



MASTERCLASS: SAP ANALYTICS CLOUD FOR BEGINNERS (HANDS-ON WORKSHOP)

Ingo Hilgefort, SAP Alumni

SAP Analytics Cloud



SAP Analytics Catalog
Centralized Portal

Mobile
iOS & Android



User
Experience

Digital Boardroom

Stories

Analytic Applications

MS Office Integration

Analytic
Capabilities

Business Intelligence

Data Exploration

Dashboards & Visualizations

Enterprise Reporting

Augmented Analytics

Conversational Analytics

Automated Analytics

Predictive Analytics

Enterprise Planning

Events & Workflows

Sharing & Simulation

Predictive Planning

Platform

Data
Connectivity

Data
Modeling

User
Management

Auditing &
Monitoring

Content
Translation

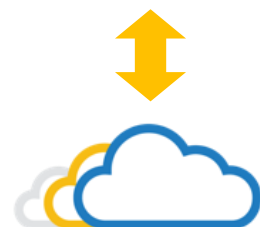
Lifecycle
Mgmt

Collaboration

Scheduling &
Publishing

APIs

SAP Business Technology Platform



Cloud Data Sources
and Applications



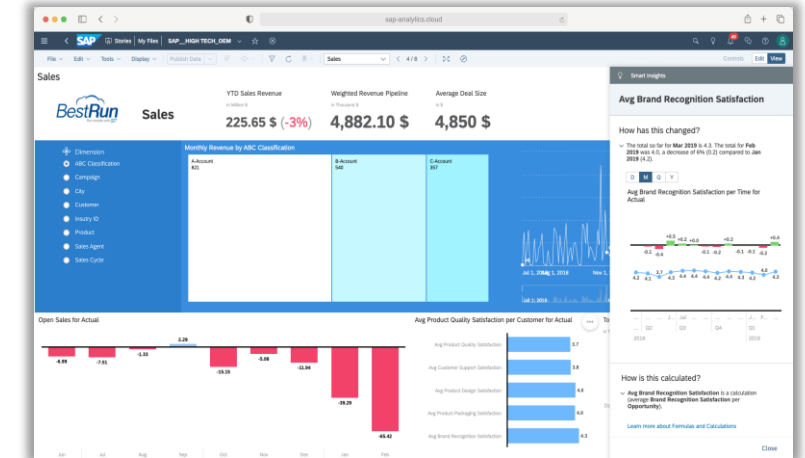
3rd party Data Sources and
Applications

Analytics and Business Intelligence

Explore data across the organization and deliver insights at the point of decision

The screenshot displays a data table titled 'Rental Data 2013.xlsx'. The table has columns for 'Store ID', 'Location', 'Retailer', 'Address', and 'City'. The data is organized into a grid with rows representing individual store locations. The interface includes a sidebar with navigation options and a top bar with search and filter tools.

Store ID	Location	Retailer	Address	City
1 3403	Indoor	Pharmacy	3403 Park Blvd	Monrovia
1 30227	Indoor	Supermarket	3403 Park Blvd	Monrovia
1 30991	Indoor	Supermarket	3403 Park Blvd	Monrovia
1 30772	Indoor	Convenience Store	3403 Park Blvd	Monrovia
1 29177	Outdoor	Convenience Store	3403 Park Blvd	Monrovia
1 29194	Outdoor	Convenience Store	3403 Park Blvd	Monrovia
1 34790	Indoor	Convenience Store	3403 Park Blvd	Monrovia
1 30139	Indoor	Specialty Retailer	3403 Park Blvd	Monrovia
1 24028	Indoor	Supermarket	3403 Park Blvd	Monrovia
1 24028	Indoor	Supermarket	3403 Park Blvd	Monrovia
1 24044	Outdoor	Convenience Store	3403 Park Blvd	Monrovia
1 24044	Outdoor	Convenience Store	3403 Park Blvd	Monrovia
1 24767	Indoor	Convenience Store	3403 Park Blvd	Monrovia
1 27060	Indoor	Convenience Store	3403 Park Blvd	Monrovia
1 27061	Indoor	Mobile	3403 Park Blvd	Monrovia
1 20261	Outdoor	Convenience Store	3403 Park Blvd	Monrovia
1 30053	Indoor	Convenience Store	3403 Park Blvd	Monrovia
1 34944	Indoor	Convenience Store	3403 Park Blvd	Monrovia
1 27153	Indoor	Convenience Store	3403 Park Blvd	Monrovia
1 24991	Indoor	Convenience Store	3403 Park Blvd	Monrovia
1 24943	Indoor	Supermarket	3403 Park Blvd	Monrovia
1 24991	Indoor	Convenience Store	3403 Park Blvd	Monrovia
1 24991	Indoor	Convenience Store	3403 Park Blvd	Monrovia
1 27077	Indoor	Convenience Store	3403 Park Blvd	Monrovia
1 20228	Outdoor	Supermarket	3403 Park Blvd	Monrovia
1 38019	Indoor	Pharmacy	3403 Park Blvd	Monrovia
1 28130	Indoor	Convenience Store	3403 Park Blvd	Monrovia
1 27140	Indoor	Convenience Store	3403 Park Blvd	Monrovia
1 34039	Outdoor	Pharmacy	3403 Park Blvd	Monrovia



Data Modeling & Preparation

Set key performance metrics, dimensions, and hierarchies and automate data wrangling to gain deeper insights.

Data Exploration & Visualization

Discover insights and inspire audiences with interactive visualizations and data stories by slicing and dicing data, regardless of volume size.

Augmented Analytics

Go the last mile of data-driven decision-making with machine-generated analytics and insights.

Dashboards & Visualizations

Design and deliver stunning, interactive enterprise dashboards across all lines of business

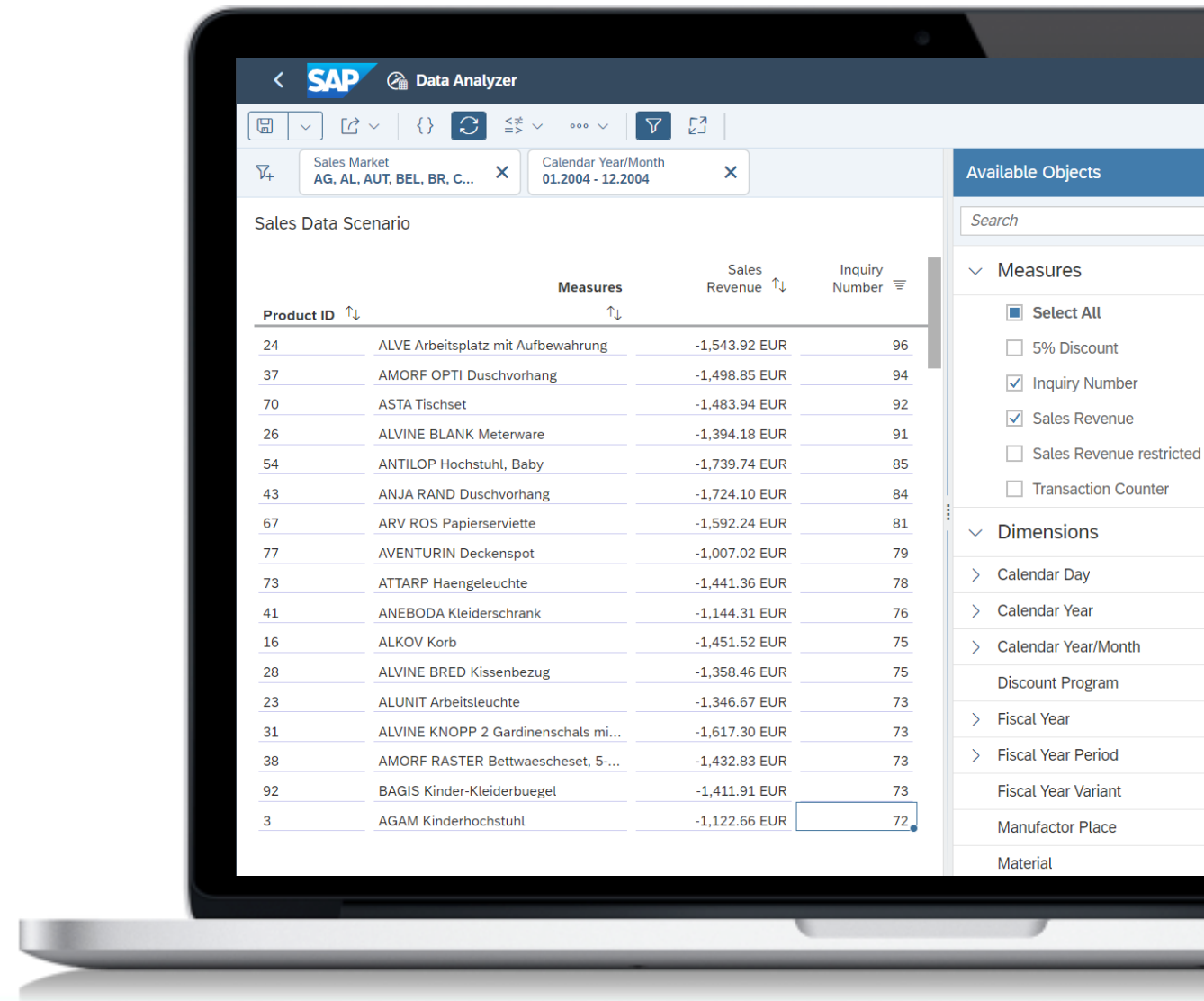
- Extensive visualization library, geo maps powered by ESRI and custom R visualizations
- Define custom calculations, calculated dimensions, aggregations and more
- Display variance, dynamic text, custom tooltips, CAGR and more
- Easily comment, collaborate and share content via document link with other users



Data Analyzer

Query your data directly and perform ad-hoc analysis in a pivot-table style analysis view

- Standalone exploration tool with easy access from the side navigation bar
- Transient access to SAP BW and SAP HANA data sources
- Save Insights, share and publish
- Contextual exploration



Enterprise Reporting

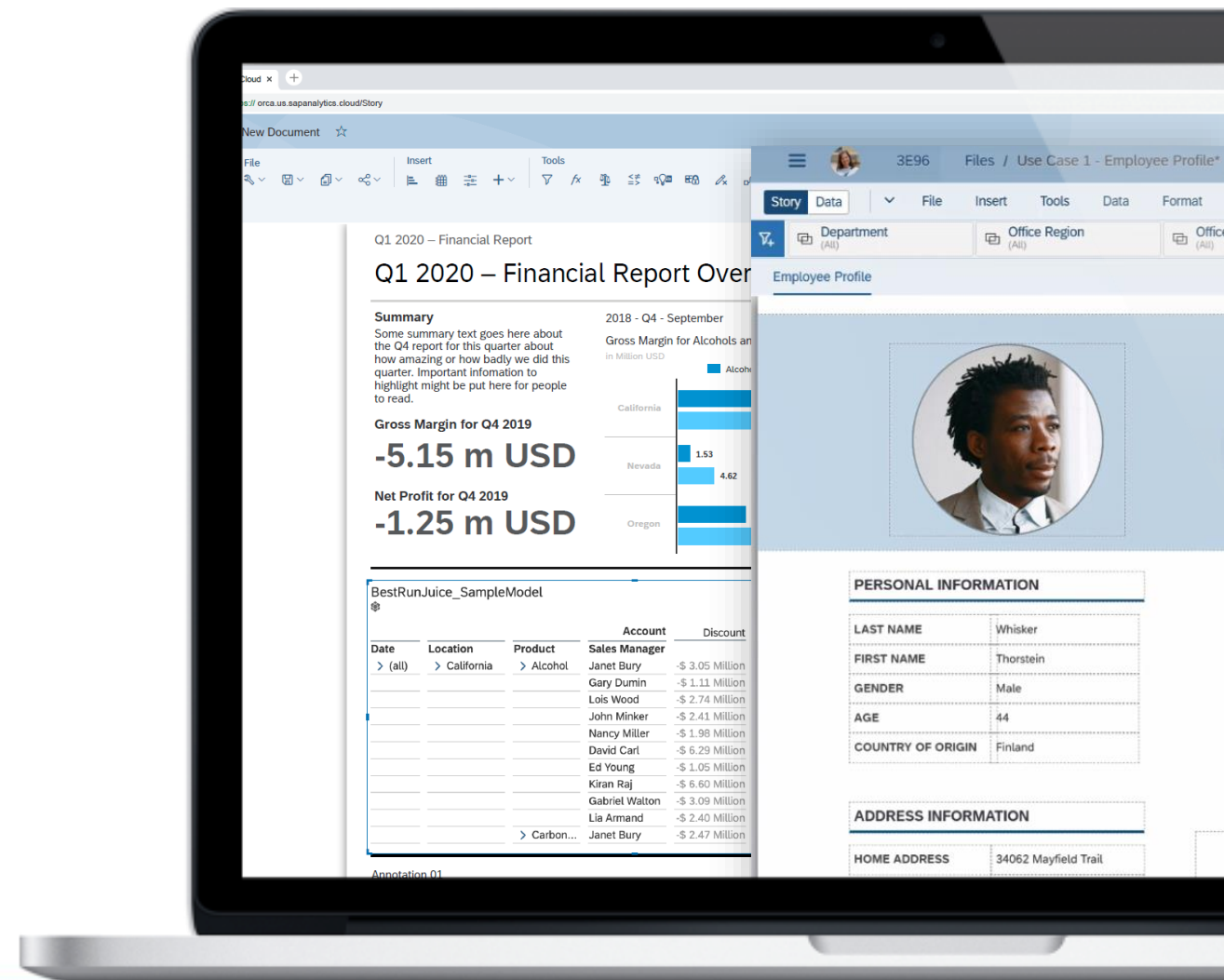
Design reports and distribute to the workforce on-demand or scheduled

Report Formatting

- Multi-page reports
- Report sections, headers and footers
- Paginated export to pdf and pptx

Report Delivery

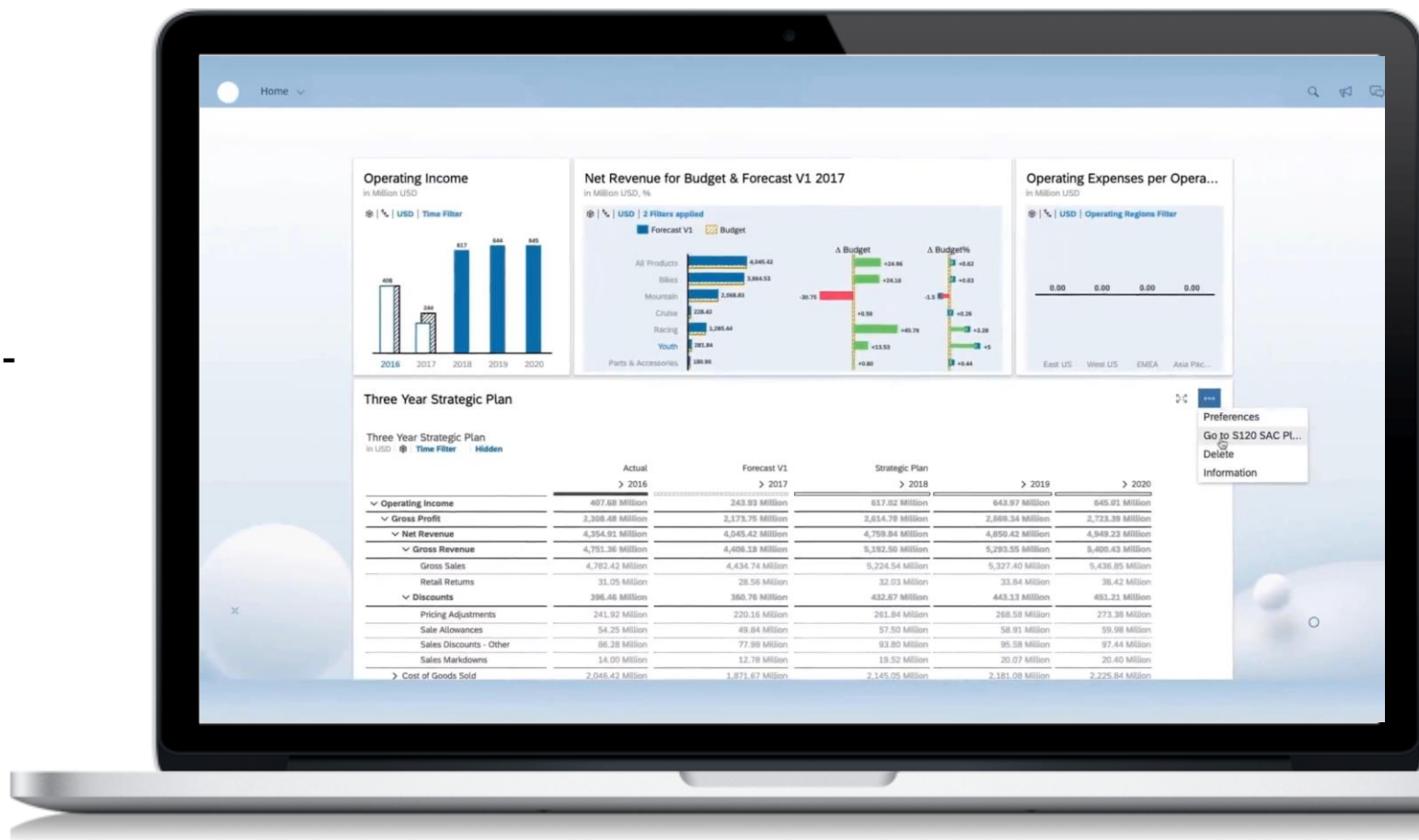
- Schedule and distribute reports to SAP Analytics Cloud and non-SAP Analytics Cloud recipients
- Burst personalized content to SAP Analytics Cloud recipients based on recipient authorization



What-If Analysis

Simulate “what-if” scenarios to test possible outcomes

- Perform what-if visually with value driver trees and tables
- Perform top-down bottom and bottom-up simulations
- Answer questions like:
 - What if you increase discount by 20%?
 - What if you hire more staff?
 - What if costs of goods increased?

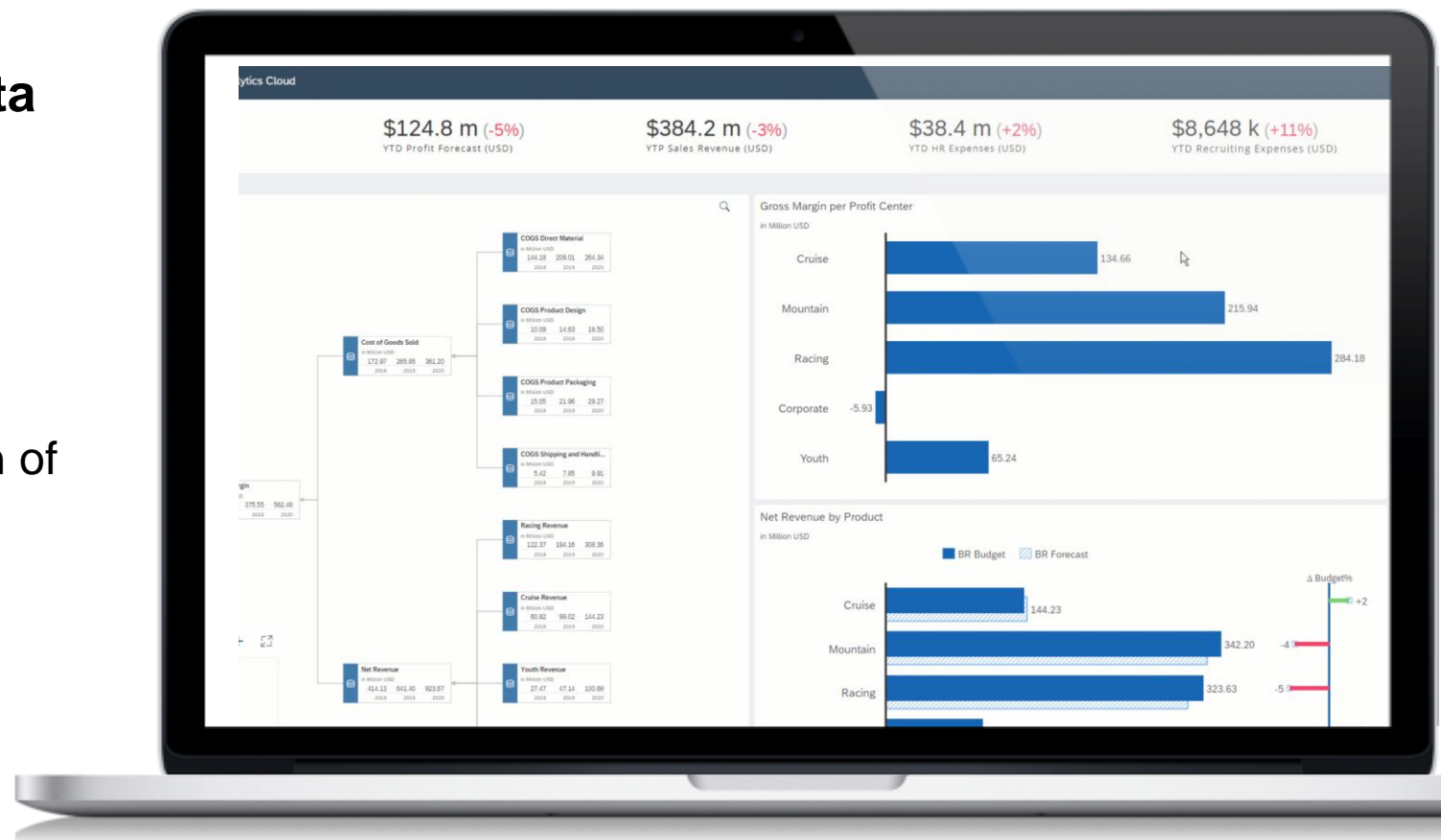


Smart Insights

Insight in one click from dimension members contributing most to a data point or to its variance

Tailored for BI Consumers

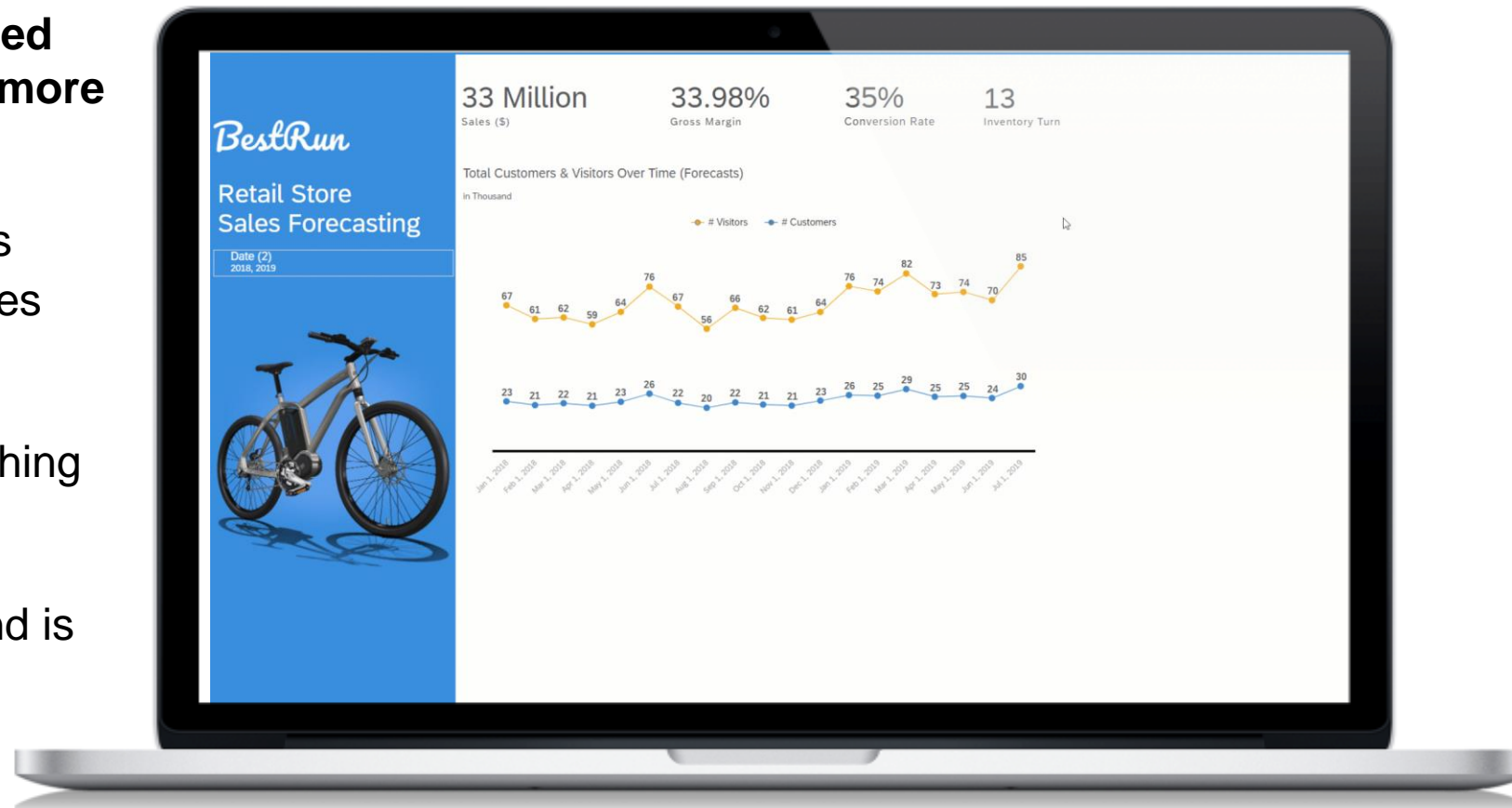
- Beyond filter & drill, open up exploration of underlying model
- Natural language that explains top contributors



Time Series Forecasting

Predict future values of a series based on historical data to help you make more confident decisions

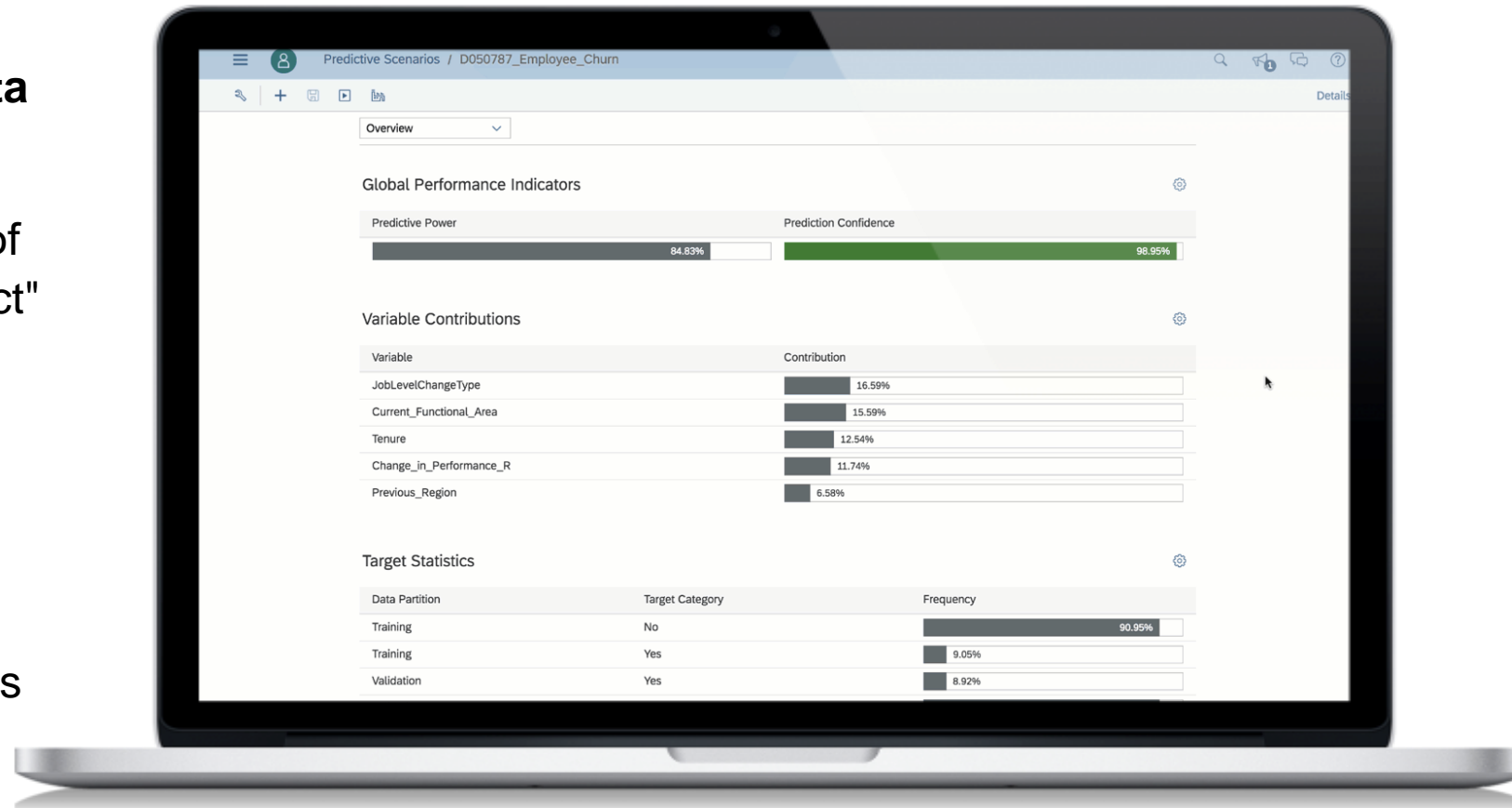
- Automatic forecasting on time series charts, line charts and planning tables
- Apply advanced options like linear regression, triple exponential smoothing and include additional inputs
- Forecast quality based on MAPE and is displayed as 0-5 rating



Smart Predict

Build trusted and actionable predictions without the help of a data scientist

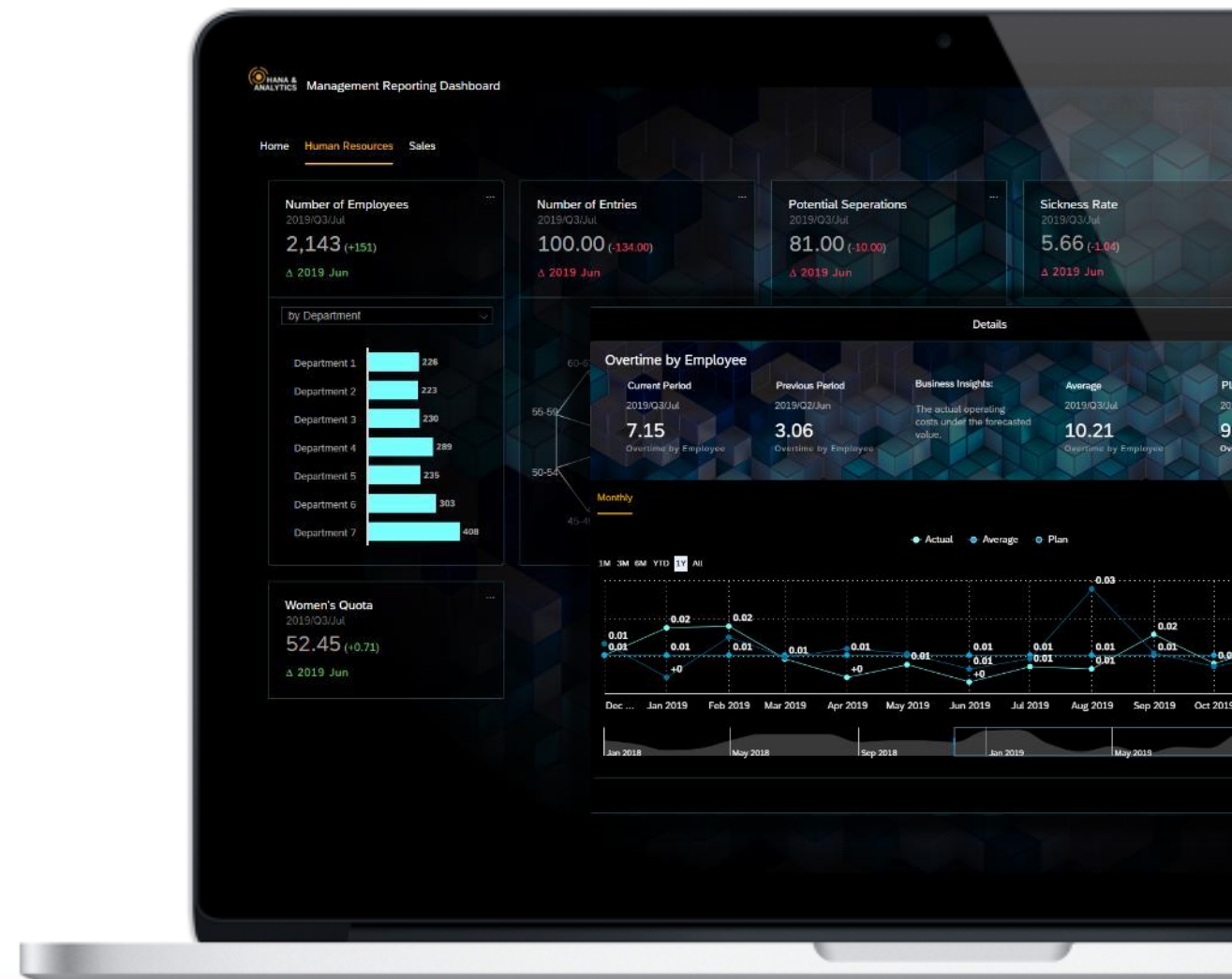
- Classification: "Create a sorted list of prospects to focus on for this product"
- Regression: "Give me revenue estimates for each customer for the next 6 months"
- Time Series: "Forecast revenue for each product and each point of sales daily for the next 30 days"



Analytic Applications

Fulfill unique and advanced use cases and workflows with analytic applications built with Analytics Designer

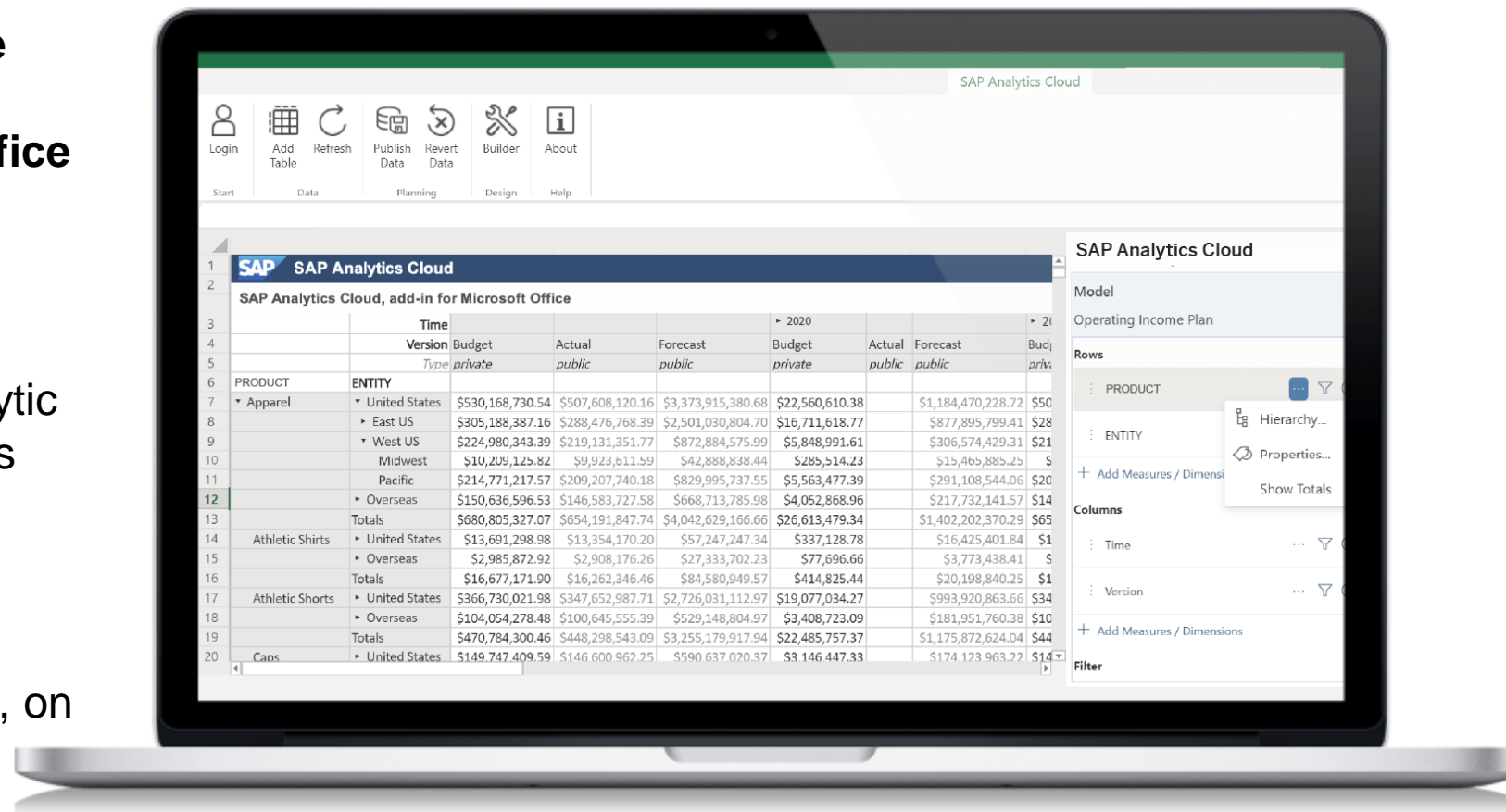
- Develop analytic applications that bring together BI, Planning, and Predictive capabilities
- Start from existing content, reuse user stories widgets, customize, integrate and extend
- Guide the users and adjust the widgets behavior based on their expectations

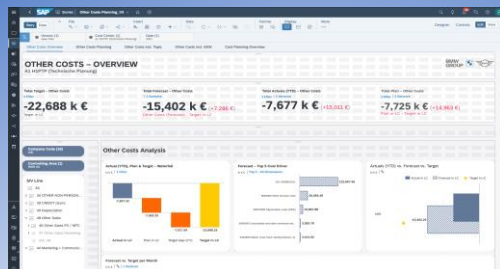


Add-in for Microsoft Office

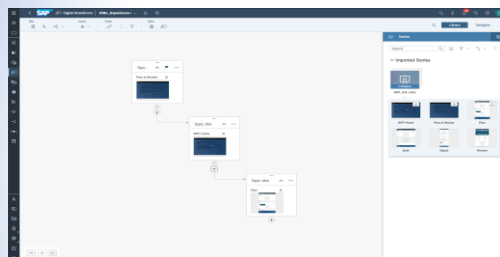
Analyze your plans, simulate future outcomes, and make effective business actions with Microsoft Office Excel 365

- Design formatted reports in Excel
- Created formatted reports on analytic and planning acquired data models
- Plan, simulate and write back to planning models
- Collaborate with colleagues online, on desktop, Windows or Mac

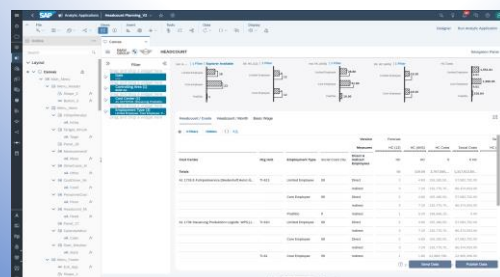




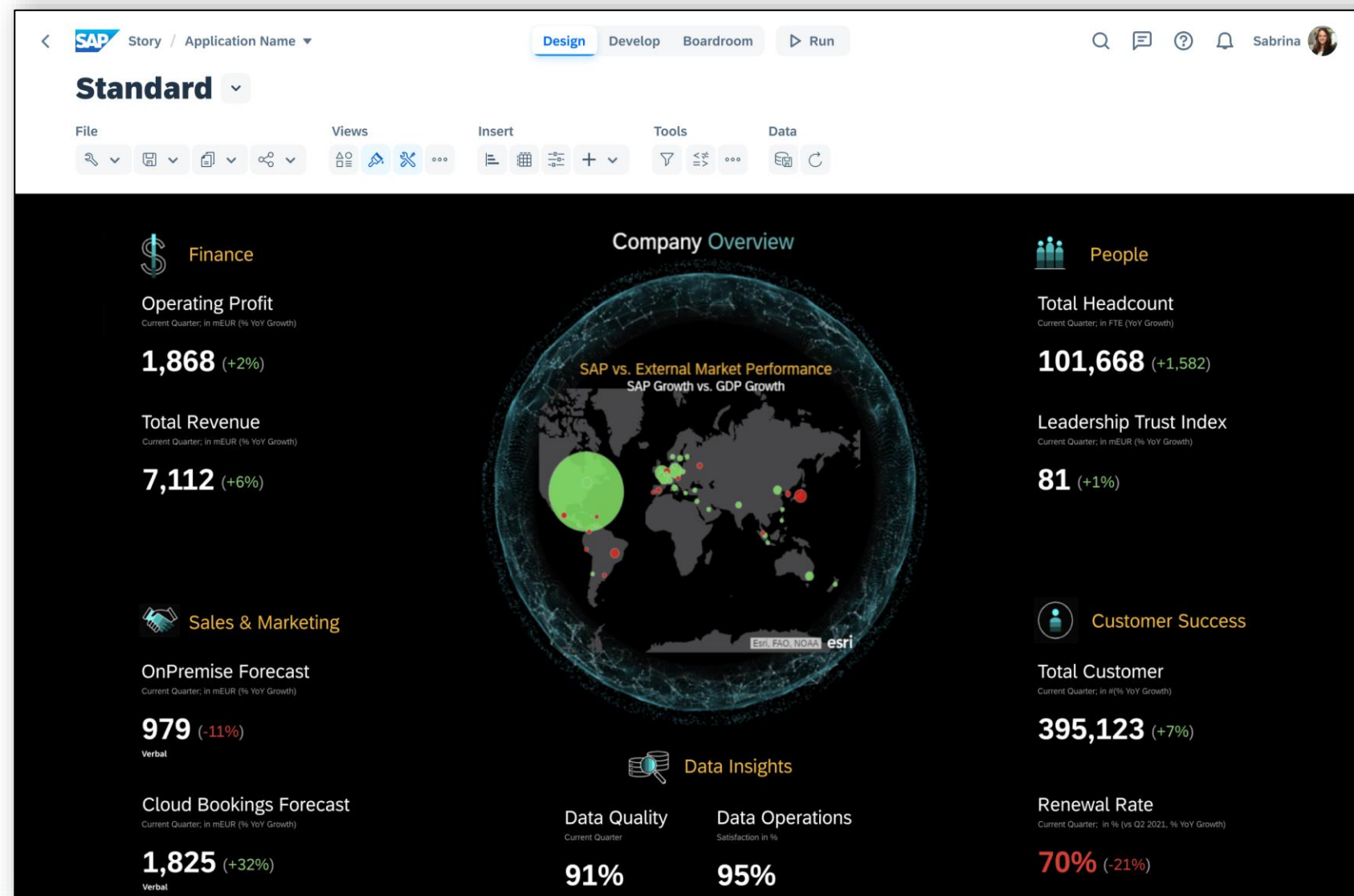
Story Builder



Digital Business Architecture

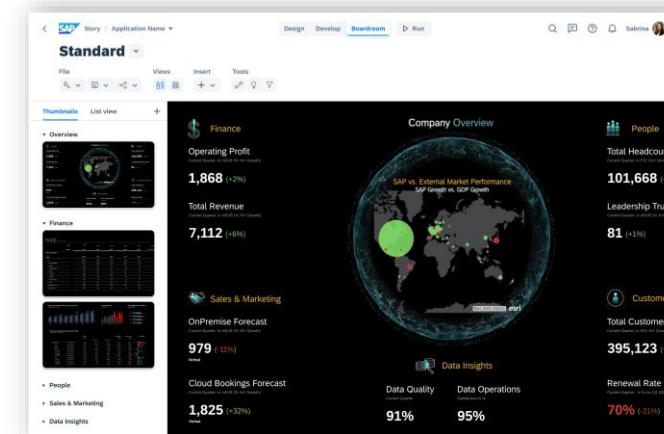
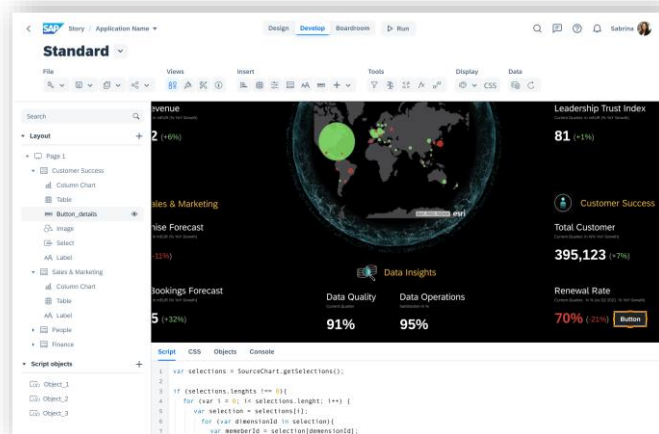
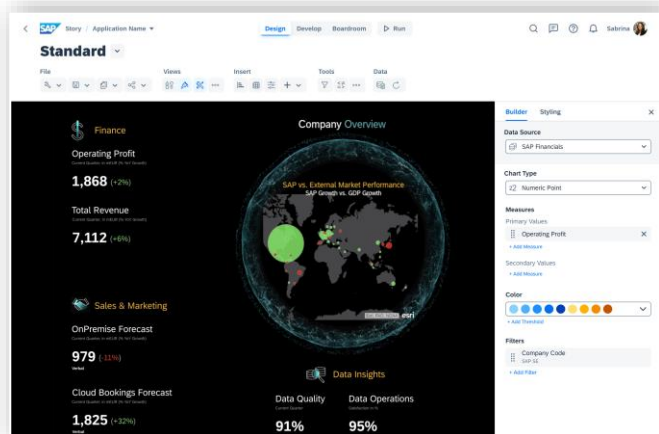


Analytic Application



One Tool For All - Story, Analytics Designer & Digital Boardroom

Simplicity, Consistency and Extensibility



DESIGN

- Simple mode
- Define the layout
- Add data visualizations

DEVELOP

- Advanced mode
- CSS and pixel perfect
- Enhance with code/logic

BOARDROOM

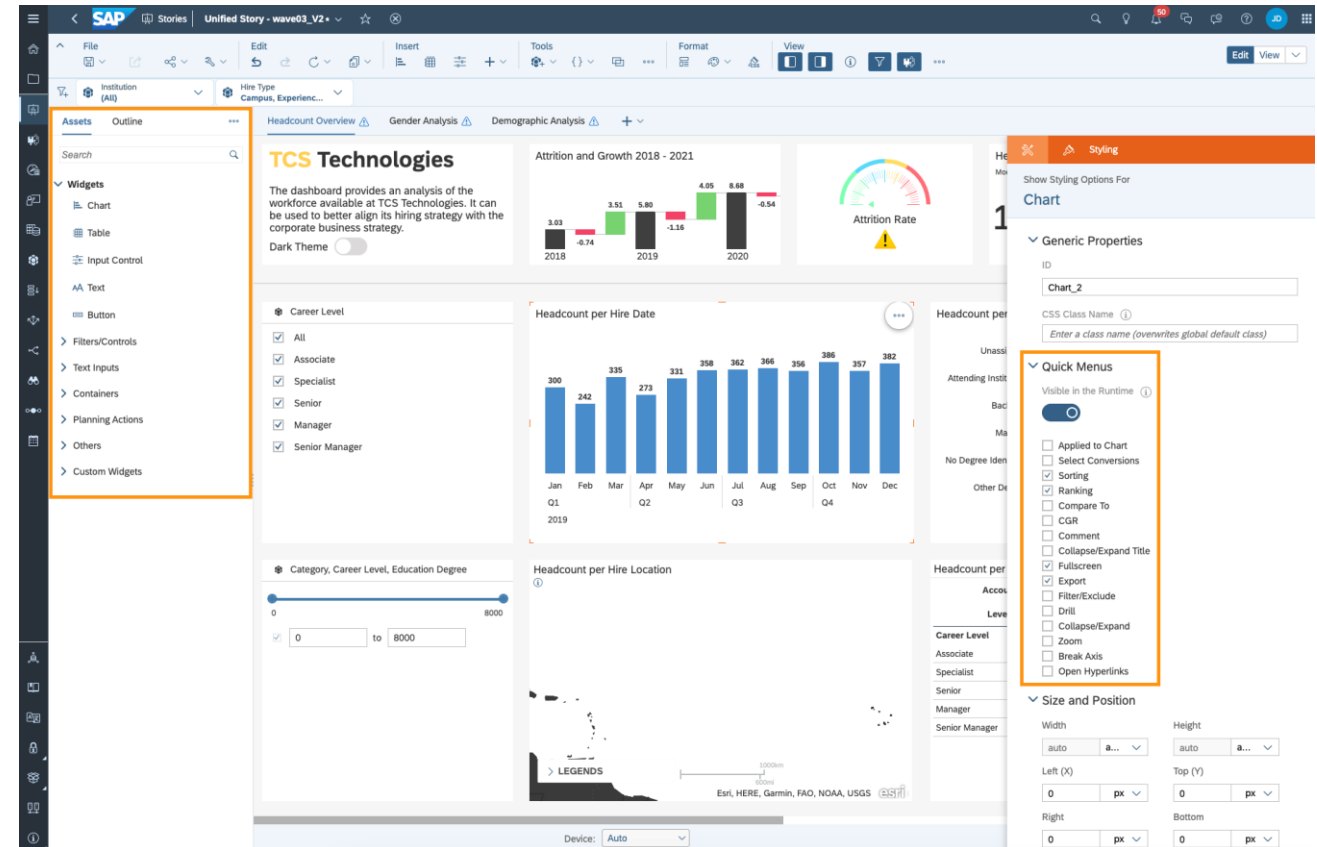
- Build your presentation
- Add pages from stories
- Define navigation paths

“Story 2.0” – Feature Highlight

Integrated Design Time for Both Designer and Developer

Story Designers and developers are working together in one environment, for seamless collaboration. Within this integrated design time they will be able to open widgets and the outline panel via the left panel icon:

- Assets panel – provides all the widgets that can be added to story canvas via drag & drop
- Outline panel – provides a structured view of all widgets that are currently available in the story
- In addition, story designers and story developers will be able to lock a widgets position and show/hide widgets in outline
- As story designer you can configure the context menu of a widget to flexibly adapting story individual needs



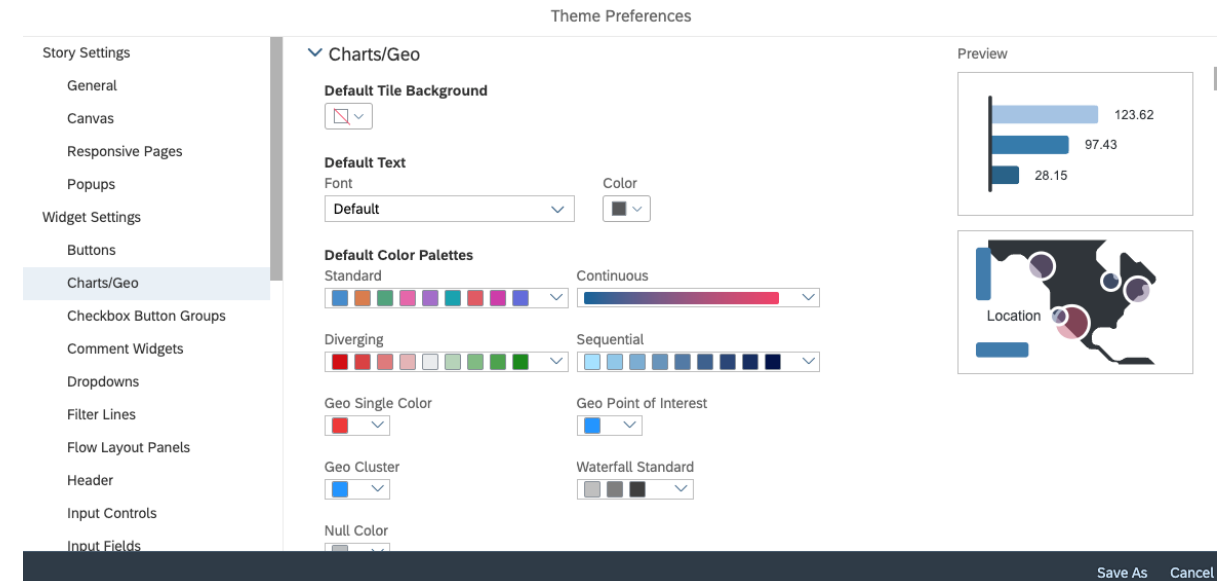
“Story 2.0” – Feature Highlight

Flexible Theme and CSS Capability

Now you as customers can define your corporate theme and save theme as an artefact in SAP Analytics Cloud repository.

Story designers or developers can apply this theme to their stories, via one click in design time, without defining the color/font size etc. in each story.

In addition, Theme editor is provided with a preview to give the visual guidance for Theme designer.



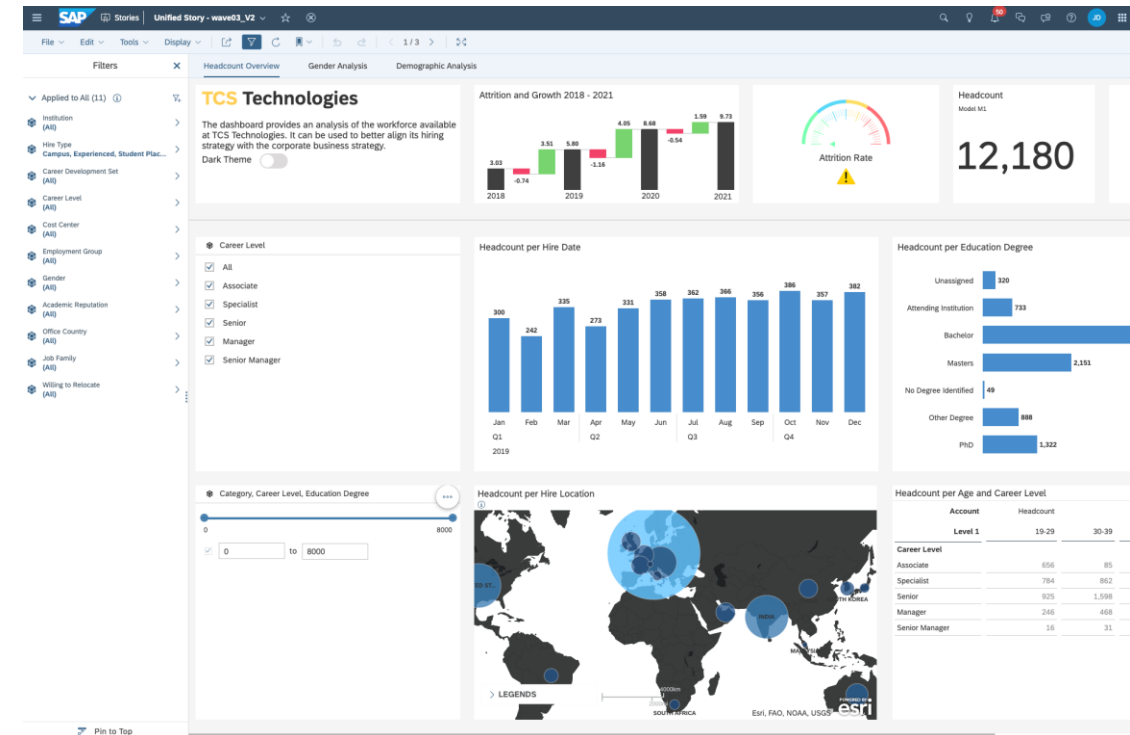
“Story 2.0” – Feature Highlight

Vertical Filter Panel

Story viewers can now switch the orientation of the filter panel between horizontal and vertical.

A vertical filter panel provides more space to display and interaction with filters (in particular while navigating hierarchical value lists).

Story designers can configure the default orientation that viewers see when opening the story.



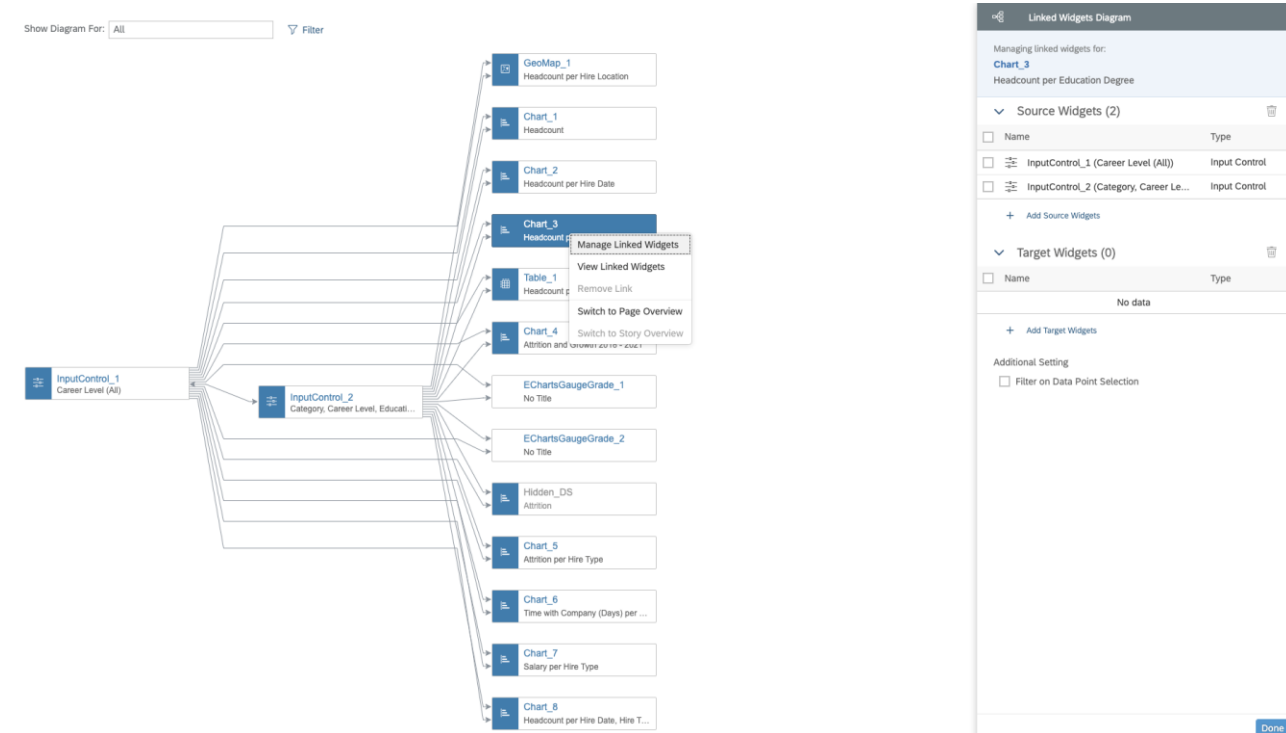
“Story 2.0” – Feature Highlight

Linked Widgets Diagram

A Linked Widgets Diagram provides a graphic overview of the defined linked analysis among widgets.

Moreover, it is the central location for story designers or developers to maintain linked analysis definitions (edit, delete, and add linked analysis).

This diagram will be especially beneficial if there are many defined linked analyses between charts, tables, input controls, and users want to understand the interactions between widgets.

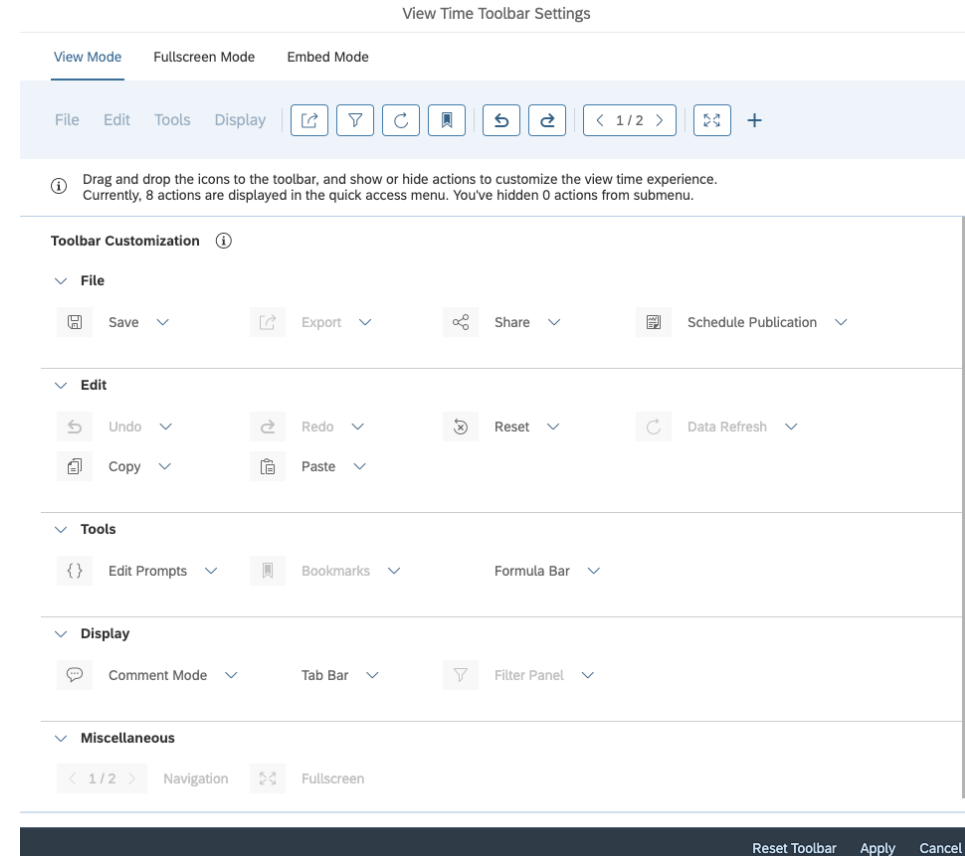


“Story 2.0” – Feature Highlight

Configurable View Time Toolbar

Now the story toolbar can be configured for view mode, presentation mode or embed mode.

Story designer or developers can configure the toolbar to best match the needs to story viewers. E.g., if the story does not contain any variable value, then the prompt icon in toolbar can be removed and replaced by another icon via drag and drop.



“Story 2.0” – Feature Highlight

Integration with Data Analyzer

Here story viewers can jump to Data Analyzer from a story table for further data exploration purpose and the entire table state (like filter, drill down etc.) can be completely taken over.

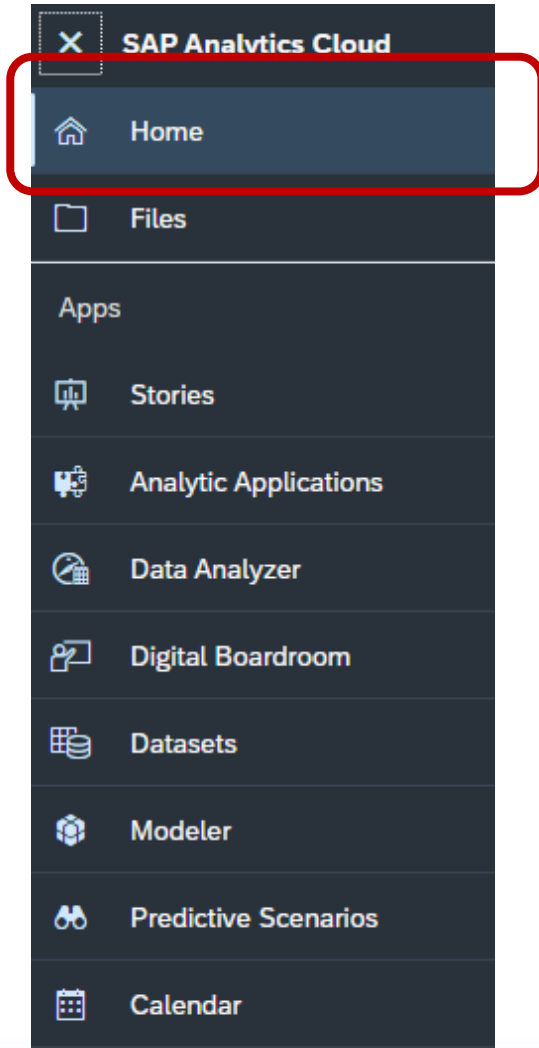
Headcount per Age and Career Level					Applied to Table >	...
Account	Headcount					
Level 1	19-29	30-39	40-49			60+
Career Level						
Associate	656	85	–			–
Specialist	784	862	368			176
Senior	925	1,598	1,512			1,221
Manager	246	468	428	436		440
Senior Manager	16	31	60	65		39

Why SAP Analytics Cloud?

- ▶ **Analyze, predict and plan** all in one unified user experience
- ▶ **Connect live** to cloud and on-premise data sources and break down data silos
- ▶ **Make confident decisions** with automated insights powered by machine learning
- ▶ **Collaborate with ease;** add discussions, comments or share content on desktop or mobile
- ▶ **Innovate rapidly** with new innovations and features automatically added every quarter
- ▶ **Scale flexibly** to support users & enhance capabilities without increasing IT costs
- ▶ **Cloud software-as-a-service** solution fully hosted and maintained by SAP

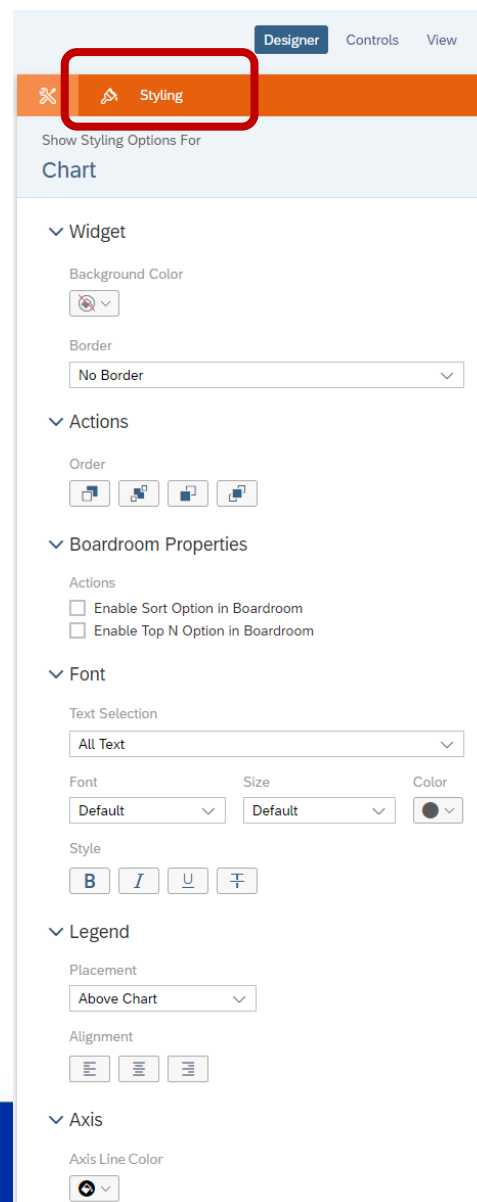
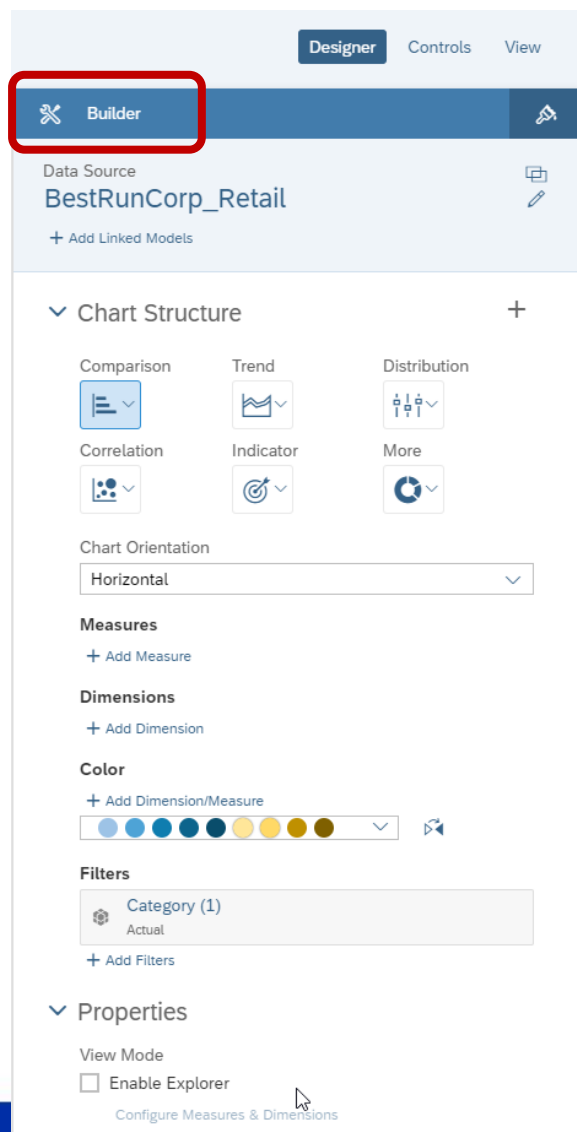
SAP Analytics Cloud – Exercise Details

SAP Analytics Cloud – Exercise Details



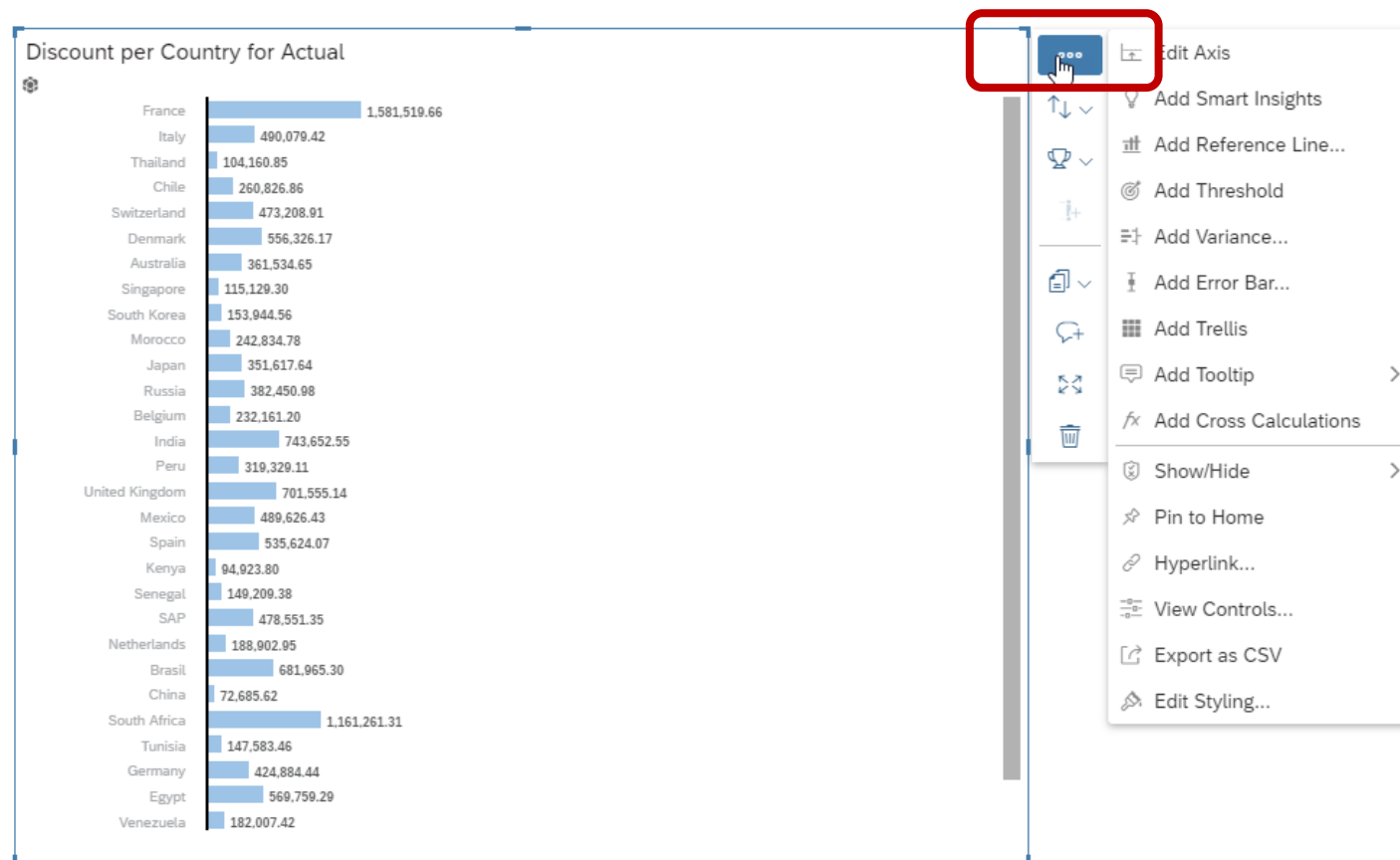
- Home menu (top left)
- Provides access to the repository as well as the option to create stories / apps

SAP Analytics Cloud – Exercise Details



- Builder Panel
 - Chart and Table configuration on elements, like dimension / measures
- Styling Panel
 - Formatting details like font, color, ...

SAP Analytics Cloud – Exercise Details

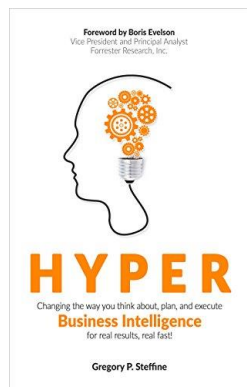


- Context menu provides access to elements like Variance, Threshold, Reference line...
- Available for Map, Chart, table

SAP Analytics Cloud – Exercise Details

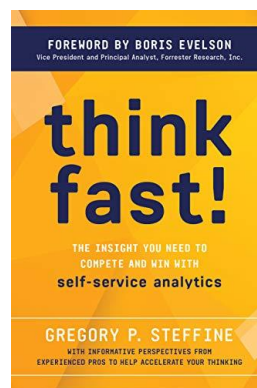
- EXERCISE 01 – CREATE YOUR FIRST SAP ANALYTICS CLOUD STORY
- EXERCISE 02 – LINKED ANALYSIS AND INPUT CONTROLS
- EXERCISE 03 – GEO MAPS, THRESHOLDS, AND VARIANCES
- EXERCISE 04 – THEMING AND STYLING
- EXERCISE 05 – BOOKMARKING AND SHARING
- EXERCISE 06 – AUGMENTED ANALYTICS
- EXERCISE 07 – CALCULATIONS AND BLENDING
- EXERCISE 08 – GEO VISUALIZATIONS
- EXERCISE 09 – TIME SERIES ANALYSIS
- MODELLING EXERCISE 01 – NEW MODELL
- MODELLING EXERCISE 02 – LOADING DATA

Resources



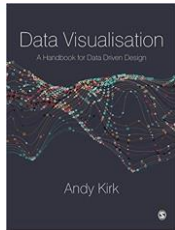
Hyper: Changing the way you think about, plan, and execute business intelligence for real results, real fast!

by Gregory P. Steffine, Boris Evelson

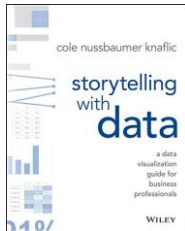


Think Fast!: The insight you need to compete and win with self-service analytics

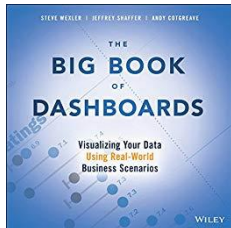
by Gregory P. Steffine, Boris Evelson



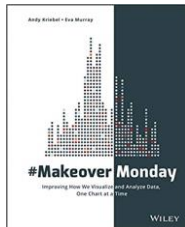
Data Visualisation: A Handbook for Data Driven Design
Andy Kirk



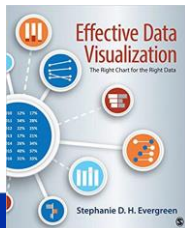
Storytelling with Data: A Data Visualization Guide for Business Professionals
Cole Nussbaumer Knaflic



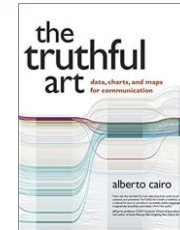
The Big Book of Dashboards: Visualizing Your Data Using Real-World Business Scenarios
Steve Wexler, Jeffrey Shaffer, Andy Cotgreave



#MakeoverMonday: Improving How We Visualize and Analyze Data, One Chart at a Time
Andy Kriebel, Eva Murray



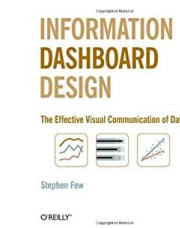
Effective Data Visualization: The Right Chart for the Right Data
Stephanie Evergreen



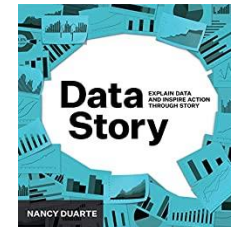
The Truthful Art: Data, Charts, and Maps for Communication
Alberto Cairo



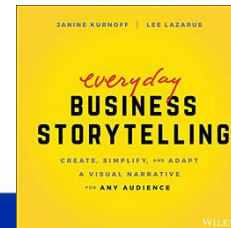
Solid, outlined, hatched: How visual consistency helps better understand reports, presentations and dashboards
by Rolf Hichert , Jürgen Faisst



Information Dashboard Design: The Effective Visual Communication of Data
By Stephen Few



DataStory: Explain Data and Inspire Action Through Story
By Nancy Duarte



Everyday Business Storytelling: Create, Simplify, and Adapt A Visual Narrative for Any Audience
By Janine Kurnoff

How to Connect with Me

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