ANA362

Overview and Highlight of the Analytics Designer for SAP Analytics Cloud

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Agenda

Introduction to the analytics designer

Product highlights and live demos

Exercises

Q&A

Introduction to the analytics designer

SAP Analytics Cloud

Act with Confidence

Business Intelligence

Augmented Analytics

Enterprise Planning

Digital Boardroom	Analytics Hub	Analytics Designer	Mobile

On Premise — Hybrid — Cloud

The analytics designer completes SAP Analytics Cloud

One analytics platform

Develop analytic applications that bring together BI, planning, and predictive capabilities

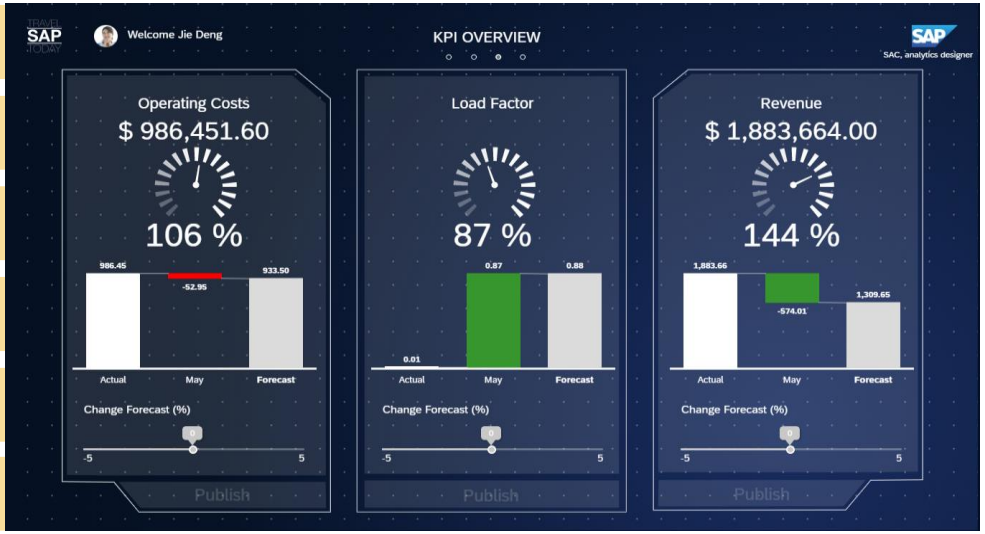
Agile development

Start from existing content, templates,* or user stories and customize, integrate, and extend

Delighting your users

Guide the users and adjust the widgets behavior based on their expectations

- Customize
- Integrate/Embed
- Extend
- Reuse
- Content Network
- Mobile Ready



Developer handbook: https://www.sapanalytics.cloud/analytics-designer-handbook/
API reference documentation: https://help.sap.com/doc/958d4c11261f42e992e8d01a4c0dde25/latest/en-US/index.html
* Planned for the future releases

Product highlights and live demos

Analytics designer Q3/2020 and Q4/2020 QRC highlights

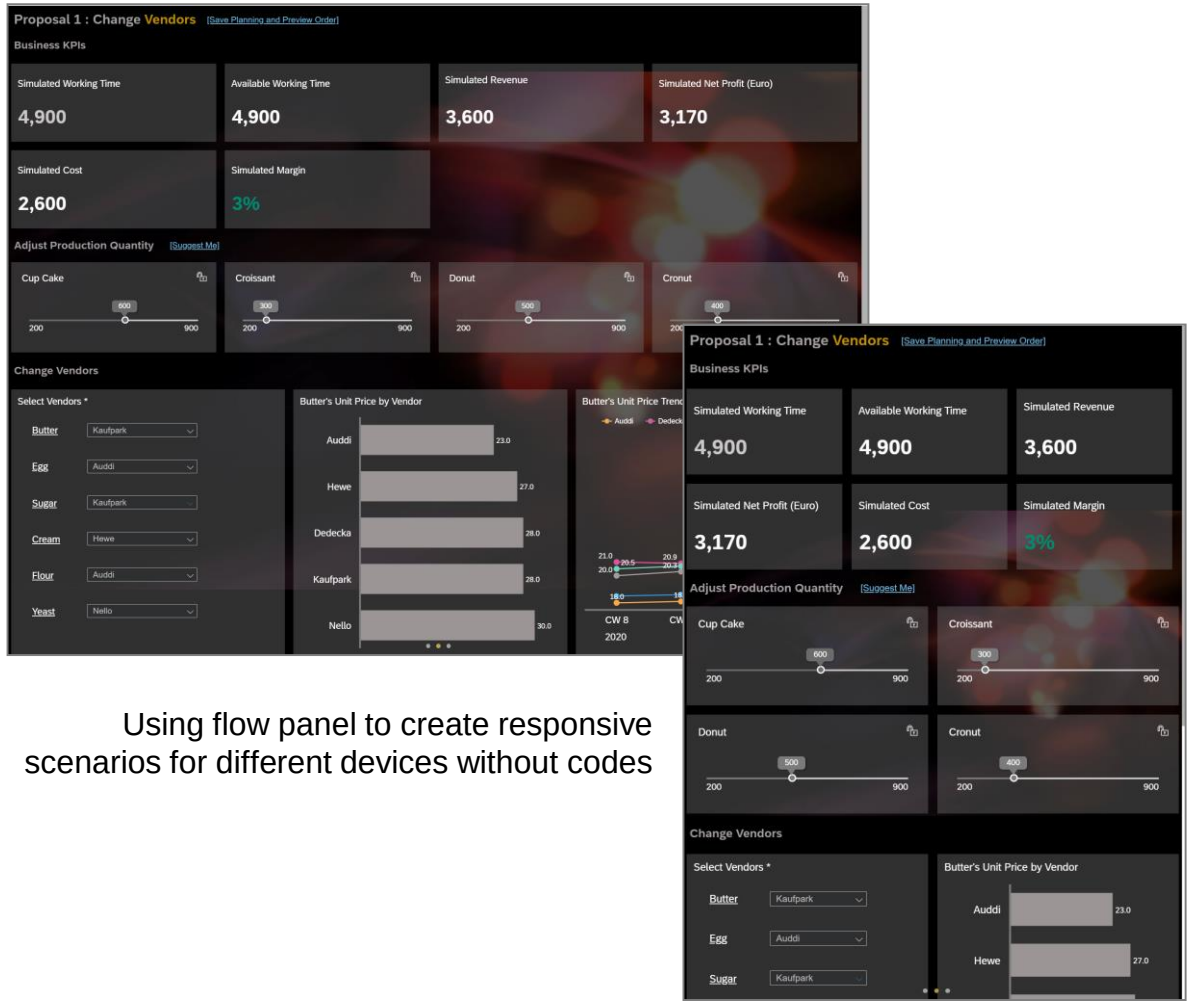
Dashboarding capabilities

- Integration of analytic applications within SAP Analytics Cloud mobile iOS app
- New widgets: List box, page book, value driver tree, toggle switch
- Navigation panel for table enabled to work with SAP Analytics Cloud model
- CSS-like theme
- Flow panel for responsive scenario without codes
- Filter line enhancements to support multiple widgets
- PDF enhancements to support full table export
- Data change insights (beta)

Enterprise capabilities

- Performance improvements: Loading invisible widgets in background, pause refresh script API, and widget initialization flag
- DataSource browser and set data model by script variable for table
- Integration with SAP Data Warehouse Cloud solution

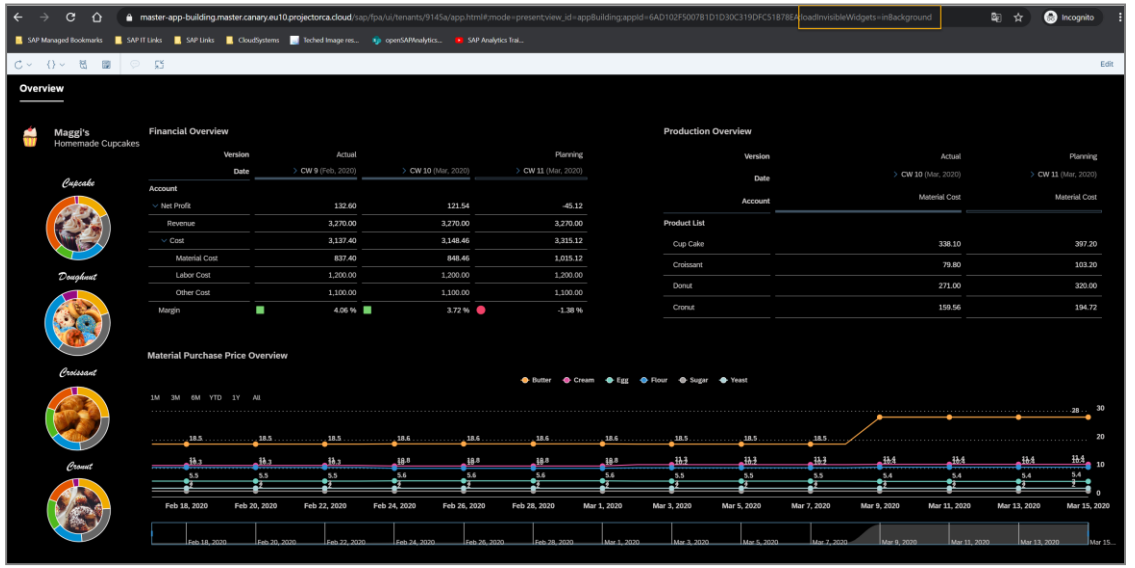
Scripting API enhancements

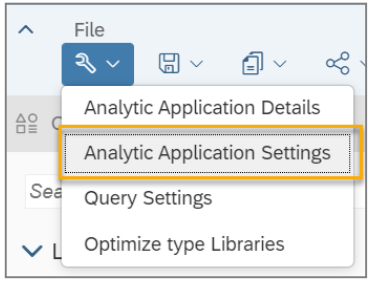


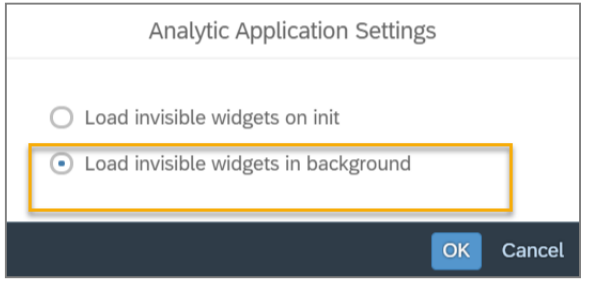
Using flow panel to create responsive scenarios for different devices without codes

Loading invisible widgets in background

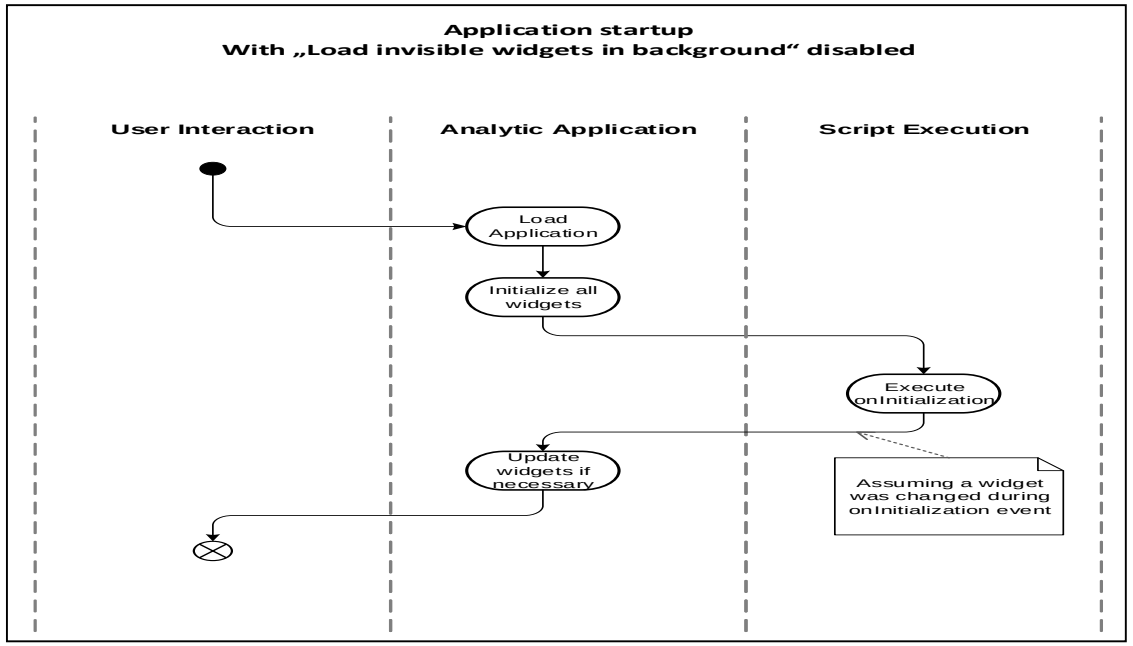
- The analytics designer provides additional option that invisible widgets can be automatically loaded in background
  - Application are divided into different pages/tab strips.
  - The first page or tab strip of the application does not contain a lot of widgets
- All the metadata and result set of the widgets are loaded in the background if the option is set to loading in background
- Following components are automatically loaded in background if the option is set to the application:
  - Scripts that are related to initial invisible widgets
  - Widgets or containers that defined within the invisible containers
  - Invisible tab strips
- You can set application to be loaded in background using
  - Analytic application setting dialog
  - Application URL parameter: **loadInvisibleWidgets=inBackground**





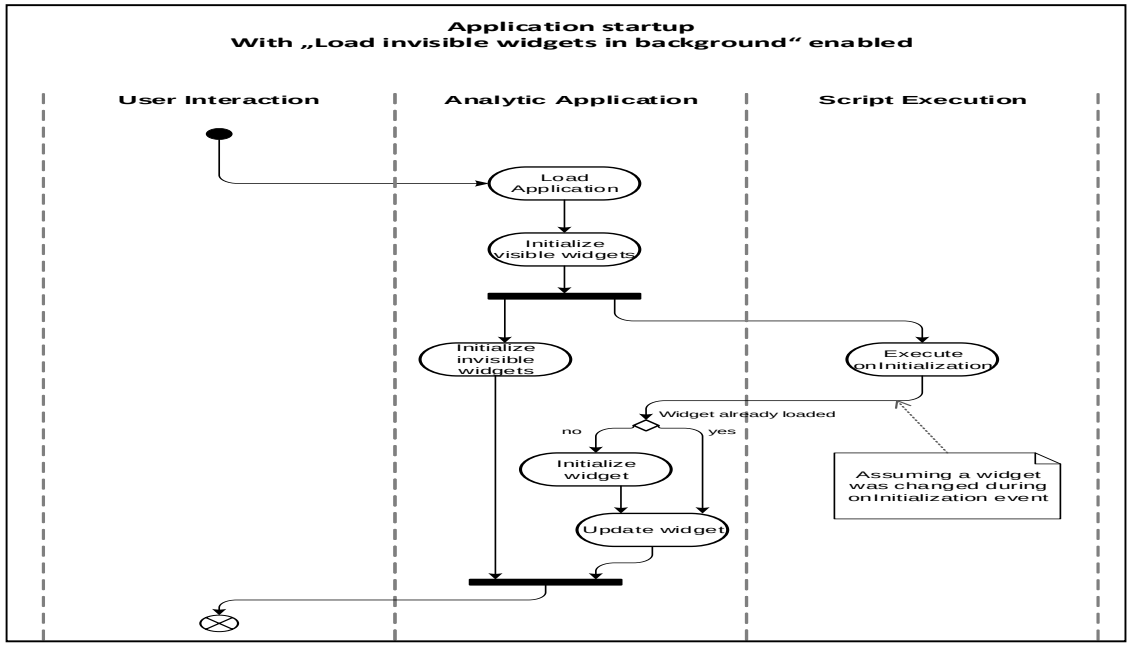


Loading widgets



Default mode

- Keep the scripts for onInitialization event as few as possible
- Don’t access and prepare invisible widgets for onInitialization event if possible. Try to prepare the invisible widgets only if they turn visible.

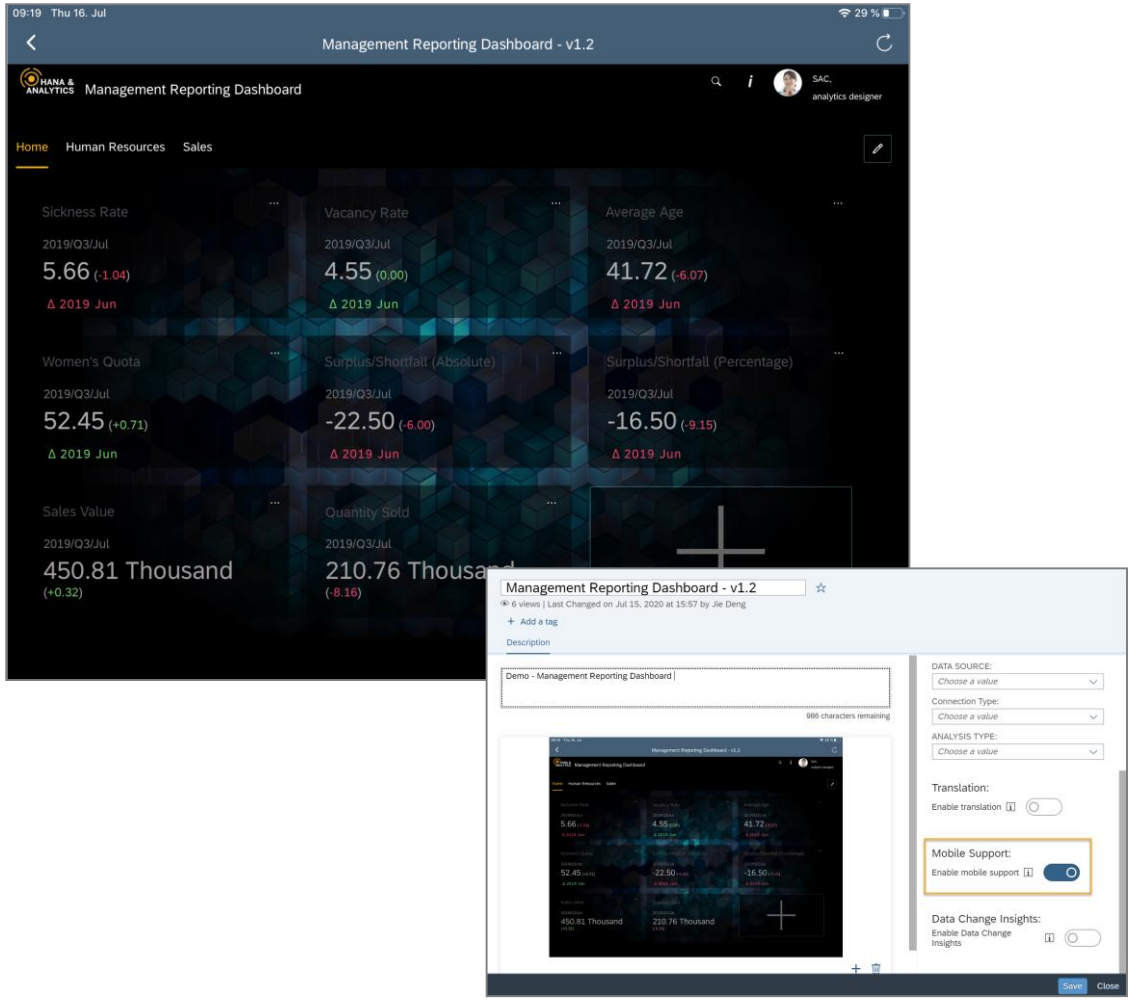


Loading invisible widgets in background

- In case you really need to access the invisible widgets during application onInitialization event, set the widgets to “Always initialize on startup”
- Don’t nest the invisible widgets too deep into the container structure if you can’t avoid accessing invisible widgets during application onInitialization event. It will wait until the container of the invisible widget is rendered completely.

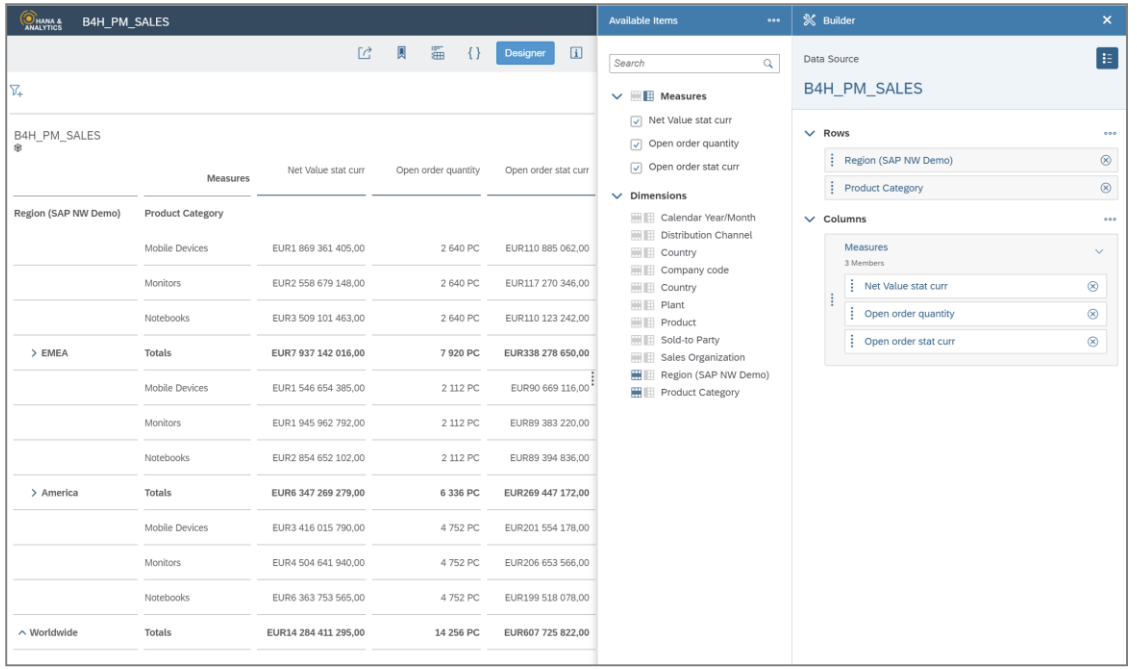
Integration with SAP Analytics Cloud mobile iOS app

- Consuming analytic app within SAP Analytics Cloud mobile app (iOS mobile-optimized Web view)
- Mobile-specific widget
  - Pagebook
- Mobile setting in design time
  - Set application property to “Mobile Enabled”
  - Then application will be visible on mobile devices
  - Application designer/developer must ensure that the application is suitable for mobile consumption
- Following mobile specific gestures/events are provided with analytic applications running on native Safari browser on iPad:
  - Shake event
  - LongPress event for button, shape, and image widgets
  - onOrientationChange event



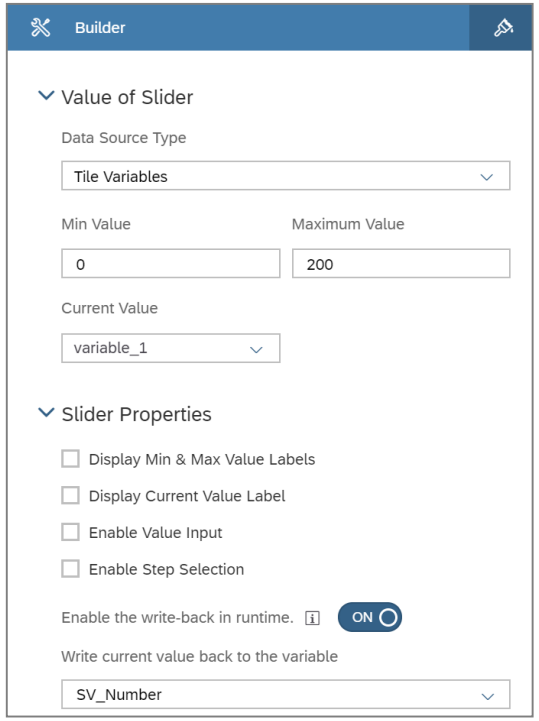
Navigation panel and data source browser

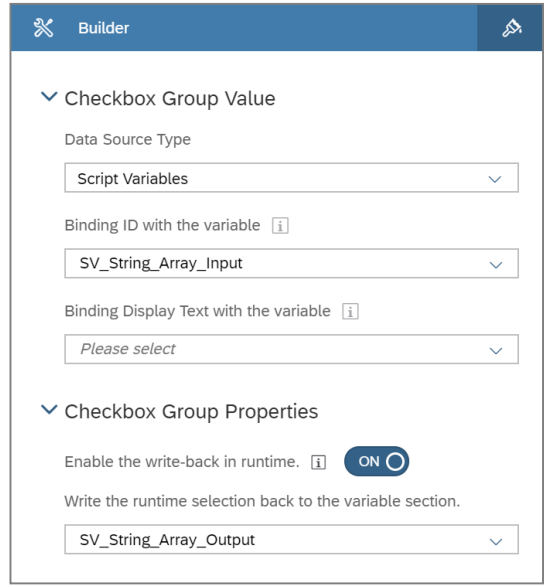
- The navigation panel for table now is delivered with the analytics designer. With the navigation panel, the user can perform the following actions at application runtime:
  - Add/remove dimensions/measures
  - Swap axis/arrange totals
  - Display dimensions in key/text representation
  - Select hierarchies/properties
  - Compact display/suppress zeros (for SAP Business Warehouse)
- The navigation panel can be opened or closed using the new API in analytics designer.
  - openNavigationPanel()
  - closeNavigationPanel()
  - Available items panel can be opened using the optional parameter

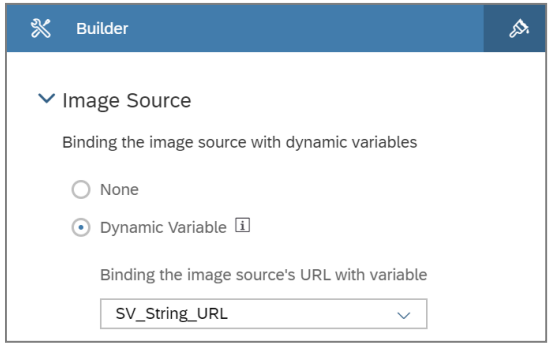


Simple widgets property binding

- Application designers can now bind a simple widget's data source to a primitive-type script variable, tile filter or variable, model variable, and so on, so that the values of the widget can be updated dynamically.
- The supported simple widgets include: Checkbox group, radio button group, dropdown, list box, input field, text area, slider, range slider, and image.
- The selected/updated value at runtime can be written back to a specific script variable as well (excluding image).
- Thus the application designer can build the interactions between different widgets in a very convenient way.

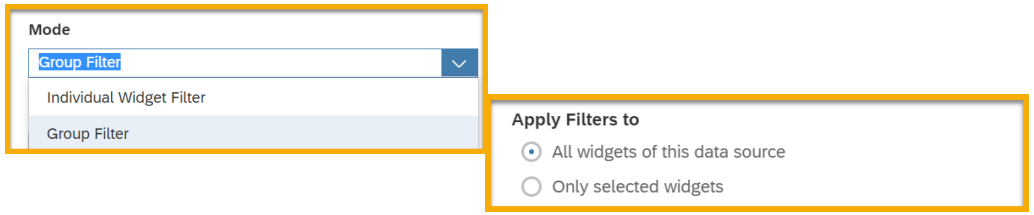




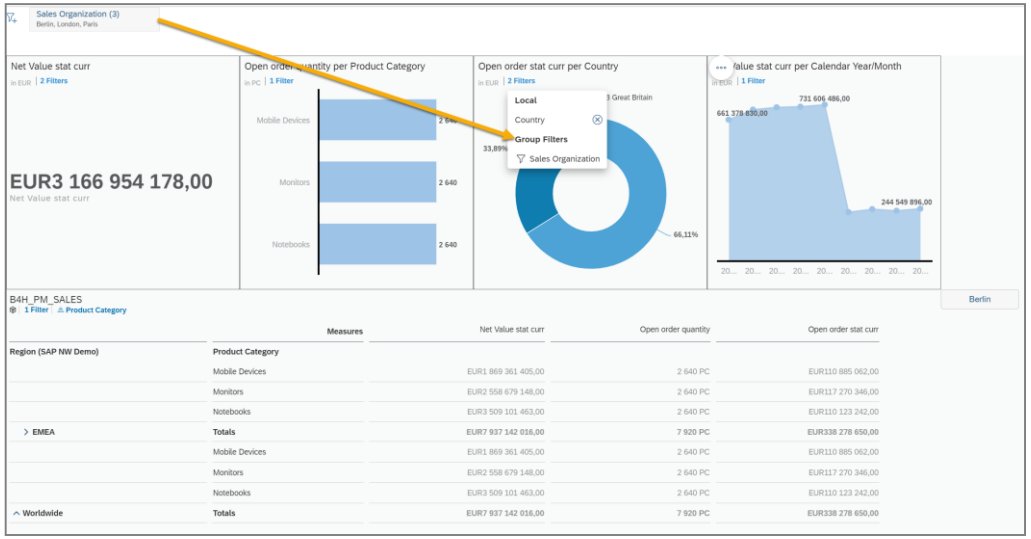


Filterline working with multiple widgets

- Filterline can now support 2 modes:
  - Individual widget filter → existing behavior: local filter
  - Group filter /multiple widgets → new enhanced behavior: external filter
- Configuration using builder panel
- In case there are overlaps or conflicts between local filter and group filter, the joined filter (filter operation “and”) will take effect for charts or tables.



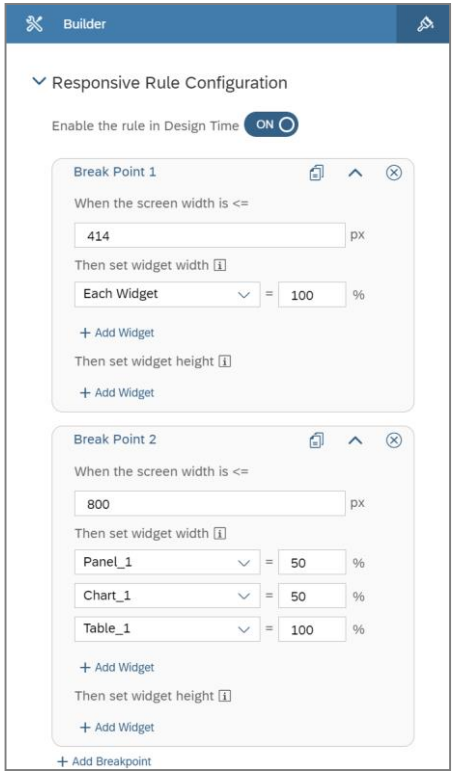
Application design time settings



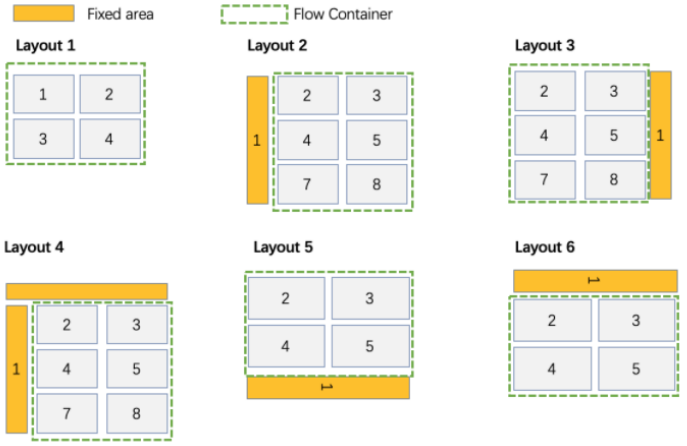
Application runtime

Flow panel for responsive layout

- Flow panel is a container widget for building responsive layout without any codes
  - Able to flow widgets within flow panel to proper position
  - Support for mixed usage of flow panel and existing canvas layout panel
  - Coding-free using new break point concept
  - Design time preview



Break points definition

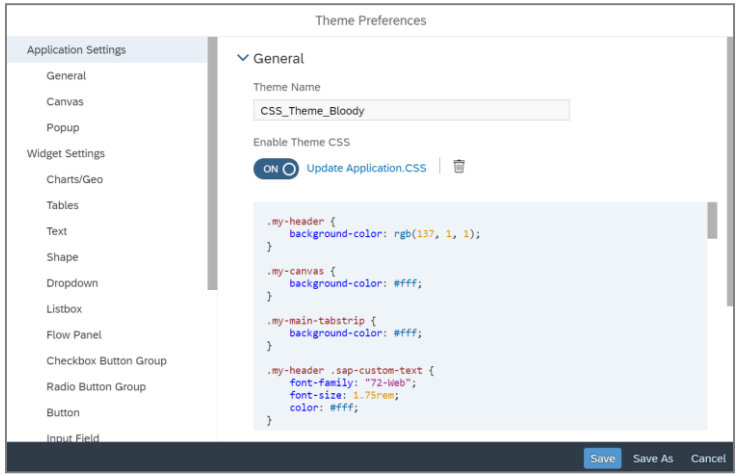


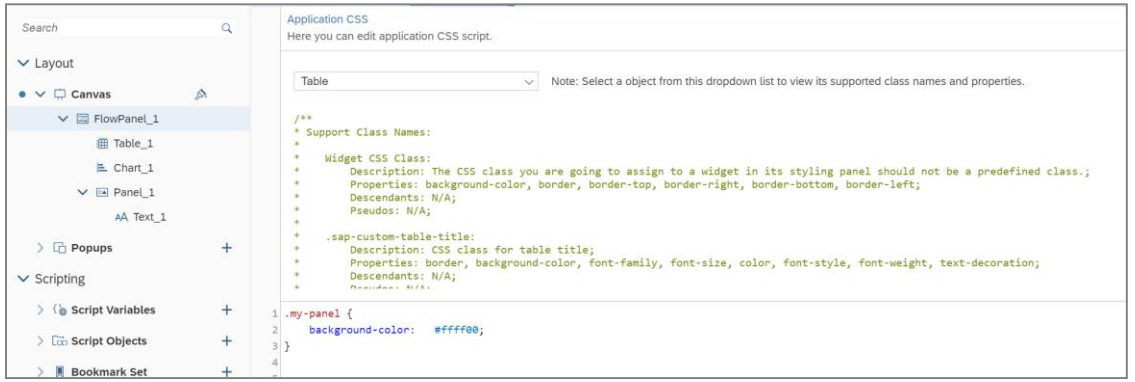
Flow panel combined with fixed area

CSS-like theme

- Providing additional CSS capabilities to customize the application look and feel
  - Theme-level CSS
    - Stored in file repository and can be applied to multiple applications
  - Application-level CSS
    - Stored within analytic applications
  - Widget-level CSS class
    - CSS class defined within theme-level CSS or application-level CSS can be assigned to individual widgets
  - Application-level CSS can be saved as theme-level CSS
  - Widget CSS class can be dynamically changed at application runtime using script API
- Priorities to influence the style of applications (from low to high):
  - Application theme
  - Widget styling properties
  - Theme CSS and application CSS

Theme-level CSS

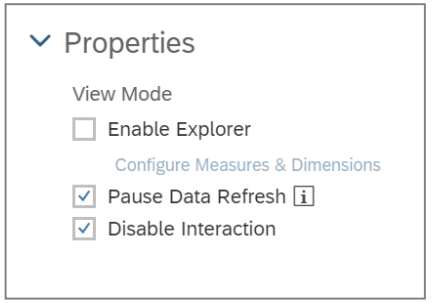


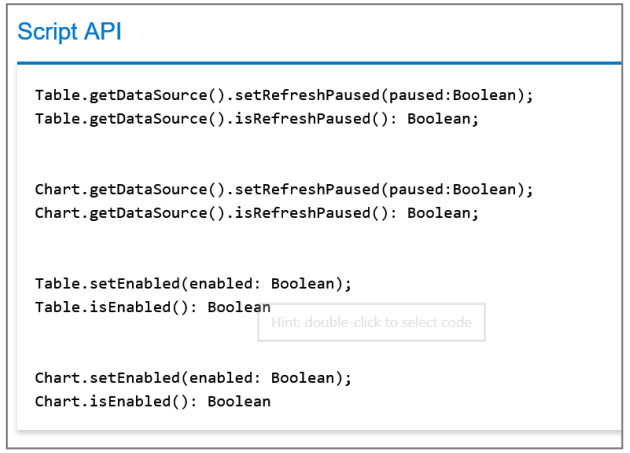


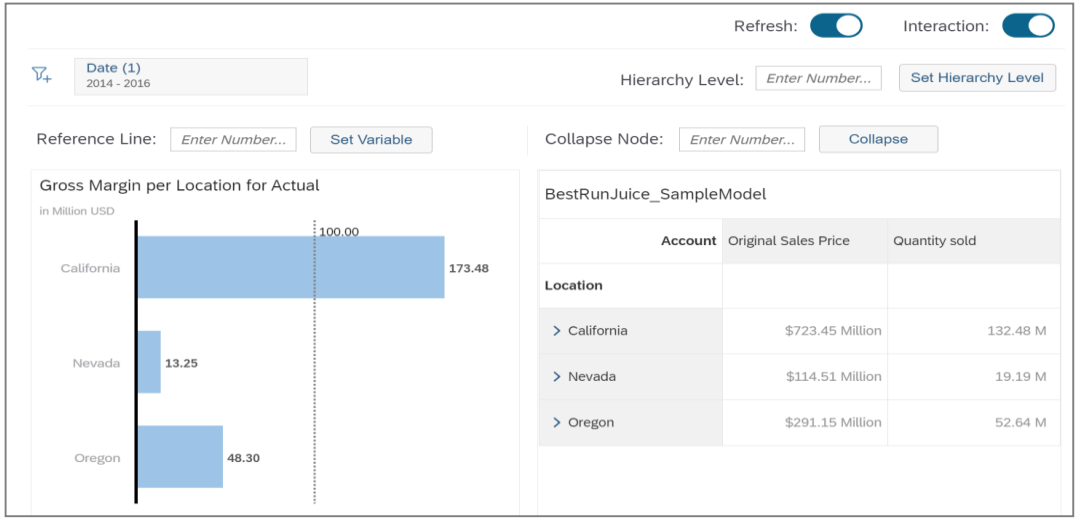
Application-level CSS

Pause refresh script API

- Typical use cases
  - Pause the initial refresh of applications until they are modified during application onInit event to optimize the application startup performance
  - Pause the refresh of chart and table after each click of user action. User can take a couple of actions and then refresh the table/chat all at once.
- Pause refresh of chart or table can be configured in builder panel
- Set “Pause refresh” on or off using script API







Exercises

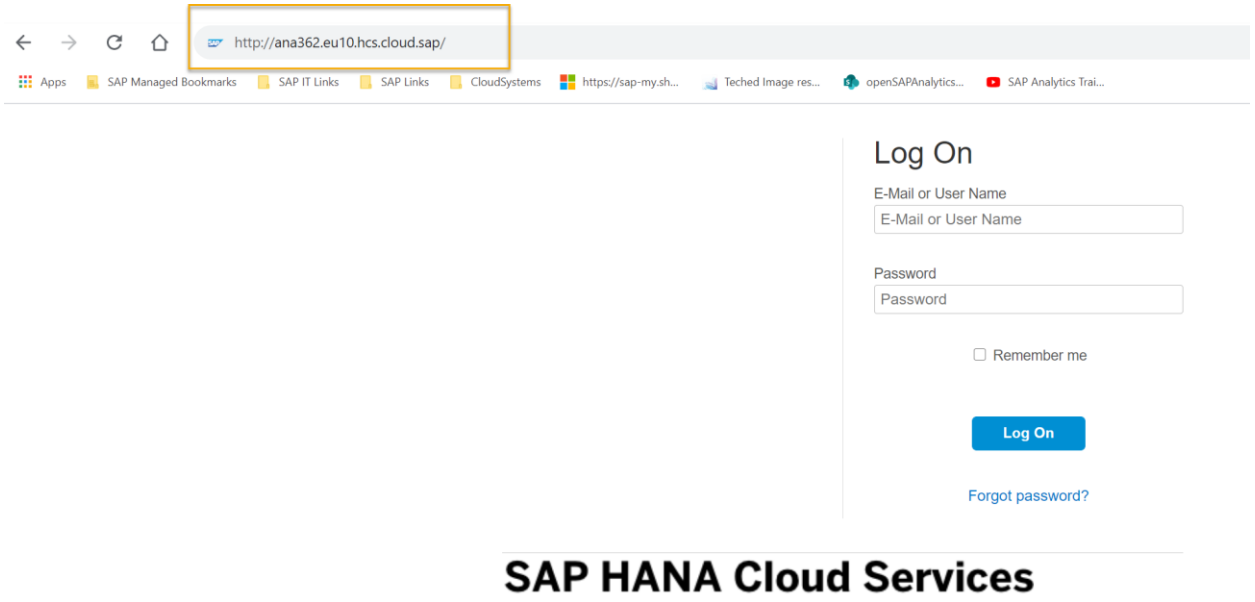
Exercises Technical Information

SAP Analytics Cloud:

http://ana362.eu10.hcs.cloud.sap/

User: XXXXX

Password: XXXXX



Exercises Overview:

- Exercise 1: With this exercise you are going to create a simple responsive analytical application and embed it into a HTML page and run it with your iPad or iPhone. (Estimated Duration: 90 minutes)

- Exercise 2: With this exercise you will be able to explore and use the Generic Template. With this template you will have the possibility to select and modify your Data Set using the available functionalities.. (Estimated Duration: 45 minutes)

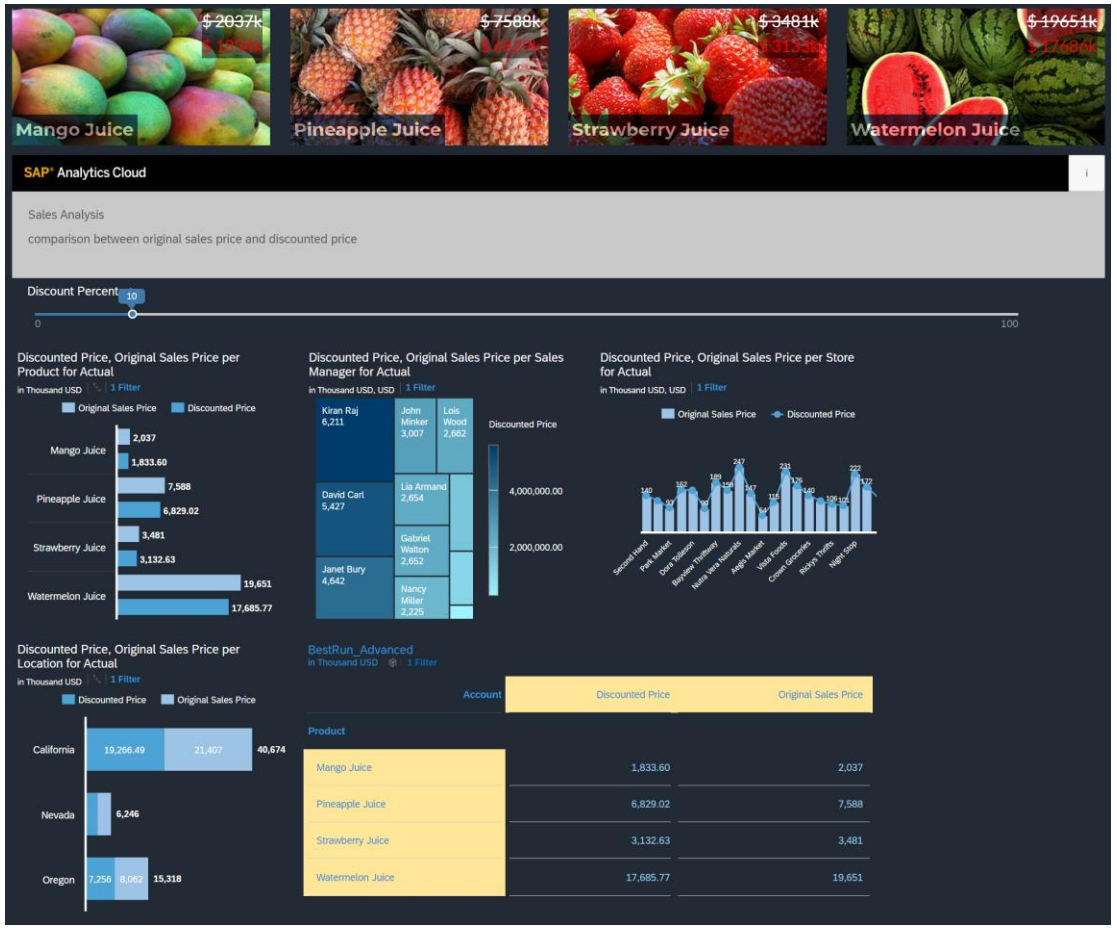
- Exercise 3: Here you are going to create a simple feedback form to ask user to enter the rating of a web page and then calculate the average score of this web page. You are going to leverage the responsive capability of analytics designer and integration with SAC planning capability to implement this scenario. (Estimated Duration: 45 minutes)

You are not required to do all exercises. Exercises are independent, you can choose the exercises to work on based on your interest and knowledge!

Exercise 1: Creating a responsive analytical application and embed this application into a HTML page

Exercise Content

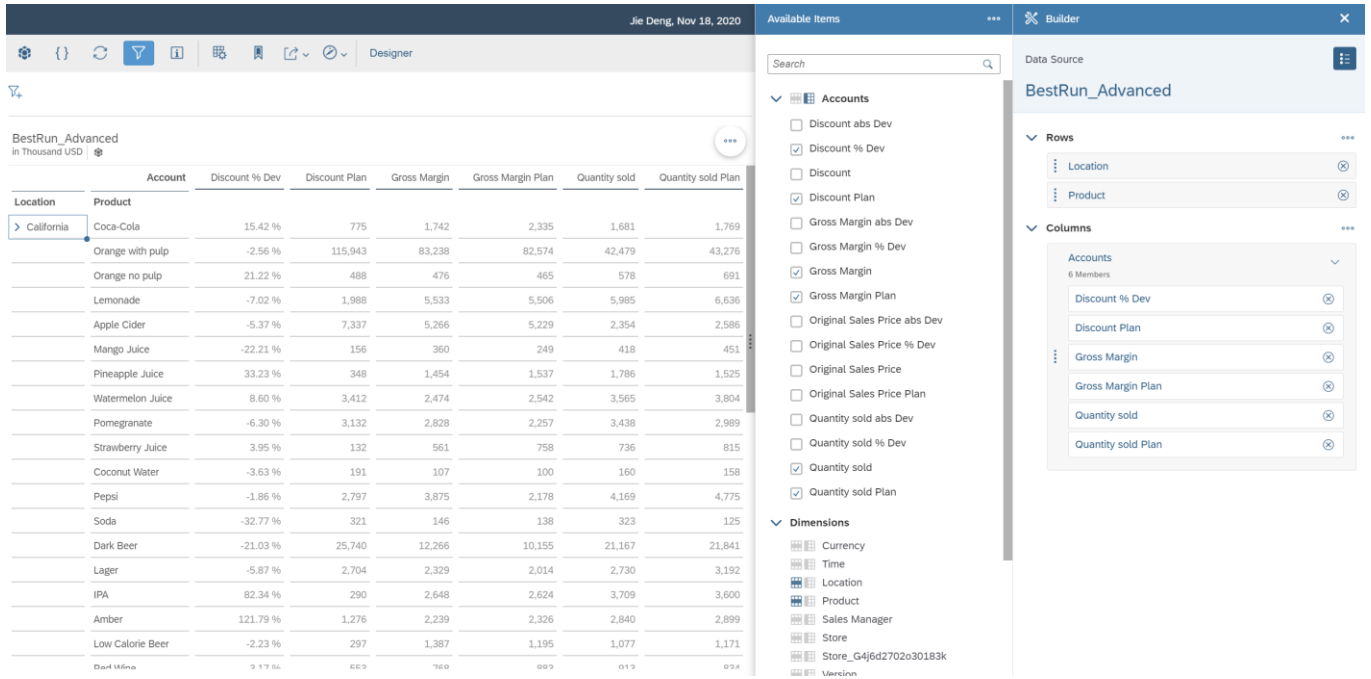
- Application header is already pre-configured for you
- HTML page is already prepared for you
- Add flow panel, charts, table, slider, click event to canvas, configure above objects
- Define Global Script Variable
- Use Global Script Variable for calculated measures
- Set the application to mobile enabled
- Create a theme ANA362_XXBLACKTHEME, Assign application to theme
- Download SAC iOS Mobile APP and run the application
- Embedding: Add windows post message and post message received, adjust html, and run the application within HTML5



Exercise 2: Exploring and Customizing the Generic Analysis Application

Exercise Content

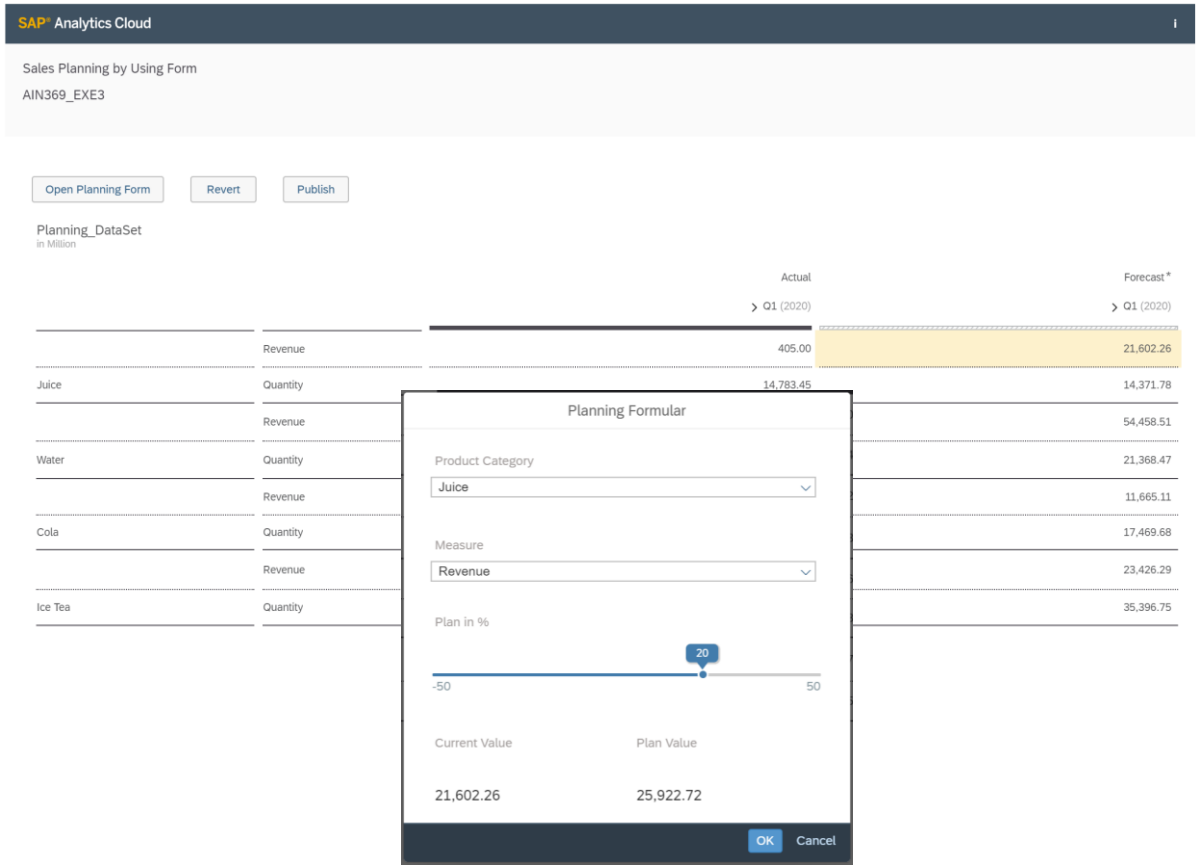
- Explorer Generic Analysis Application delivered as sample content
- Assign model to table and run the application
- Set the Data Model via URL Parameter when you run the application
- Use the SelectDataModelDialog to select a Model at start time



Exercise 3: Creating a simple feedback form by leveraging SAC planning capabilities

Exercise Content

- Build a responsive application
- Add the script APIs to implement the logic of calculation of average score of this web page
  - Use create member API to create the master data (name, email etc.) in the planning table
  - Use setUserInput API to enter the key figure score into the planning table
  - Use script API to calculate the average score based on the count of master data and score



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