



ABOUT ME



HELLO THERE!  
MY NAME IS **KRISHNAN**.  
I DESIGN PRODUCTS THAT  
ARE **FUNCTIONAL**, **BEAUTIFUL**  
AND **EASY TO USE**.

#### UX WORK EXPERIENCE

10+ years

#### STRENGTHS

Interaction Design  
UX Strategy  
Data Visualization  
Usability Testing

#### WEAKNESS

Drawing, Driving

[Download Resume](#)

#### CURRENTLY WORKING AT



SENIOR UX DESIGN SPECIALIST  
[2015-PRESENT]



#### STUDIED AT

**ual:** london college  
of communication

M.A INTERACTIVE MEDIA  
[2013]



**VIT**  
Vellore Institute of Technology

B-TECH I.T  
[2009]

#### PREVIOUSLY WORKED AT

**ORACLE**

INTERACTION DESIGNER  
[2014-15]

**tcs**

**TATA**  
CONSULTANCY  
SERVICES

UX DESIGNER  
[2009-12]

1987

BORN

2005

VIT

2009

tcs

2012

ual

2014

ORACLE

2015

SAP



MY UX WORK

# RESOURCE ORCHESTRATION

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## WHAT IS IT?

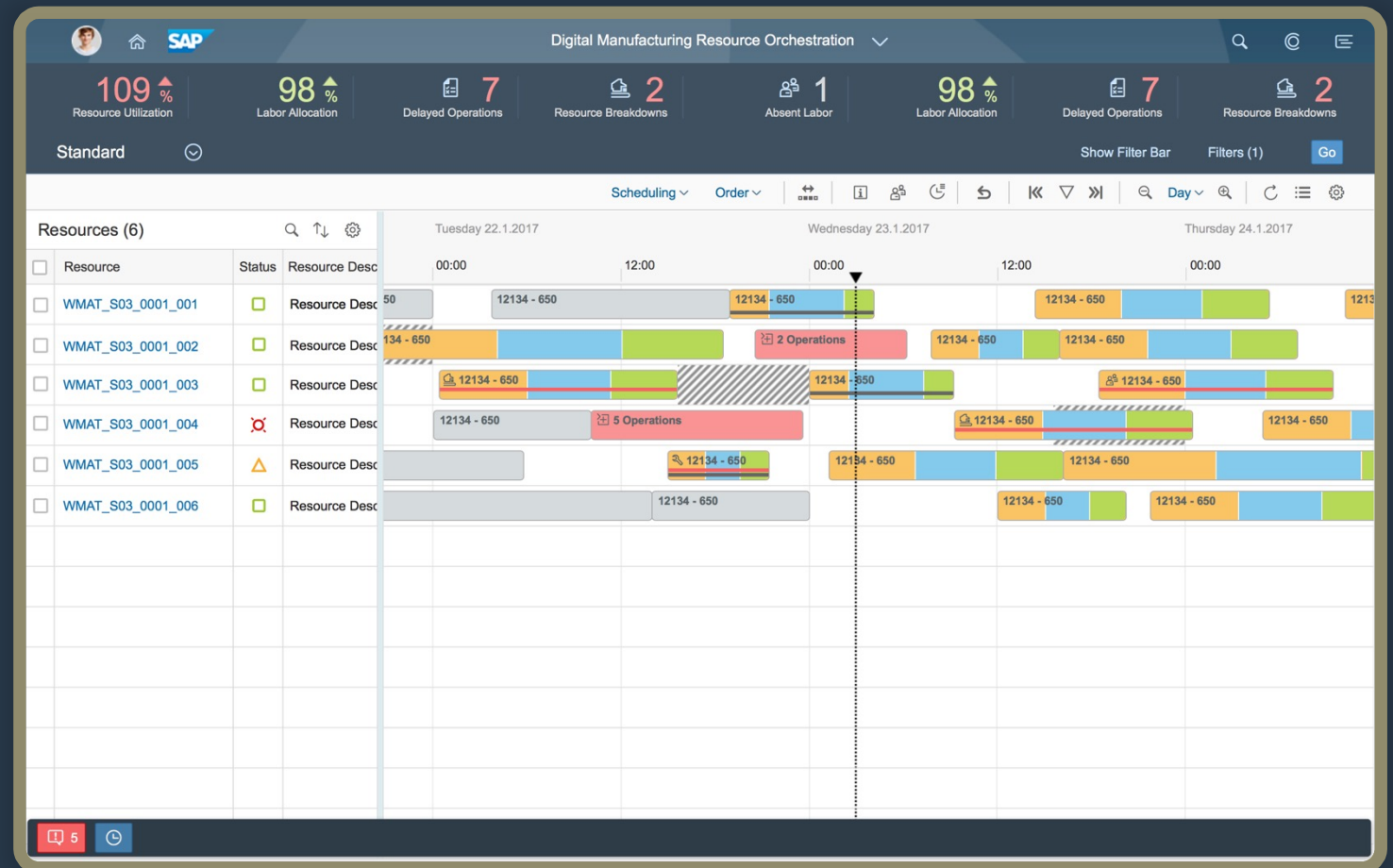
A cloud based web app to Plan, Monitor and Manage factory Resources and ensure its optimum utilization.

## WHO IS IT FOR?

Production Supervisors

## MY CONTRIBUTIONS

- **End-to-end Design Process:** From requirement collection to concept validation and design solutions.
- **One App, One UI:** Designed a one stop solution where all complex use-cases are executed from a single app, and all information available in a single UI.
- **New design philosophy:** REO's design pushed boundaries of front-end technologies and set standards for future complex apps in SAP. The solutions were later incorporated into the Gantt Chart UI reuse component.



# RESOURCE ORCHESTRATION

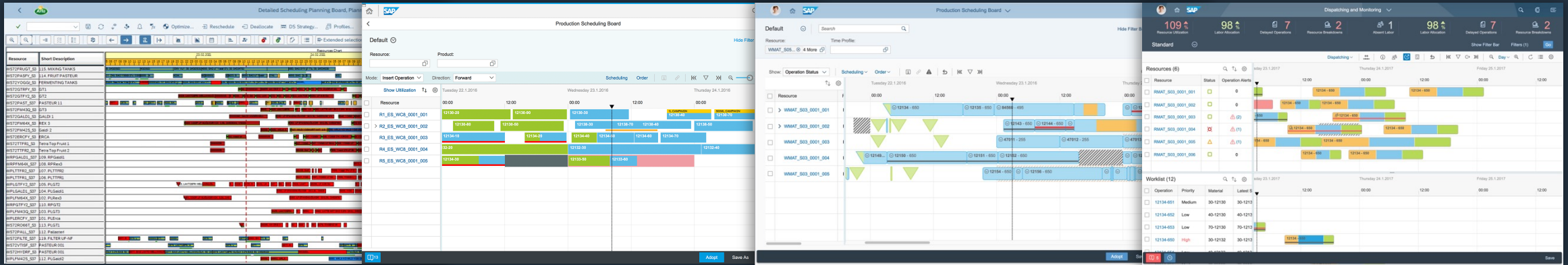
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1995

2016

2017

2018



SAP Production Planning

SAP Production Scheduling Board  
(Initial Version)

SAP Production Scheduling Board

SAP Resource Orchestration

## PRODUCTION SCHEDULING BOARD:

REO's design was influenced from my work with a similar planning app called 'Production Scheduling Board (PSB)'. It is used by Production Planners to create a short-term Production Plan that matches the Demand and Supply keeping in mind the Resource and Material availability.

I designed two versions of PSB - The first version was a simplified design based on the SAP Production Planning app from 1995. It applied modern UX principles to clean up the UI and implemented the Fiori Design System. Usability studies on this version showed that Users wanted all features and information upfront in the UI and detailed visualizations. This led to a redesign, which was the final version released in 2017. Learnings from the Usability Study was documented as a white paper ([Link](#)).

# LABOR MANAGEMENT

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## WHAT IS IT?

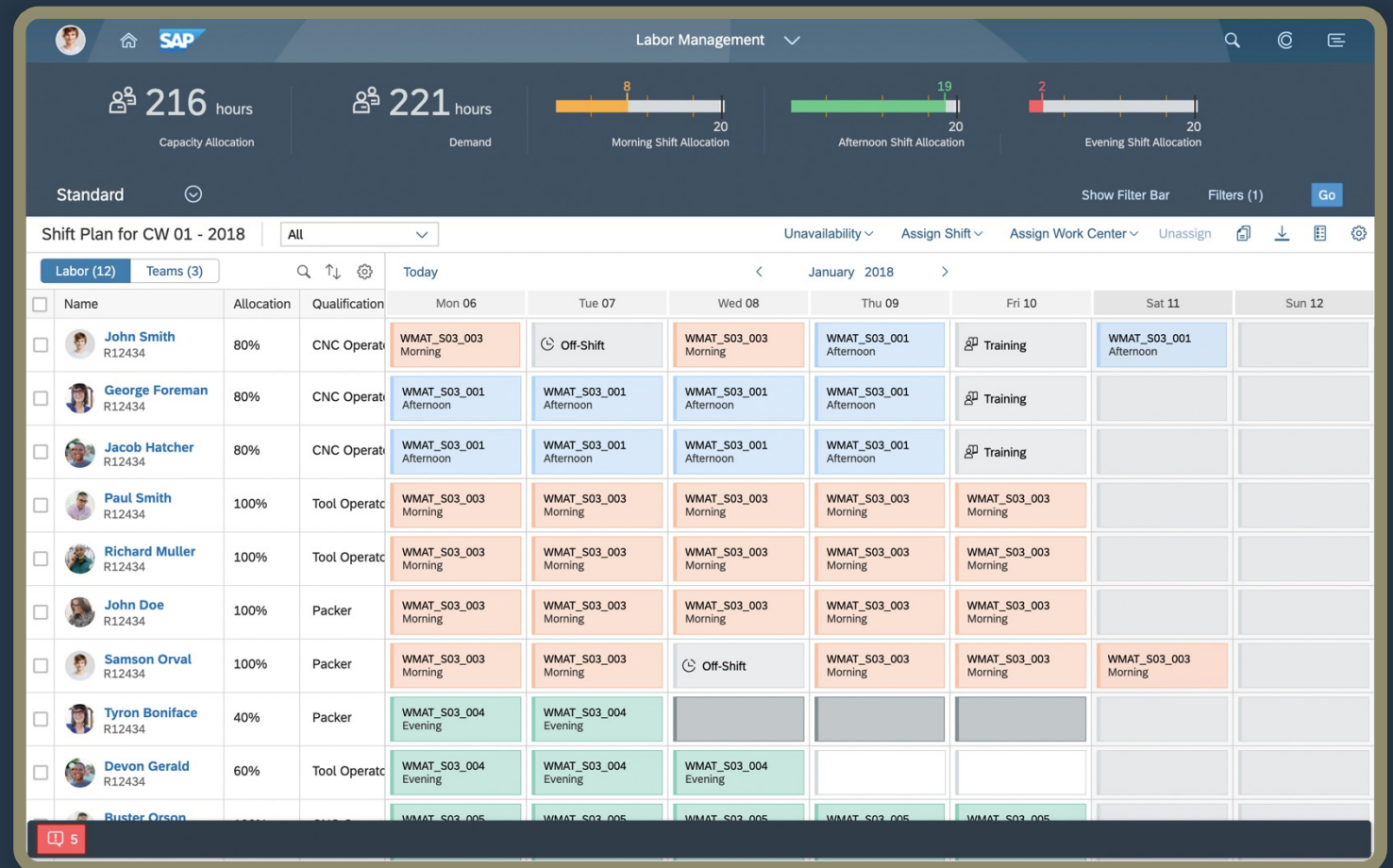
A cloud app to manage Labor assignments to Shifts and Work Centers on the Factory Shopfloor.

## WHO IS IT FOR?

## Production Supervisors

## MY CONTRIBUTIONS

- **Labor Schedule:** Designed a new visualization to show the relation between Labor, Shift, Calendar Week and Work Center.
- **Labor Assignment:** Created a quick way for Supervisor to use the Labor Schedule view to assign Labor to Shifts and Work Centers.
- **REO Integration:** Established a visual relation between Labor, Shifts and Resource to mitigate Labor shortage within REO's Gantt Chart.



# S4/HANA MOBILE UX STRATEGY

## WHAT IS IT?

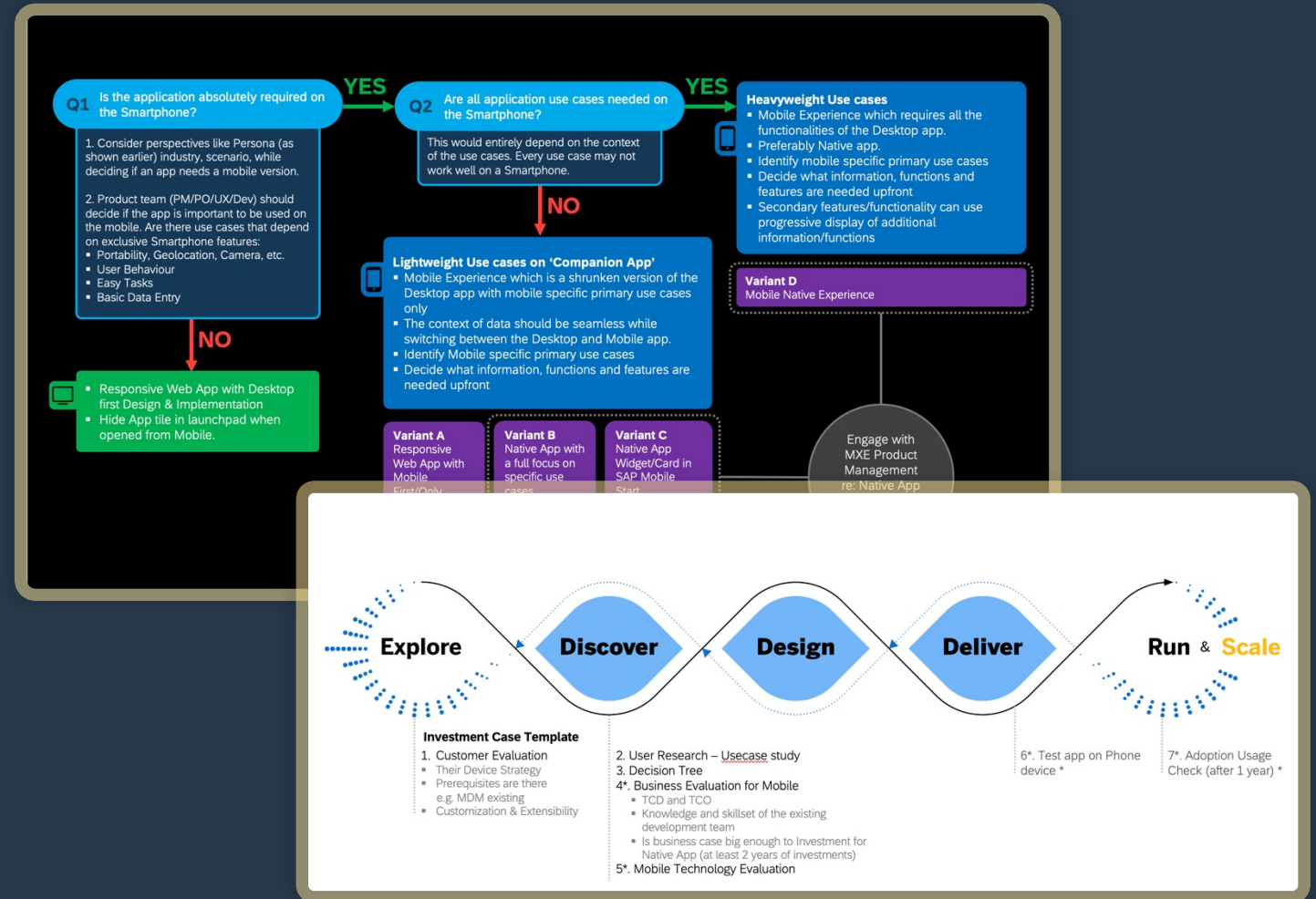
New Mobile UX strategy for all S4/HANA Cloud apps to improve its UX and increase mobile usage with users.

## WHO IS IT FOR?

Product Owners, User Researchers, UX Designers, UI Developers

## MY CONTRIBUTIONS

- **Mobile UX Workshop:** Conducted a workshop with UX Designers to gather insights on how to improve mobile UX in S4/HANA cloud apps.
- **Mobile Decision Tree:** Created a 'Decision Tree' to aid project stakeholders to decide on Mobile Strategy and implementing this in the existing development process.
- **App Portfolio Cleanup:** Used the 'Decision Tree' to clean up S4/HANA app portfolio if app is not needed for phones.



# WORKCENTER POD

## WHAT IS IT?

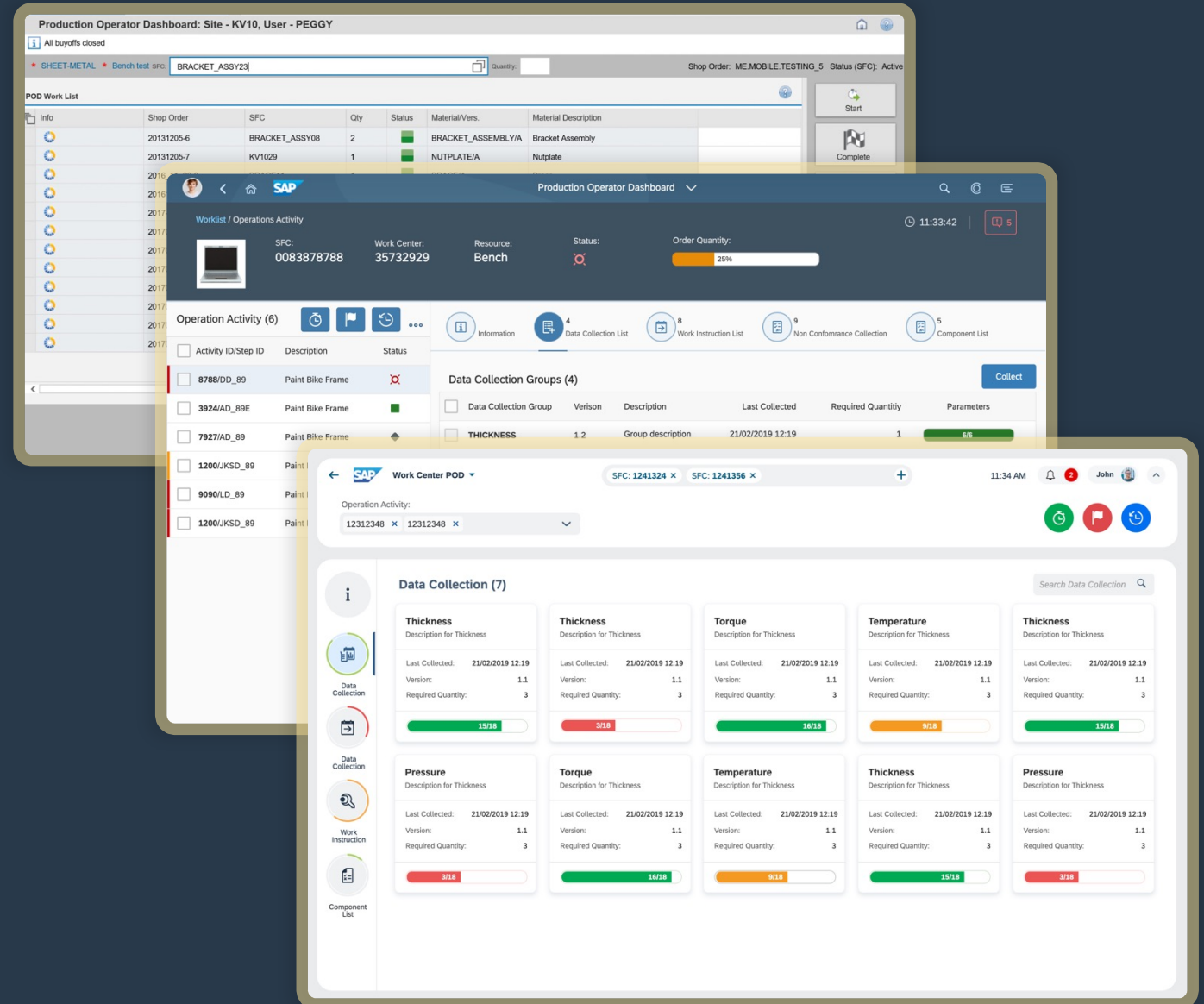
A Production Operator Dashboard (POD) that is used while executing Production Orders. It gives information on how to assemble components, log tools used, collect data and view work instructions.

## WHO IS IT FOR?

Production Operators

## MY CONTRIBUTIONS

- **Complete Redesign:** Revamped existing app to fit the Fiori Design system.
- **'K-Mode' Concept:** Proposed a new UI content density mode for Kiosks that aid Operators by improving readability of screens and touch interactions while wearing gloves and goggles. This mode automatically changes the size of UI elements (fonts, icons, spacing, buttons, images etc.) based on the size of the screen.



# CENTRAL DESIGN TIME

## WHAT IS IT?

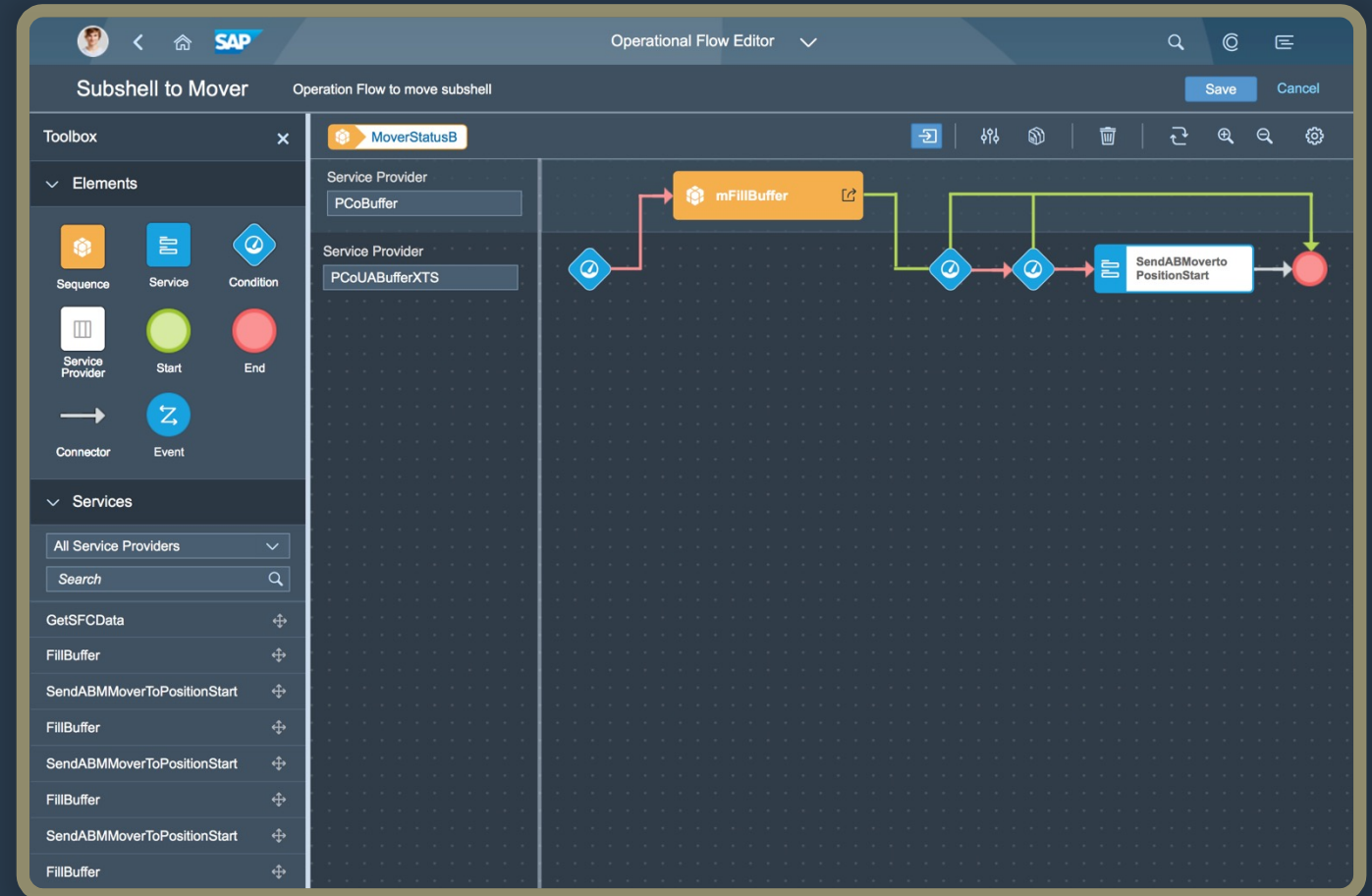
A centralized design time environment to detail out Operations of a Routing and easily customize the automation of a Production Process.

## WHO IS IT FOR?

Manufacturing Process Specialist

## MY CONTRIBUTIONS

- **Design Time Editor Floorplan:** Designed a new UI Floorplan that provide an easy drag-and-drop interactions to detail Operations in a Routing. This Floorplan later became a reusable component for other apps to use.
- **Flow Elements:** Designed a new visual programming language using 'BPMN' notations to aid the User in creating Operation Flows. These notations indicate different types of functions in an Operation of a Routing.



# DASHBOARD DESIGNER

## WHAT IS IT?

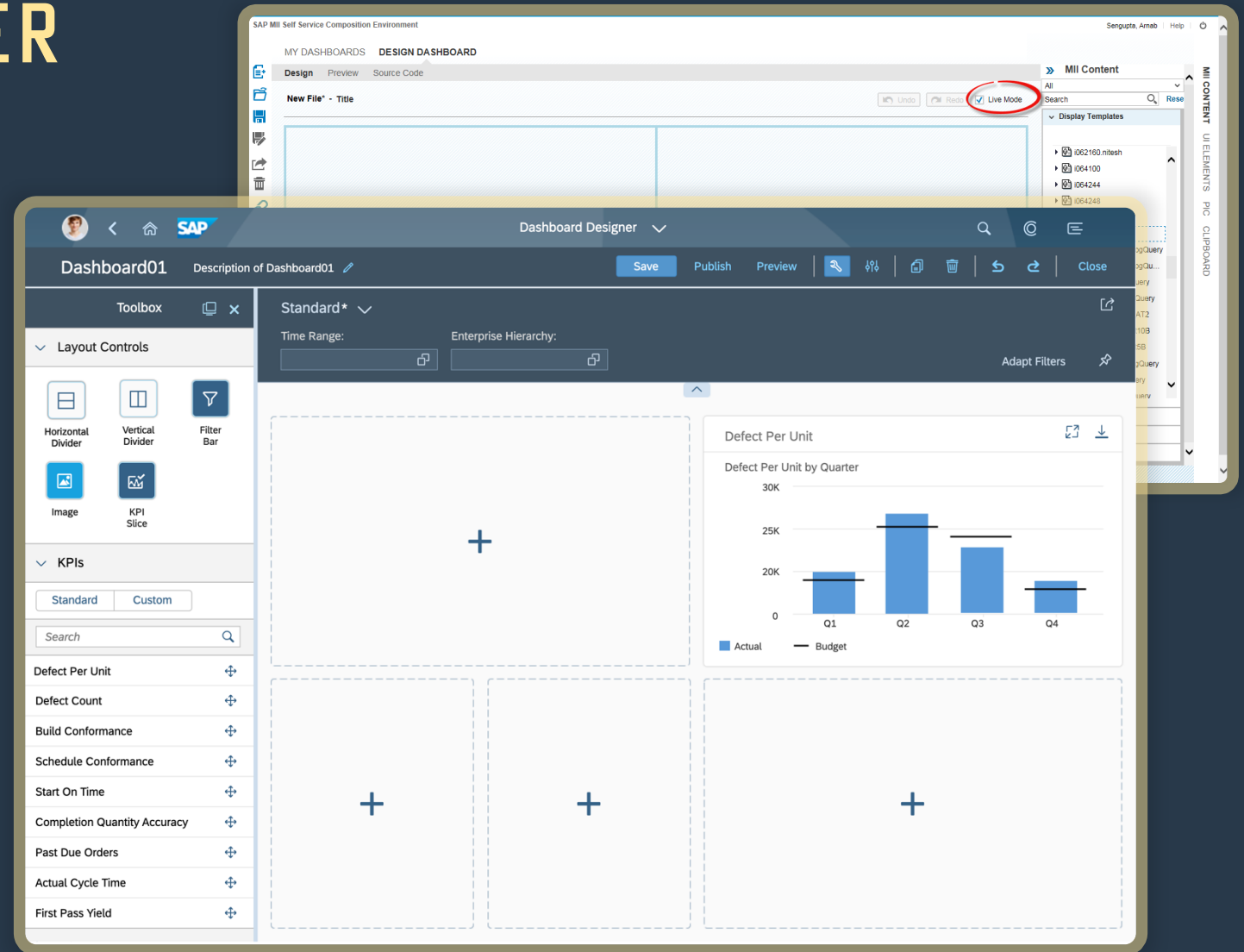
An app that enables users to create, design, configure, and display dashboards for the Shop Floor. It seamlessly integrates data from manufacturing and give relevant KPIs for users.

## WHO IS IT FOR?

Plant Managers

## MY CONTRIBUTIONS

- **Complete Redesign:** Revamped the entire design of the app from the ground up to deliver a simplified experience for Plant Manager to create Dashboards on the go.
- **Design Time Editor:** Reused the UI Floorplan I had designed for 'Central Design Time' app where Plant Managers can quickly drag-and-drop KPI's and configure them.



# GANTT CHART UX FEATURES

## WHAT IS IT?

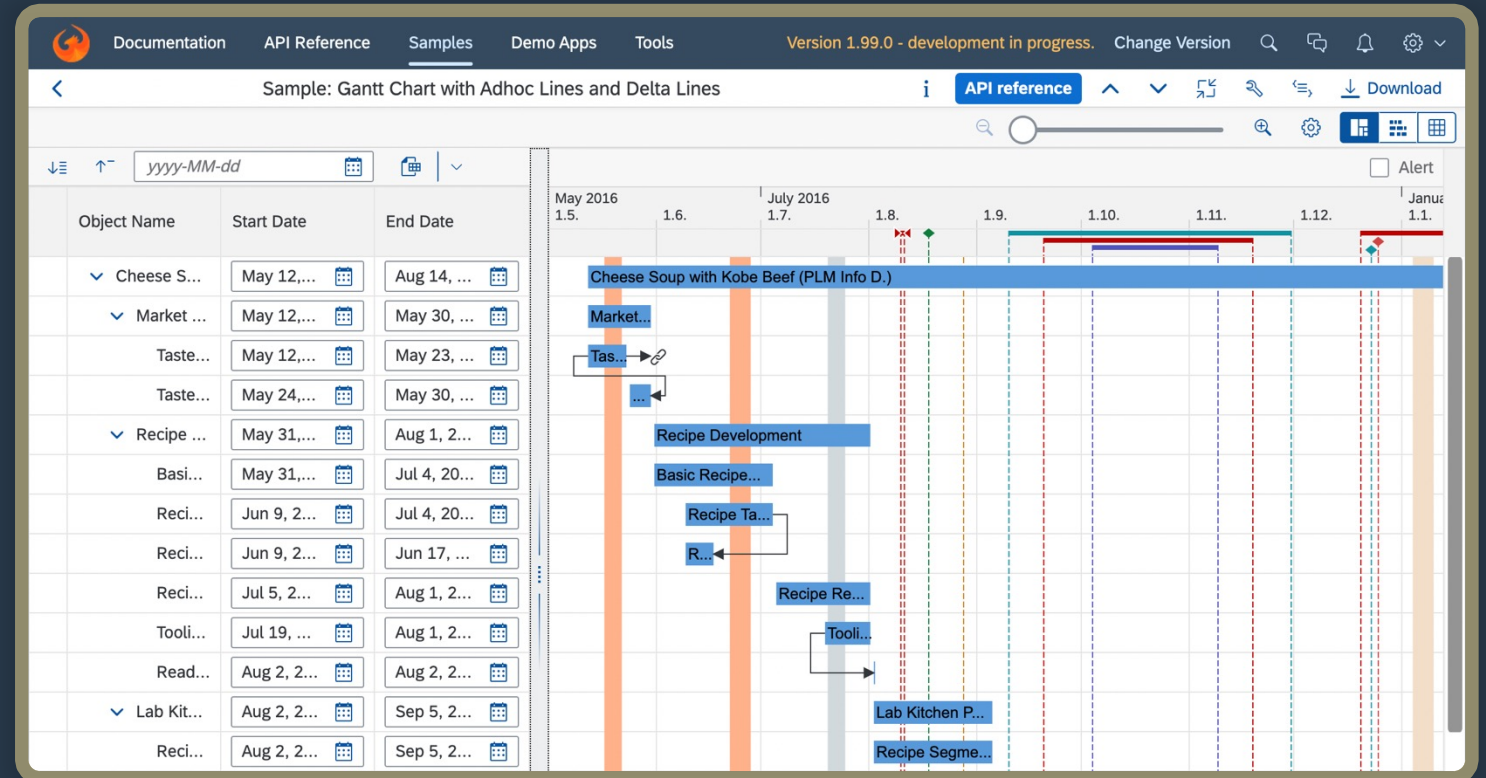
Providing the Gantt Chart reuse component with new UX features that will enhance the UX of one of the most powerful components in the Fiori Design System.

## WHO IS IT FOR?

Gantt Chart consumers – App UX Designer, UI Developers

## MY CONTRIBUTIONS

- **Gathering UX Requirements:** Collected requirements from Gantt Chart consumers from different LoBs
- **UX Features:** Delivered 10 UX features that include Find in Gantt, Delta and Ad-hoc Timeline markers, Status Bar, Lasso interactions, Snap to Grid and a complete Customization feature which allows Users/Admins to completely customize the Gantt Chart.



# DESIGN TIME EDITOR

## WHAT IS IT?

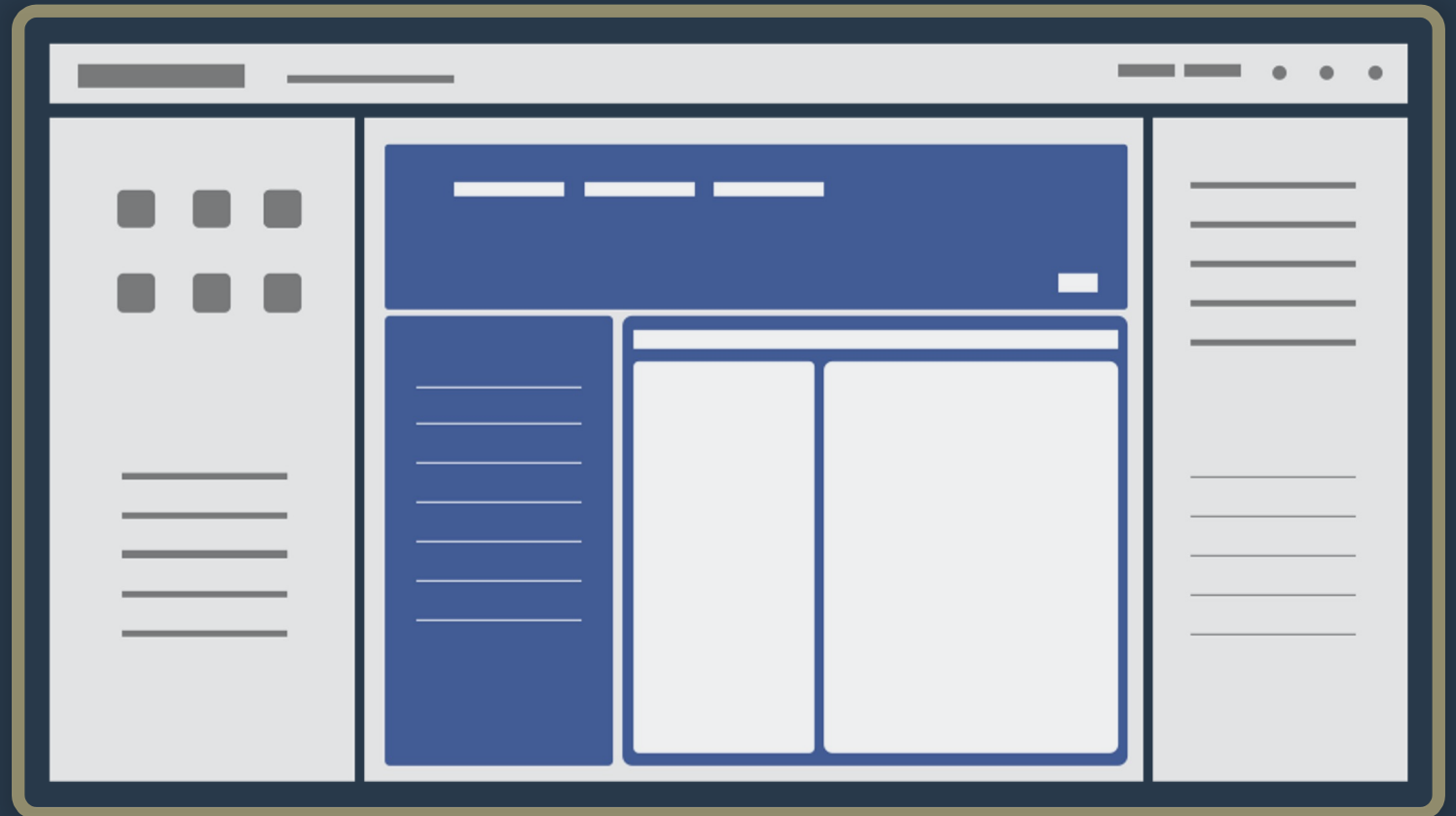
A new reusable UI Floorplan that provides a design time environment to Create, Edit and Manage Dashboards, Process Flows and other visual tools with easy drag-and-drop interactions

## WHO IS IT FOR?

App UX Designers who need a Design Editor

## MY CONTRIBUTIONS

- **Established UX Guidelines:** Worked with other UX Designers to create guidelines for the Floorplan to ensure it is used consistently across different apps.





**PATENTS & PAPERS**

# MICRO SCHEDULES

## WHAT IS IT?

A micro visualization that gives an overview of a complex Schedule in a limited screen area. It allows quick decision making without navigating into a full fledge Scheduling application.

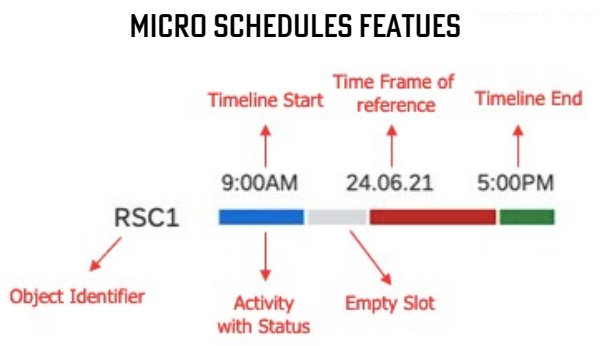
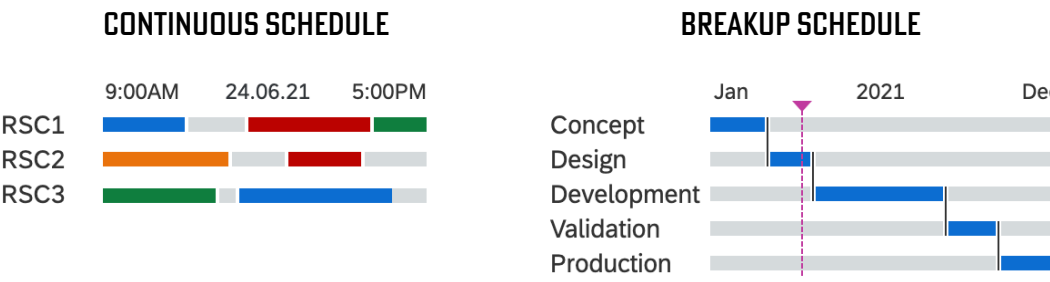
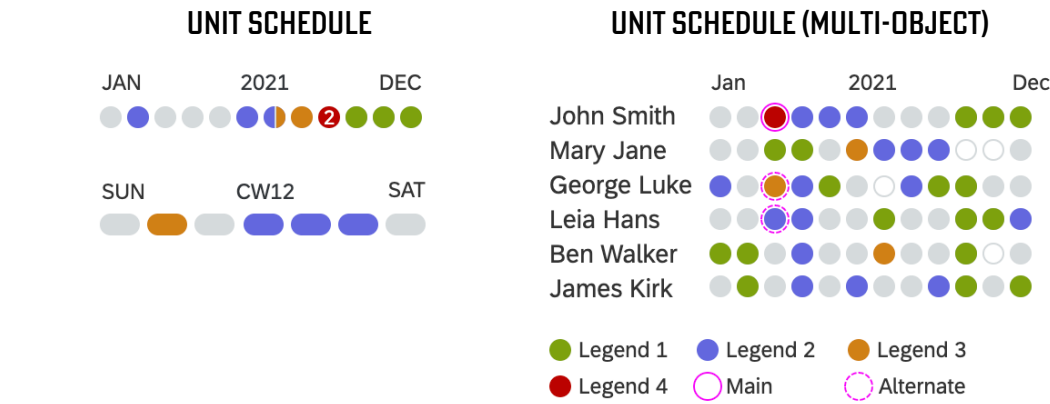
This micro visualization can be consumed in any part of the application (overview level, intermediate stage or a detail level) along with other information.

## KEY FEATURES

- Responsive and versatile to fit inside a variety of UI components
- Scalable Timeline with appointments
- Supports various Schedule types – Continuous, Unit, Breakup Schedules
- Visual Status (free/busy) available
- Supports Overlapping of Schedules, display Alternate Resources

## RESULT

4 Design Patents (along with Sona Dalsania)



# TRUE

## WHAT IS IT?

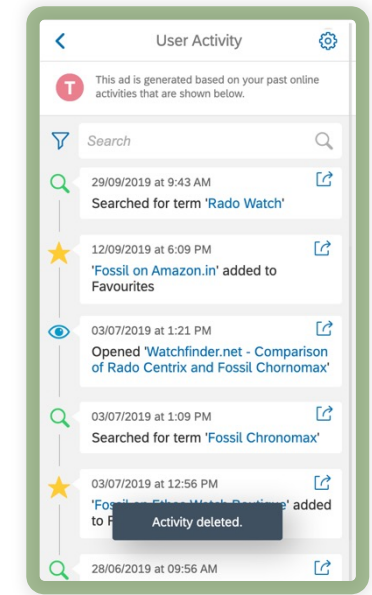
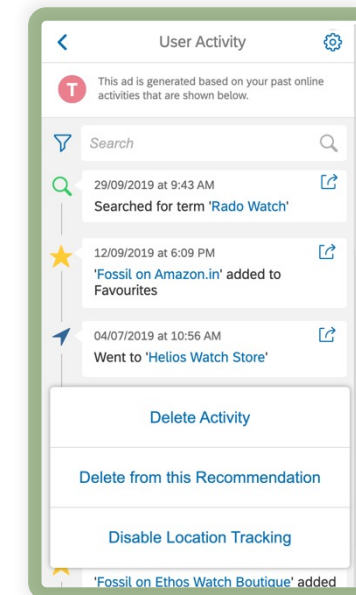
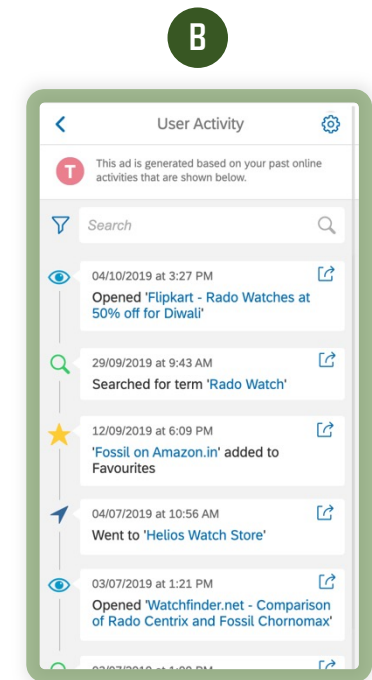
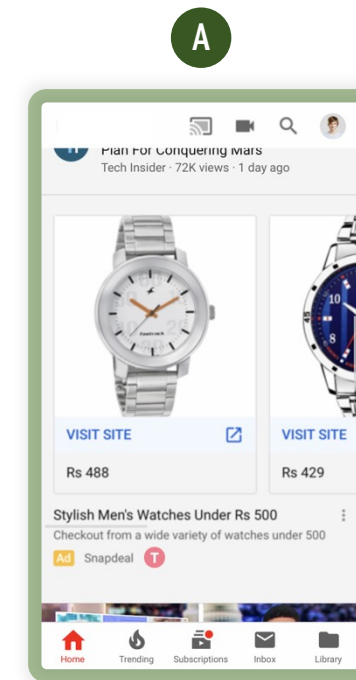
‘Transparency of Recommended Experiences’ (TRUE), is a framework that combines User Data Transparency, Explainable AI and User Feedback to improve the accuracy of User Recommendations.

## KEY FEATURES

- TRUE brings **User Data Transparency** by exposing Users to their contextual User data that was used for generating Recommendations (A & B).
- TRUE uses **Explainable AI** by presenting this contextual User data in the form of a visual timeline (B), to give users a meaningful perspective of their data.
- For inaccurate Recommendations, TRUE utilizes **User Feedback** to let Users examine and remove unrelated data interactions from the system and ensure it is not used for future Recommendations (C & D).

## RESULT

1 Utility Patent and White Paper presented and published in HCI 2020, part of International Conference, HCII 2020. (along with Sparshad Kasote, [link to paper](#))



# DESIGNING 'SIMPLIFIED' UX FOR COMPLEX APPS

## WHAT IS IT?

Based on the learnings from designing 'Production Scheduling Board', the paper was written to share the the challenges and learnings from redesigning the UX for a complex Enterprise Resource Planning (ERP) Planning and Scheduling Application

## RESULT

White Paper presented and published in HCI '18 Proceedings of the International BCS Human Computer Interaction Conference (along with Tanu Malhotra, [link to paper](#))

## Learnings from Designing 'Simplified' UX for Complex Planning and Scheduling Application for Enterprises

Tanu Malhotra  
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Bangalore, India  
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Krishnan Vijayaraghavan  
User Experience Designer, SAP Labs  
Bangalore, India  
[krishnan.vijayaraghavan@sap.com](mailto:krishnan.vijayaraghavan@sap.com)

**This paper narrates the journey of redesigning user experience for a complex Enterprise Resource Planning (ERP) Planning and Scheduling Application. Through the medium of this paper, we would also share the challenges and learnings from redesigning the user interface of this planning and scheduling application that is used by experienced power users and new generation users both.**

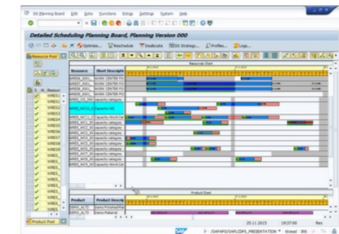
*Planning, Scheduling; Gantt Chart; Manufacturing; Enterprise Applications; User Interfaces; User Experience (UX) Design; UX Methodology, Business Software, Case Study, Usability, Usability Testing,*

### 1. INTRODUCTION

Production Scheduling Board (PSB) is SAP's ERP application used in the manufacturing process by Production Planners, majorly on desktops or large monitors. PSB is an interactive solution that helps the users (Production Planners) in planning and scheduling of orders with respect to time and resources. By PSB, users create a short-term production plan that matches the overall supply to demand, given available resources and production methodology.

The old PSB application that had been used by customers for more than a decade, was designed and developed on SAP's Universal Graphical User Interface (SAP GUI). This version of the planning and scheduling application that was used by around 300 customers across industries, though being very powerful, proved to have an extremely cumbersome interface.

Hence, it was essential to redesign the old PSB application that would not only be based on the new technology – SAP UI5 but would also meet the needs of new generation and existing users both.



**Figure 1:** SAP GUI version of Graphical Planning Board

To design the new PSB application, we had to strictly adhere to SAP's user experience guidelines, that were based on SAPUI5, known as SAP Fiori. SAP Fiori highlights simplicity as its core principle and we were required to drive the new PSB application design in this direction.



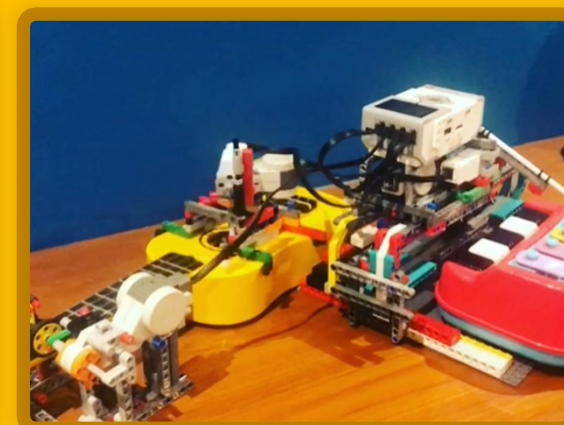
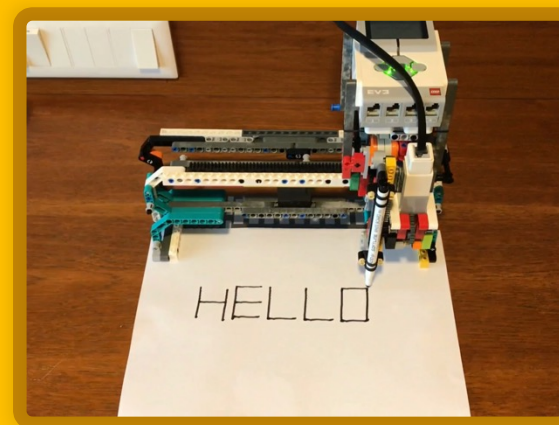
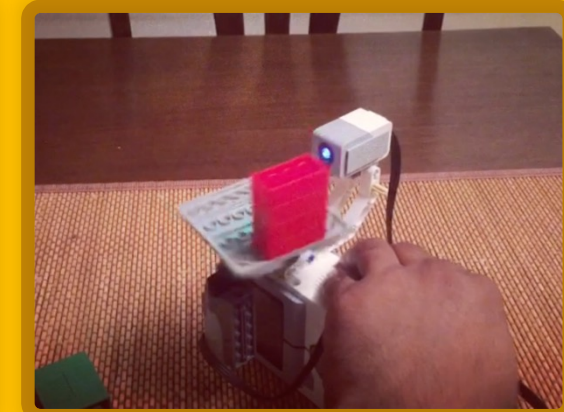
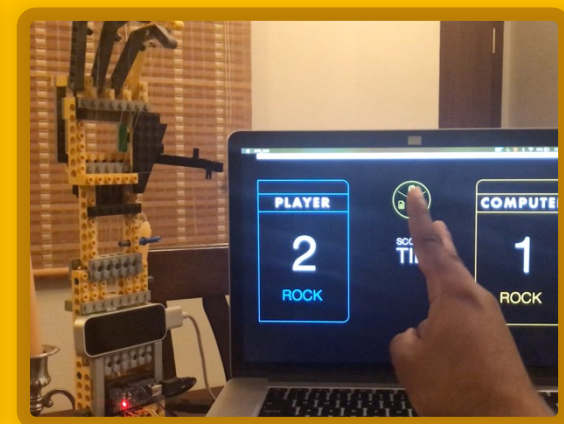
OTHER **THINGS** I DO

# PHYSICAL COMPUTING

Create interactive DIY projects that combine sensors like Leap Motion with Arduino, Raspberry Pi, Processing, Alexa and Legos. Key projects include:

- Interactive Robot with Alexa integration – A robot that responds to your commands! Built with Raspberry Pi and Alexa.
- Rock, Paper, Scissors – Play with the classic hand game with this Robotic Hand and see if you can beat its score! Built using Leap Motion (for tracking 3D hand gestures), Arduino Nano and Processing.
- Glove Controller - The Robotic Arm mirrors the finger movements from the Glove. The sensor here is aluminum foil!

See them in action here:



# PHYSICAL COMPUTING



Interactive Installation kept at SAP Leonardo Center in SAP Labs Bangalore office - I helped develop this with the UX team to demo the apps we designed.

# PHYSICAL COMPUTING

Conducted workshops educating on how to build projects with Arduino

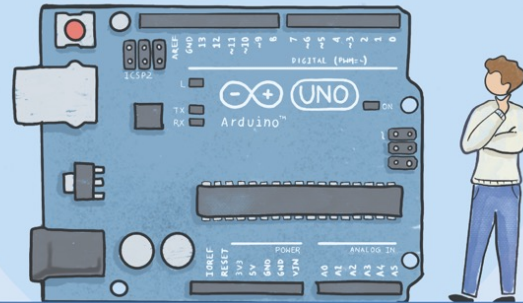
# Physical Computing

## The Basics

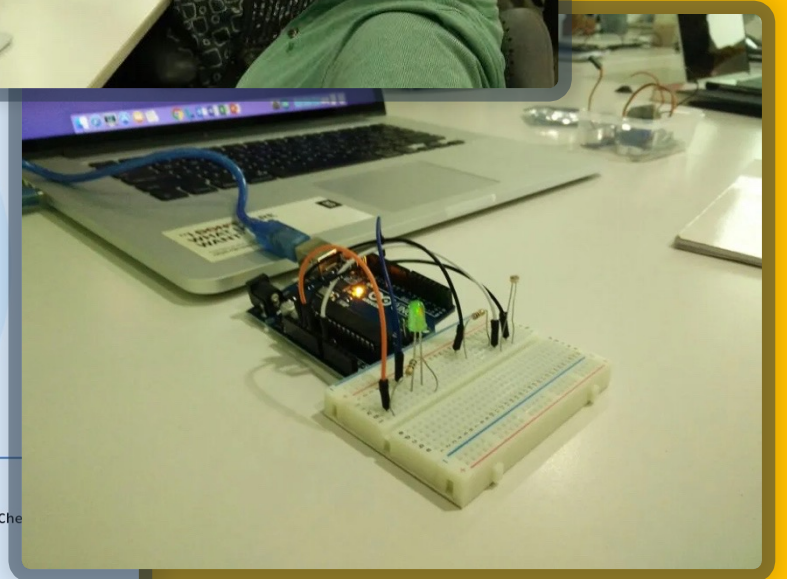
📅 23rd July 2021 | 🕒 14:30 to 15:30



Speaker  
**Krishnan Vijayaraghavan**  
Senior UX Designer (DSC)

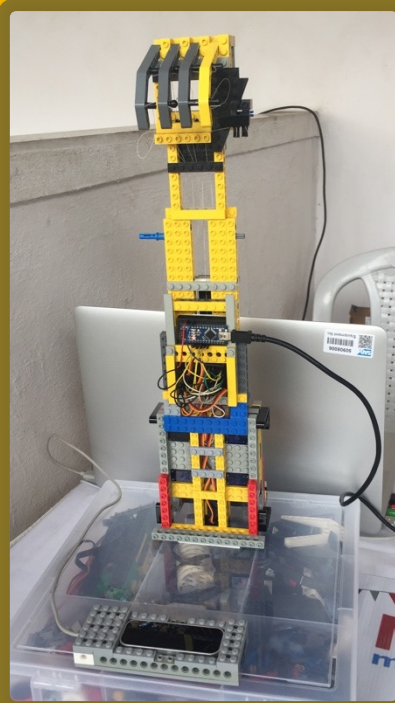


Poster Design By Reuben Che



# PHYSICAL COMPUTING

Presented working sets at the Bengaluru Mini  
Maker Faire 2016

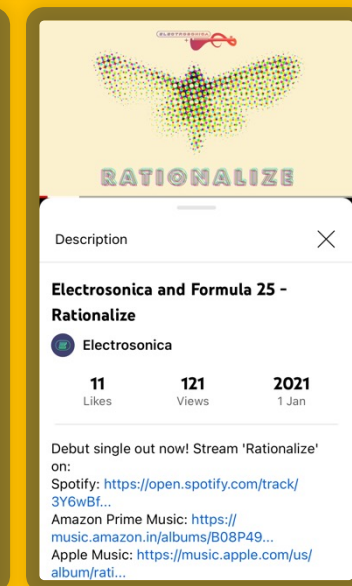
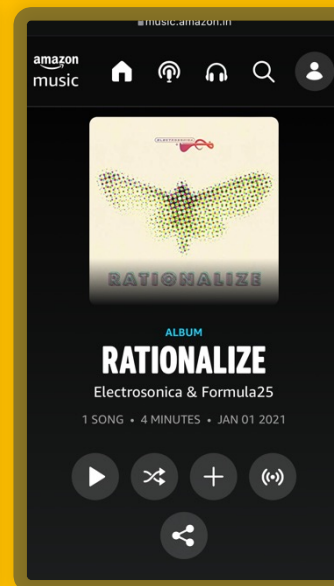
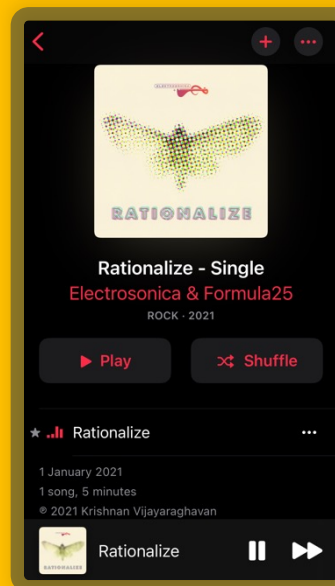


# COMPOSING MUSIC

I started learning music during the lockdown and I now compose, mix and produce my own music. I collaborated with my sitarist friend Formula25 and released our first music single last year on all streaming platforms (artist name 'Electrosonica'). Listen to my music here:



My audio experiments:





THAT'S ALL FOLKS!