**Inventory Management System Package Diagram Report**

**Introduction**

The Inventory Management System package diagram represents the structural organization of different modules in the system and their interdependencies. The diagram consists of multiple packages, each representing a core functionality, and the relationships between them.

A diagram of a software company

AI-generated content may be incorrect.

1. **User Management**
   * Handles user-related functionalities like authentication, role management, and user profiles.
   * Interacts with the **Order Management** system to allow users to place and track orders.
   * Stores user information in the **Database**.
2. **Order Management**
   * Manages order placement, processing, and tracking.
   * Uses **User Management** for authentication and authorization of order actions.
   * Accesses **Inventory** to check product availability before confirming orders.
   * Stores order details in the **Database**.
3. **Inventory**
   * Maintains product stock levels and updates availability based on transactions.
   * Stores inventory data in the **Database**.
   * Allows **Order Management** to check stock before processing orders.
   * Imports reports from the **Report & Analytics** module.
4. **Report & Analytics**
   * Generates reports based on inventory levels, order statistics, and user activity.
   * Uses **Order Management** and **Inventory** data for reporting.
5. **Database**
   * Central repository for storing all system data including users, orders, and inventory.
   * Merges data from **User Management**, **Inventory**, and **Order Management** to maintain consistency.

* **Uses** 
  + **User Management** → **Order Management** (Users interact with the order system)
  + **Report & Analytics** → **Order Management** (Reports use order data)
* **Accesses** 
  + **Order Management** → **Inventory** (Orders need inventory data for stock verification)
* **Imports** 
  + **Report & Analytics** → **Inventory** (Reports analyze inventory details)
* **Stores** 
  + **Database** stores data from **User Management**, **Inventory**, and **Order Management**.
* **Merges** 
  + **User Management** → **Database** (User-related data is stored and managed centrally)
  + **Inventory** → **Database** (Inventory transactions are maintained in the database)