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REVIEWER'S REPORT

Manuscript No.: IJAR-59843

Title: API-First Big Data Pipelines: Designing Scalable REST Integration Layers for Saudi E-Government Services.

Recommendation:

Accept as it is .....

Accept after minor revision.....

Accept after major revision .....

Do not accept (*Reasons below*) .....

Rating	Excel.	Good	Fair	Poor
Originality		✓		
Techn. Quality		✓		
Clarity		✓		
Significance		✓		

Reviewer Id: JPR-284

Reviewer's Comment for Publication.

The manuscript addresses an important and timely topic concerning the integration of REST APIs and big data pipelines for Saudi e-government services. It presents an API-first architecture based on an integrative synthesis of 30 peer-reviewed studies published between 2020 and 2025. The study identifies ten key requirements and proposes an integrated architecture comprising a contract registry, API gateway, stateless microservices, event backbone, stream and batch processing, governed storage, and analytics and open data services. The discussion of API design standards, machine-readable contracts, versioning, security, microservice scalability, and stream processing demonstrates good technical understanding. A notable strength is the analytical evaluation, which distinguishes between supportive, mixed, and limited evidence rather than presenting the proposed architecture as an already validated system. The manuscript also considers the Saudi e-government context and identifies practical challenges relating to cross-agency governance, security, scalability, and interoperability. The proposed framework has potential relevance for digital government transformation and data-driven public administration. However, minor revision is recommended to clarify the literature selection and evaluation procedures, strengthen the justification for the proposed architectural decisions in the Saudi government context, and maintain consistency in the presentation of the ten requirements and their evidence ratings. Overall, the manuscript is relevant, clearly structured, and offers a useful conceptual contribution to API-based government integration.