

Understand the Amazon problem and learn the questions to further simplify this problem.

we'll cover the following

- Expectations from the interviewee
  - Discoverability
  - Cart and checkout
  - Payment methods
  - Product reviews and ratings
- Design approach
- Design pattern

**Amazon** is an online retail platform

can search and choose from. Products have reviews and ratings that can help customers make a buying decision. Each customer has a shopping cart where they can add products they wish to order. Once customers have added their favorite products to the cart, they can check out the cart and choose a payment method to place their orders. The customers are notified about their order and shipment statuses until the order is delivered. The system also allows users to add products they want to sell.



## Users interacting with an online shopping system

## Expectations from the interviewee

Numerous components are present in the Amazon online shopping system, each with specific constraints and requirements placed on them. The following provides an overview of some of the main things that the interviewer will want to hear you discuss in more detail during the interview.

## Discoverability

For an online shopping system like Amazon, discoverability is one of the key features that distinguish it from others. You can ask the following questions to know more about the system:

- How will the buyer discover a product?
- How will the search surface result?

## Cart and checkout

checkout functionality that it provides to its customers. The interviewer expects the cart and checkout to behave in a certain way. You may ask the interviewer:

- innovative checkout semantics like “one-click purchase?”

The interviewer expects you

out the necessary requirements. You may ask the following questions:

- How will the users pay? Will they use credit cards, gift cards, and so on?
- How will the payment method work with the checkout process?

## Product reviews and ratings

Product reviews and ratings help customers make informed decisions regarding what to buy. It is important to know how to make this feature an effective part of the system. You can ask the interviewer:

- When can a user post a review and a rating?
- How are useful reviews tracked and less useful reviews deprioritized?

## Design approach

We will design this online shopping system using the bottom-up design approach. For this purpose, we will follow the steps below:

- Identify and design the smallest components first, such as a product.
- Use these small components to design bigger components, like a product category that contains different products.
- Repeat the steps above until we design the whole system that contains multiple product categories and various users that use the system.

# Design pattern

During an interview, it is always a good practice to discuss the design patterns that the amazon online shopping system falls under. Stating the design patterns gives the interviewer a positive impression and shows that the interviewee is well-versed in the advanced concepts of object-oriented design.

Which design pattern(s) should be used to design an Amazon online shopping system? Please elaborate on your choice(s).

H<sub>1</sub> H<sub>2</sub> H<sub>3</sub> | **B** *I* | ≡ ≡≡ | ≡≡ ≡≡ | ✕

Please enter the correct design pattern(s)

Let's explore the requirements of the online shopping system in the next lesson.