UNIVERSITY OF GOTHENBURG

DIT355 Mini Project: Distributed Systems Development

SRS

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Functional Requirements

1-Client

1. The system shall allow clients to choose the desired date and time for booking.

2. The system shall display the locations of the dentists in Gothenburg at a certain time and date

3. The system shall allow users to book appointments.

4. The system shall allow the user to view the dentists details within the markers.

5. The system shall send booking requests and receive booking responses in a predefined format.

6. The system shall provide a generated code for issuance ID and client ID for each appointment.

7. The system should display the same available dentists for the chosen time slots for all users.

8. The system shall not provide booking times during breaks (12:00 - 13:00) and fika hours (15:00 - 15:30).

9. The system shall be able to handle failures related to Mqtt connection

10. The system shall be able to handle data that is within the bounds of the registry elements length

11. The system shall be able to handle type of input error

12. The system shall send an error message when booking a time outside of the opening hours of each dentist

13. The system shall send a message informing the user the time is unavailable when booking a time on fika time

14. The system shall send a message informing the user the time is unavailable when booking a time on lunch time

15. The system should unsubscribe from the MQTT broker once a topic is sent through MQTT to a different component

16. Upon booking request, If the booking is accepted the system shall send a confirmation message.

17. Upon clicking on the booking button,If the booking is rejected the system shall send a rejection message

18. The system shall display the times in slots of 30 minutes

19. Upon choosing the date and the time of the appointment, the system shall display all available dentists locations on the map.

20. Upon clicking once on a marker the system shall display clinic details, the system shall display the following information:
    a. Clinic Name
    b. Owner
    c. Dentists
    d. Address

21. Upon clicking twice on a marker the system shall display create a booking

22. If the booking is already done the system shall display the user Id, issuance Id and "none"

Non-Functional Requirements

1. The system shall display the locations of available dentists in green color.

2. The system shall display the locations of unavailable dentists in red color.

3. The system will respond within 1 second when the user tries to book.

4. The system should support at least 500 people at once.

5. The system is available all the time.

Constraints

1. The map should show Gothenburg city

2. The system should have at least 4 distributed components

3. The system shall use at least two architecture styles.

4. The system shall use MQTT broker