

A doctor in a white coat is shown from the chest down, holding a stethoscope. The background is a blurred hospital setting. A blue overlay on the left side features a network of white dots connected by lines, with several blue hexagonal icons containing white medical symbols: a person with a heart, a person with a heart and a pulse line, a person with a heart and a pulse line, a person with a heart and a pulse line, a person with a heart and a pulse line, a person with a heart and a pulse line, a person with a heart and a pulse line, a person with a heart and a pulse line, a person with a heart and a pulse line, a person with a heart and a pulse line. A blue banner at the bottom of the overlay contains the text "Hospital Management System" in white.

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Abstract

Hospital Management System (HMS) is a comprehensive software solution designed to streamline and optimize the operations of healthcare institutions. By automating various administrative tasks, HMS improves efficiency, reduces errors, and enhances patient care.

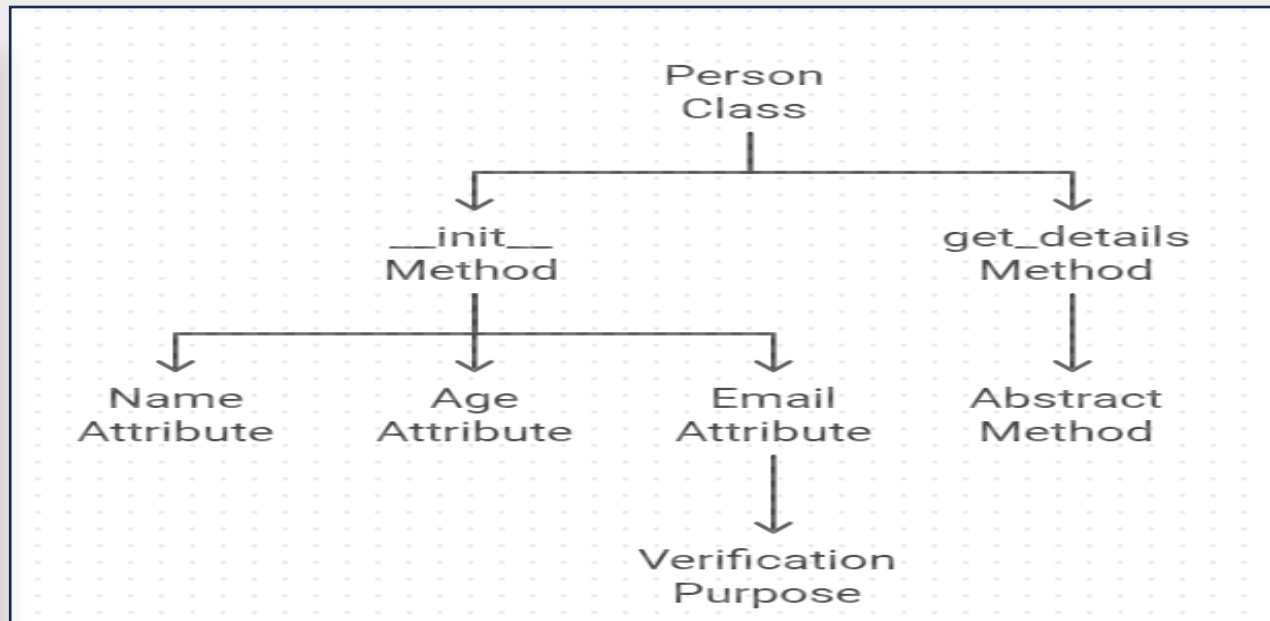
Key features and benefits of HMS include:

- Patient Information Management: Centralized storage and retrieval of patient records, including medical history, appointments, and test results.
- Appointment Scheduling: Efficient management of appointments, reducing wait times and improving patient satisfaction.
- Billing and Insurance: Automated billing processes, insurance claims submission, and revenue cycle management.
- Laboratory and Pharmacy Management: Integration with laboratory and pharmacy systems for seamless ordering, results tracking, and inventory control.
- Staff Management: Tracking employee schedules, time off requests, and performance evaluations.

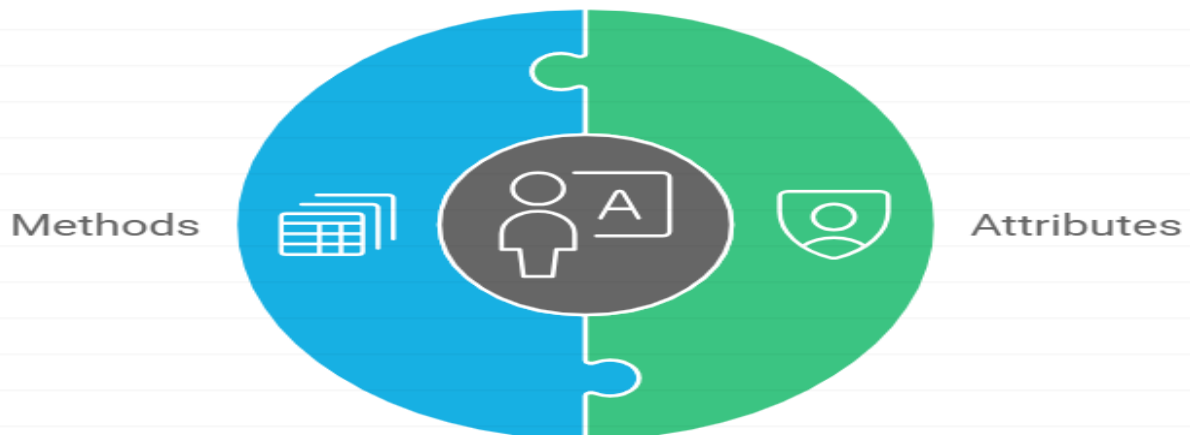
Explanation of Python code

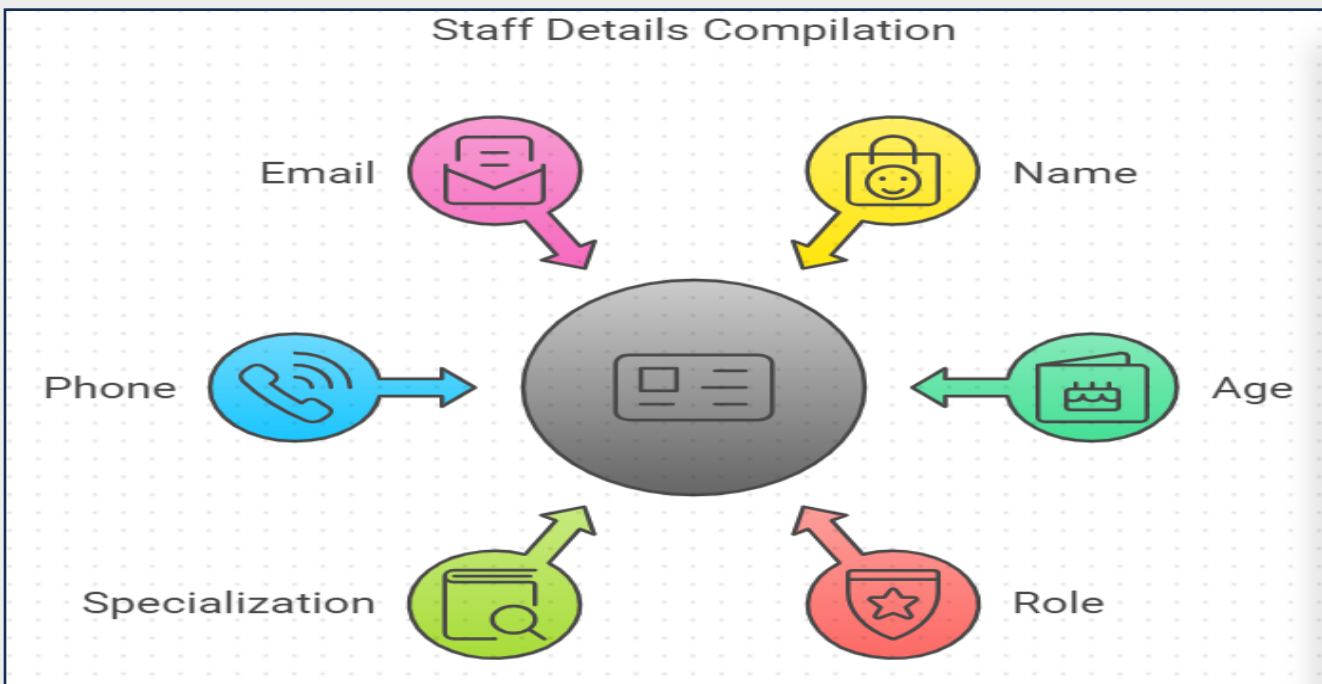
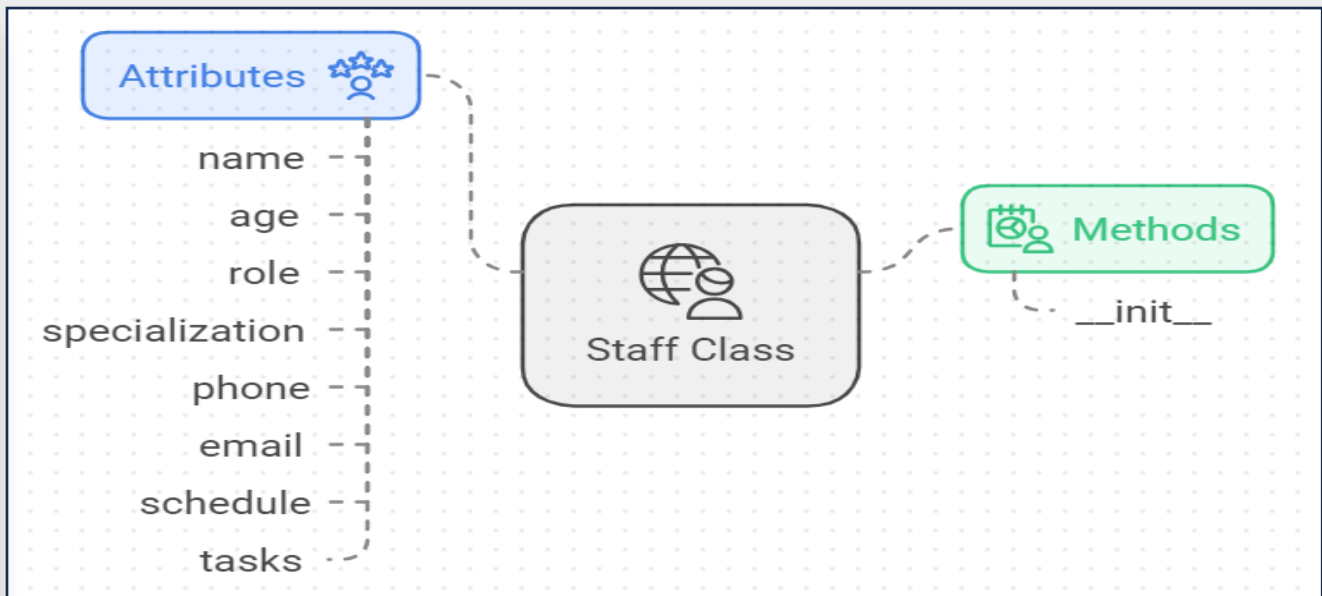
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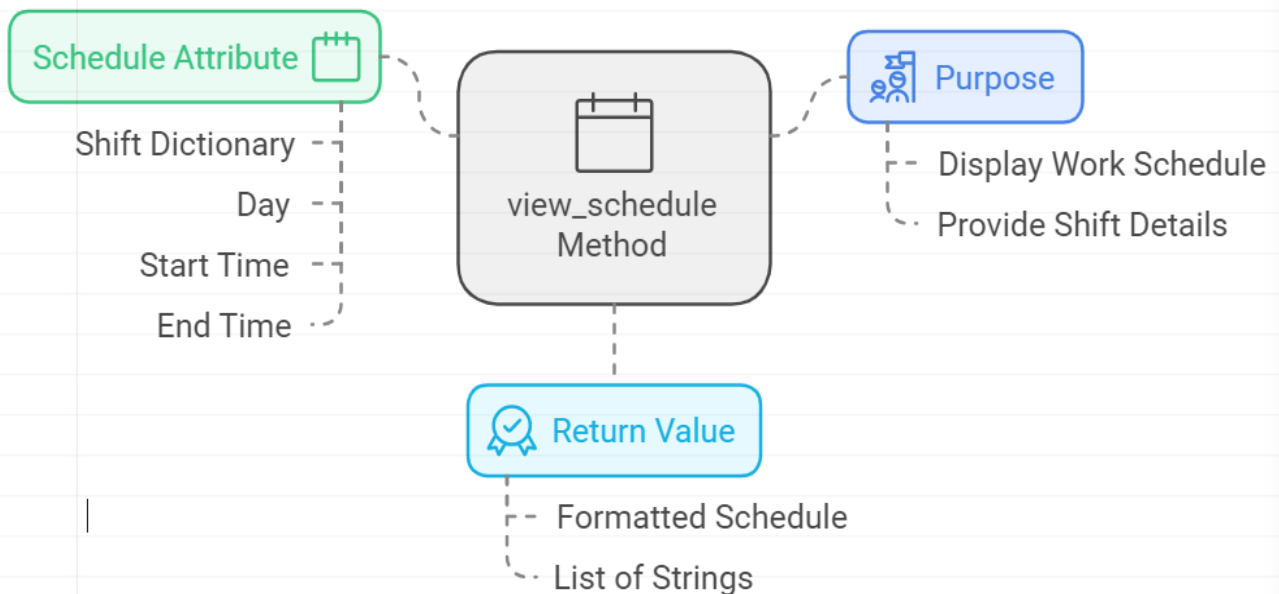
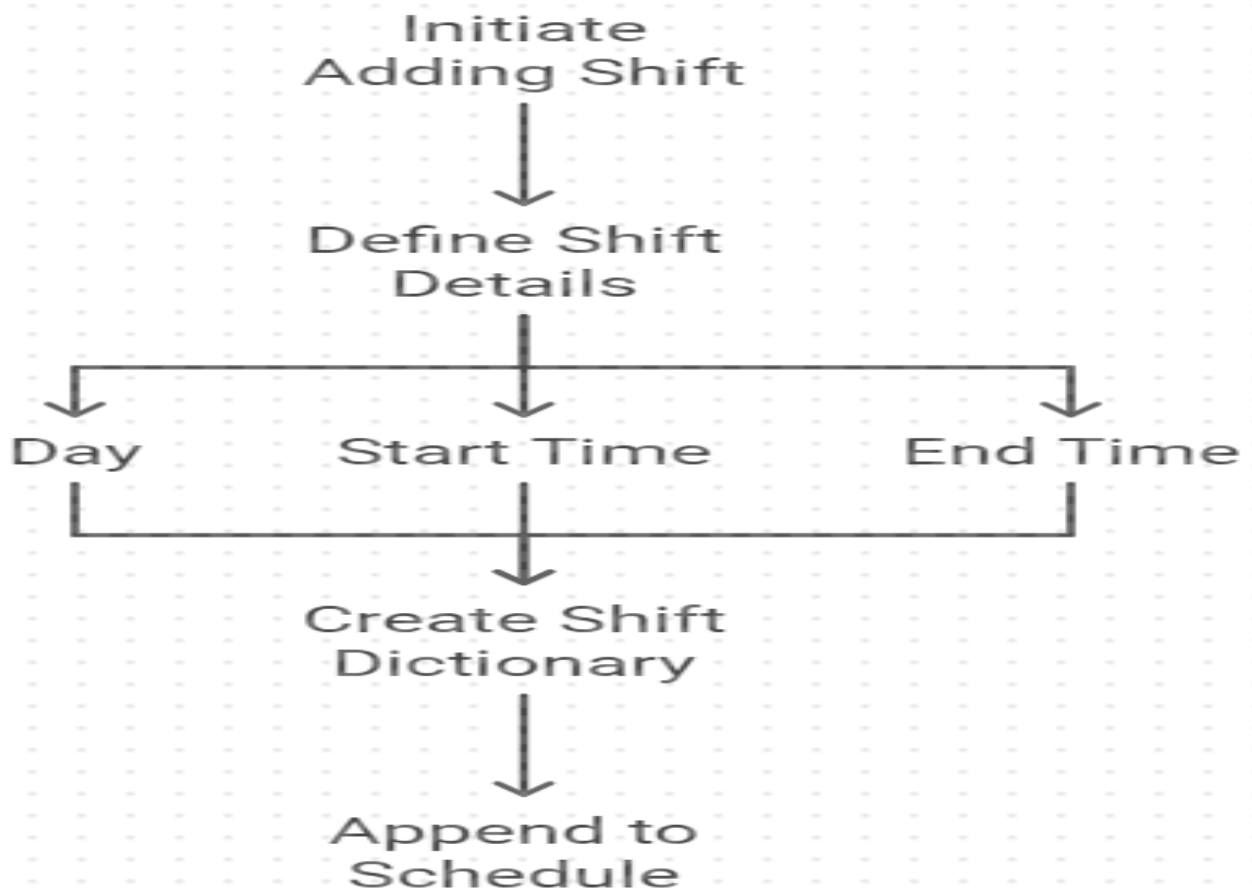
Person Class

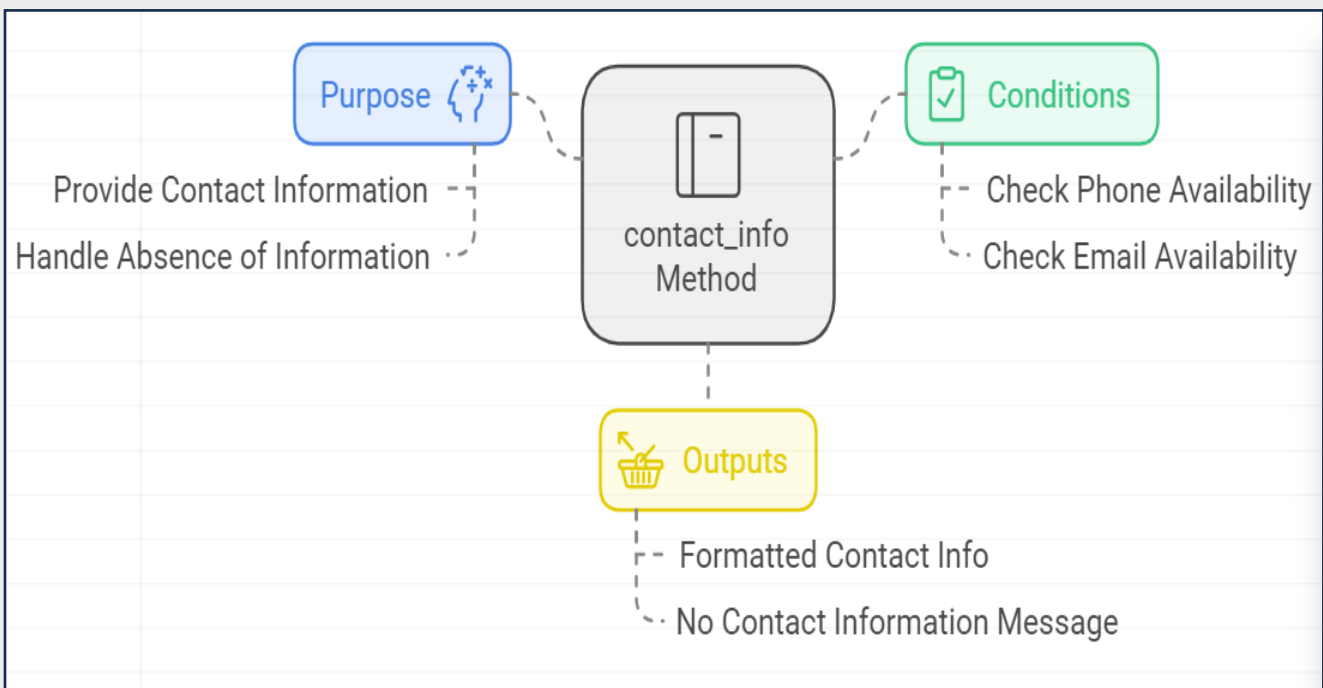


Breakdown of the Person Class



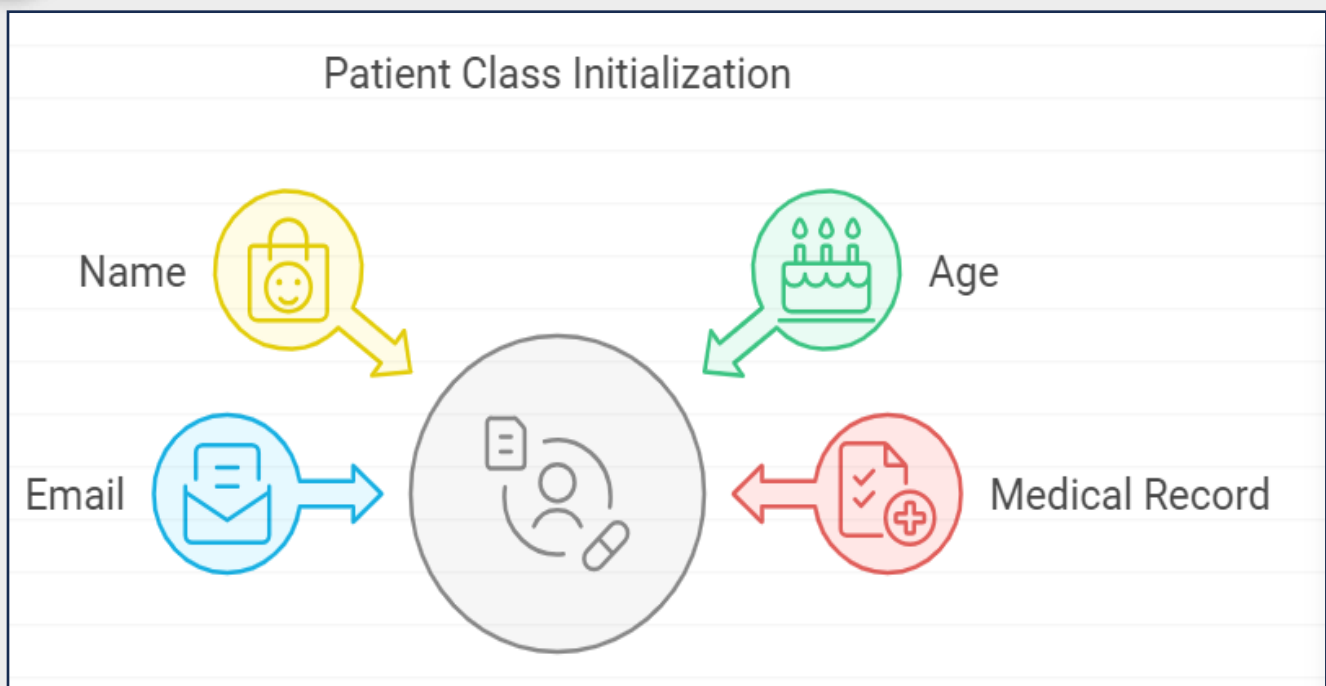




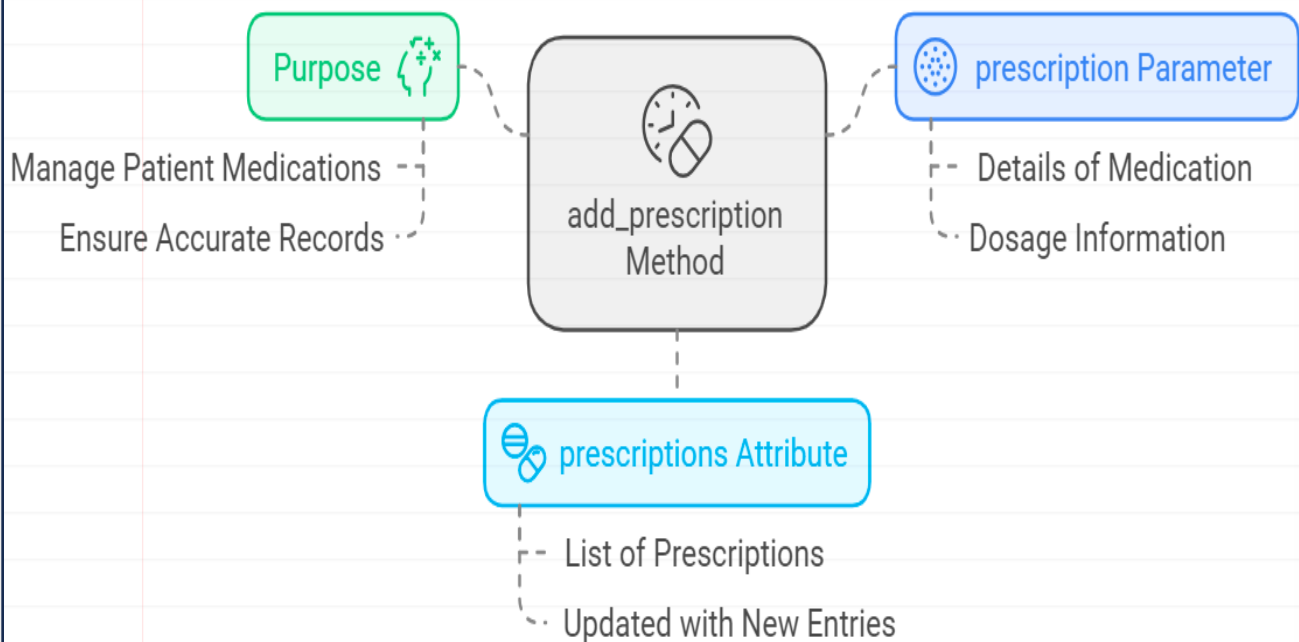
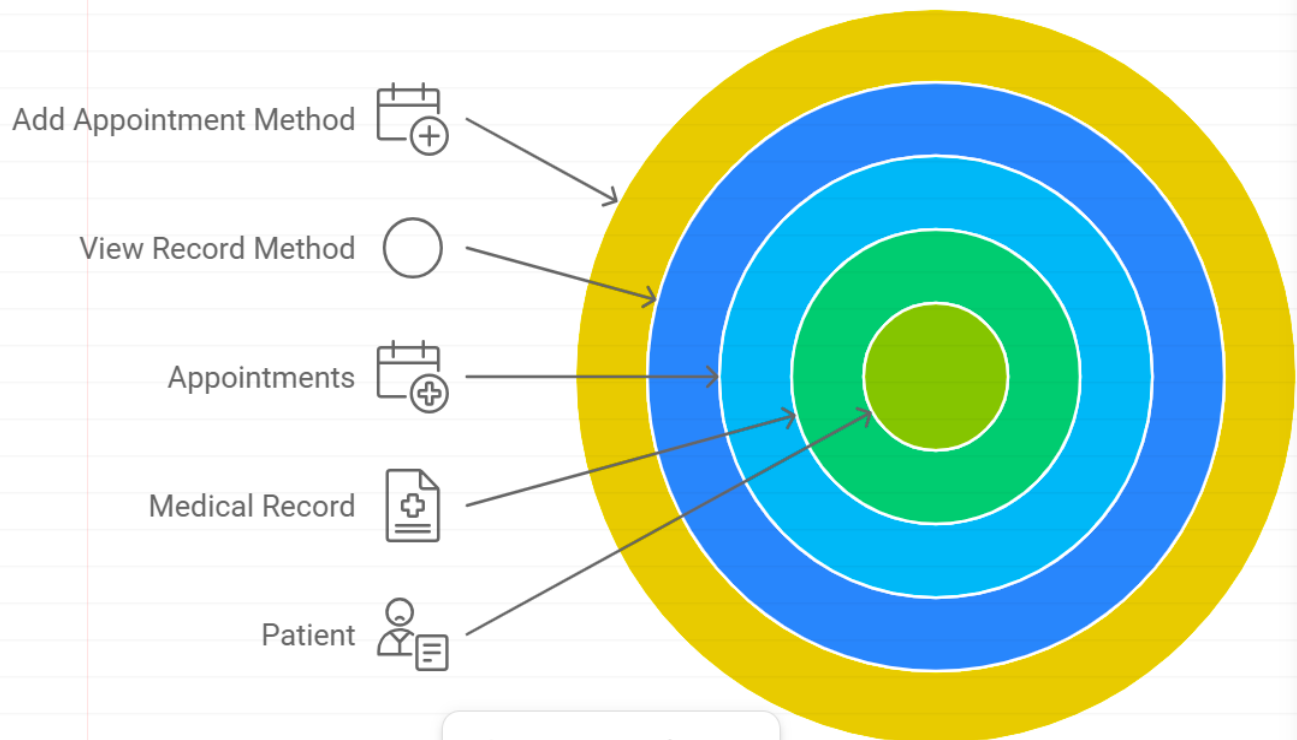


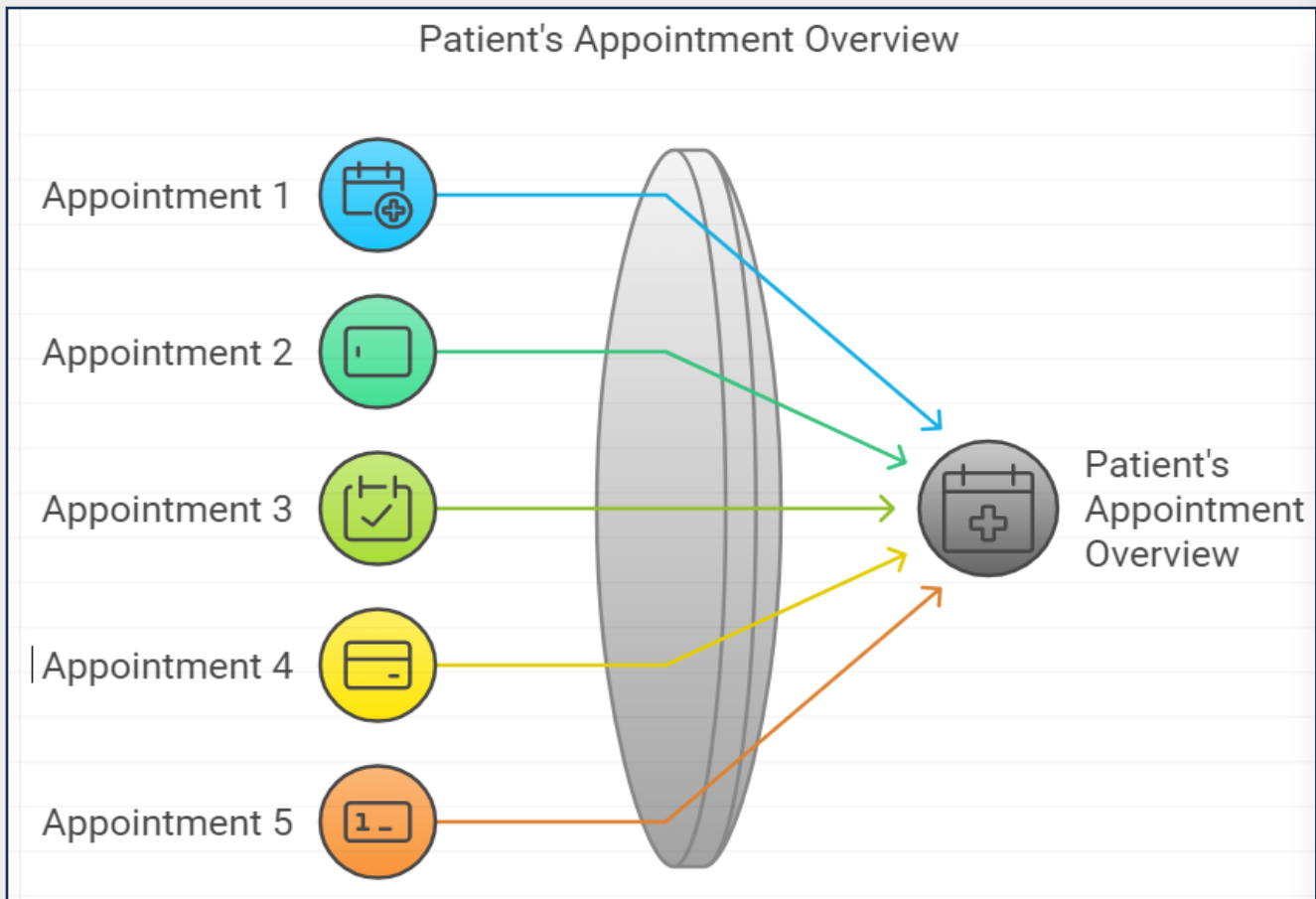
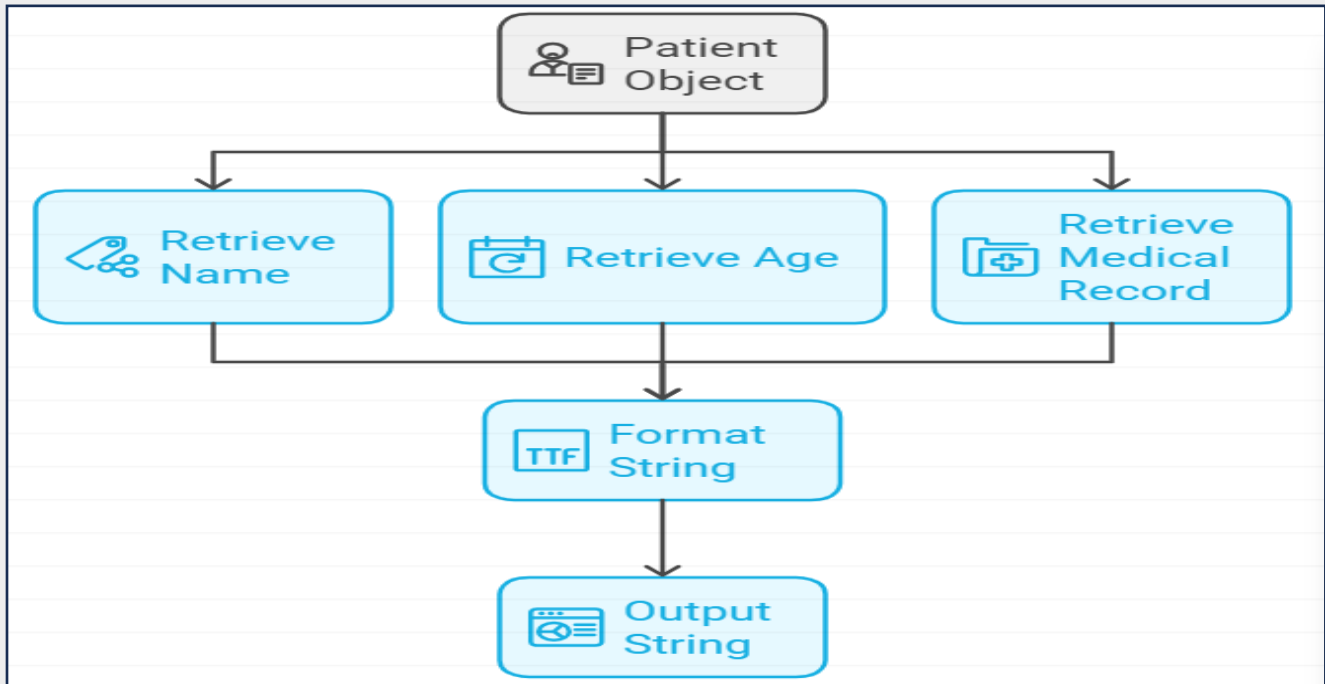
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Patient Class

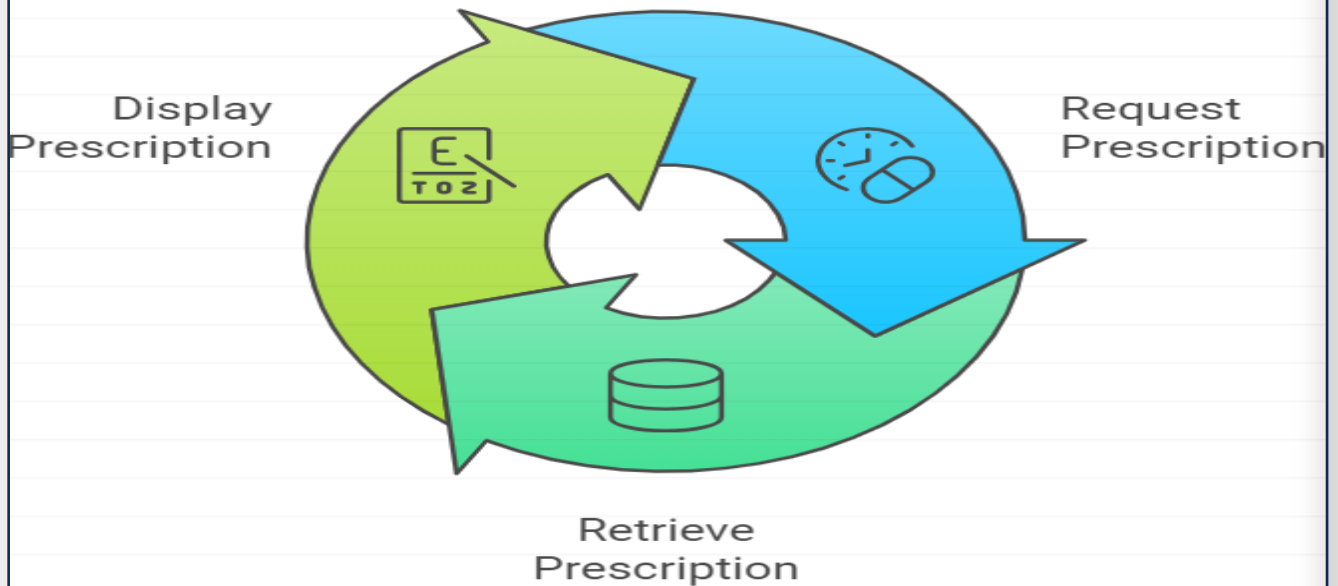


Patient Healthcare Management





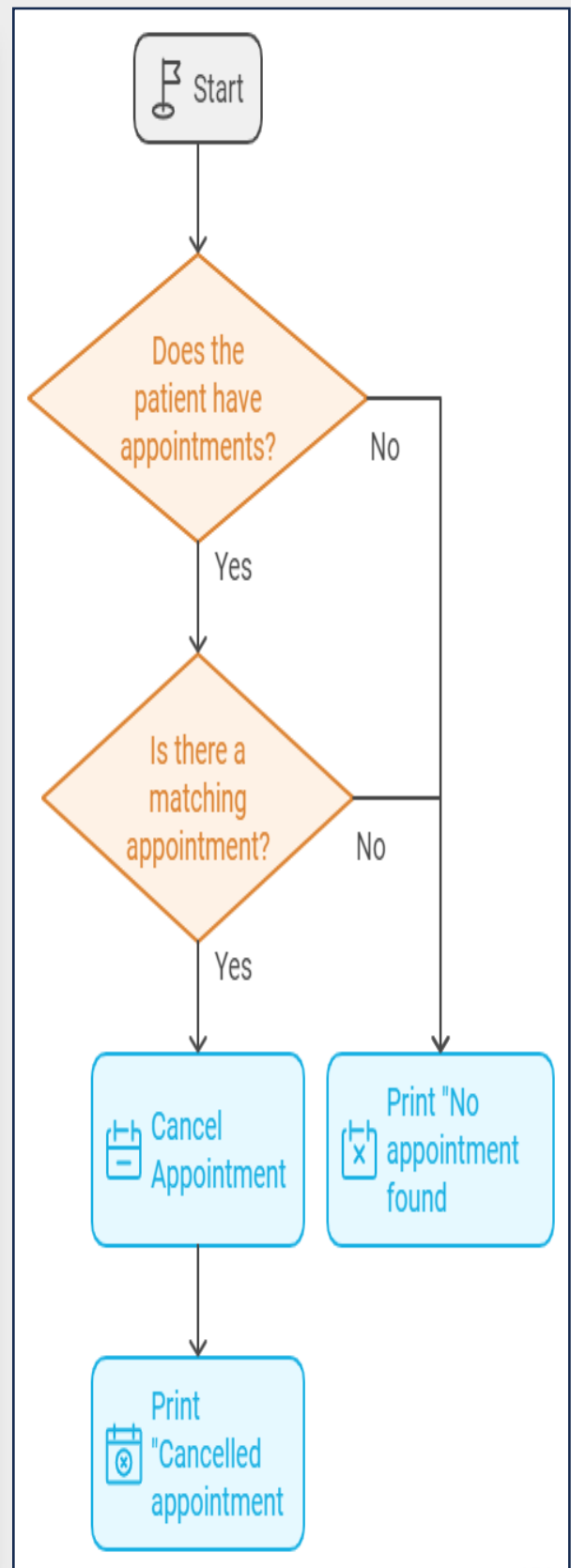
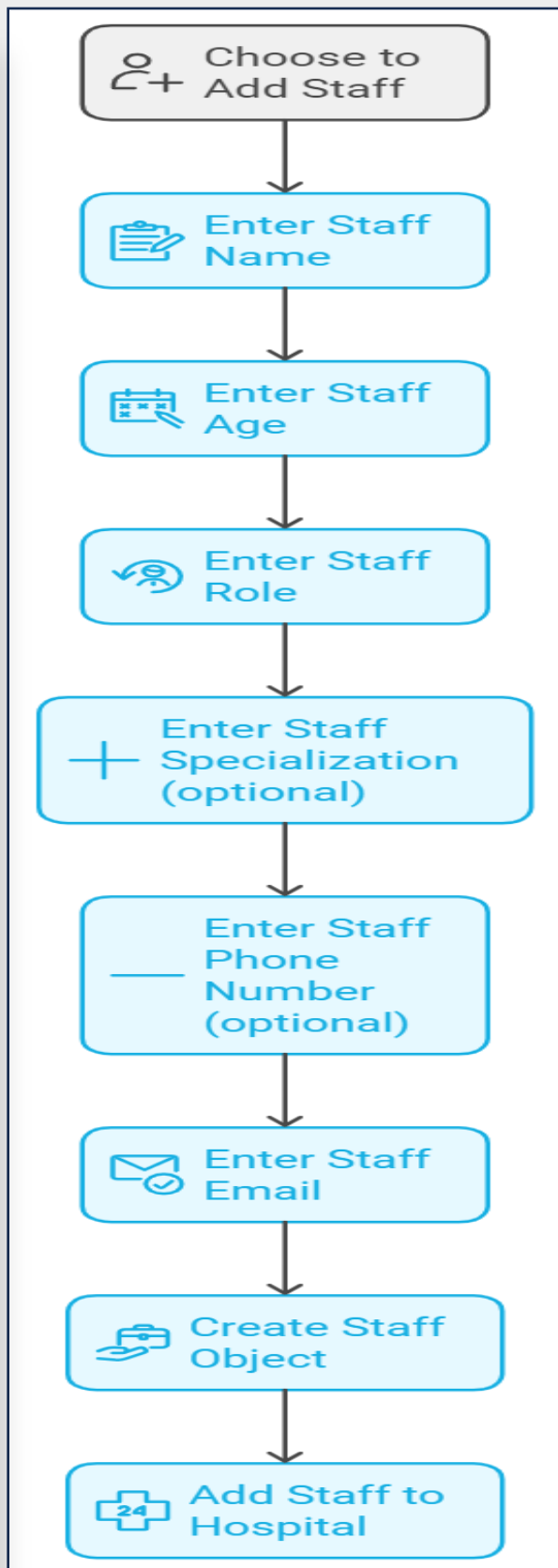
Prescription Management Cycle



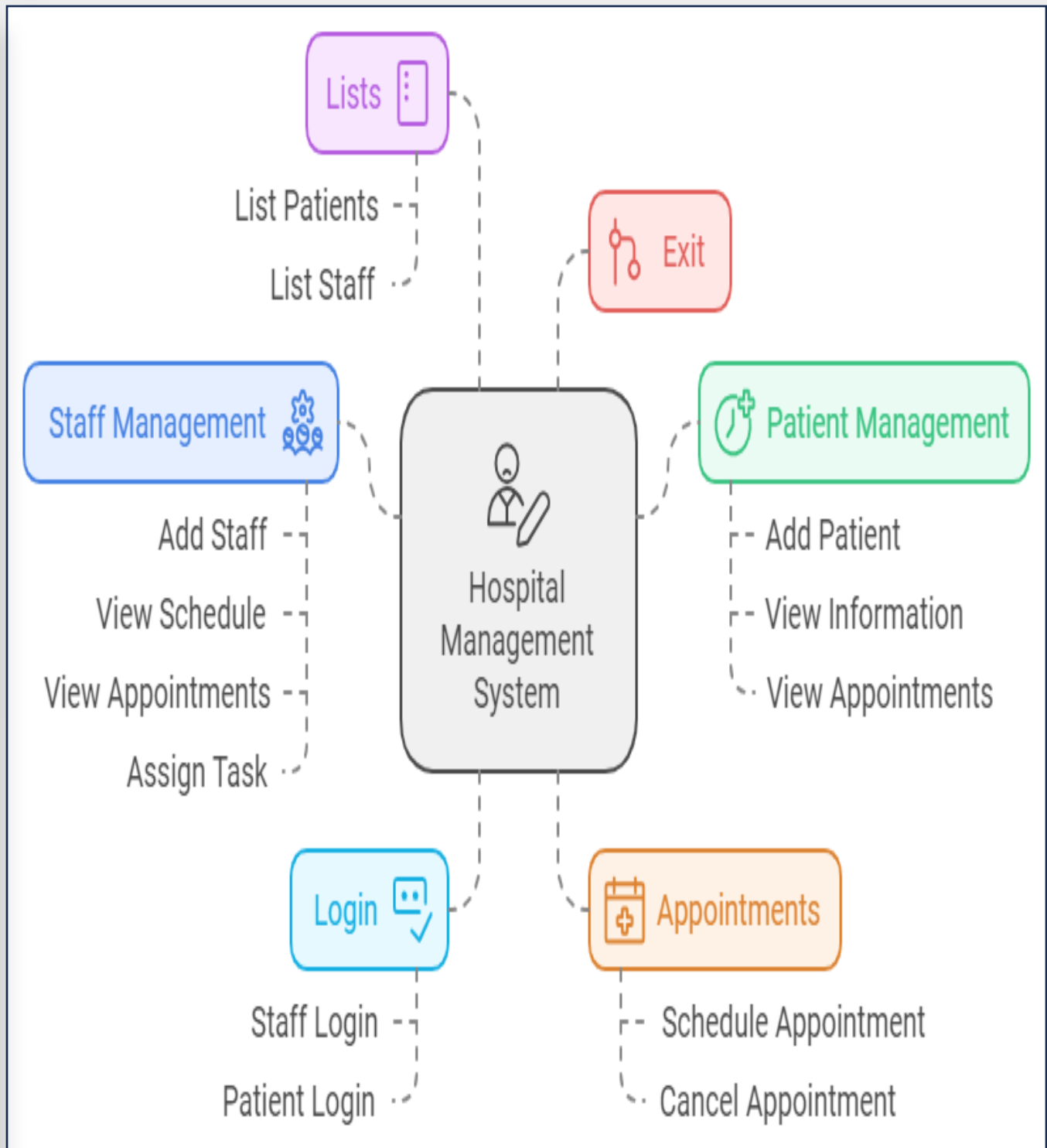
4

Branches Hospital Class

- Stores information about hospital staff and patients in separate lists.
- Allows adding staff and patients to the hospital.
- Provides functionalities to schedule and cancel appointments between patients and staff.
- Offers methods to list all patients and staff in the hospital.
- Enables searching for a specific patient or staff member by name (case-insensitive).
- Simulates sending a verification code (random integer) to a person's email (represented by `person.email`).



5 `if __name__ == "__main__":`



Conclusion

- **The Hospital Management System (HMS)** presented in the code provides a robust framework for efficiently managing a hospital's operations. By centralizing patient and staff information, appointment scheduling, and other key functions, the HMS streamlines administrative tasks and improves overall efficiency.
- Overall, **the Hospital Management System** offers a valuable tool for healthcare organizations to improve efficiency, enhance patient care, and optimize operations. By addressing the identified areas for improvement and leveraging emerging technologies, the HMS can continue to evolve and meet the changing needs of the healthcare industry.



Thank You