Creating a Data Flow Diagram (DFD) is an excellent way to visually represent how information flows through a system. Based on the information you provided and the fact that the system is named "SIM" (Service Information Management), I will outline the steps to create a context diagram for the SIM system:

Context Diagram for SIM (Service Information Management) System:

A context diagram provides an overview of the system's interactions with external entities and shows the high-level flow of data into and out of the system.

Process (SIM System): Represented by a square or rectangle at the center of the diagram, this is your "SIM" system. It encapsulates the processes and functions within the system.

External Entities: External entities are entities outside the system with which the SIM system interacts. Based on your JAD session, here are the identified entities:

Customers: Represented by a rectangle labeled "Customers." Customers interact with the SIM system to request and receive service for their appliances.

Appliance Warehouse: Represented by a rectangle labeled "Appliance Warehouse." This entity is the source of appliance purchases and interactions related to service plans.

Service Technicians: If applicable, service technicians may interact with the system. Represented by a rectangle labeled "Service Technicians."

Data Flows: Arrows connecting external entities and the SIM system represent the flow of data or information between them. You can label these arrows to indicate what data is being exchanged.

Data Store: You can also include a data store (a rectangle with two parallel lines) to represent the storage of information within the system. For example, you might have a data store for customer profiles and service histories.

Identify the Conditions:

Condition 1: Customer has purchased a service plan.

Condition 2: Customer has purchased an appliance from Appliance Warehouse.

Condition 3: Number of service calls in a year (more than 3 times).

Identify the Actions:

Action 1: Customer pays a flat rate once a year.

Action 2: Customer pays only for the cost of parts during service.

Action 3: Customer receives a 20% discount off the service fee.

Action 4: Customer pays the full amount of the service fee and parts cost.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Condition 1 | Condition 2 | Condition 3 | Action 1 | Action 2 | Action 3 | Action 4 |
| No | No | N/A | N/A | N/A | N/A | Full |
| No | Yes | N/A | N/A | N/A | N/A | Full |
| Yes | No | N/A | Flat | Parts | N/A | Full |
| Yes | Yes | No | Flat | Parts | N/A | Full |
| Yes | Yes | Yes | Flat | Parts | N/A | Full |
| No | Yes | N/A | N/A | N/A | 20% off | Full |

In this decision table:

"Condition 1" represents whether the customer has purchased a service plan (Yes/No).

"Condition 2" represents whether the customer has purchased an appliance from Appliance Warehouse (Yes/No).

"Condition 3" represents the number of service calls in a year (None, More than 3 times).

"Action 1" indicates that the customer pays a flat rate once a year for the service plan.

"Action 2" indicates that the customer pays only for the cost of parts during service.

"Action 3" indicates that the customer receives a 20% discount off the service fee.

"Action 4" indicates that the customer pays the full amount of the service fee and parts cost.

A diagram of a customer service

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