Subject: Restaurant

A restaurant cooks and serves food to guests like an operating system runs and executes applications for a user.

Just like the CPU is the brains of the computer where most calculations take place, the waiter at a restaurant takes your orders and relays the information to the chef and cooks, ordering food and drinks to be provided to the guest. These orders are written and entered into a computer that prints receipts that are relayed to the chef and cooks and calculate their bill. This is like the CPU writing memory to the hard disk. One or more waiters can serve in a restaurant, just like a computer can have a single processor or multi-processors depending on the expected workload.

Restaurants can have multiple locations, so when orders come in for one pizza place, another can fulfill the same order from the other end of town, sharing their workload and resources for speed and comfort to the user. Some restaurants have other services, like a Redbox, a gas station or delivery service where orders come in, food goes out, and fun is had similar to the way I/O devices work.

Traditionally, a restaurant has a staff of multiple waiters prepared to serve and seat many customers their food and entertainment. This is the way traditional computing is. Alternatively, restaurants can drive on wheels like a food truck, prepared to be where you are, so you can order food where a restaurant normally wouldn’t be. This is like the way mobile computing is designed. Some restaurants are made to deliver food to you, like a Client-Server. Other restaurants have food hot and ready, prepared for expected orders. These are like real-time systems.

CPU == Waiter

Hard disk == guest orders

I/O == inventory purchases and internal orders

Main Memory == waiter’s pad of notes

Single-processor == one waiter

Multi-processor == multiple waiter/cooks/chefs

Cluster == a strip of restaurants working to feed a large body of people (the mall food court)

Traditional Computing == dine in restaurant

Mobile Computing == food truck or fast food drive through

Client-Server == delivery order

Real-time system == hot-ready pizza