Assessment
AI & Data Architect - Azure Role

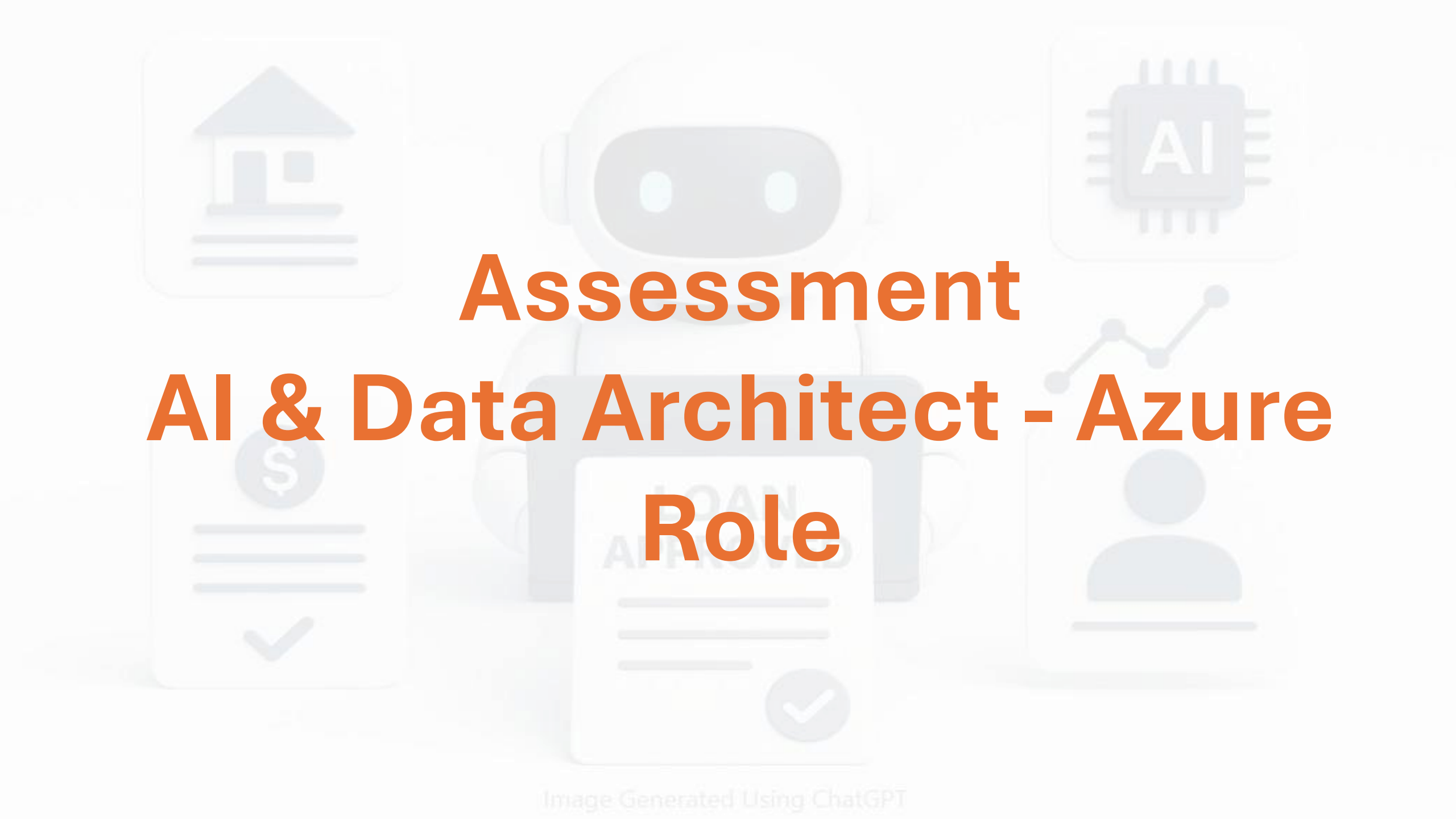


Image Generated Using ChatGPT

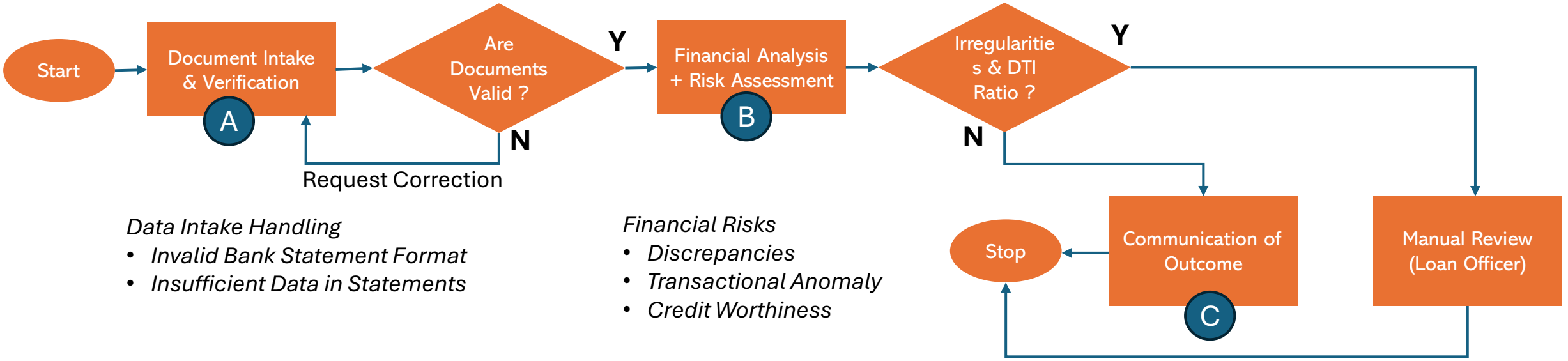
Problem Statement

Use Case: AI-Based Loan Sanction Evaluation

This system allows users to upload their bank statements, and AI will analyse their financial health, including income, expenses, liabilities, and creditworthiness.

Based on the analysis, the system will determine the user's loan-paying capacity and whether a loan should be sanctioned.

Loan Sanction Lifecycle



Data Intake Handling
- *Invalid Bank Statement Format*
- *Insufficient Data in Statements*

Financial Risks
- *Discrepancies*
- *Transactional Anomaly*
- *Credit Worthiness*

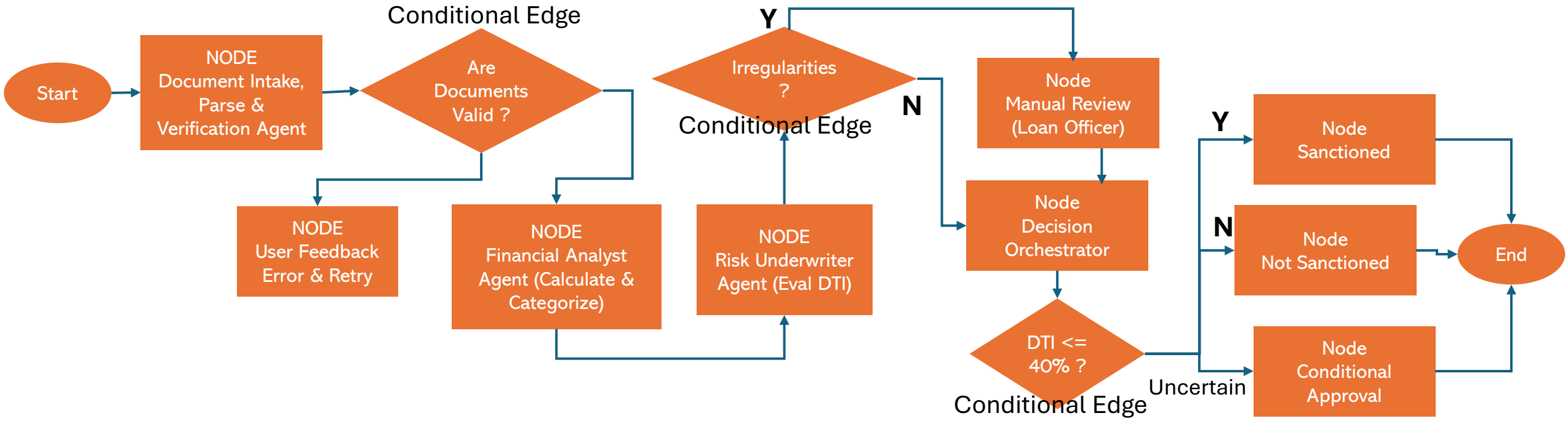
	Agent Role	Core Responsibility	Required Tools
A	Data Ingestion Agent	Read & Parse Unstructured Data (Bank Statements, Credit Card Statements)	OCR, Schema Validator (Pydantic), Data Validation Checks (Regex)
B	Financial Analysis & Risk Agent	Analyse & Interpret Data, Calculate KPI (Debt-Income Ratio, Expenses, Liabilities)	Credit Score API, KPI Calculator, Business Rule Engine
C	Compliance Agent	Review all KPIs / Scores & Synthesize	Business Rule Engines, Company Policy Check Points

Implementation

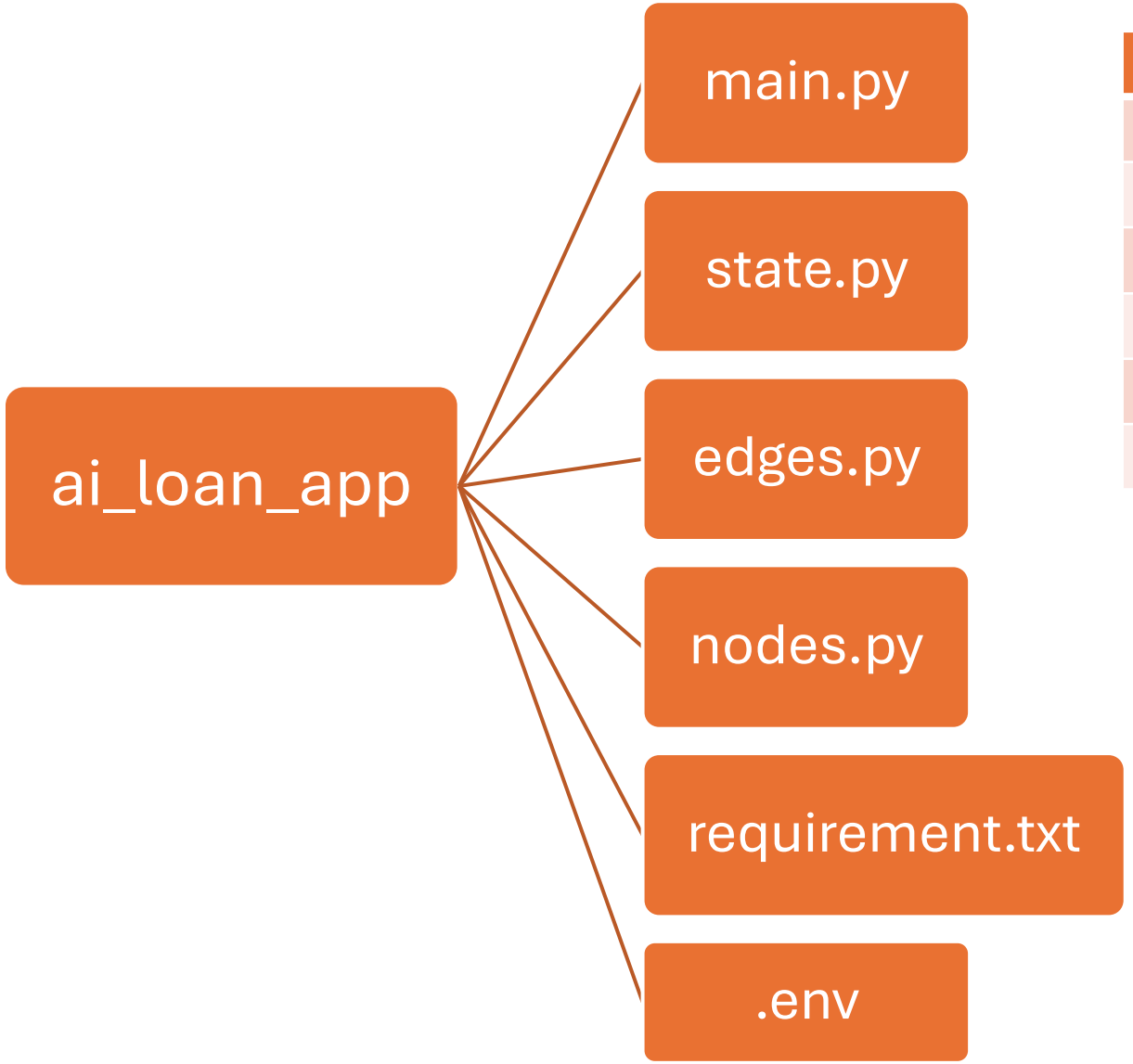
Agentic AI Workflow

Of all the Workflows, we will use Sequential Workflow.

Agent A → Agent B → Agent C ---- > Linear graph (A → B → C)



Package Structure



File /Folder	Description
main.py	Main Entry Point
state.py	Graph State Definition (Type Dict.)
edges.py	LangGraph Constructs (Edges)
nodes.py	LangGraph Construct (Nodes)
requirement.txt	Python package dependencies
.env	Stores sensitive secrets