tcs AI Fridays

Battle of the best

TATA

Problem Statement Evaluation Criteria

A. General Evaluation Criteria

1. Problem statement understanding

- **Clarity:** Problem statement is clearly articulated, specific, and unambiguous.
- **Context:** Relevant background information and context have been provided.
- **Scope:** Boundaries and limitations of the problem are well defined.

2. Solution hypothesis

- **Logic:** Reasoning and logic behind the proposed solution hypothesis.
- **Feasibility:** Hypothesis is practical and achievable with available resources.
- **Alignment:** Hypothesis addresses the core elements of the problem statement.
- **Risk Assessment:** Potential risks or assumptions underlying the hypothesis defined
- **Innovation:** Originality and creativity of the proposed approach.

3. Working technical solution prototype

- **Functionality:** Prototype demonstrates the key features and intended functionality.
- **Usability:** Ease of use, user interface, and user experience.

4. Business impact assessment

- **Value Proposition:** Potential benefits and value the solution brings to the business.
- **Scalability:** How well the solution can grow to meet increased demand.
- **Key Metrics:** Selection and relevance of metrics for measuring business impact.

5. Roadmap for production scaling

- **Milestones:** Clear, realistic, and achievable milestones and timelines.

- **Risk Management:** Identification of scaling risks and corresponding mitigation strategies.
- **Dependencies:** Acknowledgment of dependencies and critical path items.

B. Use Case Specific Evaluation Criteria

A. Humanizing Digital Conversations: Building Trust in Customer Service

1. **Emotional Intelligence:** Ability to detect and interpret user sentiment, tone, and emotional cues, adapting responses to demonstrate empathy.
2. **Personalization Depth:** How well the assistant uses user history and preferences to deliver tailored responses.
3. **Recovery from Failure:** Strategies for handling misunderstandings and errors gracefully.
4. **Latency Management:** Approaches to minimize response delays while maintaining advanced reasoning.
5. **Ethical AI**: Transparency in empathy and personalization features, ensuring ethical standards and data privacy.

B. Accelerating Legacy Upgrade: Empowering Developers for the Future

1. **Developer Experience:** Intuitiveness and usability of tools supporting developers in legacy systems.
2. **Code Traceability:** Mechanisms for tracking changes and maintaining audit trails.
3. **Integration Flexibility:** Compatibility with various legacy environments and ease of integration.
4. **Change Management:** Support for version control, rollback, and safe deployment.
5. **Knowledge Transfer:** Effectiveness of onboarding new developers and knowledge sharing.

C. Unlock legacy knowledge: Impeccable Documentation for Modernization

1. **Completeness of Documentation:** Coverage of modules, dependencies, and edge cases.
2. **Validation Automation:** Tools for verifying documentation accuracy without SME intervention.
3. **Format Adaptability:** Ability to produce documentation in multiple formats and standards.
4. **Knowledge Extraction:** Ability to infer undocumented behaviors and logic.
5. **Collaboration Support:** Multiple reviews and approval process definition

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D. Enterprise Data Lineage: Tracing & Visualizing of data for Compliance & Operational Excellence

1. **Multi-Technology Coverage:** Breadth of supported data platforms and languages.
2. **Visualization Quality:** Clarity, interactivity, and usability of lineage graphs.
3. **Regulatory Readiness:** Alignment with compliance frameworks and audit readiness.
4. **Change Impact Simulation:** Ability to model and predict effects of system changes.
5. **Data Security:** How well lineage data is protected and access controlled.

E. Proactive Fraud Defense: Next-Gen Financial Crime Prevention

1. **Real-Time Adaptability:** Speed and accuracy in detecting new fraud patterns.
2. **Multi-Modal Analysis:** Integration of diverse data sources for fraud detection.
3. **False Positive Reduction:** Effectiveness in minimizing unnecessary alerts.
4. **Explainability:** Clarity of fraud detection logic for audit and compliance.
5. **Continuous Learning**: Mechanisms for updating models as fraud tactics evolve.

F. Dynamic AI Evaluation: Keeping Pace with Changing Business Rules

1. **SOP Parsing Accuracy:** How well the solution interprets and updates evaluation criteria from SOPs.
2. **Feedback Loop Robustness:** Systems for collecting and acting on user feedback.
3. **Audit Trail:** Traceability of changes to evaluation sets and metrics.
4. **Business Alignment:** Responsiveness to shifts in operational goals or compliance needs.
5. **Automation Level:** Extent of hands-off, self-updating evaluation processes.

G. Seamless Data Migration: Flawless Modernization Validation

1. **Schema Evolution Handling:** Adaptability to changing data structures during migration.
2. **Cross-Platform Validation:** Support for heterogeneous source and target systems.
3. **Error Recovery:** Strategies for identifying and correcting migration failures.
4. **Performance at Scale**: Validation speed and accuracy with large datasets.
5. **Transparency:** Migration steps and decisions are logged and explainable.

Crack real world challenges in an AI playground

Register with teams of five to compete

Masterclasses + Mentorship + Sandbox experience = AI Practitioner

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H. Autonomous Data Quality: Enterprise-Wide Smart Checks

1. **Rule Generation Intelligence:** Sophistication in creating and refining validation rules.
2. **Anomaly Detection:** Ability to spot subtle, context-specific data issues.
3. **Continuous Monitoring:** Systems for real-time, ongoing data quality checks.
4. **Impact Analysis:** Ability to analyze data quality improvements affect downstream analytics.
5. **User Empowerment:** Tools for business users to customize and manage quality rules.

I. Predicting Churn, Powering Retention: AI for Customer Loyalty

1. **Early Warning Precision:** Accuracy in identifying at-risk customers before churn occurs.
2. **Personalization of Retention Offers:** Relevance and effectiveness of recommended interventions.
3. **Multi-Source Data Fusion:** Integration of behavioral, transactional, and engagement data.
4. **Feedback-Driven Optimization:** How quickly models adapt to new retention strategies.
5. **Customer Privacy:** Compliance with data protection standards in churn prediction.