

How No-Code Visualization is Fast Becoming an Asset for Data Engineering and Data Science Team

Speed to insight by building production quality reports

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Background / state of the industry-As per chatGPT

As of my last knowledge update in January 2022, clinical trial dashboarding was an evolving field that aimed to provide real-time and comprehensive insights into the progress and data of clinical trials. Dashboards are crucial tools for researchers, sponsors, and other stakeholders to monitor and manage various aspects of clinical trials efficiently.

Key features and components of clinical trial dashboards include:

1. Patient Recruitment and Enrollment
2. Site Performance
3. Data Quality and Integrity
4. Adverse Events Monitoring
5. Protocol Compliance
6. Drug Supply Management
7. Regulatory Compliance
8. Real-time Analytics
9. Mobile Accessibility

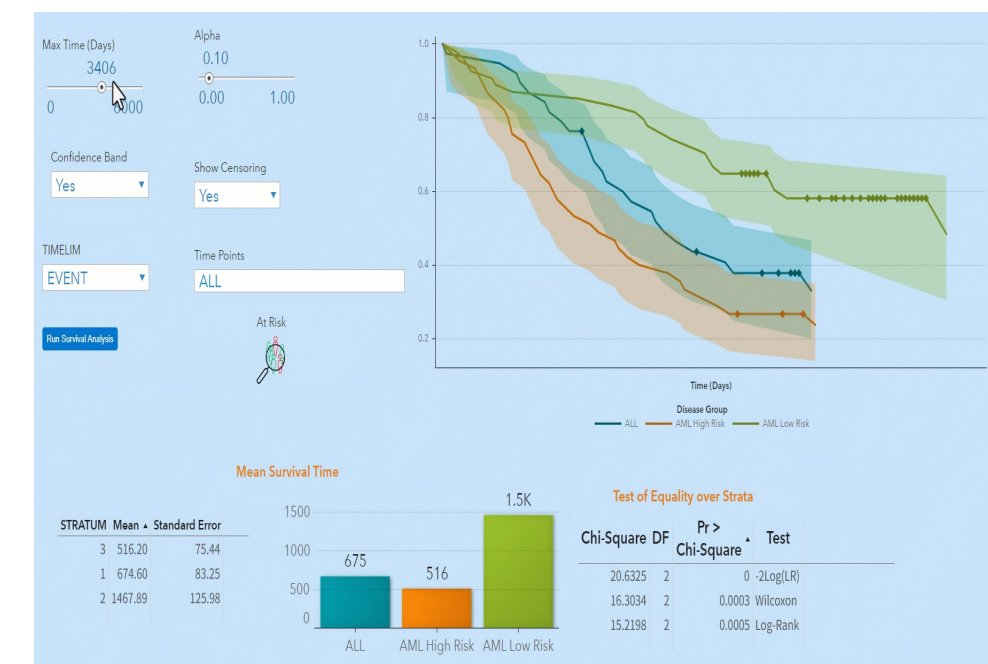
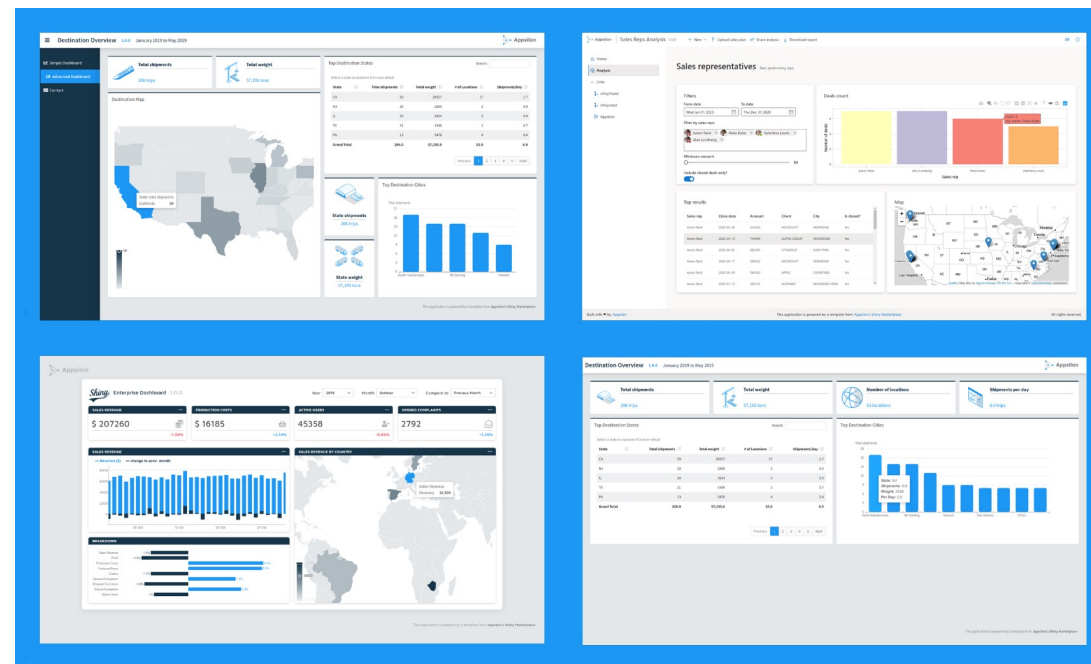
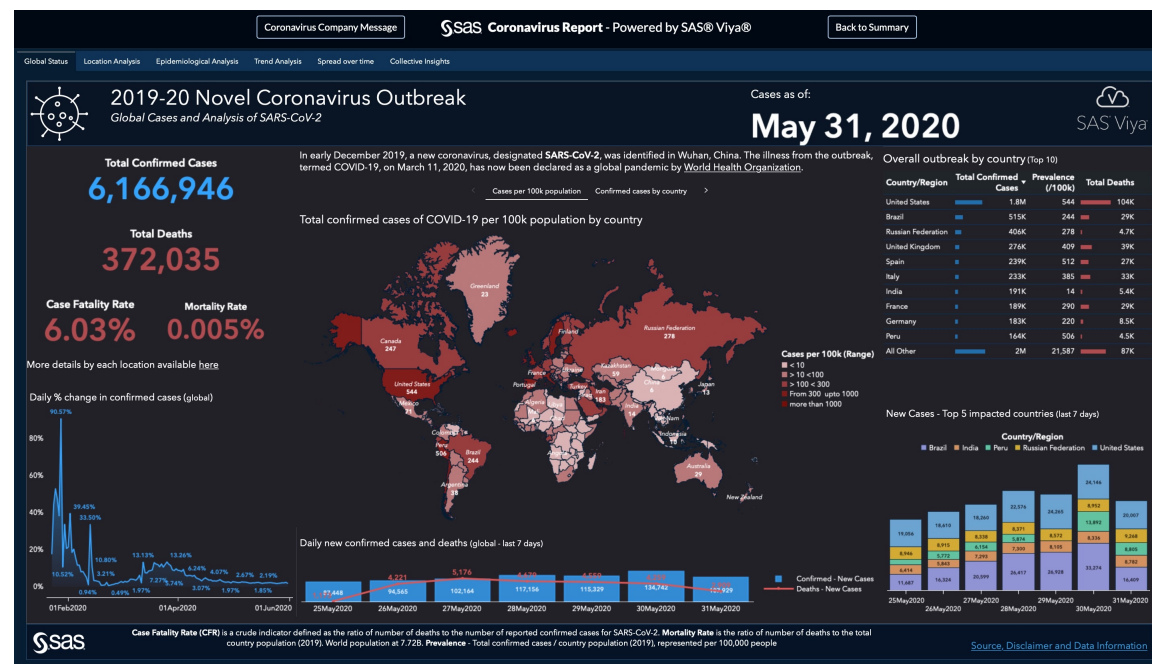
Interactive Visualization

Common categories in clinical domains

Dashboarding

Exploratory
Data Analysis(EDA)

Web Apps



- Live View on Data
- Interactive Filtering
- Explanatory

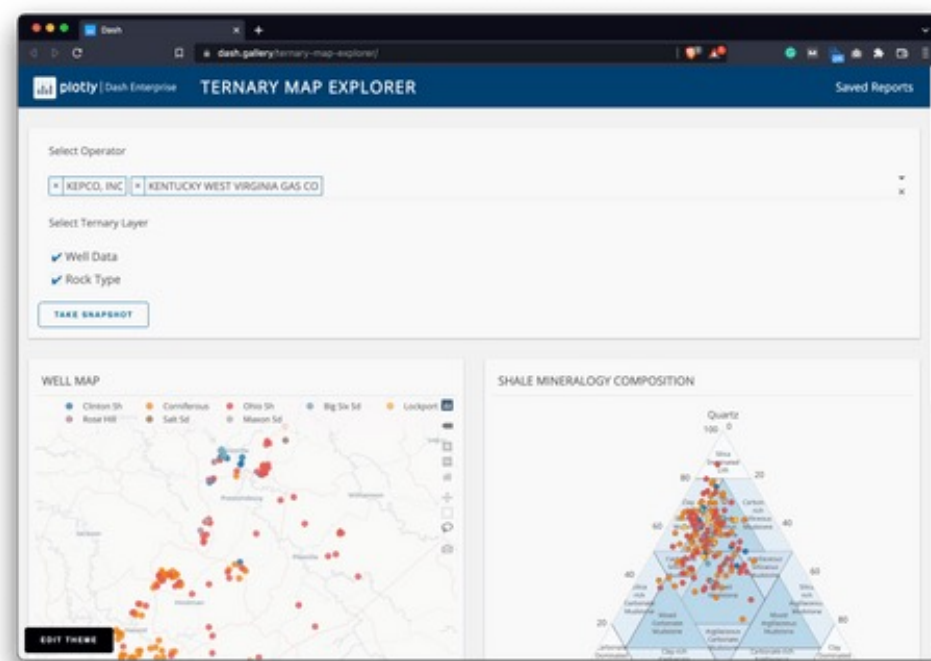
- Explore Data
- Join tables
- Exploratory

- Code Execution
- End user's feedback

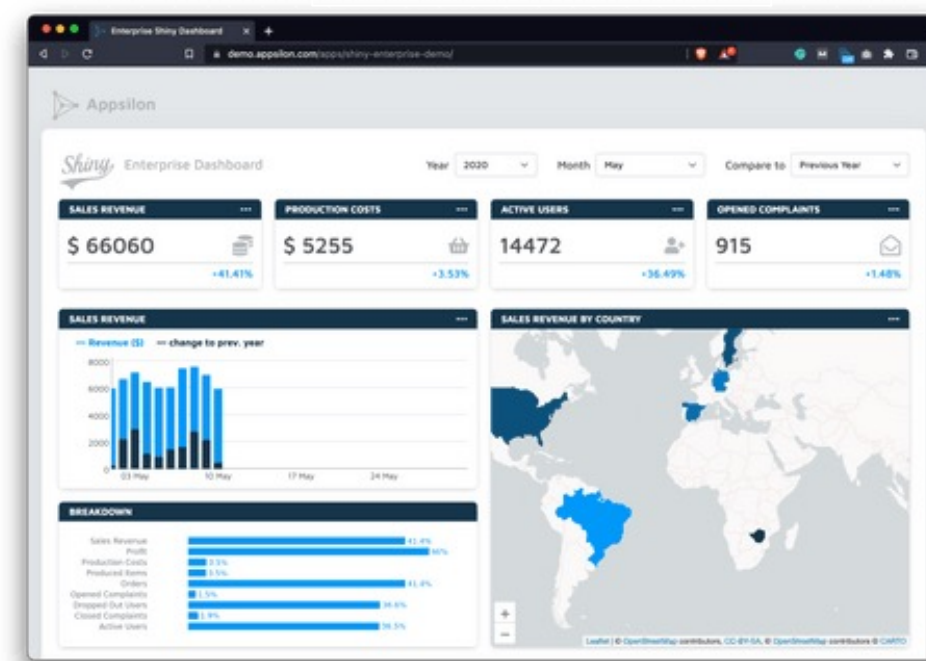
Interactive Visualization

- Dashboard takes advantage of graphical user interface(GUI), a collection of widget and drag-n-drop style feature to build a story (reports and metrics) with no-code.
- In SAS, history of dashboarding goes back as far as 1980's with JMP and SAS Visual Analytics in 2010's & beyond.
- In today's world, & of generative AI, users have many choices, to build a dashboard with No Code\Low Code.
- For Open-source community, there is Python Dash & R-shiny (and more).
- Platform products like Posit, DDL, Data bricks .. their solution in R shiny / Python etc.
- Commercial(COTS) product like Power BI, Tableau, Spotfire, Alteryx, Cloud Productsetc.

Python Dash



R-Shiny



Challenges in Clinical Trials Dashboarding



Data Integration & Preparation



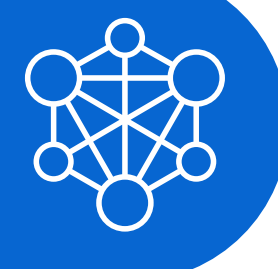
Data Security and Governance



Real Time Updates



Visualizing Complex Data



Interoperability



Scalability

Common Ask

- Clinical Trials Dashboard
- Centralized Statistical Monitoring
- Risk Based Monitoring Dashboard
- Outlier / Anomaly Detection
- Data Quality Monitoring
- Exploratory Data Analysis
- Audit Trail Dashboard
- RWE Dashboard

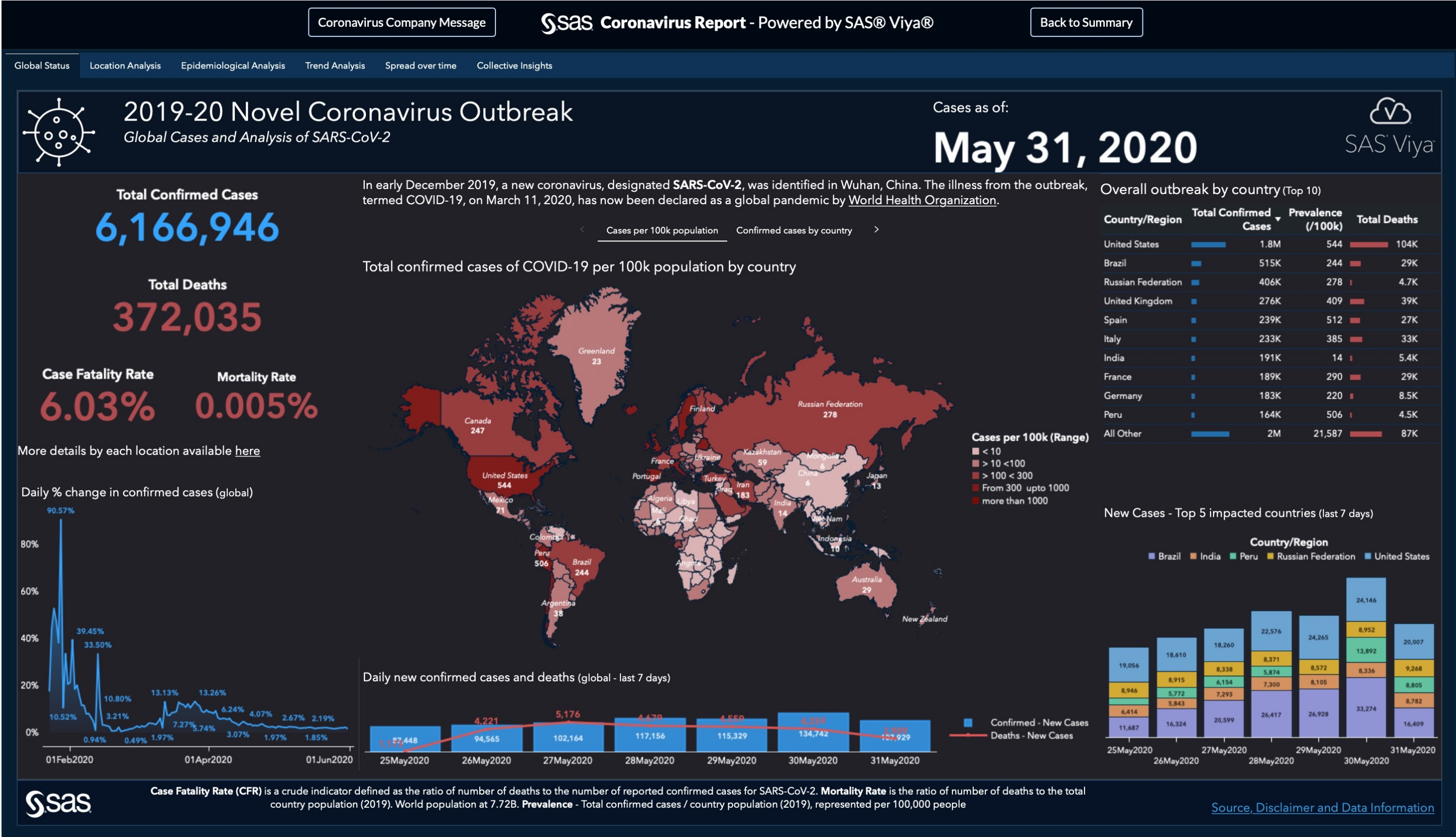
Who can benefit from dashboards

- Clinical Programming Team
- Biostatistics Team
- Real World Evidence Team
- Data Management Team
- BI Team
- EDA Team
- Clin Ops Team
- Executive Leadership

How does a No-code project begin and end?

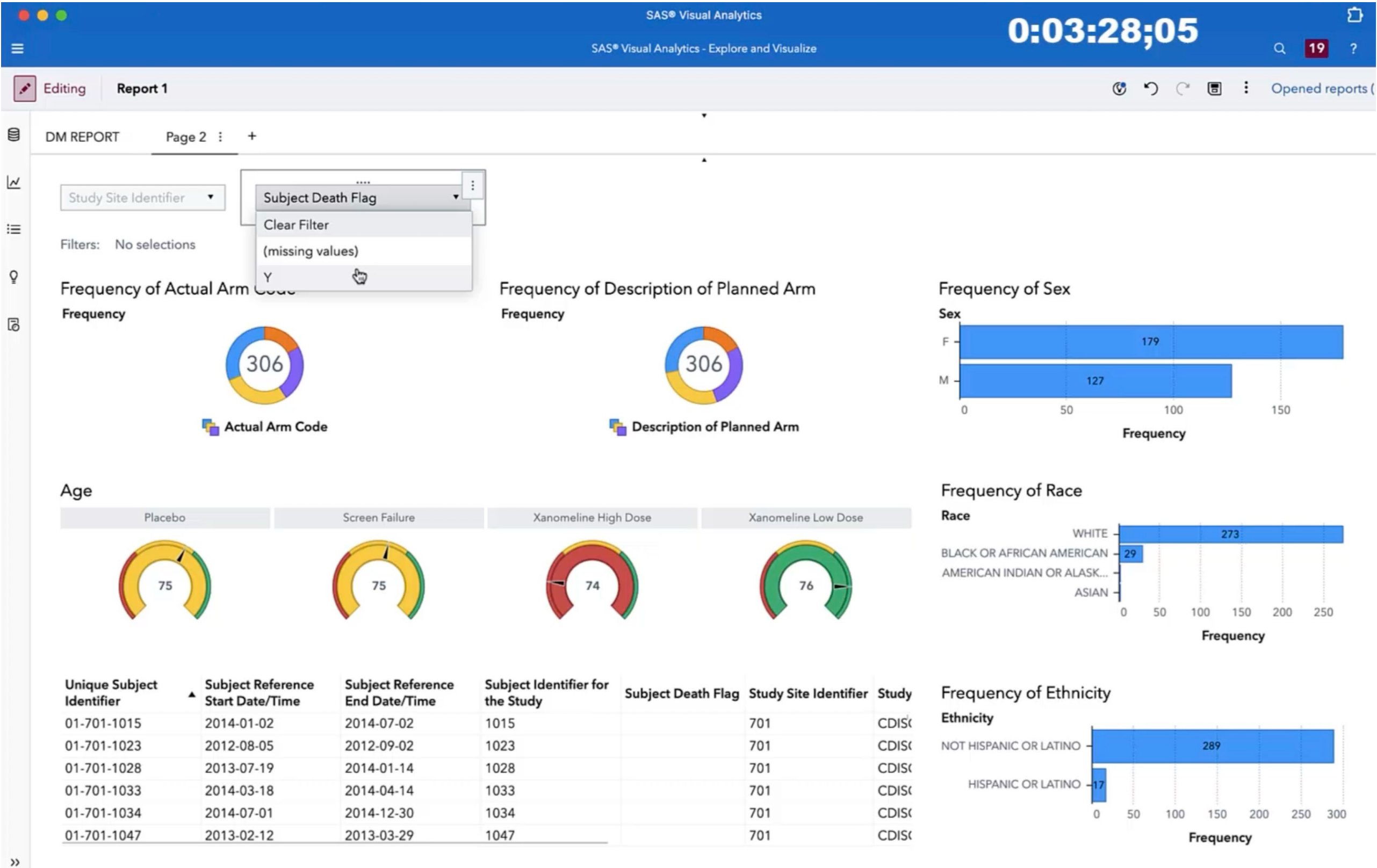
- Forming a Team & Goal
- Adopting Technology & Data
- Building report and Adoption

Usecase 1: Using data visualization to track the coronavirus outbreak



Usecase2: Building a Dashboard

<https://youtu.be/x4xiOddgYMA>



What to expect in near future?

- Adoption of LLM
- GPTs for dashboarding ?

Blog

Introducing GPTs

You can now create custom versions of ChatGPT that combine instructions, extra knowledge, and any combination of skills.

 ed on the redients you	Creative Writing Coach I'm excited to read your work and give you feedback to improve your skills.		Laundry Buddy Ask me anything about stains, settings, sorting and everything laundry.	
	Game Time I can quickly explain board games or card games to players of any skill level. Let the games begin!		Tech Advisor From setting up a printer to troubleshooting a device, I'm here to help you step-by-step.	
 kids with sher on ere for you.	Sticker Whiz I'll help turn your wildest dreams into die-cut stickers, shipped to your door.		The Negotiator I'll help you advocate for yourself and get better outcomes. Become a great negotiator.	

Q&A