



20 YEARS OF  
INNOVATION

PRESENTATION

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# AI AGENT ECOSYSTEM IN ENTERPRISE ENVIRONMENTS





# OpenAI's 5 Levels of Artificial Intelligence

OpenAI recently introduced a set of five levels to track its progress toward building artificial intelligence software capable of outperforming humans.

The tiers range from the kind of AI available today that can interact in conversational language with people (Level 1) to AI that can do the work of an organization (Level 5).

ADVANCED

## Level 5: Organizations

- Oversee all organizational functions
- Handle strategic decision-making and optimization

## Level 4: Innovators

- Generate fresh concepts and breakthroughs
- Collaborate to drive creative and technical advancements

## Level 3: Agents

- Act independently on behalf of humans for extended periods
- Reduce need for human involvement in sustained tasks

## Level 2: Reasoners

- Solve simple problems at doctorate-level without external tools
- Demonstrated by GPT-4's enhanced reasoning abilities

## Level 1: Chatbots

- Basic language comprehension and interaction
- Useful for information retrieval and customer support

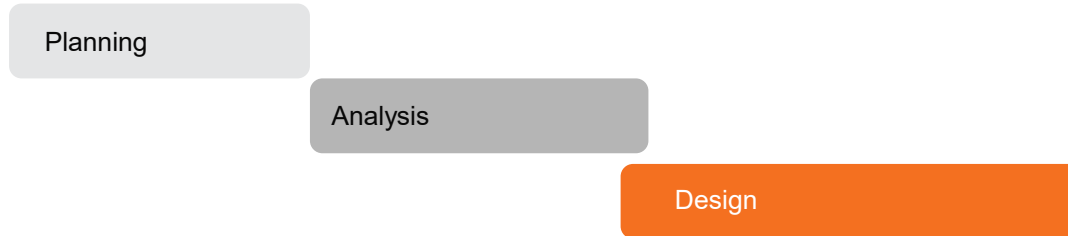
RUDIMENTARY

# Single Agents

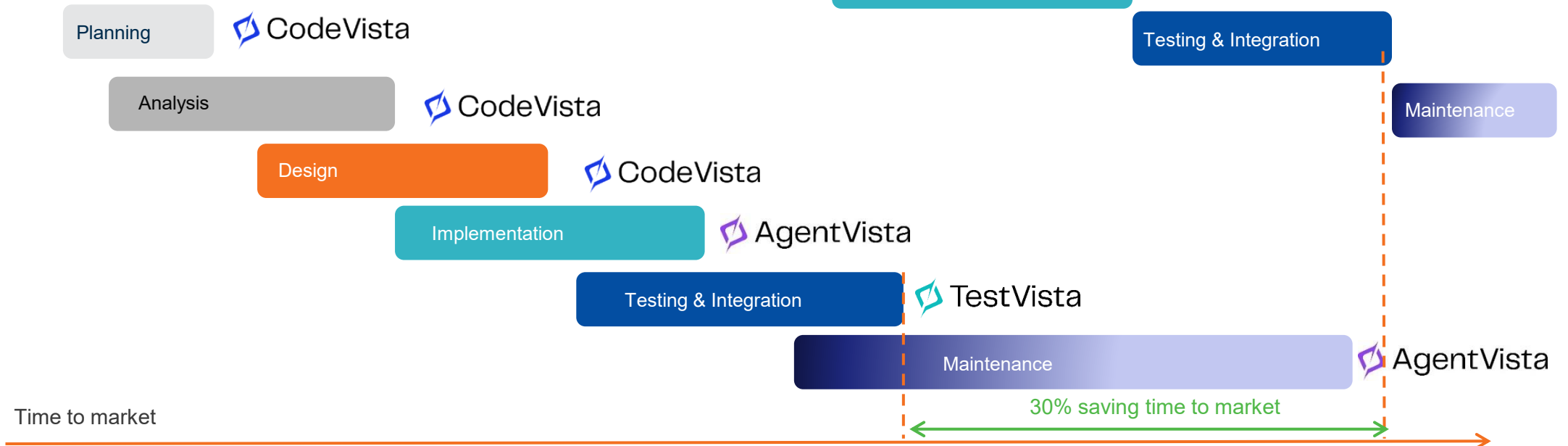


# SDLC with AI Assistant

## Traditional SDLC 1.0



## SDLC 2.0 with AI assistant



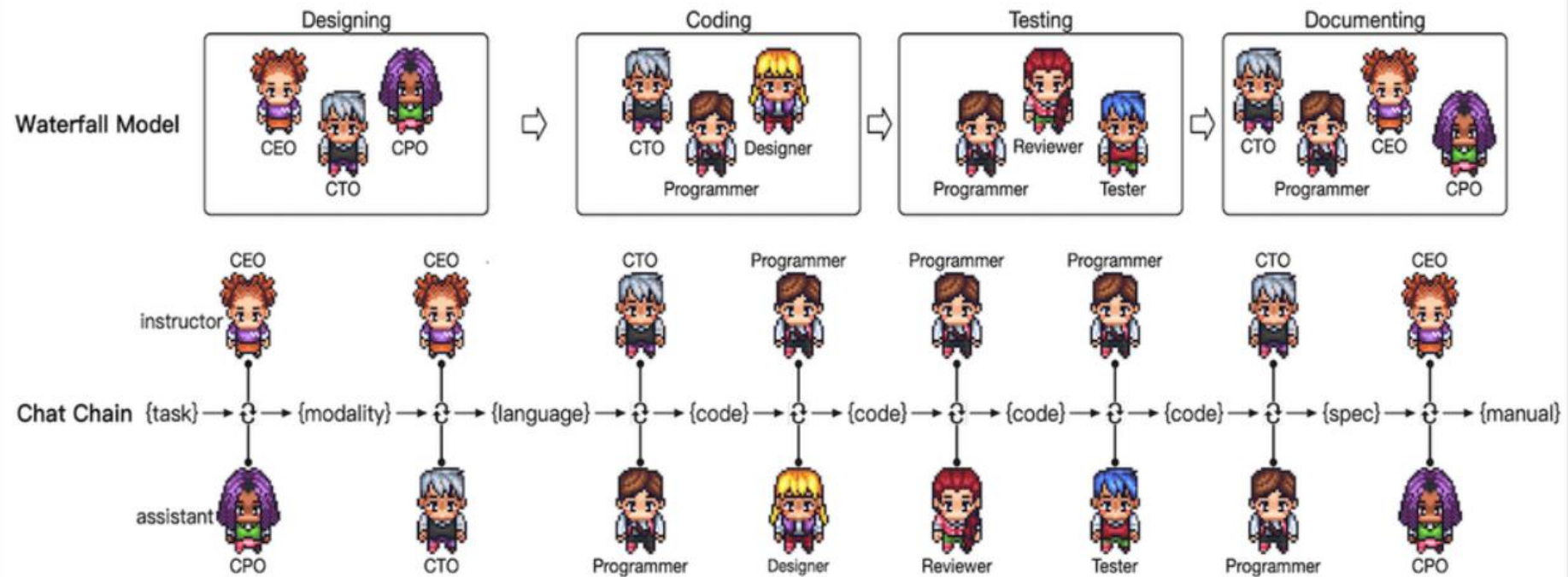
# Collaborative Agents





# Hyper Agent in Software development

## Agentic Design Patterns: Multi-Agent Collaboration



Proposed ChatDev architecture. Image adapted from "Communicative Agents for Software Development," Qian et al. (2023).

# Hyper Agent in Software development

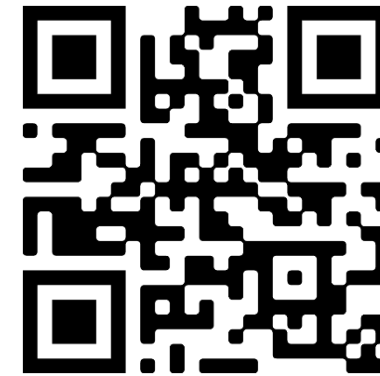
2024-9-26

## HyperAgent: Generalist Software Engineering Agents to Solve Coding Tasks at Scale

Huy Nhat Phan<sup>1</sup>, Phong X. Nguyen<sup>1</sup> and Nghi D. Q. Bui<sup>1,†</sup>

<sup>1</sup>FPT Software AI Center, Viet Nam

Large Language Models (LLMs) have revolutionized software engineering (SE), demonstrating remarkable capabilities in various coding tasks. While recent efforts have produced autonomous software agents based on LLMs for end-to-end development tasks, these systems are typically designed for specific SE tasks. We introduce **HYPERAGENT**, a novel generalist multi-agent system designed to address a wide spectrum of SE tasks across different programming languages by mimicking human developers' workflows. Comprising four specialized agents—Planner, Navigator, Code Editor, and Executor—**HYPERAGENT** manages the full lifecycle of SE tasks, from initial conception to final verification. Through extensive evaluations, **HYPERAGENT** achieves state-of-the-art performance across diverse SE tasks: it attains a 25.01% success rate on SWE-Bench-Lite and 31.40% on SWE-Bench-Verified for GitHub issue resolution, surpassing existing methods. Furthermore, **HYPERAGENT** demonstrates superior performance in code generation at repository scale (RepoExec), and in fault localization and program repair (Defects4J), often outperforming specialized systems. This work represents a significant advancement towards versatile, autonomous agents capable of handling complex, multi-step SE tasks across various domains and languages, potentially transforming AI-assisted software development practices.



[arxiv article](#)

 GitHub: <https://github.com/FSoft-AI4Code/HyperAgent>

# SDLC with AI Assistant

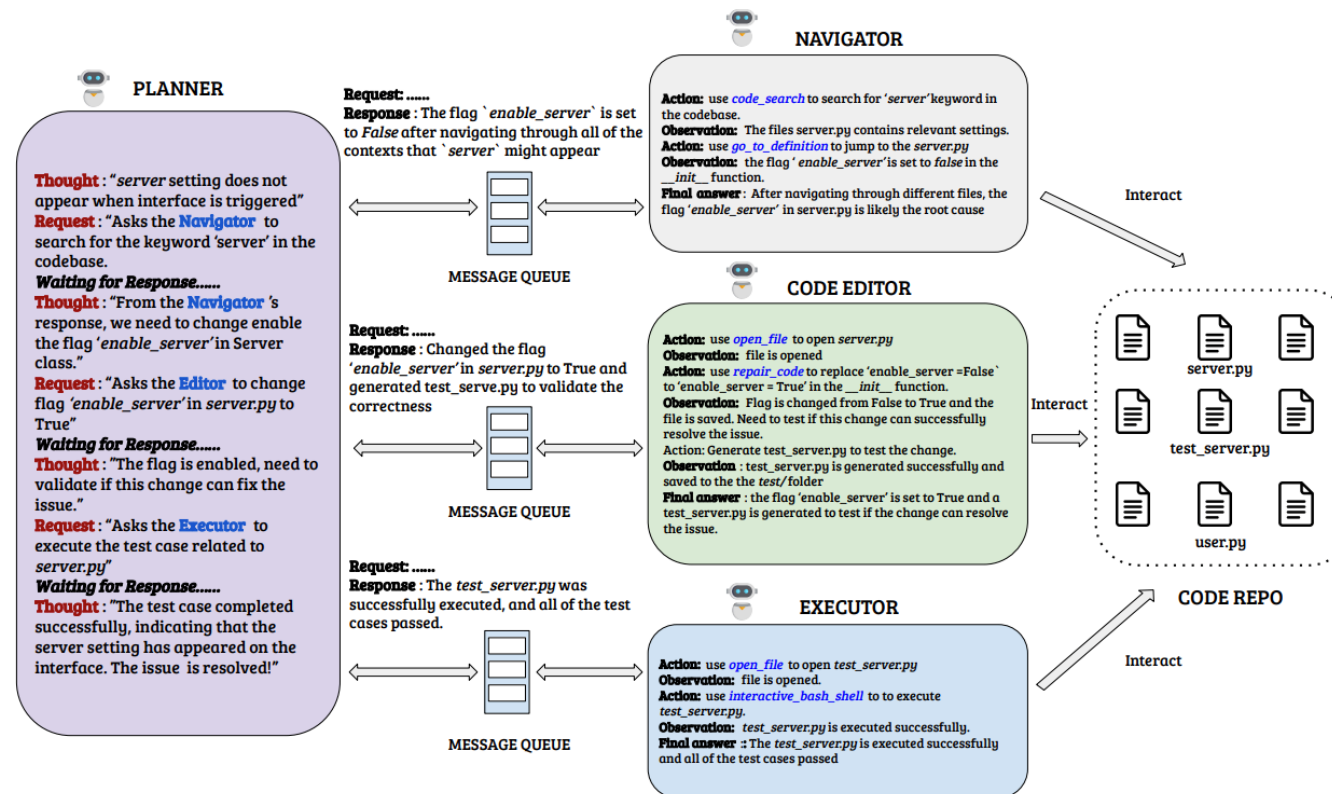
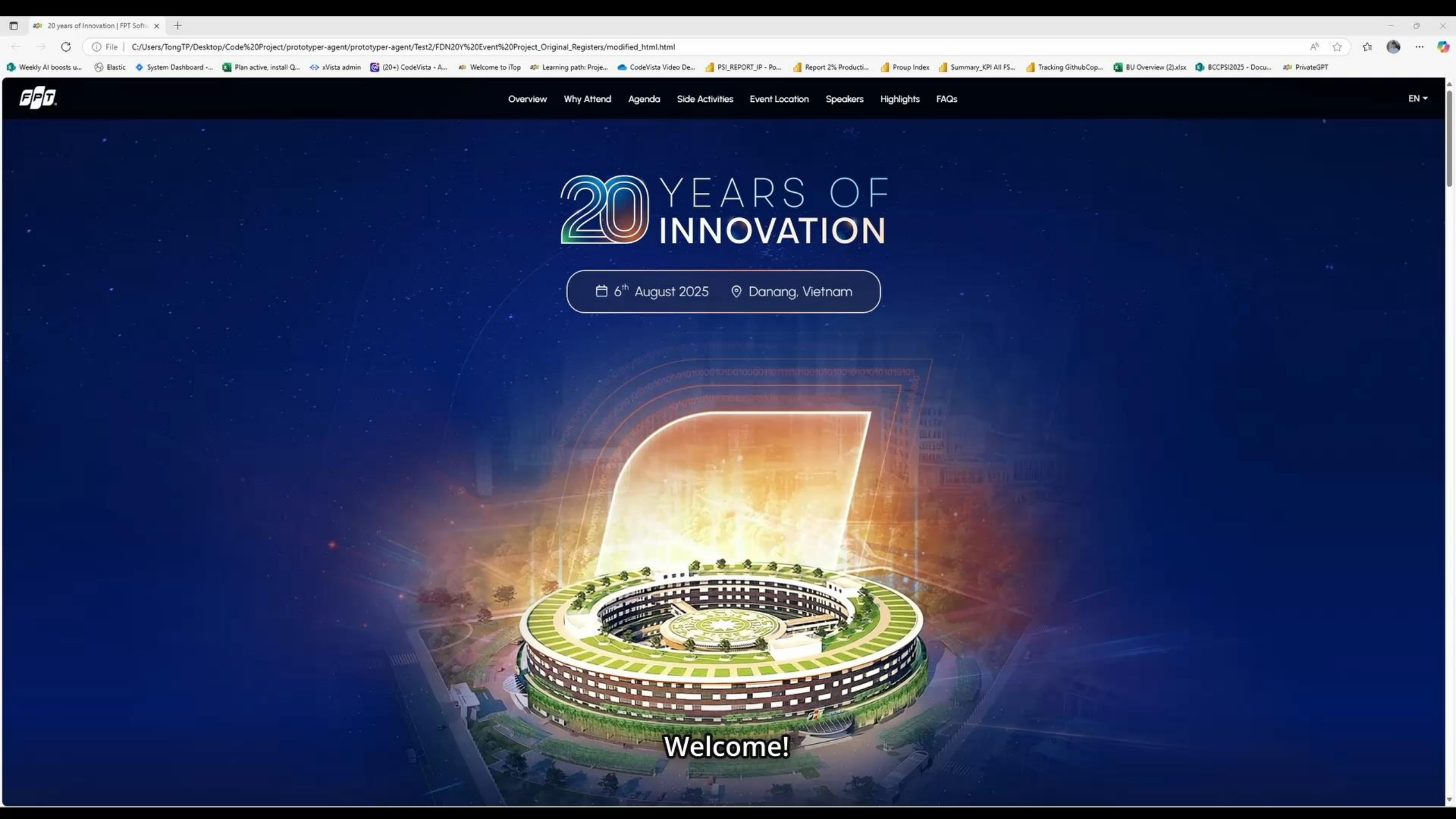


Figure 2 | Overview of HYPERAGENT: A scalable, multi-agent system for software engineering tasks. The workflow illustrates the central *Planner* agent coordinating with specialized child agents (*Navigator*, *Editor*, and *Executor*) through an asynchronous Message Queue. This architecture enables parallel processing of subtasks, dynamic load balancing, and efficient handling of complex software engineering challenges.





# 20 YEARS OF INNOVATION

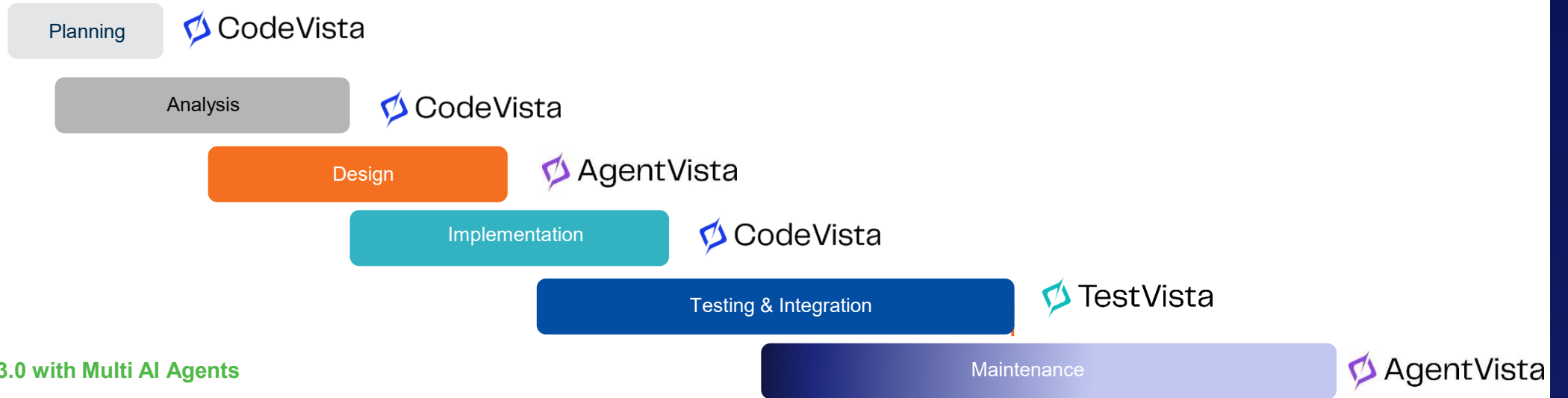
📅 6<sup>th</sup> August 2025    📍 Danang, Vietnam

Welcome!

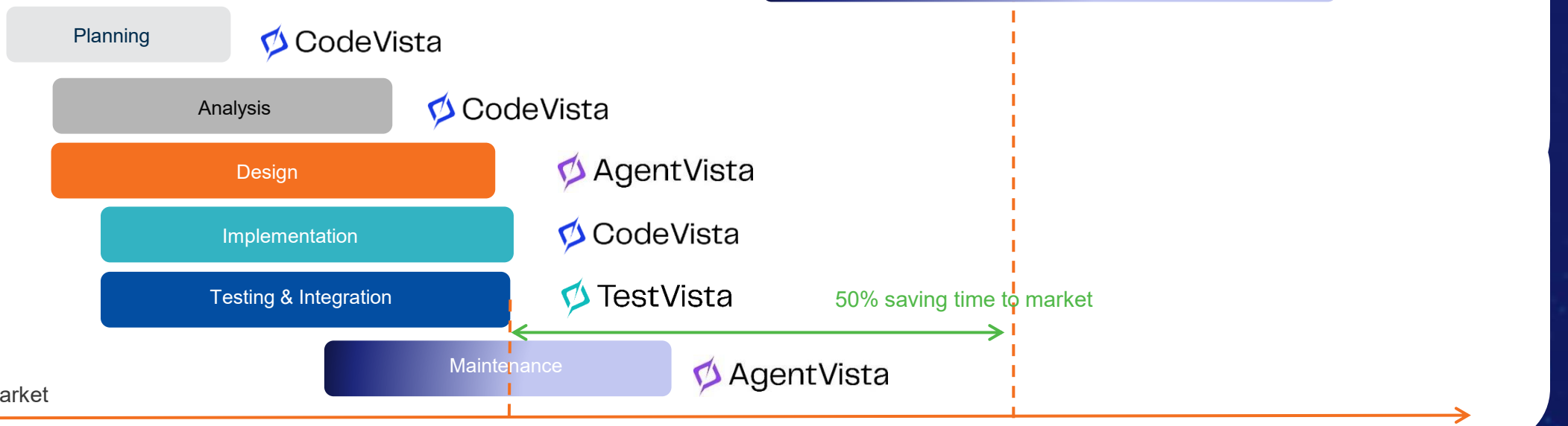
# SDLC with AI Assistant



## SDLC 2.0 with AI Agents



## SDLC 3.0 with Multi AI Agents







A story  
told by our client...

