We propose the implementation of an **Agentic AI Workflow Framework** to automate and optimize multiple stages of the **Software Development Lifecycle (SDLC)** and other complex enterprise workflows. This framework will leverage a system of **autonomous, specialized AI agents**, coordinated with a **human-in-the-loop model** to maintain oversight, ensure compliance, and guarantee quality assurance throughout the process.

The solution is designed to ingest **requirement documents, existing codebases, and system metadata**, transforming them through automated workflows that improve efficiency and reduce manual effort. The key capabilities of the framework include:

* **Automated User Story Generation** from functional requirements.
* **Intelligent Document Generation**, including architecture diagrams, technical specifications, and compliance documents.
* **API Specification and Code Generation**, aligned with development standards and security policies.
* **Automated Impact Analysis** across existing codebases and dependencies.
* **Test Case Generation and Validation**, ensuring comprehensive and automated test coverage.
* **End-to-End Deployment Support** to accelerate the overall time to market.

This AI-driven approach is expected to deliver significant benefits:

* Enhanced team productivity and engineering throughput.
* Improved accuracy and reduced human errors in documentation and development.
* Lower operational costs through automation of repetitive and resource-intensive tasks.
* Faster iteration and delivery cycles, while maintaining regulatory compliance and risk management.

**Scope of Implementation**

1. **Software Development Lifecycle (SDLC) Automation**
   * Automate the **requirement-to-code pipelines** using large language model (LLM)-driven agents.
   * Enable **continuous impact analysis** to identify potential risks in code changes and test coverage.
   * Facilitate the **automated generation of API specifications** and SDKs.
   * Integrate automation within **DevSecOps pipelines** to embed security and compliance from the ground up.
2. **Business Workflow Acceleration**
   * **IFRS 9 Reporting Automation**
     + End-to-end automation of data preparation, model validation, and reporting.
     + Reduction in manual efforts while ensuring auditability and compliance with financial regulations.
   * **Investment Banking & Corporate Banking**
     + Streamline processes like client onboarding, risk assessments, and compliance checks.
     + Utilize AI agents to **enhance reporting accuracy and operational efficiency**.
3. **Knowledge Amplification & Risk Mitigation**
   * Auto-generate **living documentation** that evolves with system and codebase changes.
   * Conduct **proactive risk assessment** and dependency impact analysis.
   * Institutionalize critical knowledge to reduce dependency on individual expertise and prevent knowledge loss.
4. **Intelligent Automation of Complex Engineering Tasks**
   * Automate the **generation and validation of architecture diagrams**.
   * Implement **automated code generation** for reusable modules and system components.
   * Establish **autonomous test case generation** to ensure robust, end-to-end testing.

**Expected Business Impact**

* **Accelerated Time-to-Market:** Shorten SDLC phases for faster product releases.
* **Operational Cost Savings:** Reduce development, documentation, and testing costs through automation.
* **Improved Accuracy:** Lower the risk of human errors in critical, compliance-driven tasks.
* **Scalability:** Create a replicable framework applicable across multiple portfolios and banking domains.
* **Strategic Competitive Edge:** Strengthen the organization’s position as a leader in AI-driven business and technology transformation.

**Next Steps**

* **Initiate a Proof of Concept (PoC):**
  + Focus on **IFRS 9 reporting automation** and **SDLC acceleration.**
* **Define KPIs to measure success:**
  + Productivity gains
  + Operational cost reductions
  + Time-to-market improvements
  + Risk minimization
* **Architectural Design:**
  + Develop a robust **agentic workflow orchestration framework**.
  + Integrate seamlessly with existing **development, reporting, and business systems**.