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Utfordringer i design av et system som skal visualisere pasientforløp i sanntid

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Hovedutfordringer

- Mange hendelser – kan/bør man fange opp alt?
 - Er alle hendelser like viktig å representere?
- Hvordan å ”sette sammen” hendelser fra forskjellige kilder?
 - Mange forskjellige systemer på et sykehus, hvorav mange ikke utviklet til å kunne jobbe i lag med andre systemer

Se

- A
- S
- V



Mock-up bildene er laget som del av et kundestyrt prosjekt ved IDI/NTNU. Studentgruppen består av: Marvin B. Lillehaug, Anders Hjellvik, Amr Ellafy, Jannik Berg, Joel Eelaraj Chelliah og Joshua Maringa.

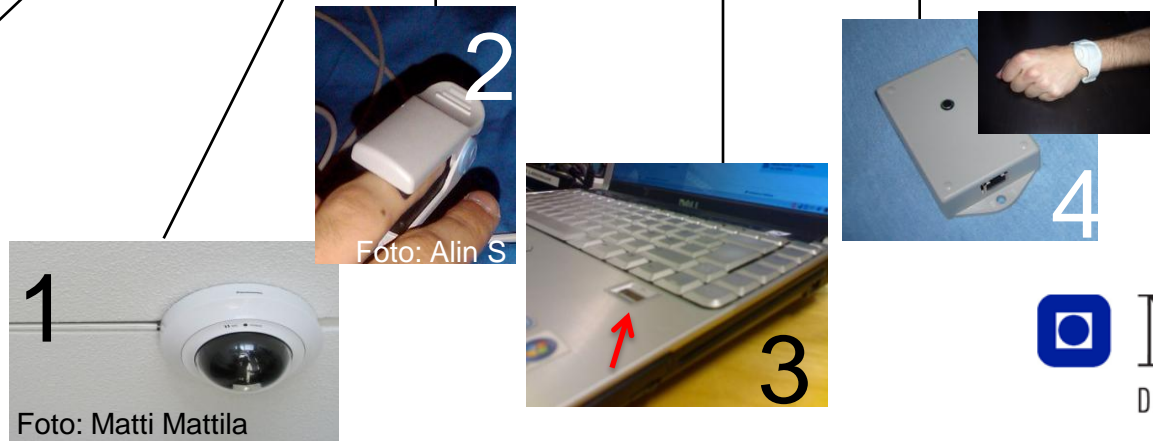
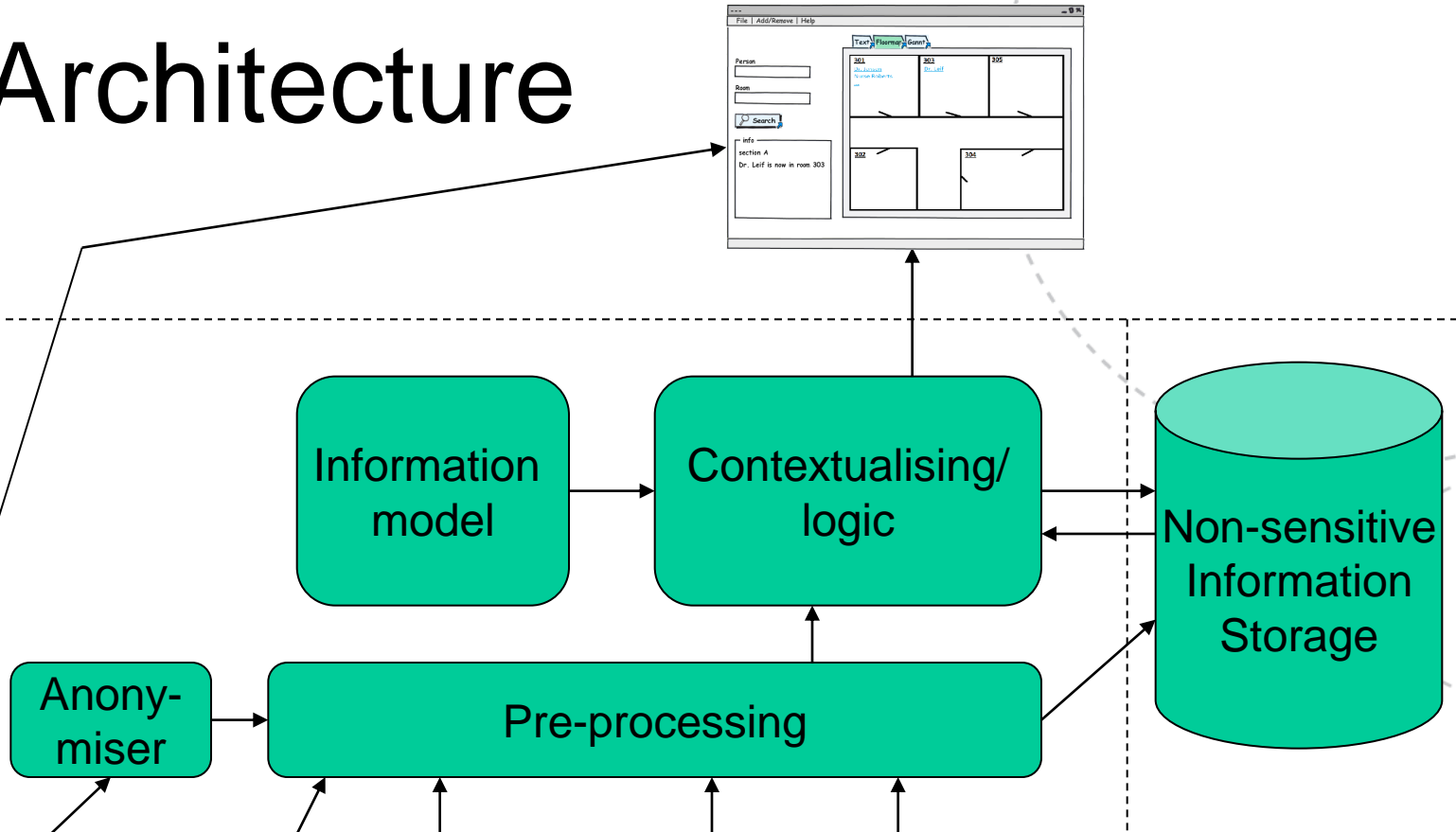
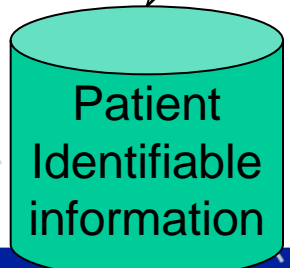
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Initial Architecture

User Interface

Middleware

Data/
Information



Hvordan å komme fra sensordata til visualisering?

- Hypotese
 - En hendelsesbasert programvarearkitektur kan brukes for å støtte koordinering i en perioperativ setting
- Aggregere, ikke integrere (“one way communication”)
 - Hvilke publish/subscribe-mekanismer skal taes i bruk?
 - sensor data med sensor data
 - sensor data med modeller/planer
- Logikk for å tolke
 - Hvordan kan hendelser som stammer fra mange forskjellige kilder kombineres i komplekse betydningsfylte hendelser som danner grunnlag for visualisering?
 - “witness events” / “vitne-hendelser”

Takk for meg

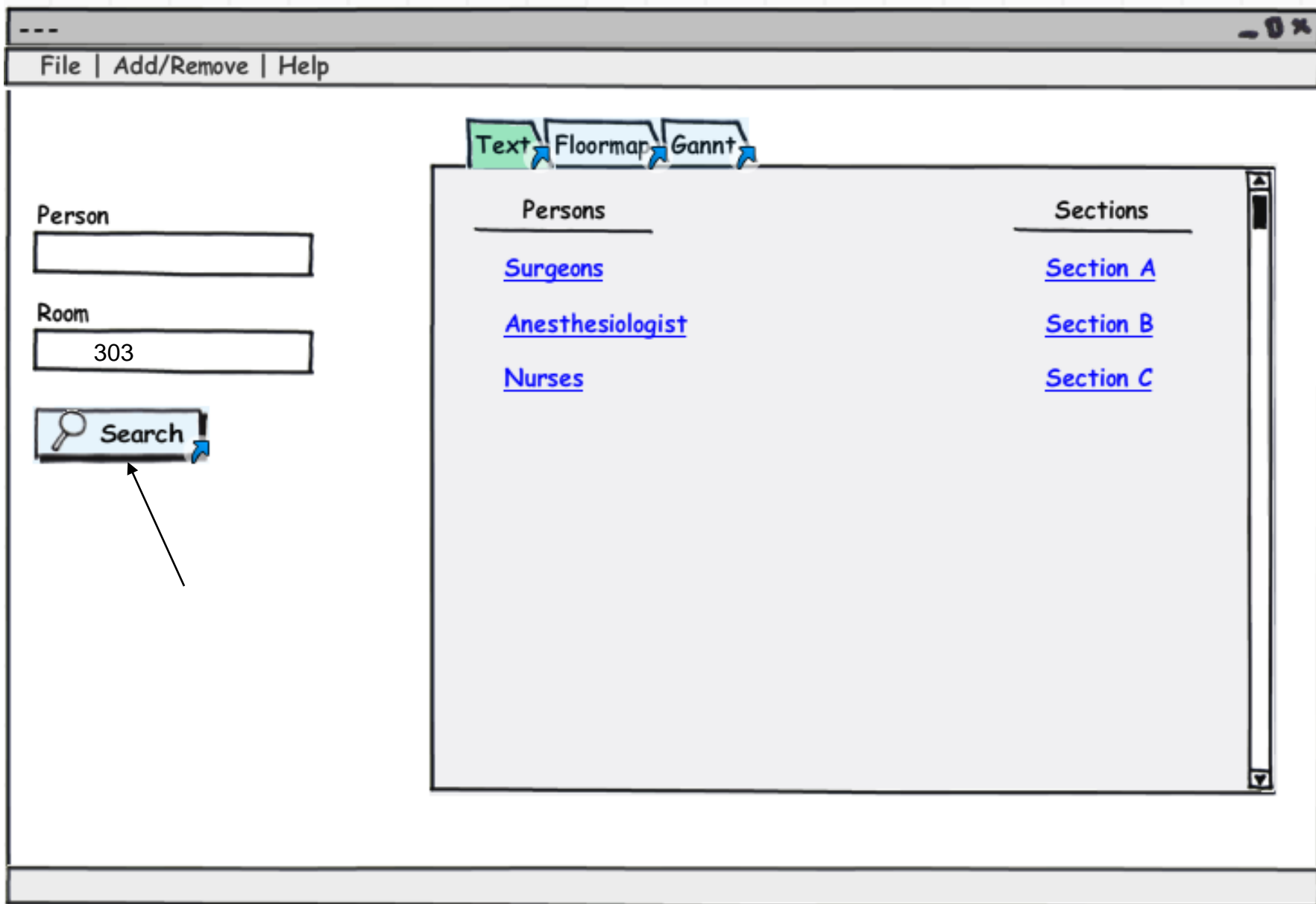
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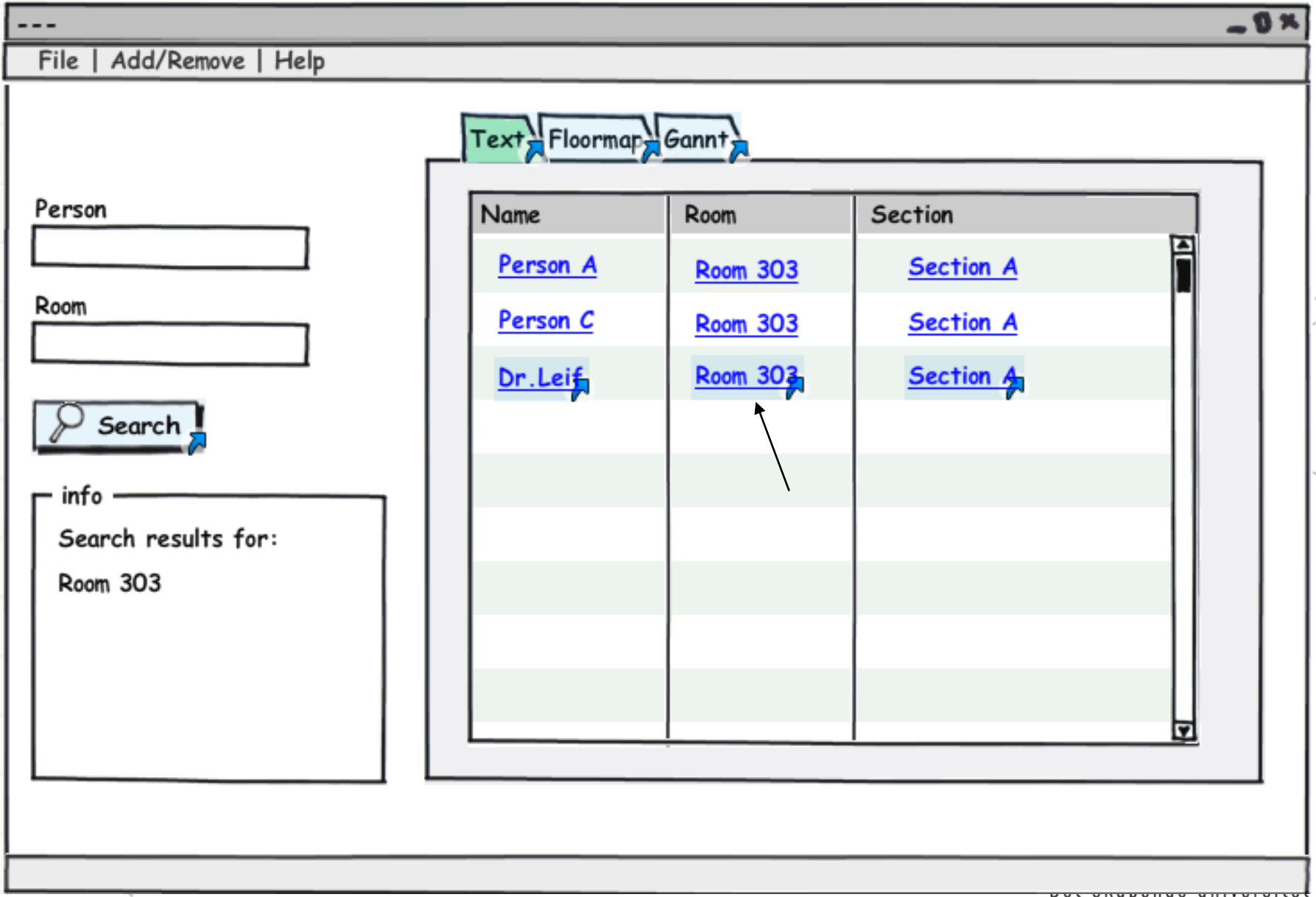
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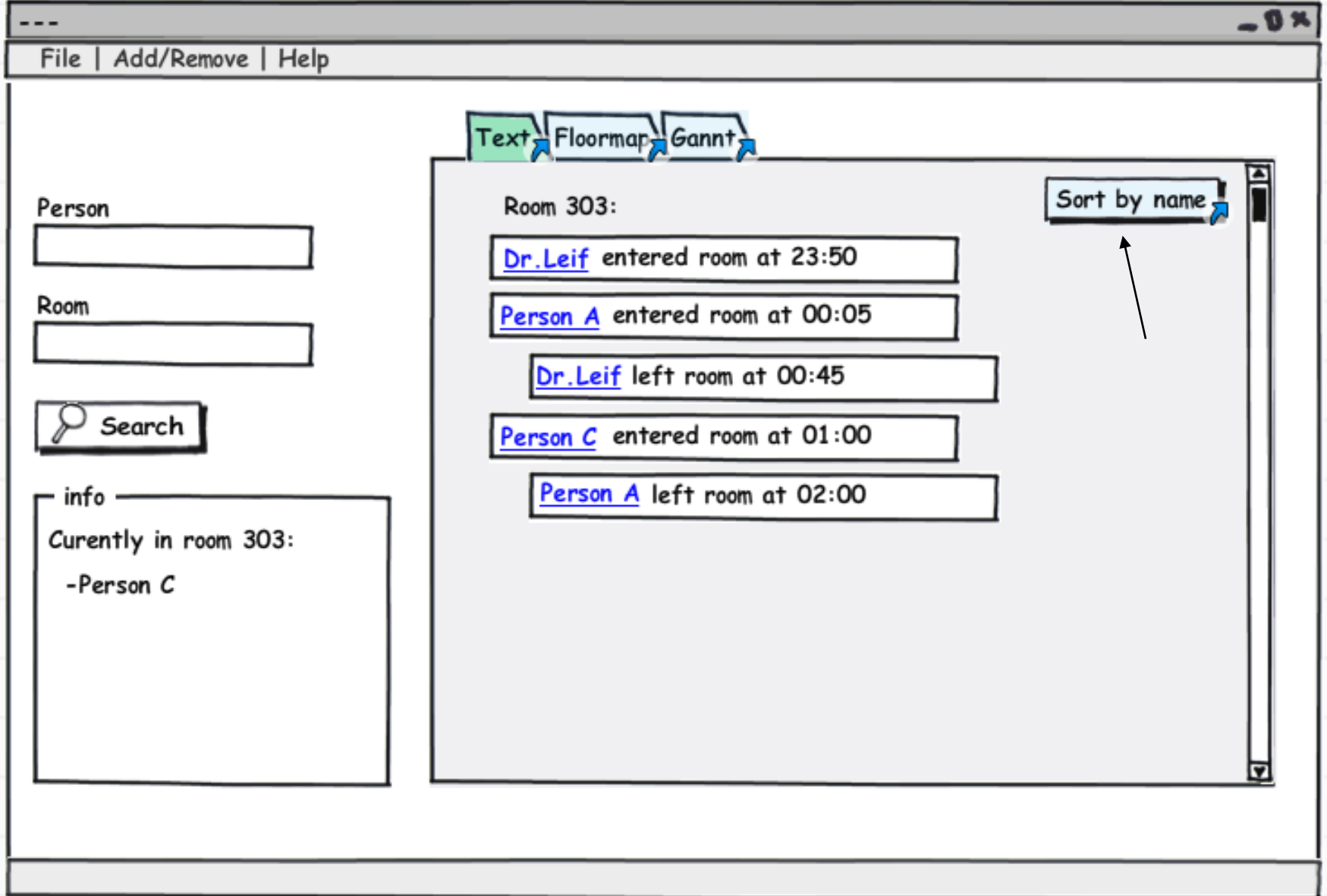
Backup slides

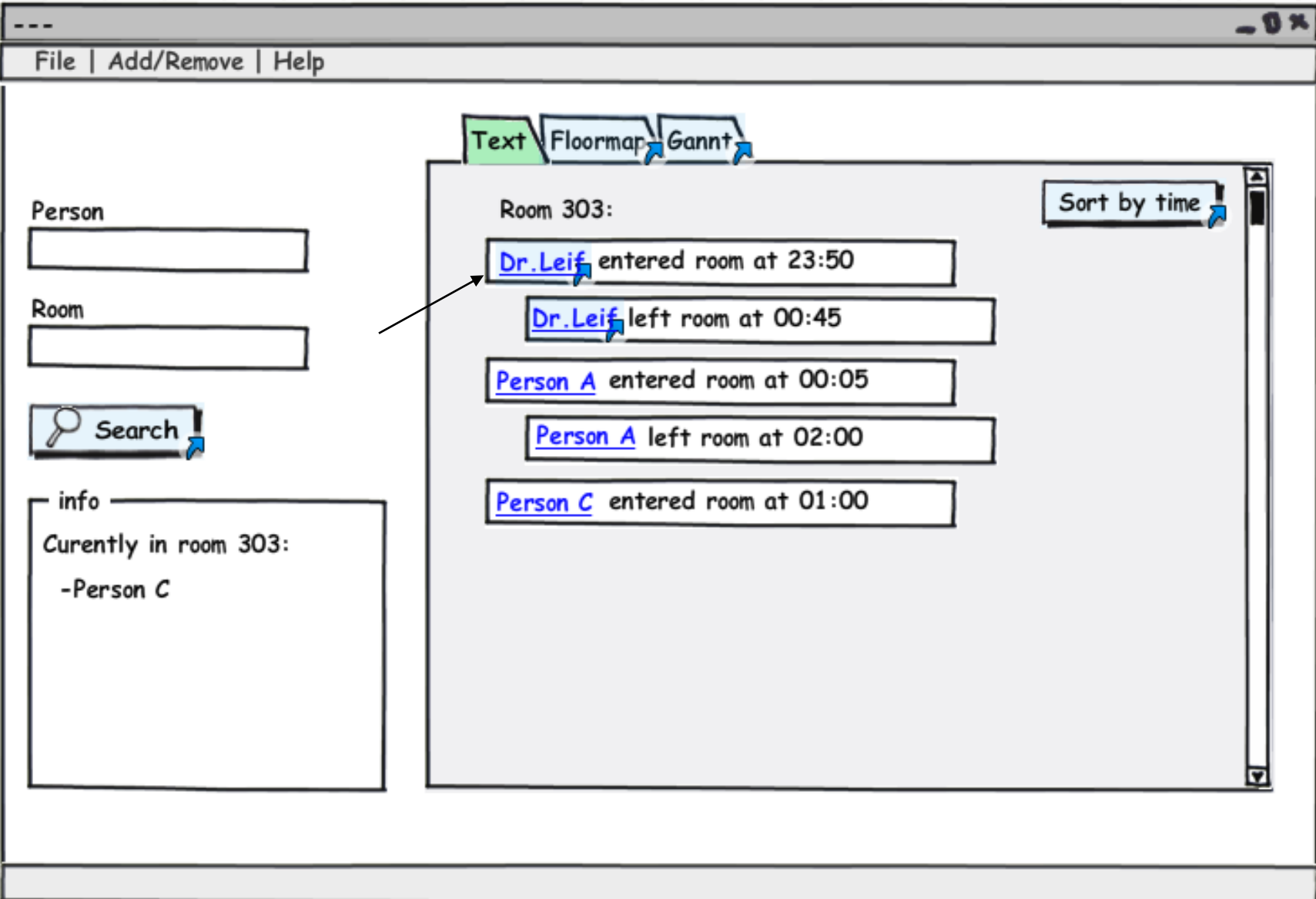
Krav til systemet

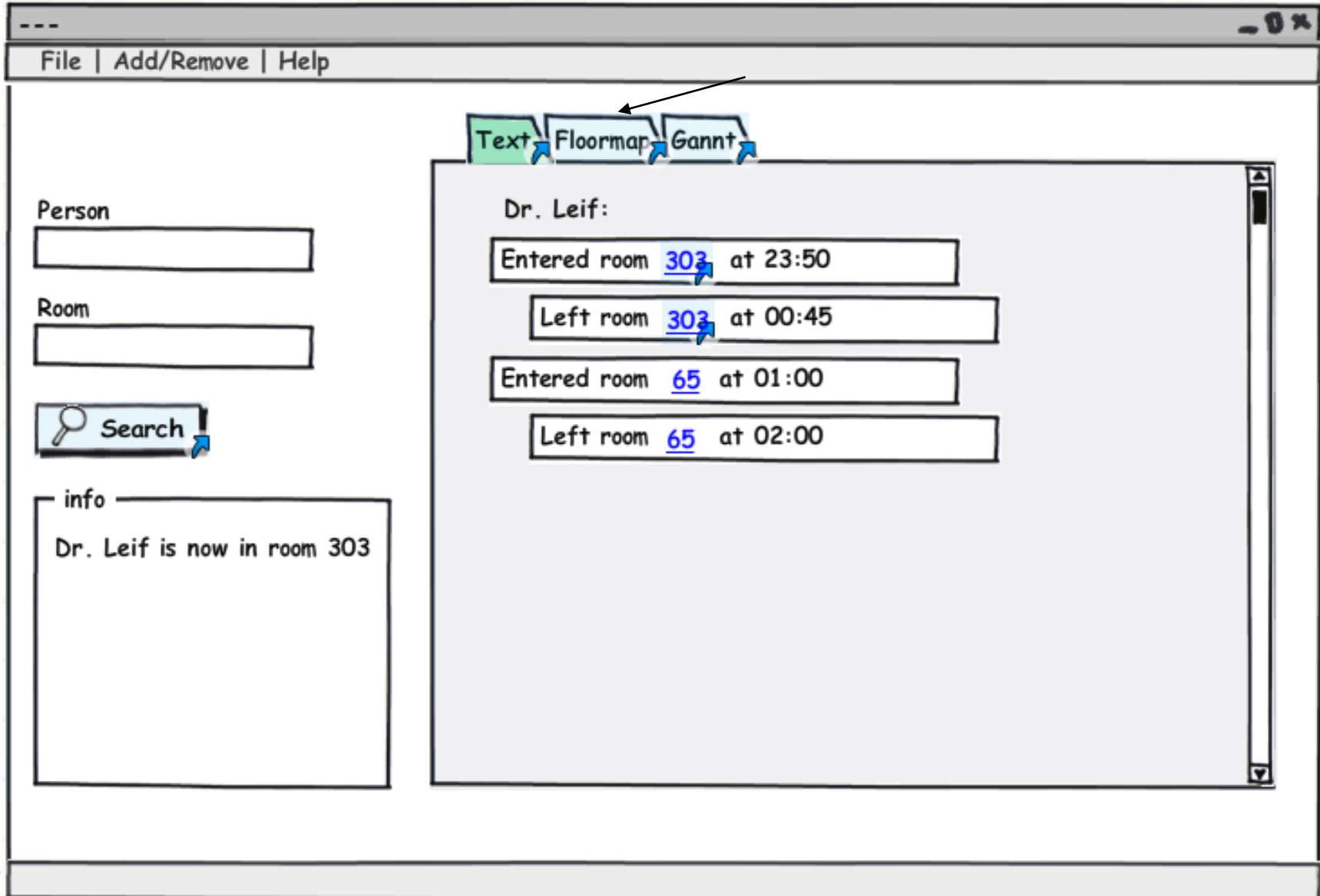
- Må være i tråd med Nasjon IKTs retningslinjer (ref ”Tjenesteorientert arkitektur i spesialisthelsetjenesten”)
- Enveiskommunikasjon
- Robust
- Skalerbar
- ”loosely coupled”
- Sikkerhet
- Anonymitet











The screenshot shows a web browser window with a menu bar containing "File", "Add/Remove", and "Help". Below the menu bar are three tabs: "Text", "Floormap", and "Gantt". The "Floormap" tab is selected and highlighted in green. An arrow points to the "Gantt" tab. The main content area is divided into two sections. On the left is a search interface with a "Person" input field, a "Room" input field, and a "Search" button with a magnifying glass icon. Below the search fields is an "info" box containing the text "section A" and "Dr. Leif is now in room 303". On the right is a floorplan diagram with five rooms: 301, 302, 303, 304, and 305. Room 301 contains the text "Dr. Jonson", "Nurse Roberts", and "...". Room 303 contains the text "Dr. Leif". Rooms 302, 304, and 305 are empty.

The screenshot shows a software application window with a menu bar containing "File", "Add/Remove", and "Help". Below the menu bar is a navigation bar with three tabs: "Text", "Floormap", and "Gantt", with the "Gantt" tab selected. On the left side, there is a sidebar with the following elements: a "Person" label above an empty text input field; a "Room" label above another empty text input field; a "Search" button with a magnifying glass icon; and an "info" section containing the text "Curently in room 303:" followed by "- Person C". The main area of the window displays a Gantt chart titled "Room 303". The chart has a time axis at the top with labels: "00:00", "01:00", "02:00", "03:00", "04:00", "05:00", "06:00", and "0". On the left of the chart, there is a list of names: "Person A", "Person B", "Person C", and "Dr. Leif". Each name has a corresponding horizontal bar representing a time interval: "Person A" (red, 00:00-04:00), "Person B" (blue, 01:00-03:00), "Person C" (green, 03:00-06:00), and "Dr. Leif" (pink, 00:00-01:00 and 04:00-05:00). The "Dr. Leif" label and its corresponding bars are highlighted with a blue selection box and a mouse cursor. A black arrow points from the bottom of the "Dr. Leif" label to the "info" section.

The screenshot shows a software window with a menu bar containing "File", "Add/Remove", and "Help". Below the menu bar are three tabs: "Text", "Floormap", and "Gantt", with the "Gantt" tab selected. On the left side, there is a search interface with labels "Person" and "Room" above two empty text input fields. Below these is a "Search" button with a magnifying glass icon. Underneath the search fields is an "info" box containing the text "Dr. Leif is now in room 303". The main area of the window displays a Gantt chart for "Dr. Leif". The chart has a horizontal axis with time slots from 00:00 to 06:00. On the left, there are two room selection boxes: "Room 303" and "Room 65". Two red horizontal bars are positioned above the "Room 303" box, spanning from approximately 00:00 to 01:00 and from 04:00 to 05:00. A single blue horizontal bar is positioned above the "Room 65" box, spanning from approximately 02:00 to 03:00. The chart area includes a vertical scrollbar on the right and a horizontal scrollbar at the bottom.