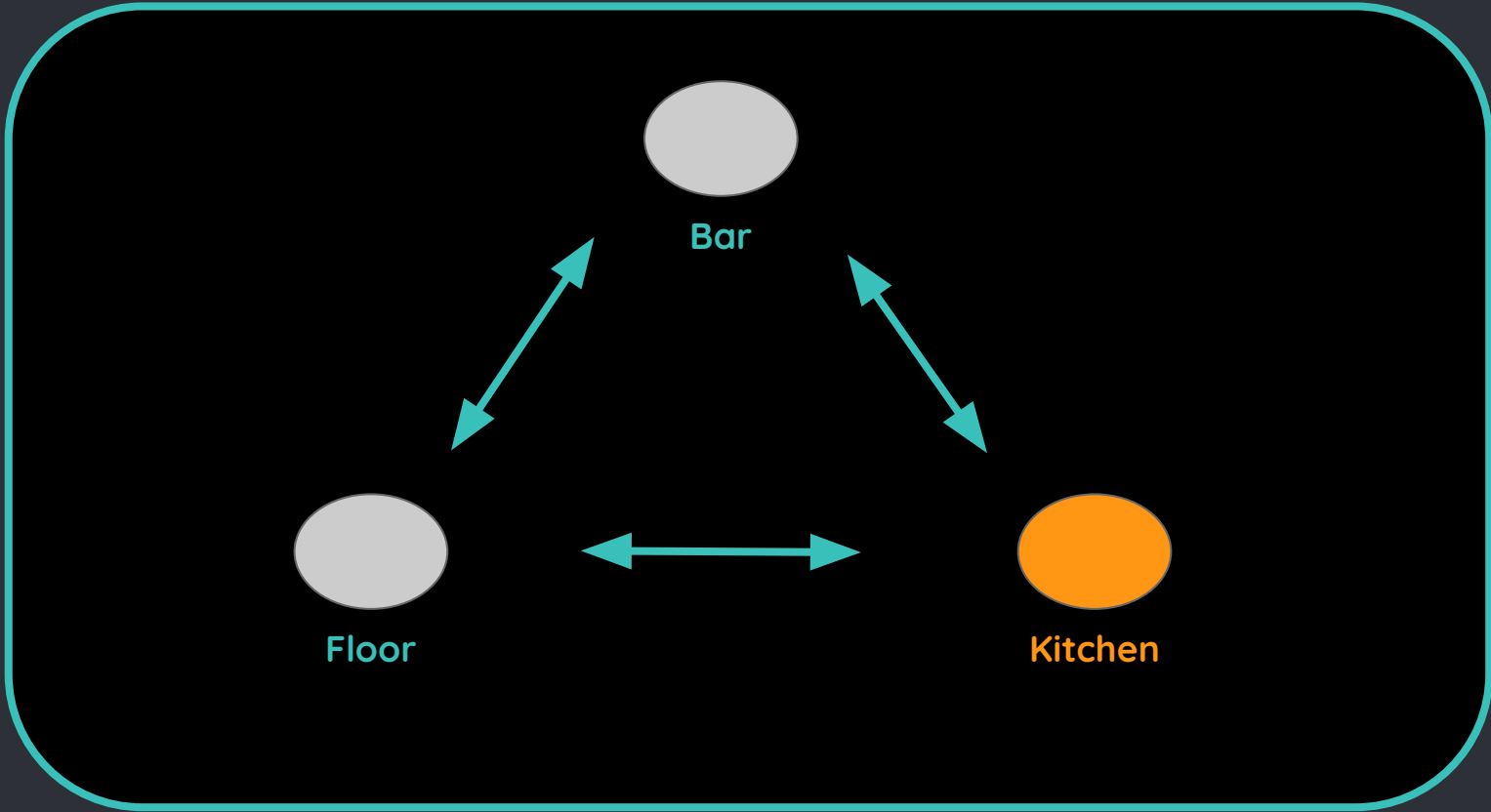
- Basic imbibers
- Experts
 - What kind of sours do you have?
 - What would you recommend to go with the fish special?
 - QoS is important

Mixed Drinks

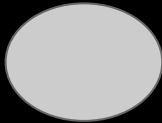
- Knowledge of many drink types
(caches + databases)
- Recipes for custom drinks
(runbooks)

● Non-alcoholic Drinks

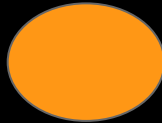
- Cannot mess this up (*data correctness + integrity*)



Bar



Floor



Kitchen

An Incident Every Night



● Incident Management



- Preparation
- Established Hierarchy
- Formalized Communications

Preparation



Mise en Place - “everything in its place”

- Prepare what you need
- Make what you need accessible
- Communicate what you have

Mise en Place - “everything in its place”

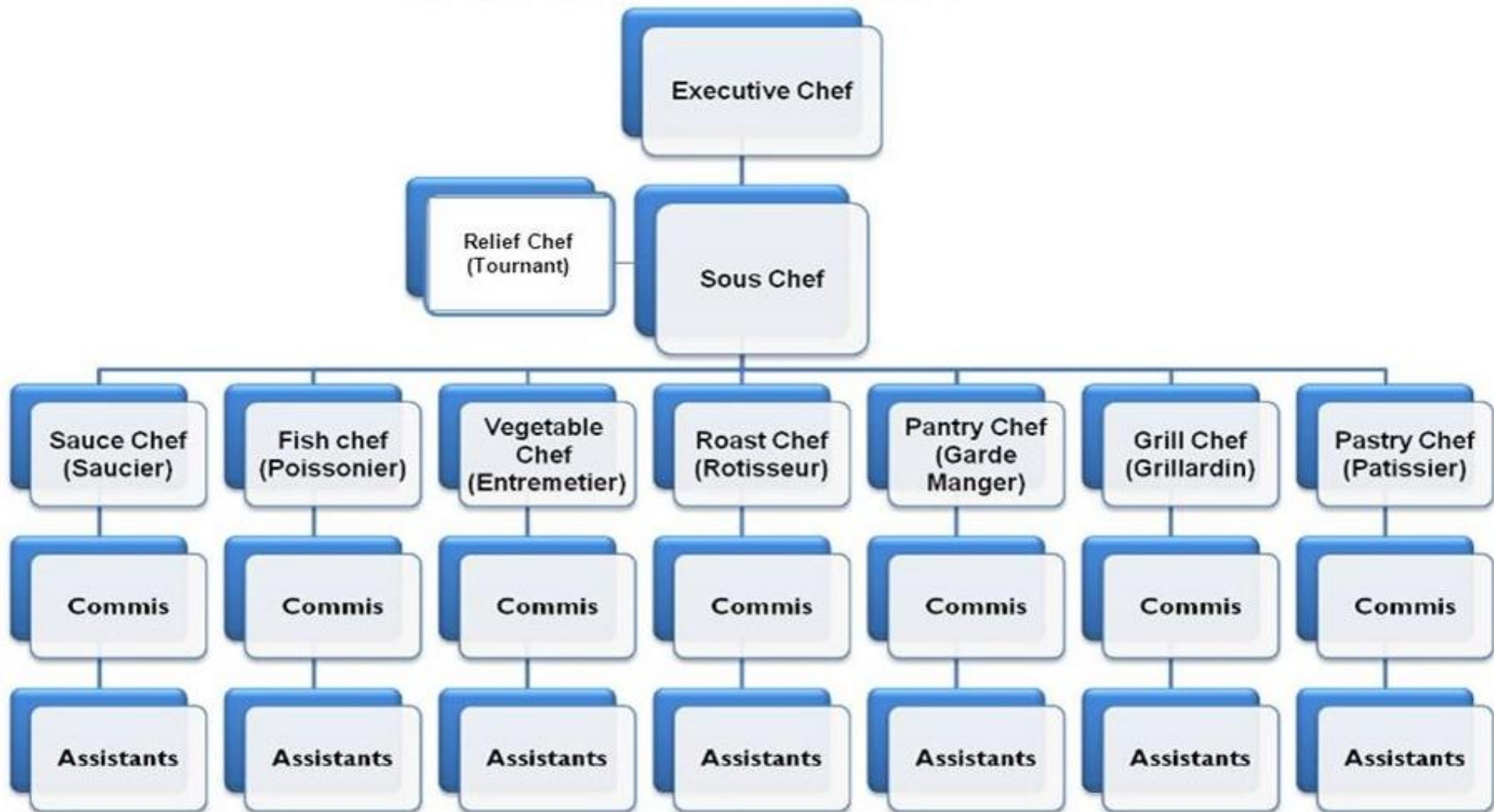
- Noun
 - “Is your mise ready?”
- Verb
 - “Mise the mushrooms.”
- State of mind

● Incident Preparedness

- “I am in my place.”

Established Hierarchy





Established Hierarchy

- Everyone knows who is in charge
- Everyone knows who is doing what
- Everyone knows what is expected

Formalized Communications

A professional kitchen scene featuring a chef in the foreground, focused on plating a dish. He is wearing a white chef's coat and a dark, striped apron. He is using tongs to transfer food from a small white bowl. In the background, another chef is working at a different station. The kitchen is equipped with stainless steel counters, various cooking utensils, and ingredients like tomatoes and lettuce. The text 'Formalized Communications' is overlaid in a large, bold, orange font across the center of the image.

Kitchen Slang

- Is its own language
- Differs slightly from restaurant to restaurant
- But is always coherent

Some Examples

| | |
|--------------------------|----------------------------------|
| Yes, chef! | Acknowledged! |
| \$THINGS all day! | In total I need \$THINGS! |
| Fire \$THING! | Do \$THING now! |
| In the weeds. | Can't keep up. |
| Behind/Hot/Sharp! | DON'T MOVE! |

● All day!

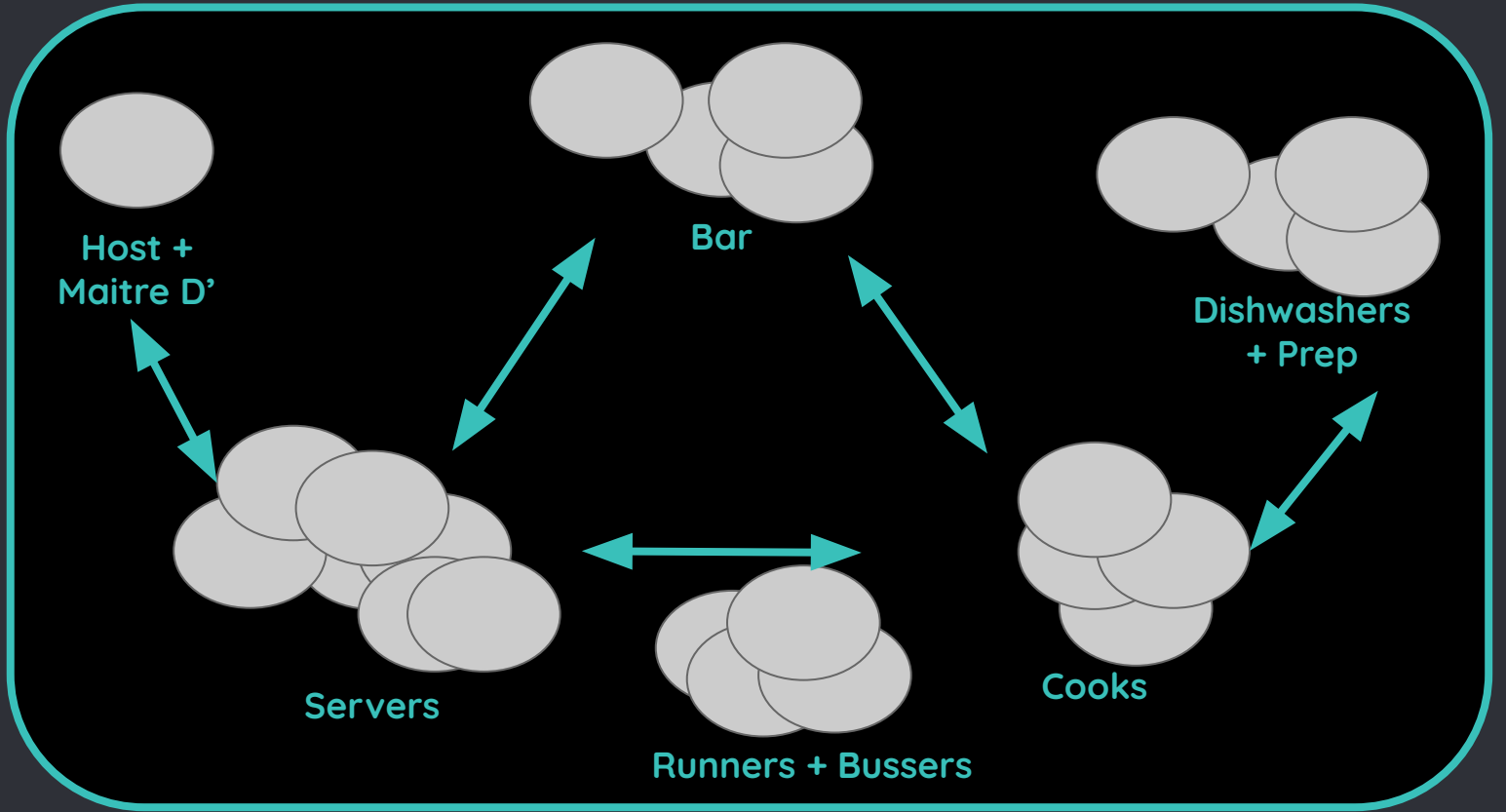
- Differentiates from working off of tickets
- Tickets describe concrete areas of work that need to be accomplished in order to satisfy the requirements of a single table



That might sound familiar.

An overhead view of a group of people dining at a restaurant. The table is made of dark wood and is set with various dishes. In the center, a person is holding a white plate with a large burger. To the left, another person is holding a fork over a plate of crab. To the right, there are plates of dumplings, a sandwich on a wooden board, and a bowl of salad. The text "Complex Systems are Everywhere" is overlaid in the center in a bold, orange font.

Complex Systems are
Everywhere



A vibrant food festival scene with people eating at a stall. In the background, there are signs for 'MOZZARELLA ARTESANAL', 'Salon Magerit Plaza', 'PESCADO ORIGINAL', and 'Shardy Texas'. A man in a white shirt is working behind the counter. The atmosphere is lively and social.

Lessons Learned:

1. Everyone Needs Reliability
2. Look Everywhere for Help
3. Learn from each Other

Thank you!

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