

SWEN.732 - Collaborative Software Dev.

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1. Stakeholder needs document:

Stakeholder: Hotel Owners

Needs:

- Increase room occupancy rates through an efficient booking system
- Improve revenue generation by offering additional services
- Enhance customer satisfaction by providing personalized guest experiences

Stakeholder: Receptionists

Needs:

- Streamline check-in and check-out processes to minimize wait times
- Access guest preferences and history to provide personalized service
- Simplify communication with other hotel departments for smooth operations

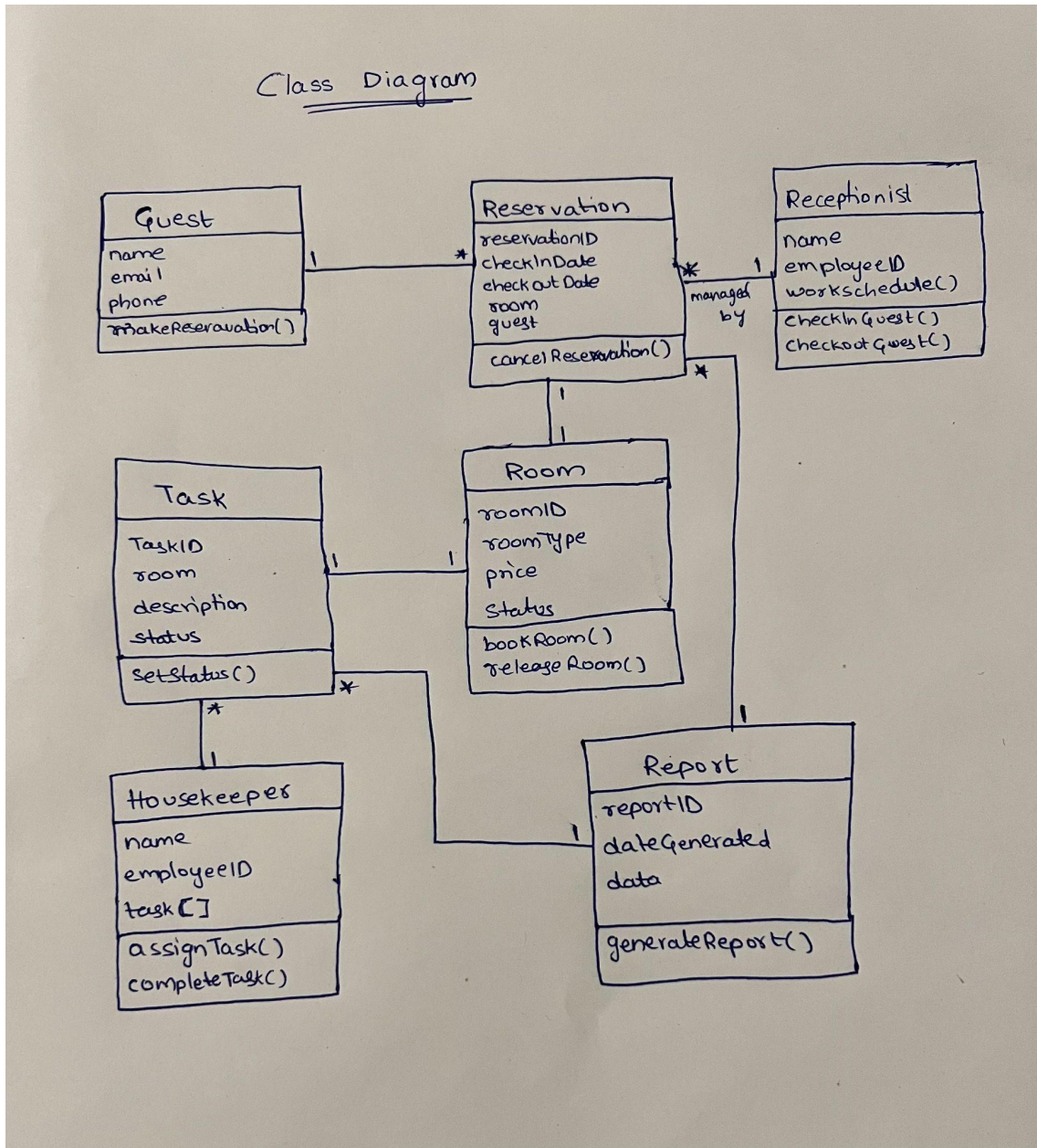
2. Design document:

System Architecture:

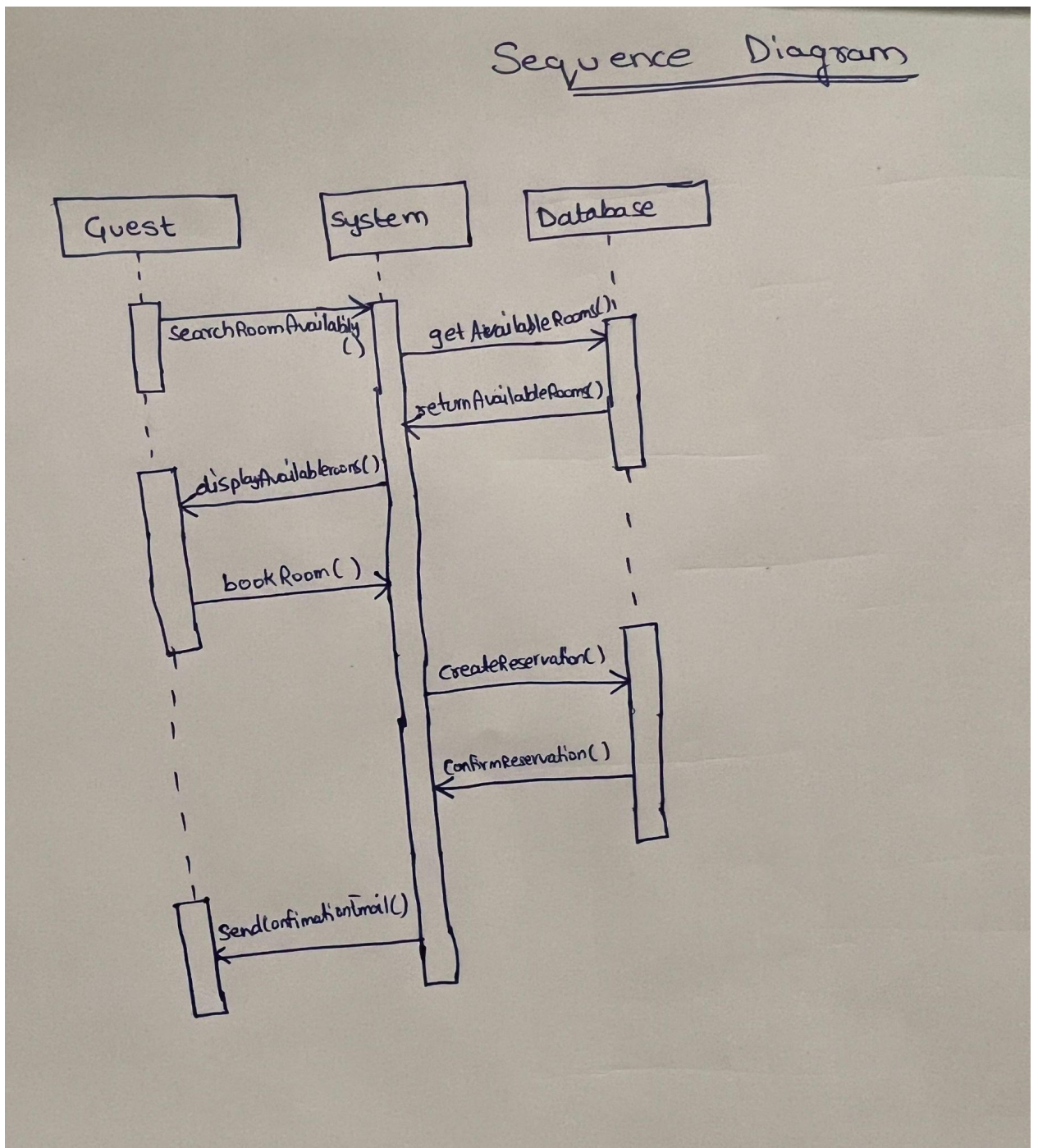
- Frontend: User interface for hotel staff and guests, developed using React
- Backend: Business logic and data processing, implemented with Node.js and Express
- Database: Storage for guest information, room availability, and booking history, using PostgreSQL

UML Diagrams:

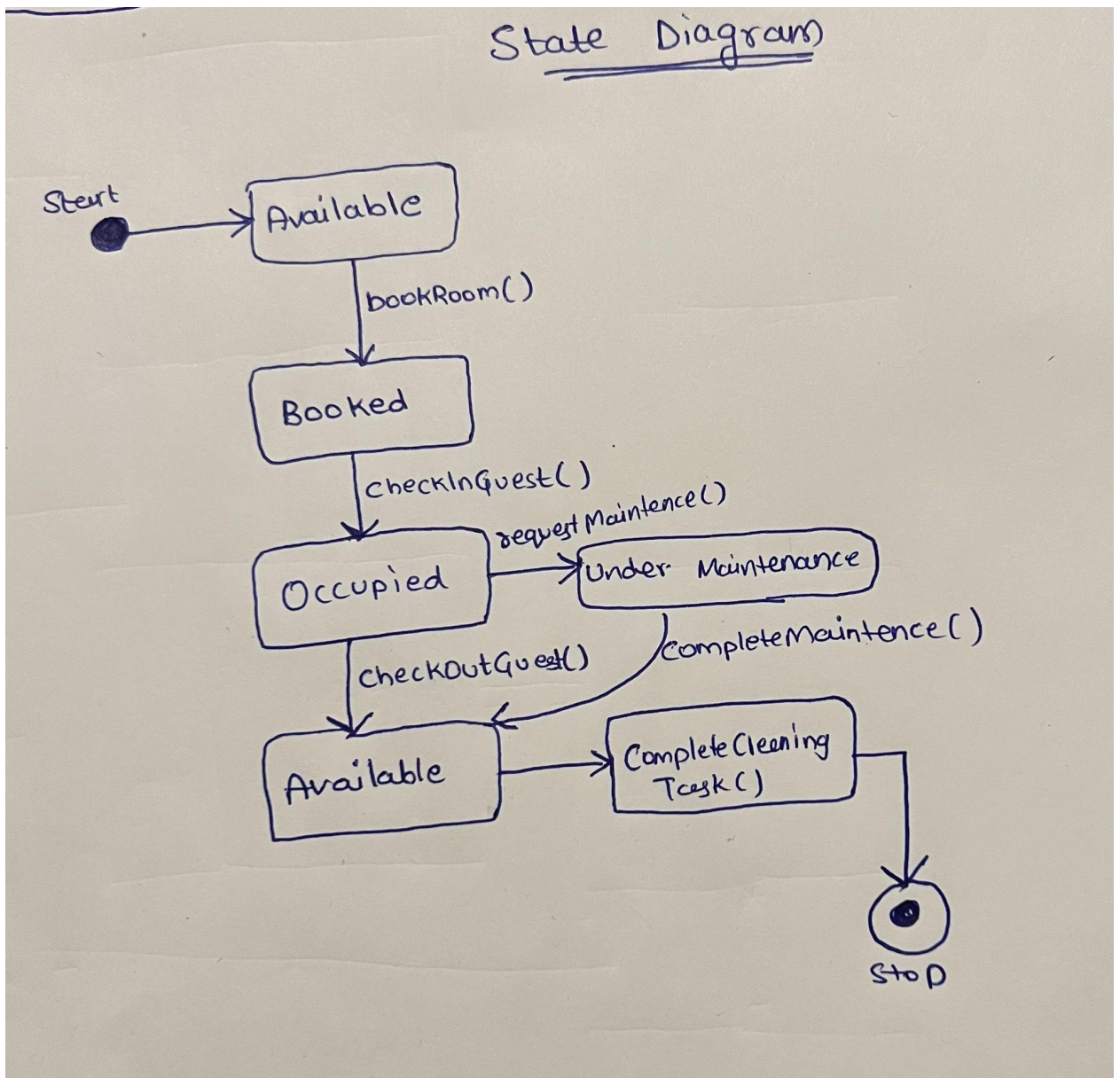
- Class diagrams:



- Sequence diagrams:



- State diagrams:



4. Test Plan (Draft):

Introduction:

- Purpose: Ensure the hotel management system meets functional and performance requirements
- Scope: Test all implemented features, including booking, check-in/check-out, guest profiles, and reporting

Test Approach:

- Unit testing: Test individual components of the system in isolation
- Integration testing: Test interactions between components and subsystems
- System testing: Test the system as a whole to ensure it meets requirements
- Performance testing: Assess the system's performance under various conditions

Test Environment:

- Hardware: Test on a variety of devices, including laptops, tablets, and smartphones
- Software: Test on the latest versions of major browsers (Chrome, Firefox, Safari, Edge)
- Tools: Use testing tools like Jest for unit testing and JMeter for performance testing

Test Schedule:

- Unit testing: Conduct during development, alongside feature implementation
- Integration testing: Conduct after completing each iteration
- System and performance testing: Conduct after all features have been implemented

5. Project Plan:

Task ID	Task Description	Responsible
1	Develop room booking feature	Frontend Dev
2	Implement check-in automation	Backend Dev
3	Develop guest profile management	Full Stack Dev
4	Implement housekeeping task management	Backend Dev
5	Develop reporting and analytics feature	Data Analyst
6	Integration and system testing	QA/Test Engineer
7	Deployment and finalization	Full Stack Dev

6. Sprint Backlog(Current Iteration):

Task ID	Task Description	Start Date	End Date	Responsible	Status
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1	Design guest profile user interface	03/01/2023	03/04/2023	Frontend Dev	Done
2	Implement guest profile frontend	03/05/2023	03/12/2023	Frontend Dev	Done
3	Develop guest profile backend API	03/06/2023	03/14/2023	Backend Dev	Done
4	Integrate frontend with backend	03/15/2023	03/18/2023	Full Stack Dev	In Progress
5	Test guest profile feature	03/19/2023	03/23/2023	QA/Test Engineer	Upcoming
6	Incorporate feedback and fix bugs	03/24/2023	03/28/2023	Full Stack Dev	Upcoming
7	Demo guest profile management feature	03/29/2023	03/29/2023	Full Stack Dev	Upcoming