

Chapter 7: Object-Oriented Design

- How to approach

- Step 1: Handle Ambiguity

- Often intentionally vague in order to test whether you'll make assumptions or if you'll ask clarifying questions.
- Inquire who is going to use it and how they are going to use it.
- Depending on the question you might want to ask the "Six Ws": who, what, where, when, how, why.

- Step 2: Define the Core Objects

- Restaurant example: Table, Guest, Party, Order, Menu, Employee, Server, Host

- Step 3: Analyze Relationships

- Which objects are members of which other objects?
- Do any objects inherit from any other?
- Are relationships many-to-many or one-to-many

- Step 4: Investigate Actions

• Design Patterns

- Mostly beyond the scope of an interview
- Singleton and Factory Method design Patterns are widely used in interviews though.

• Singleton Class

- Ensures that a class has only one instance and ensures access to the instance through the application.
- Useful in cases where you have a "global" object with exactly one instance.

• Factory Method

- Offers an interface for creating an instance of a class, with its subclasses deciding which class to instantiate.