

Single Day Event

Transforming Biometrics: The Future of
Statistical Programming Through AI-Powered
Automation and Agile Scrum

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Disclaimer

- The views and opinions expressed in this presentation are those of speakers and do not reflect opinions of any other person or organization.

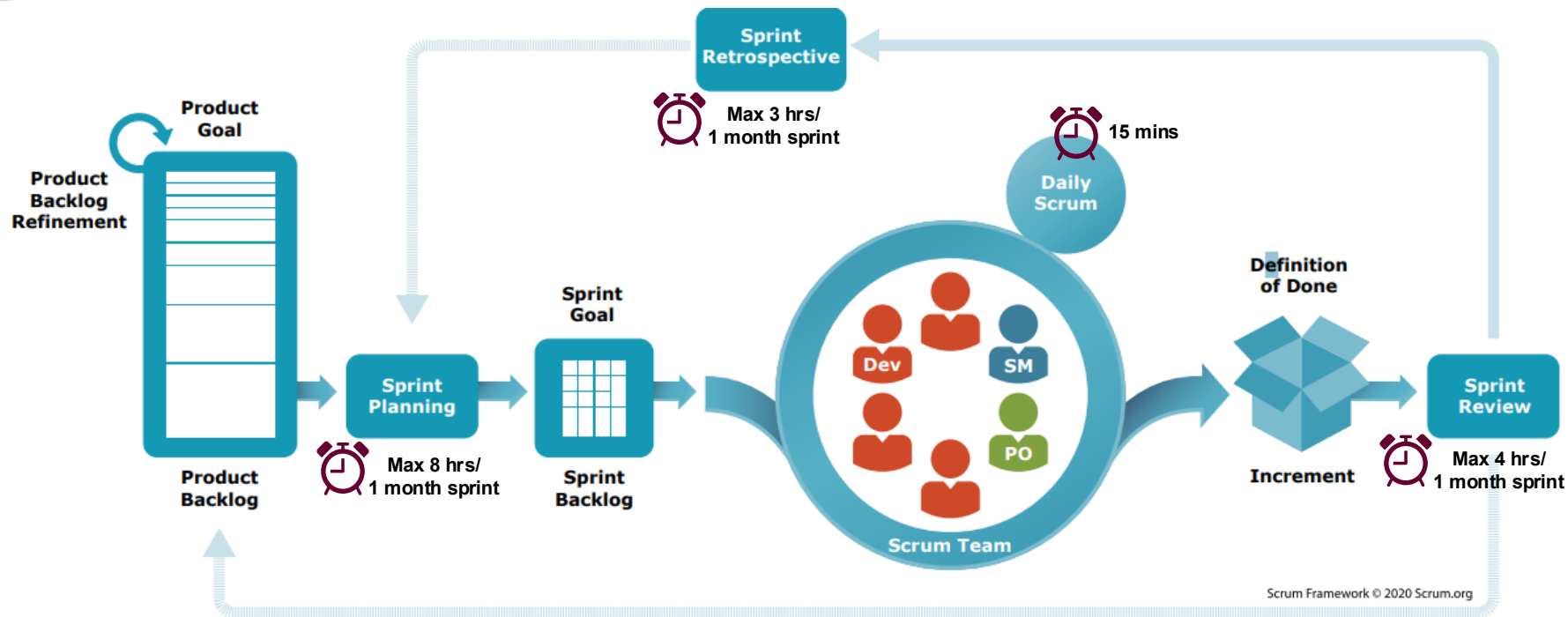
AGENDA

- Agile Scrum
- Scrum framework and dots..
- Challenges - adopting AI in Statistical Programming (SP)
- Standardization
- Metadata driven approach and AI usage
- Benefits of combining AI with Scrum

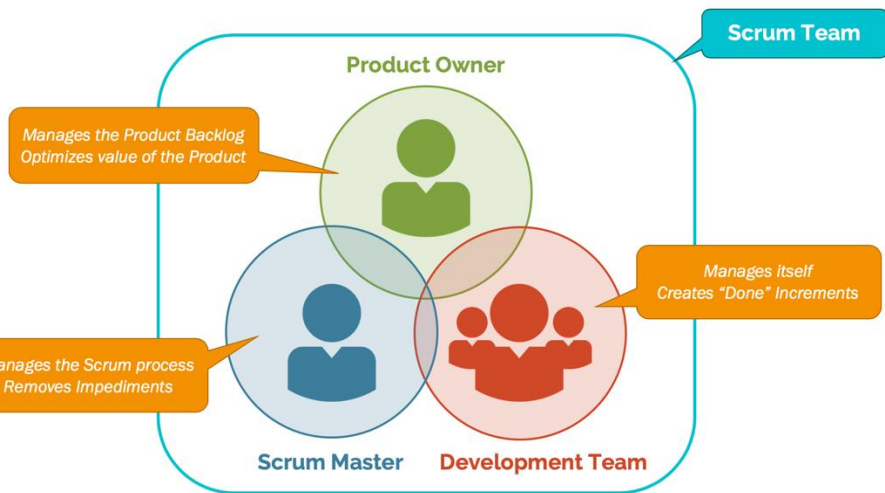
Agile Scrum

- Scrum is a lightweight framework that helps people, teams and organizations generate value through adaptive solutions for complex problems
- Framework that helps motivated individual's **build valuable products** in **complex environments** by establishing the **structure**

Scrum Framework



Scrum Dots..



Scrum Team



Product Backlog
Sprint Backlog
Increment

Scrum Artifacts



Product Goal
Sprint Goal
Definition of Done

Commitments

Professional Scrum Certifications



Professional Scrum Master™

There are three levels of Scrum Master certifications to validate and certify your knowledge and understanding of Scrum and the Scrum Master role.



Professional Scrum Product Owner™

There are three levels of Product Owner certifications to validate and certify your knowledge and understanding of the Product Owner role.



Professional Scrum Developer™

The Professional Scrum Developer certification validates and certifies your knowledge and understanding of the Developers accountabilities in Scrum.



Professional Scrum Facilitation Skills™

PSF Skills certification is evidence that you have demonstrated an understanding on how to harness facilitation principles, skills and techniques, and how effective facilitation can help teams move forward toward their desired outcomes.

Challenges - Adopting AI in SP

Regulatory and Validation Burden

Demonstrating model reliability, traceability, and reproducibility to audit standards without slowing delivery

Data Quality and Standardization

Inconsistent source data and metadata hinder accurate automation across SDTM/ADaM and TLFs

Model Governance and Drift

Sustaining versioning, monitoring, explainability, and controlled change management for AI components

Talent and Skills Gap

Limited AI fluency in SP; need for upskilling, prompt engineering, and agile ways of working

Process Integration

Embedding AI into existing SOPs, QC workflows, and validation packages without creating parallel processes

Trust and Adoption

Overcoming skepticism; clarifying human-in-the-loop roles and accountability for sign-off

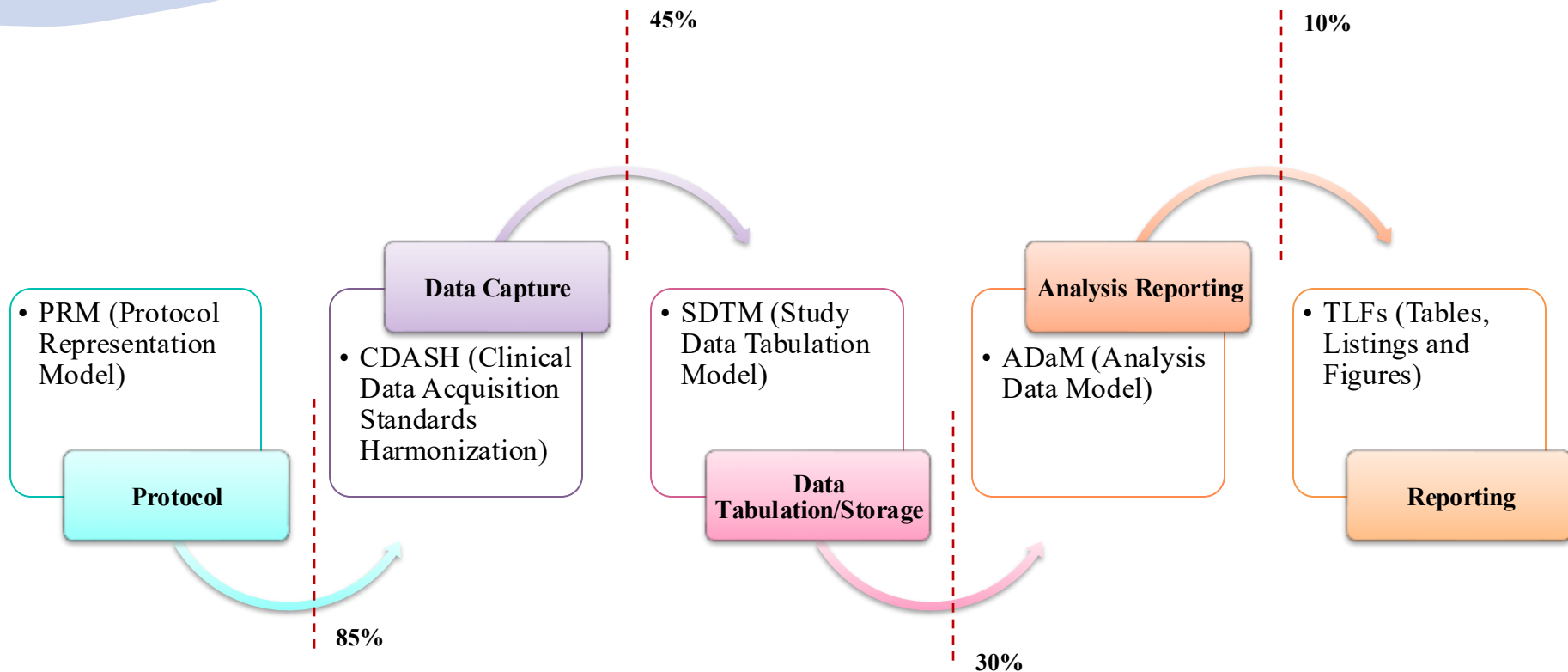
Security and Privacy

Maintaining secure environments, and preventing data leakage with generative tools

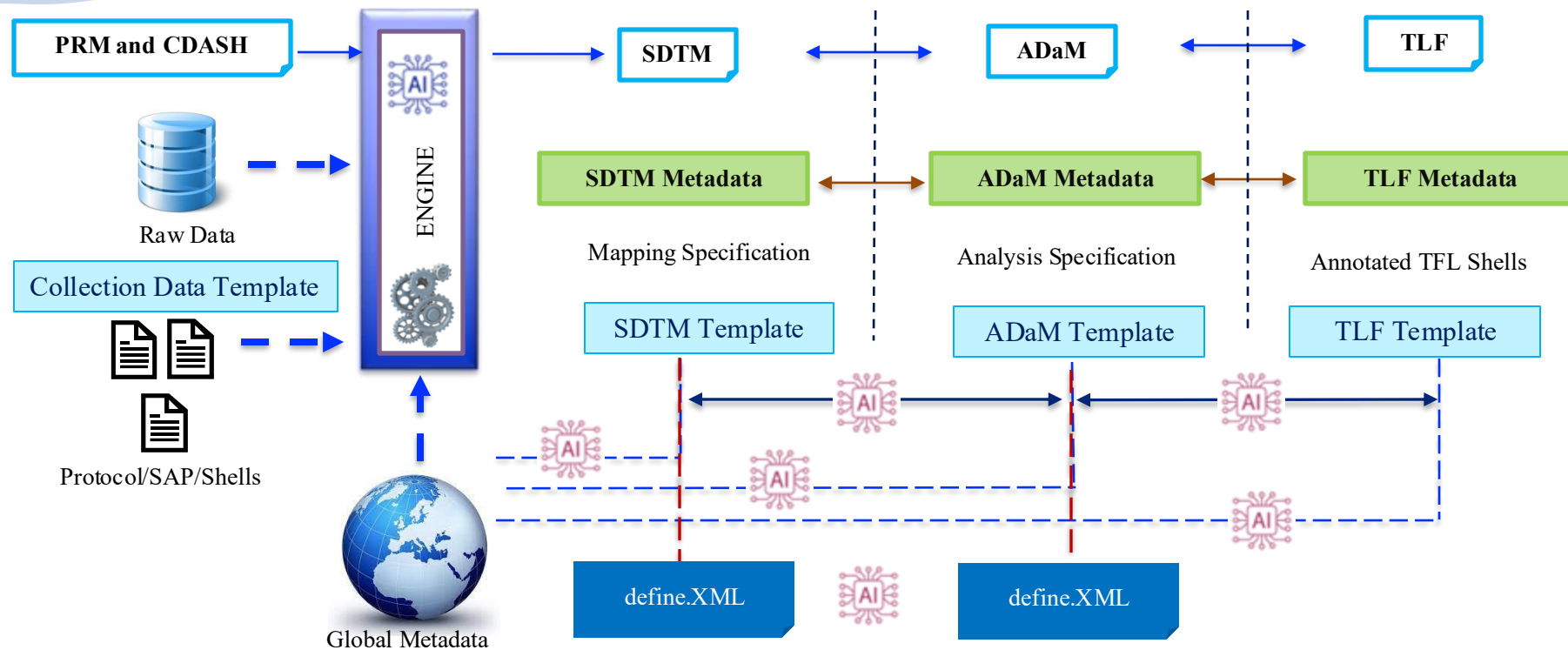
Interoperability and Tool Sprawl

Integrating AI solutions with legacy systems and avoiding fragmented, non-reusable tooling

Standardization at what level?

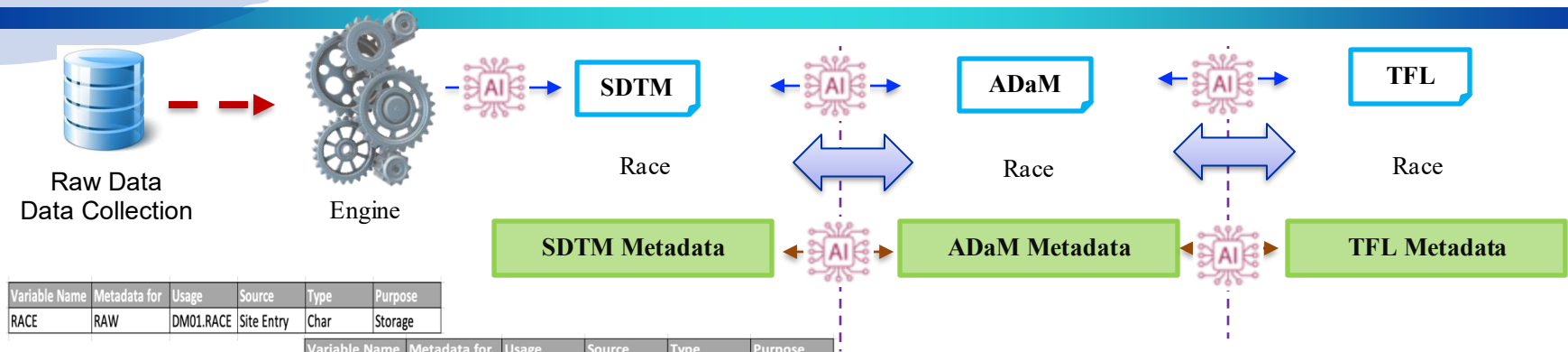


Metadata driven approach and AI usage





Metadata driven approach and AI usage contd..



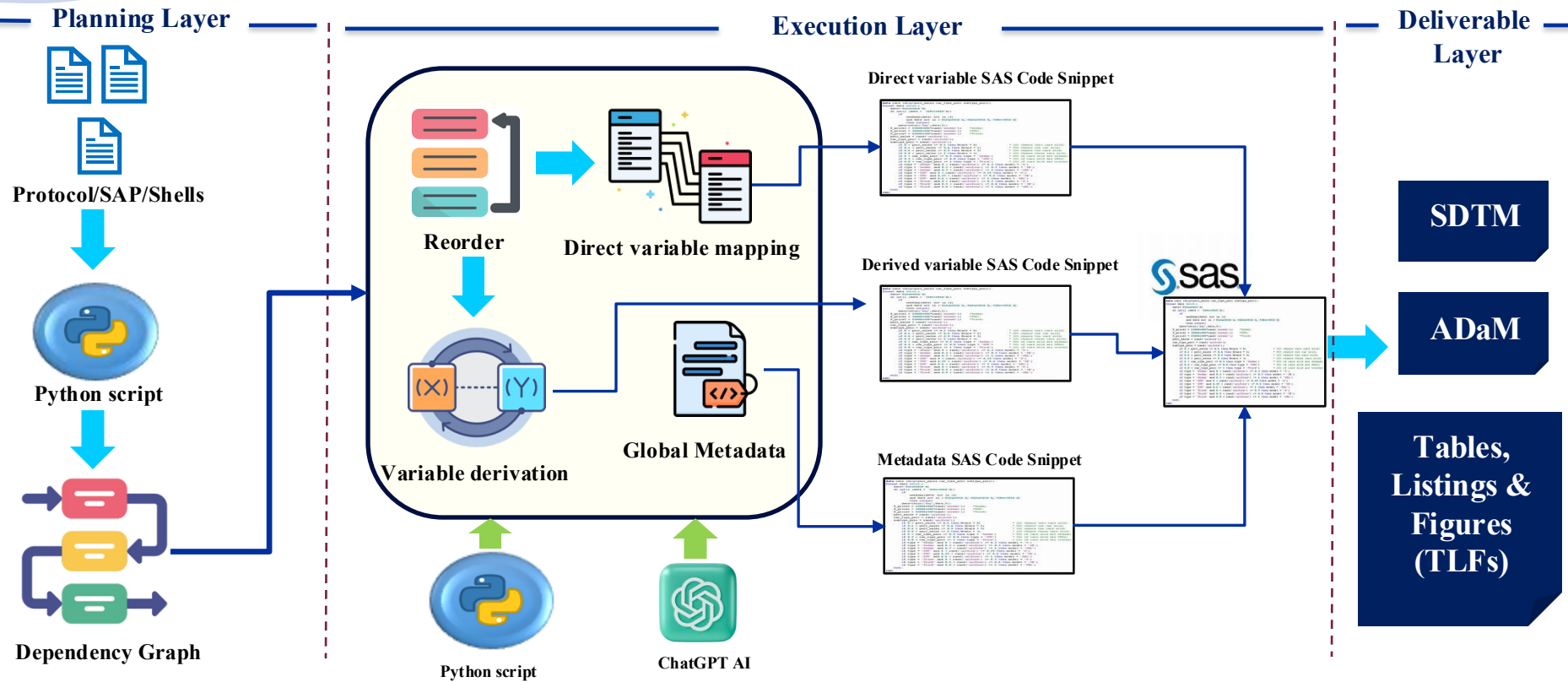
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RACE	RAW	DM01.RACE	Site Entry	Char	Storage

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RACE	ADaM	ADSL.RACE	DM.RACE	Char	Analysis
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RACE	Tables	T1401	ADSL.RACE	Char	Display
RACE	Tables	T1401	ADSL.RACEN	Num	Sorting/Calculation

Metadata driven approach and AI usage contd..



Benefits of combining AI with Scrum



Enhanced adaptability

The iterative nature of Scrum allows teams to quickly integrate new AI tools, incorporate feedback from stakeholders, or adjust priorities based on new data insights



Improved risk management

Scrum's frequent inspection points, combined with AI's ability to automate quality checks, allow for early detection of issues and a proactive approach to risk management



Strategic focus

By automating routine tasks, AI frees up time for Scrum's daily and weekly planning sessions, allowing the team to focus on higher-level analytical and strategic challenges



Better collaboration and transparency

Scrum's emphasis on cross-functional collaboration breaks down silos between SP and other teams. Automated reporting and data visualization from AI tools can also provide real-time, transparent updates on progress

References

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