High-Level Solution Design Document

For Amazon

# Overview or Introduction:

A High-Level Design (HLD) is a technical document for a (generally) non-technical audience. It refers to the initial phase of designing a system or software where the architecture and key components are defined at a conceptual level.

The high-level design is a general system of design. In simpler words, it refers to the overall design of a system and describes the overall architecture/ description of any application. It is also called system/ macro-level design.

It focuses on the system's structure, components, and major interactions, without delving into implementation details.

Features for Amazon Application:

1.User Management:

* + - User registration, login, and authentication.
    - Profile management including address, payment methods, and preferences.
    - Social media integration for login.

2. **Shopping Cart and Checkout:**

* + Shopping cart functionality for users to add, remove, and modify items.
  + Seamless and secure checkout process with multiple payment options.
  + Guest checkout and user account checkout with saved addresses and payment methods.

3. **Search and Navigation:**

* + - Advanced search functionality with filters and sorting options.
    - Auto-suggestions and search history.
    - Navigation through categories and subcategories.

4. Order and Delivery:

* + Provide users with a streamlined checkout process to place orders easily.
  + Collect necessary information such as shipping address, contact details, and payment method during checkout.
  + Display a confirmation message or page after the order is successfully placed, providing users with an order summary and order number.
  + Send email or SMS notifications to users confirming their order and providing details like expected delivery date and order tracking information.

5.Reviews and Ratings:

* + - User reviews and ratings for products.
    - Moderation of reviews to prevent spam and maintain authenticity.
    - Aggregate ratings displayed on product pages.

# [**High-Level Design**](https://softwaredominos.com/home/software-design-development-articles/high-level-solution-design-documents-what-is-it-and-when-do-you-need-one/) **:**

It aims to provide process flow updates and information pathway changes using diagrams, tables, and other visualizations. Typically, also addresses integration issues with other systems. The HLD describes the primary features of the system. It is best to list all the elements for clarity without going near the implementation details, as these are not for this audience.

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Application Module:

1:Core system components: provide basic IT or business functions.

2: User interfaces: It tell the reader how users interact with the system or a particular component.

3: The database Layer:modules deliver the business functionality of the solution. For example, a retail business can have billing, e-commerce, shipping, warehousing, and business intelligence components.

4:***Application Programming Interfaces (APIs)*: These** are essential to call out so that inter-platform dependencies are vividly illustrated.

#### Data Flow and Use Cases:

The data flow and use cases section document all necessary interactions between the user and the system.

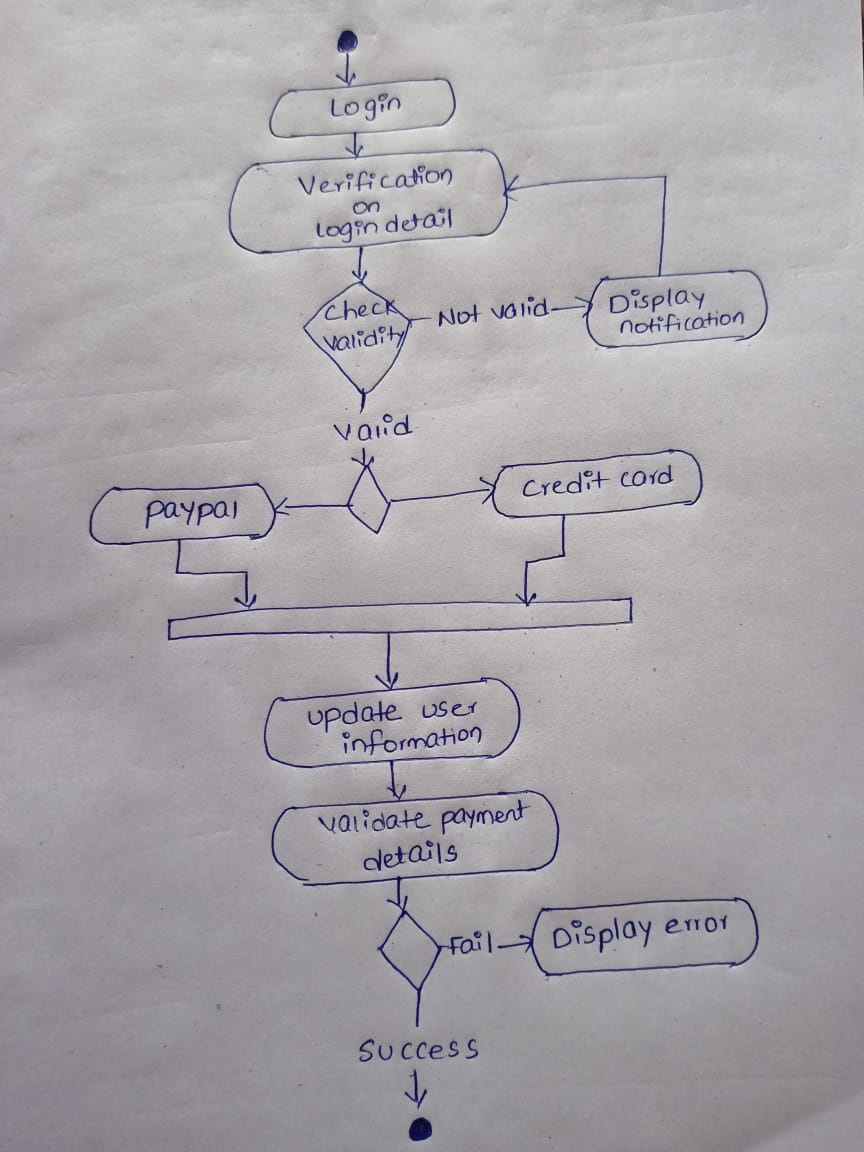


Fig : Use case diagram for amazon