**System Requirements from Detailed Activity Diagram**

**Functional Requirements:**

User Authentication:

* The system should allow users to register.
* The system should allow registered users to log in.

Medicine Ordering:

* Users should be able to search for medicines.
* Users should be able to add medicines to their cart.
* Users should be able to view their cart and proceed to checkout.
* Users should be able to place an order for medicines.

Order Management:

* Admin should be able to view incoming orders.
* Admin should be able to process orders (e.g., verify prescriptions, update order status).

Inventory Management:

* Admin should be able to add new medicines to the inventory.
* Admin should be able to update medicine quantities and details.

User Management:

* Administrators should be able to manage user accounts (e.g., create, update, delete accounts).

**Non-Functional Requirements:**

Performance:

* The system should respond to user actions within 2 seconds.
* The system should support concurrent user sessions.

Usability:

* The user interface should be intuitive and easy to navigate.
* The system should provide helpful error messages in case of user input errors.

Reliability:

* The system should be available 24/7 with a maximum downtime of 1 hour per month for maintenance.
* The system should ensure data integrity and consistency.

Security:

* User authentication and authorization should be implemented securely.
* User data should be encrypted during transmission and storage.

Scalability:

* The system should be able to handle an increasing number of users and transactions over time.

**Additional Considerations:**

Regulatory Compliance:

* Ensure compliance with relevant laws and regulations governing online pharmacies.

Integration:

* The system may need to integrate with external systems (e.g., payment gateways, inventory suppliers).