



# UNIVERSITY OF GOTHENBURG

**DIT355 Mini Project: Distributed Systems Development**

## **SRS**

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2021

## Functional Requirements

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 respond by a confirmation message or rejection message if the time is not available.
7. The system shall provide a generated code for issuance ID and client ID for each appointment.
8. The system should display the same available dentists for the chosen time slots for all users.
9. The system shall not provide booking times during breaks (12:00 - 13:00) and fika hours (14:30 - 15:00).
10. The system shall be able to handle failures and out of bounds inputs internally.
11. The system should unsubscribe from the MQTT broker once a topic is sent through MQTT to a different component

## Non-Functional Requirements

1. The system shall display the data in an easy to read format and color
  - 1.1. The system shall display the locations of available dentists in green color.
  - 1.2. The system shall display the locations of unavailable dentists in red color.
2. The system will respond fast when the user tries to book.
3. The system should support at least 500 people at once.
4. 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 be a distributed system
4. The system shall use at least two architecture styles.
5. The system shall use MQTT broker