SAPinsider

User Experience: Capabilities and Options in S/4HANA

Paul Modderman — December 1, 2021

Paul Modderman

SAP Mentor Paul Modderman is Chief Nerd at Bowdark Consulting. He is the author of four book on SAP design, development, and data science. At Bowdark, he pours his heart into what's next in the world of enterprise software. With CEO and SAP Mentor alum James Wood, Paul hosts the *Switched On* podcast, discussing SAP, Microsoft Azure and Power Platform, and everything in between.

First-Last and Repetition: Memory-Priming Key Points To Take Home

1

The Best UX is No UX

Many activities can be entirely automated by workflow or RPA

2

Skills Matter

Development and design matter more than any technology. Give employees tools and time to skill up.

3

UX Investment

UX is about improving work. Employees can be both happy and productive, leading to huge ROI.

What We'll Cover

UX Tool Options

- Classic, Fresh, Future: The 3 classes of UX options
- What's out there for UX in the new S/4HANA world
- Where can each be applied

Applying New UX To S/4HANA

- Sticking with Classic, Fresh, Future – condensed
- Skill considerations for UX tools
- Where each tool stands the strongest

Planning UX Architecture

- Planning considerations for UX tools
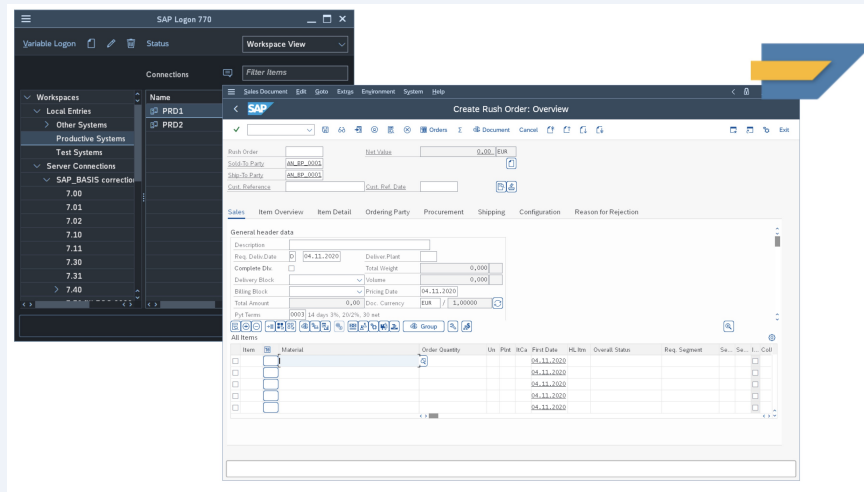- What to consider now, what to consider next
- When to use each tool as you plan

S/4HANA UX Options

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Classic: SAP/HTML GUI

- **Yes, SAP GUI still exists in S/4HANA**
- **It's a "safe zone" for administrative tasks – Basis and deep configuration**
- **S/4HANA On-Premise still allows creation of new GUI transactions**
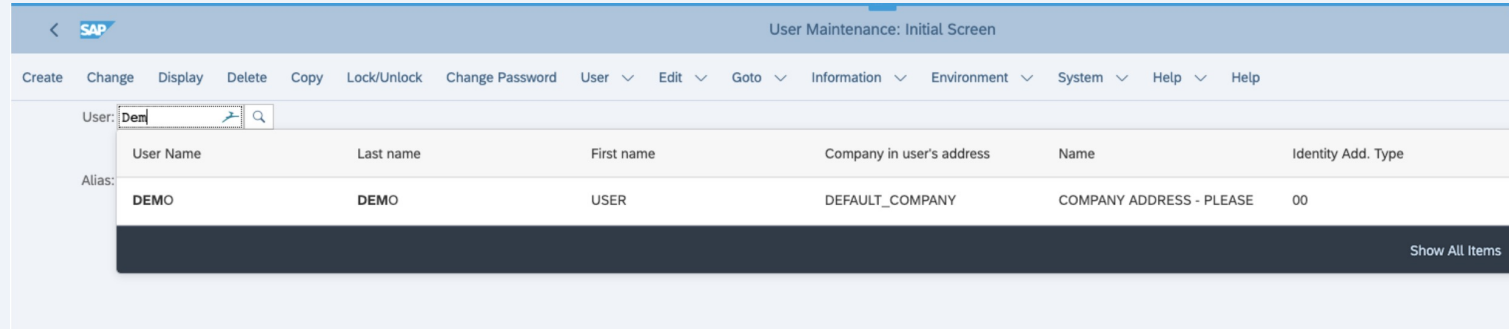   - *But should you?*

Classic: Web Dynpro

- Yes, Web Dynpro still exists in S/4HANA
- Not a heavy place of investment for SAP going forward
- S/4HANA On-Premise still allows creation of new Web Dynpros
    - *But should you?*

Fresh: Screen Personas

- Take existing SAP GUI screens and customize without writing ABAP code
- Bridge mix of GUI customization with Fiori look and feel
- S/4HANA On-Premise -> YES
- S/4HANA Cloud -> NO (but being explored)

Fresh: SAPUI5

- Full-blown web application framework
- As UX solutions go in SAP, SAPUI5 has gotten more love than any other
- Consumer-grade web application experience
  - If your favorite consumer web app can do it, so can SAPUI5
- On-Premise, Cloud: YES and YES

Fresh: Fiori Launchpad

- **An SAPUI5 web application that glues SAPUI5 web applications together**

- **Provides navigation, dashboarding, and other high-level features**

- **On-Premise, Cloud: YES and YES**
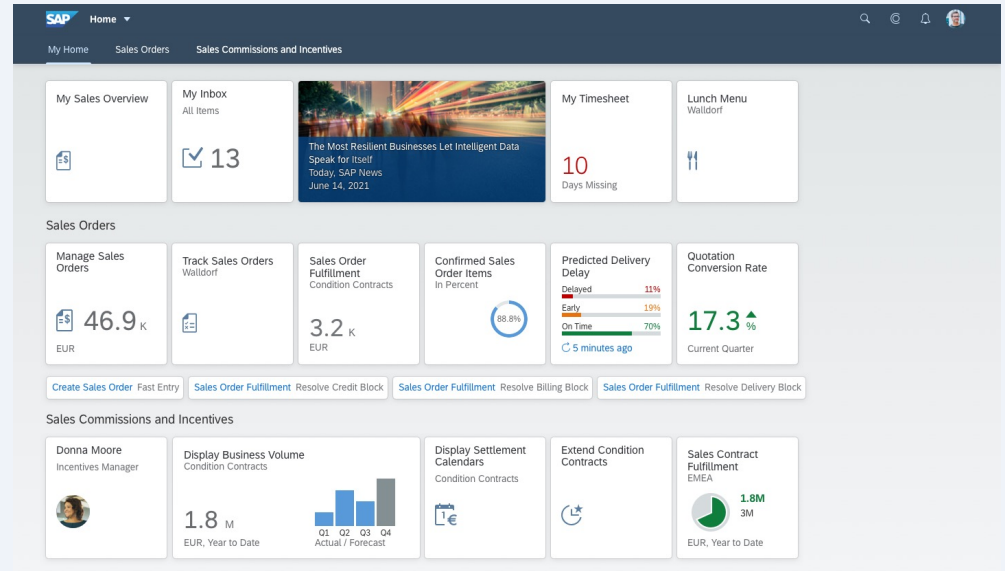
Fresh: Mobile SDKs

- **iOS and Android development kits produced collaboratively by SAP, Apple, and Google**

- **Enable the latest mobile tech with Fiori look and feel, and accelerate Business Technology Platform development**
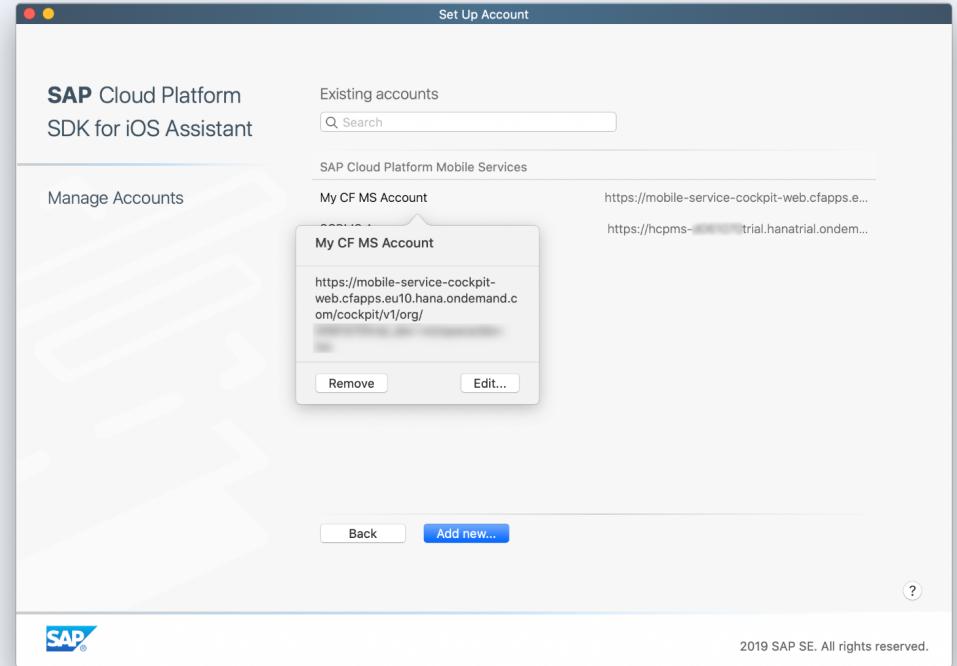
Fresh: MDK

- Mobile Development Kit runs both natively on iOS and Android as well as web
- Provides an on-rails feel to mobile development through BTP and SAP Mobile Services
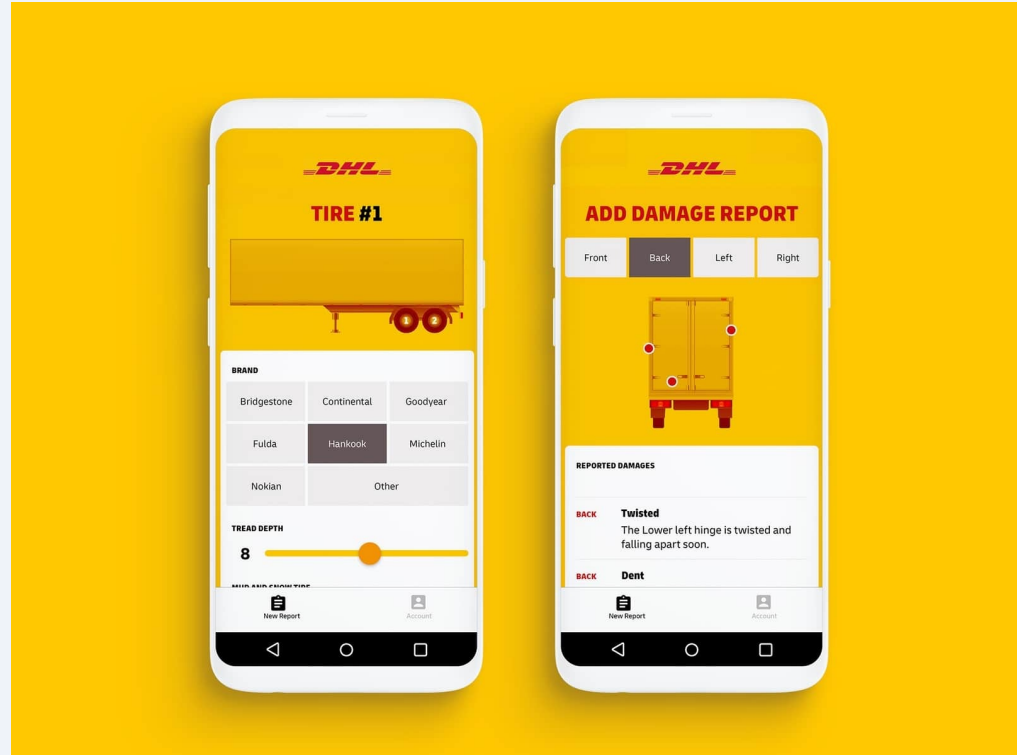
Future: SAP Mobile Start

- Released in 2021, under high investment and technology evolution
- Personas and roles for industry users, fine-tuned for mobile experience
  - Watch, notifications, camera scanning, and others – ready to go
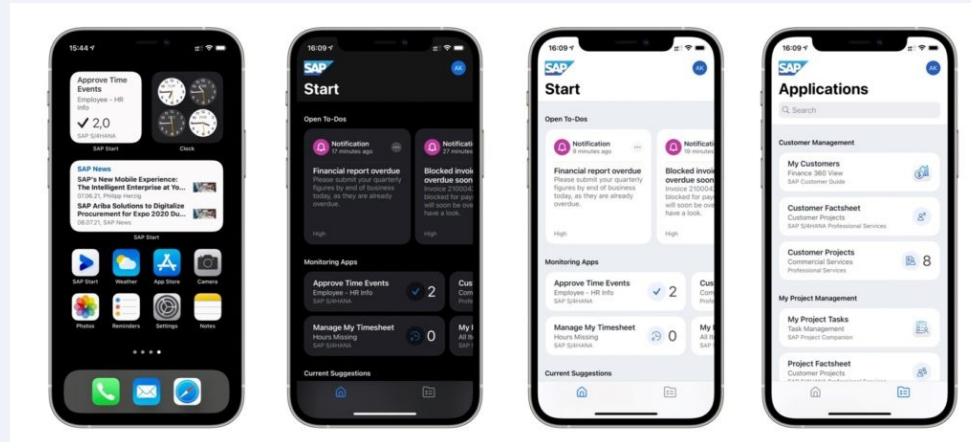
Future: Low-code/No-code

- **SAP AppGyver**

- **SAP Fiori Elements**

- **Other players:**
  - **Appian**
  - **OutSystems**
  - **Microsoft Power Apps**

Future: Robotic Process Automation

- **SAP Intelligent Robotic Process Automation**
- **Other players:**
  - **UiPath**
  - **Automation Anywhere**
  - **Microsoft Power Automate**
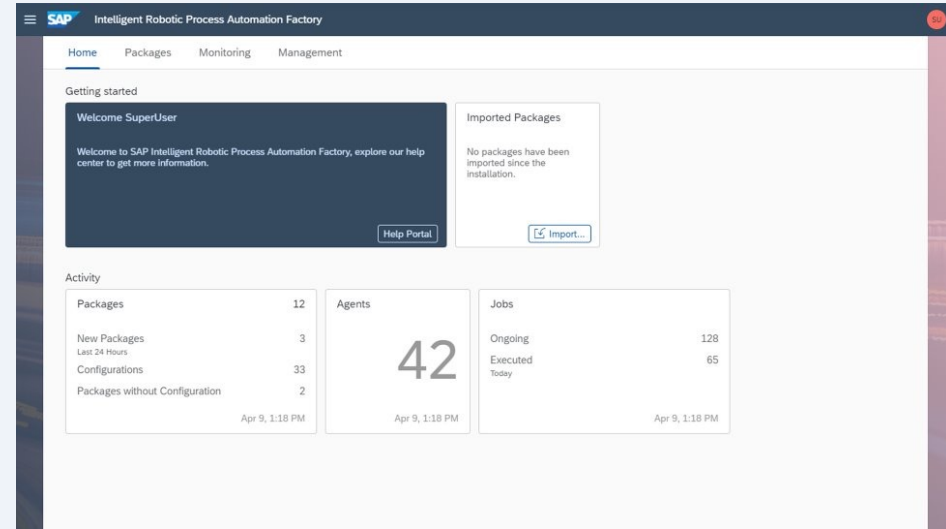
Applying UX to S/4HANA

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Key Points To Take Home

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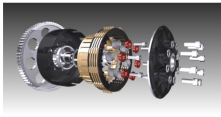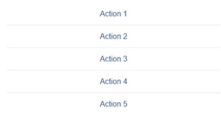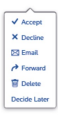
Classic: SAP/HTML GUI and Web Dynpro

- **Development team with older SAP skills can still play here, not in S/4 Cloud**

- **Highly focused and flexible design is not possible**

- **Recommendations:**
  - **Leave ABAP to other enhancement places**
  - **Should be very last resort on UX solutions**
 - **Avoid business-focused screens**
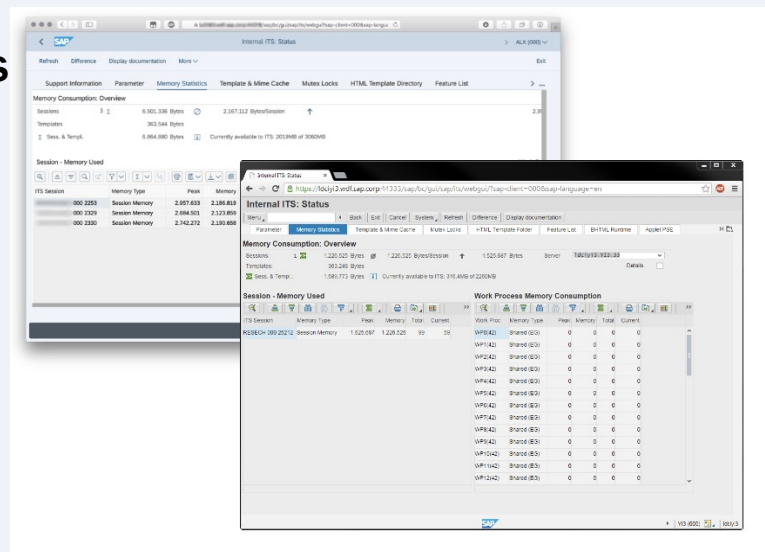
Fresh: SAPUI5 and Fiori Launchpad

- This is an ideal place for existing development teams to skill up
  - OData
  - JavaScript
  - Web applications
- Also an ideal place to bring in web development talent from outside SAP teams
- Highest degree of design flexibility, highest degree of ongoing SAP focus

3D Viewport

The 3D viewport control can display simple and complex 3D objects in SAP Fiori, including basic user interaction.

Category: **UI Elements**
Type: **Data Visualization**

Action List Item

Action 1
Action 2
Action 3
Action 4
Action 5

The action list item control lets the user trigger actions directly from a list. Used in dialog boxes and popovers.

Category: **UI Elements**
Type: -

Action Sheet

✓ Accept
✗ Decline
✉ Email
➔ Forward
🗑 Delete
Decide Later

An action sheet lets you to display a list of actions for the user to choose from. You can also cluster actions.

Category: **UI Elements**
Type: **Action / Navigation**

Fresh: Mobile SDKs

- An ideal place to bring existing enterprise mobile development teams

- Highest degree of mobile functionality possible here

- They look beautiful, do the right things, and likely are the highest-effort
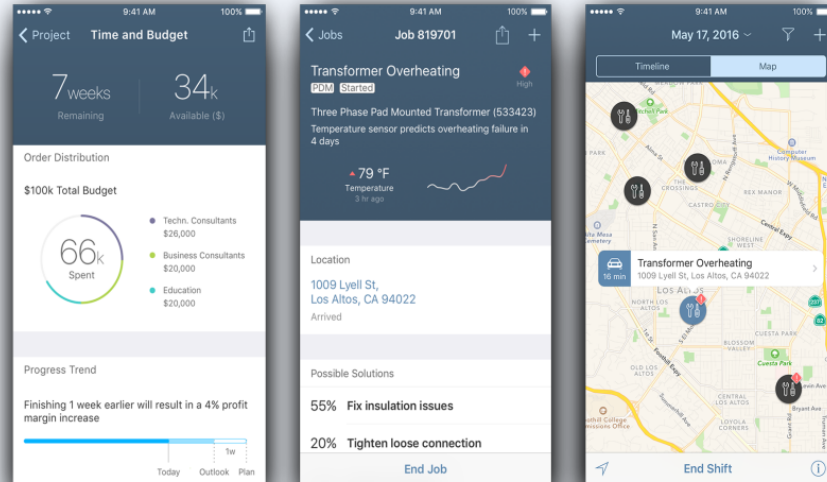
Fresh: MDK

- A great balance between high effort of Mobile SDK and high reward of SAPUI5
- If OData services are well-architected, well-designed – MDK will work well

Future: SAP Mobile Start

- A great place to bring together work from other SAPUI5 and mobile action

- Handy jumping-off point as well, comes with predefined content

- Gives the most native feel for least initial effort

Future: Low-code/No-code

- **This category has existed for several years, and is simultaneously entering a renaissance**

- **Here also, well-defined OData services are key – you need a data pipeline from SAP to the low/no-code platform**

- **Amazingly suited to mashups**

Future: Robotic Process Automation

- Prime example of "The Best UX is No UX"
- For success here, the best skill is not technical but solid business process understanding

Planning UX Architecture

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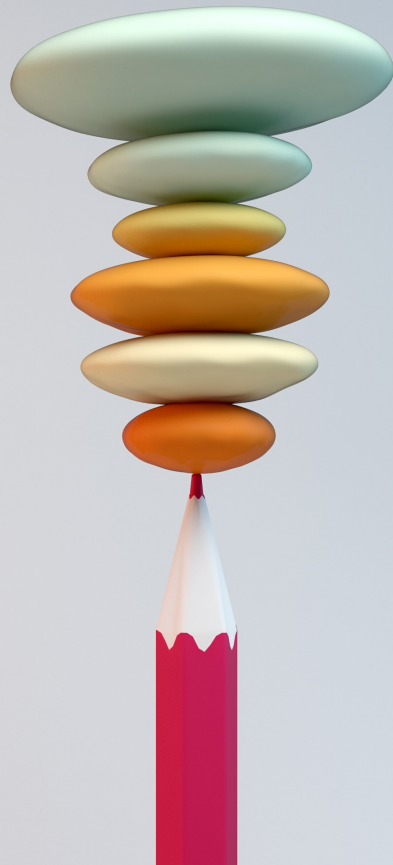
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Classic: SAP/HTML GUI and Web Dynpro

- The plan for UX:
  - If you are *not* migrating to S/4 - do not make plans to create experiences for business users in GUI/Web Dynpro
  - If you *are* migrating to S/4 from ERP – each migration of a custom ABAP object that includes a screen is a potential to mitigate UX
  - If you're going to S/4 Cloud, it's even simpler. Can't be done.
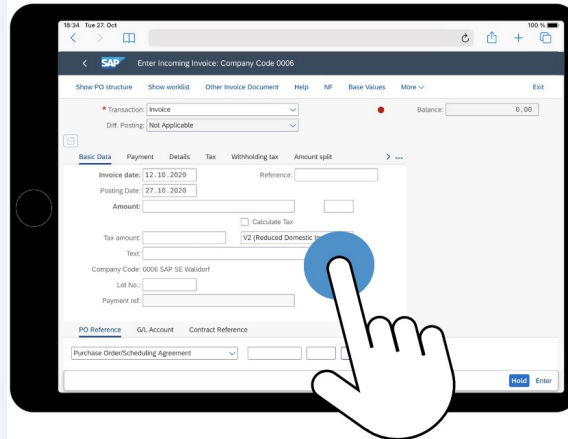
Fresh and Future

- Everything else in this section has the following 2 higher-than-anything-else principles:
  - **DATA IS KING**
  - **DESIGN IS NON-NEGOTIABLE**

Fresh: SAPUI5 and Fiori Launchpad

- Plan for SAPUI5:
  - Skill up resources in JavaScript and web development
  - Focus intently on OData service architecture and best practices
  - Take the time to design think
  - UI5 has the most expressive possibility UX-wise, thoughtful design is highest priority
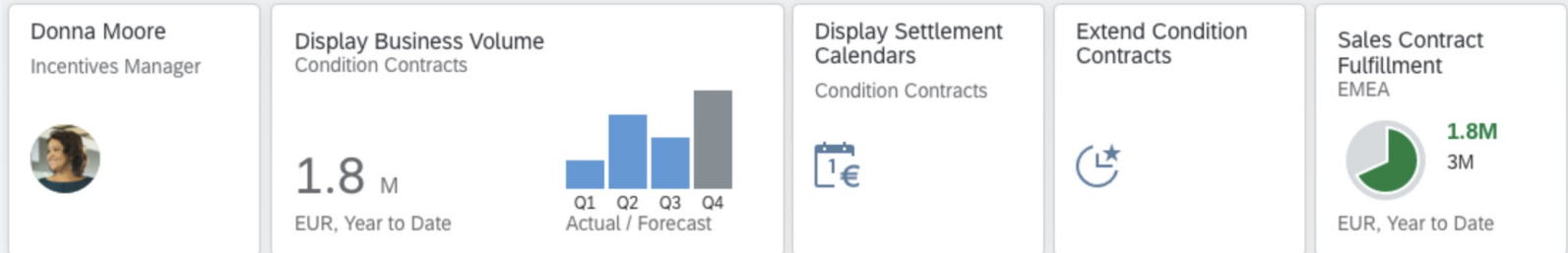
Fresh: Mobile SDKs

- **Plan for mobile SDKs:**
  - **Impossible to do well without quality developer talent**
  - **Well-crafted OData is key to this – MDK uses OData for accelerated development**
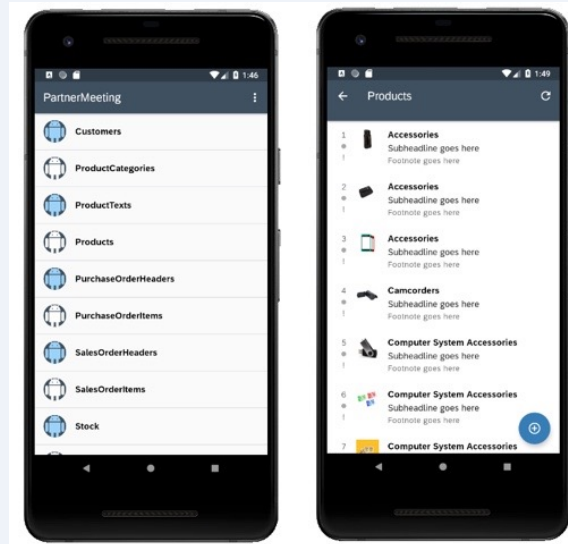
Fresh: MDK

- This takes somewhat less pure-code skill than Mobile SDK
- Plan for MDK:
  - Mobile experience is needed, but design is not complex
  - OData API is well-crafted to the data needs

Future: SAP Mobile Start
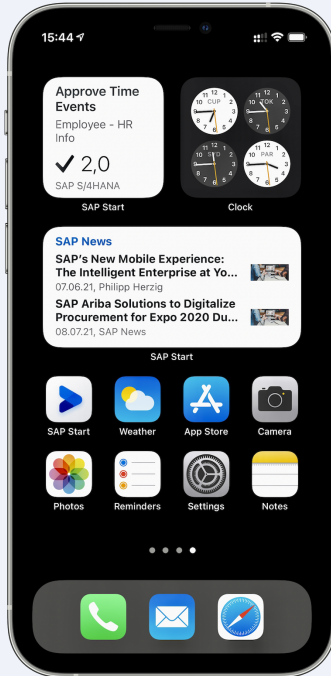
- **Plan for Mobile Start:**
  - **Best if either:**
    - **Desired UX fits well inside the delivered functionality**
    - **Desired UX has already been created in Launchpad, MDK or SDKs**
  - **Great target for forward-thinking teams**

Future: Low-code/No-code

- This is the closest "future" tech
- Plan for low-code:
    - With AppGyver, focus on situations needing the fastest turnaround
    - With all low-code tools – when the data is right, it can be mashed up. Think above-and-beyond just SAP processes
    - This tech is absolutely blowing up right now. Skilling up and investing here will be key.

Future: Robotic Process Automation

- Plan for RPA:
  - Put an eye to business processes that are repetitive – in a screen-click-screen-click sense
  - Data and design matter less here (!)
    - Data will likely not be an easy-to-use API
    - Design will <u>hopefully</u> not include the need for a human to use this solution after it's set up

Wrap Up

Driving Home 3 Key Takeaways
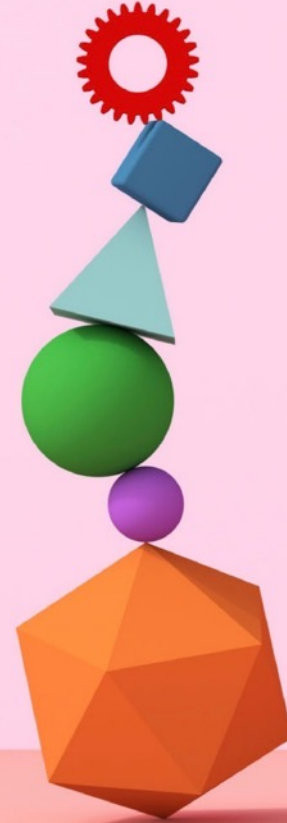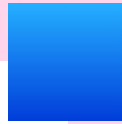
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Where to Find More Information

- [S/4HANA Practices for Home Page Design](#)
  - Design considerations for Launchpad in S/4
- https://experience.sap.com/fiori-design/
  - Designing for Fiori
- https://community.sap.com/topics/appgyver
  - Low-code content for AppGyver
- https://developers.sap.com/topics/mobile-development-kit.html
  - MDK Community

THANK YOU

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