Agenda

Human-Centered Innovation and Design
Application Realization Diagram (ARD)
Discovery Center Mission
Dashboard Walkthrough
Q&A
Human-Centered Innovation and Design
SAP’s Human-centered Approach To Innovation (HCAI)

Start with Design Thinking

- **Explore**: innovation opportunities and tie them to strategic business goals.
- **Discover**: and gain a deep understanding of the needs and opportunities of customers and their end users.
- **Design**: and create a prototype of the solution and define the enterprise architecture components.
- **Deliver**: the business and technical solutions for productive use in your enterprise architecture landscape.
- **Run & Scale**: the solution, and deploy across the company.
User Research

The purpose of User Research is to discover the real end user behavior, their needs, frustrations and expectations.

From in-person to remote
COVID User Research Challenges

• Hospital in crisis mode due to COVID. Result → No access to end users

Next best alternative: Proxies
• Interviewed SAP Partners who work in the healthcare space.
• Interviewed Healthcare IBU Experts
Early Design Exploration: Low Fidelity Designs
Stakeholder and Partner Feedback

- Good content, but
- Persona not clear
- Designs don’t match stories
- May not be able to get data for some charts
# Persona & User Stories

## Capacity Planning User Stories

### Phase I

<table>
<thead>
<tr>
<th>ID</th>
<th>As a [type of user]</th>
<th>I want to [perform some task]</th>
<th>so that I can [achieve some goal]</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Capacity Planner (CP)</td>
<td>get an overview of the current total patients (beds) in the hospital (census)</td>
<td>know how much of total capacity of the hospital is being used today</td>
</tr>
<tr>
<td>2</td>
<td>CP</td>
<td>get an overview of the Nurses staffing, Admissions, Discharges today</td>
<td>determine if today's staffing levels are sufficient for current patients, admissions and discharges</td>
</tr>
<tr>
<td>3</td>
<td>CP</td>
<td>see predictions for tomorrow's total patients in the hospital (census)</td>
<td>determine tomorrow's predicted census</td>
</tr>
<tr>
<td>4</td>
<td>CP</td>
<td>see predictions for the Admissions &amp; Discharges tomorrow</td>
<td>determine tomorrow's predicted total census including expected admissions and discharges</td>
</tr>
<tr>
<td>5</td>
<td>CP</td>
<td>see plan for Nurses staffed tomorrow</td>
<td>determine if tomorrow's staffing levels are sufficient for predicted patients, admissions and discharges</td>
</tr>
<tr>
<td>6</td>
<td>CP</td>
<td>know how the current total number of patients (beds) in the hospital compared to yesterday's number</td>
<td>understand if census is up or down from the previous day</td>
</tr>
<tr>
<td>7</td>
<td>CP</td>
<td>know how the current total number of Nurses Staffed, Admissions, &amp; Discharges compared to yesterday's number</td>
<td>understand if Nurses Staffed, Admissions and Discharges are up or down from the previous day</td>
</tr>
<tr>
<td>8</td>
<td>CP</td>
<td>view the average arrival wait time over time</td>
<td>determine if ED intake is appropriately staffed to meet both quality of service and financial goals</td>
</tr>
<tr>
<td>9</td>
<td>CP</td>
<td>view the ED Arrivals per day of the week and hour</td>
<td>know when are the peak day of the week and times for ED arrivals to appropriately staff the ED intake.</td>
</tr>
<tr>
<td>10</td>
<td>CP</td>
<td>view the inflow by service line</td>
<td>understand the ED demand per Service Line</td>
</tr>
<tr>
<td>11</td>
<td>CP</td>
<td>view the average Turnaround Discharge by Service line by time</td>
<td>determine the ED discharges by Service Line by time (day, week, month...) to understand number of admitted vs discharged patients per Service Line</td>
</tr>
</tbody>
</table>
Design Exploration
Healthcare Enterprise Capacity Planning Highlights

**Topic 1: Insight into Overall Capacity**
Gain insight into the overall capacity within the facility including admissions, discharges, transfers and ED arrivals

**Topic 2: Drill-into Emergency Department and Critical Care**
Monitor the arrivals, wait-time and occupancy within the emergency department and forecast needs based on predicted patient volumes

**Topic 3: Staffing Insight**
Track nurse staffing levels over time, and estimate needs in the future, based on expected occupancy
ARD and Discovery Center Mission

Optimize Healthcare Enterprise Capacity Planning with SAP Analytics Cloud

Use Case

SAP Healthcare Enterprise Capacity Planning template offers healthcare providers an easy starting point for their analytic scenarios. The dashboards provides an overview into different units within a hospital including Admissions, Discharges, Total Beds, and Nurses Staffed to help healthcare leaders plan for the future.

Current Position - What is the challenge?

About Missions

Missions include best practices and step-by-step guidance for implementing use cases, with a well-established support from mission experts and SAP Community.