MIT SCHOOL OF COMPUTING

Class : SYCORE1
Group Id: O6

Faculty Guide:
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DEPARTMENT OF INFORMATION TECHNOLOGY
"QUEUING PATIENT MANAGEMENT"
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MIT-ADT UNIVERSITY
PUNE, INDIA
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What User Feels:
- Impatience and Frustration
- Uncertainty About Their Place in the Queue

What User Thinks::
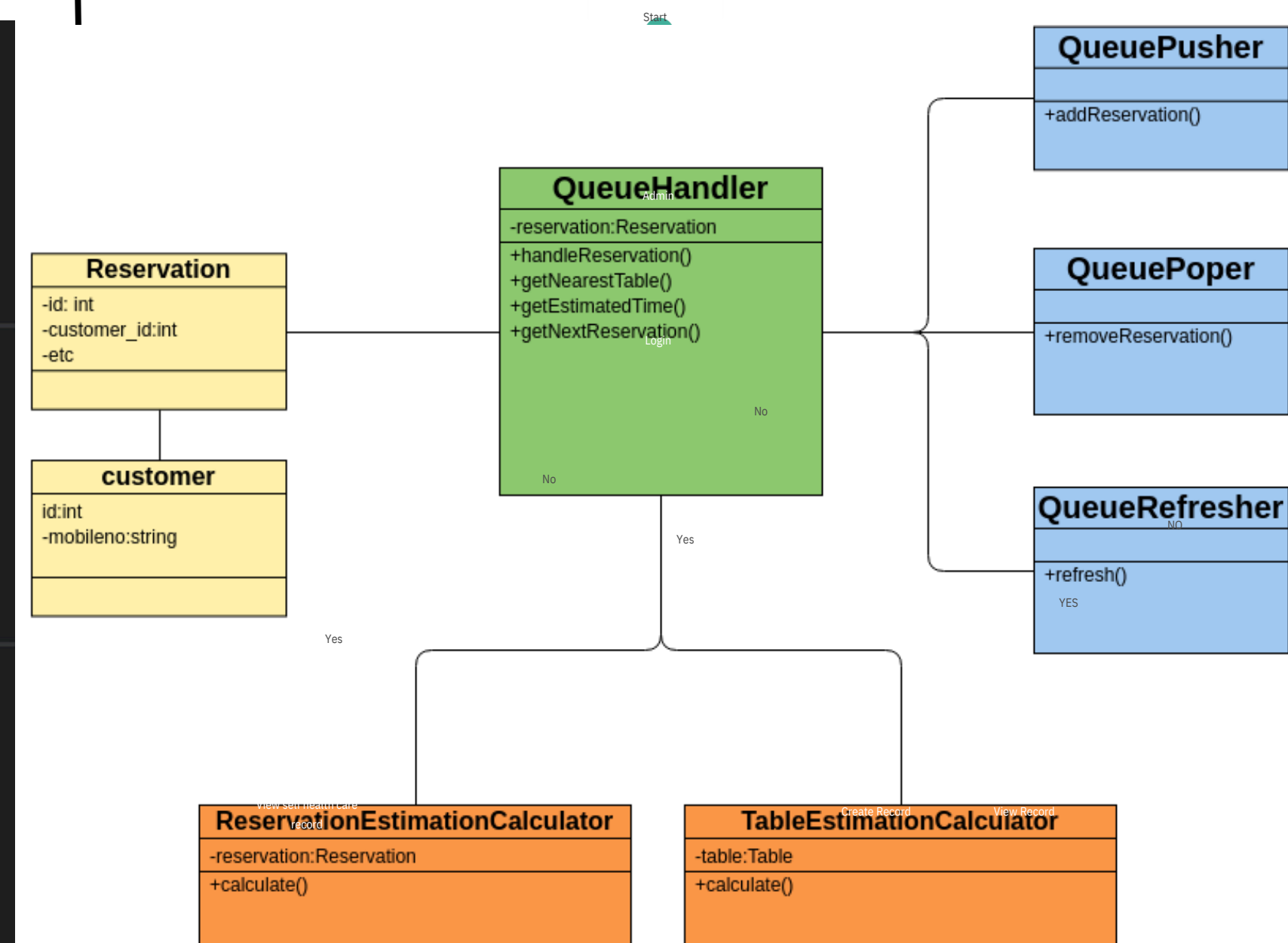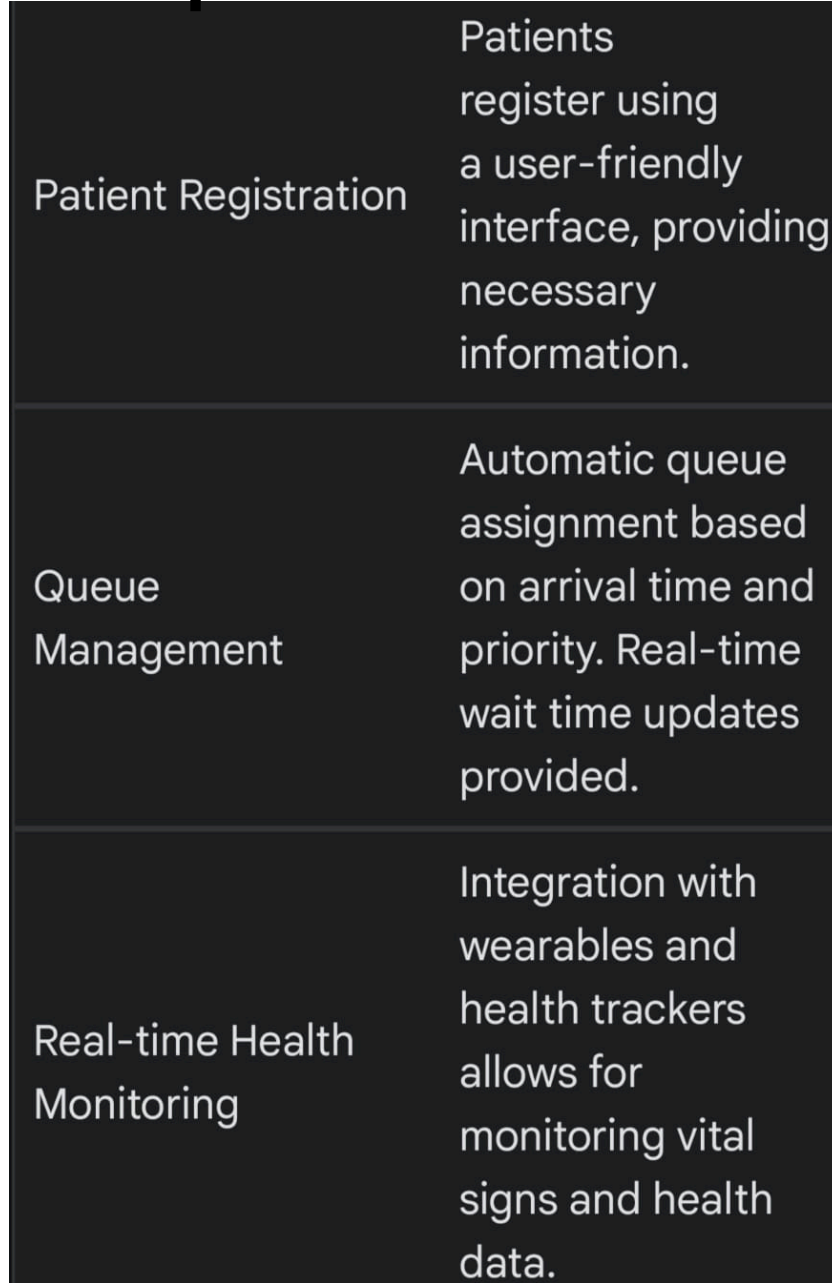- "How Long Will This Take?"
- "I Hope This Goes Quickly."
-

User

What user says:
- "is my data saafe?"
- "this is use-friendly."
- "i like the quick access."

what user does:
- Fill Out Medical Forms
- Observe Their Surroundings

Proposed solution

Patient Registration	Patients register using a user-friendly interface, providing necessary information.
Queue Management	Automatic queue assignment based on arrival time and priority. Real-time wait time updates provided.
Real-time Health Monitoring	Integration with wearables and health trackers allows for monitoring vital signs and health data.

Problem statement

Healthcare facilities often face challenges in efficiently managing patient queues due to high patient volume, variable appointment times, and the need for prioritization based on urgency. This results in long waiting times, patient dissatisfaction, and potential disruptions in clinic workflows. The traditional first-come, first-served approach does not always account for the specific needs of different patients, leading to frustration and a sense of unfairness in the queue.

proposed solution

To address the challenges in managing patient queues in healthcare facilities, a comprehensive Queuing Patient Management System (QPMS) is proposed. This system will integrate advanced queue management, real-time communication, and priority handling to optimize patient flow, improve the patient experience, and enhance resource efficiency. The solution will leverage technology to automate, prioritize, and track patient appointments while accommodating walk-ins and emergencies seamlessly.

scope

The Queuing Patient Management System (QPMS) is designed to address the challenges in managing patient queues in healthcare facilities, with an emphasis on improving efficiency, reducing patient wait times, prioritizing medical needs, and enhancing the overall patient experience. The scope of this system includes the following key areas:

1. Patient Registration & Appointment Scheduling
- Online Registration: Allow patients to register for appointments through a website or mobile application.
- Walk-In Registration: Provide self-service kiosks or reception-based registration for walk-in patients.
- Appointment Management: Support for scheduling, rescheduling, or canceling appointments, including integration with the healthcare provider's existing calendar