SYNOPSIS

on

IdeaCritic

Project Based Learning -V (22AI014)

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Introduction

In today's fast-paced startup ecosystem, ideators often struggle to get early, unbiased, and multi-perspective feedback on their ideas. Conventional validation methods, such as surveys or human mentoring, are either time-consuming or inaccessible. With the emergence of Large Language Models (LLMs) and Agentic AI, it becomes possible to simulate expert-like feedback loops using autonomous digital agents. IdeaCritic leverages this power by deploying multiple AI agents with distinct roles to evaluate startup ideas and provide actionable feedback. This project, IdeaCritic is an AI-powered platform that simulates real-world pitch evaluations using autonomous AI agents who debate, critique, and score ideas — mimicking startup mentors, investors, and product thinkers.

Problem Formulation

Validating the feasibility, market potential, and risk of a startup idea in its early stage is a complex, multi-dimensional problem. Current automated tools offer generic responses or static scoring but lack the reasoning depth of human advisors. Furthermore, early-stage founders often receive biased or one-sided feedback, making it hard to make informed decisions.

Many aspiring entrepreneurs face these challenges:

- Lack of expert critique on early-stage ideas.
- Difficulty identifying flaws, potential, and market fit.
- Inaccessibility to panels, mentors, or pitch forums.
- Need for fast, intelligent, multi-perspective evaluation.

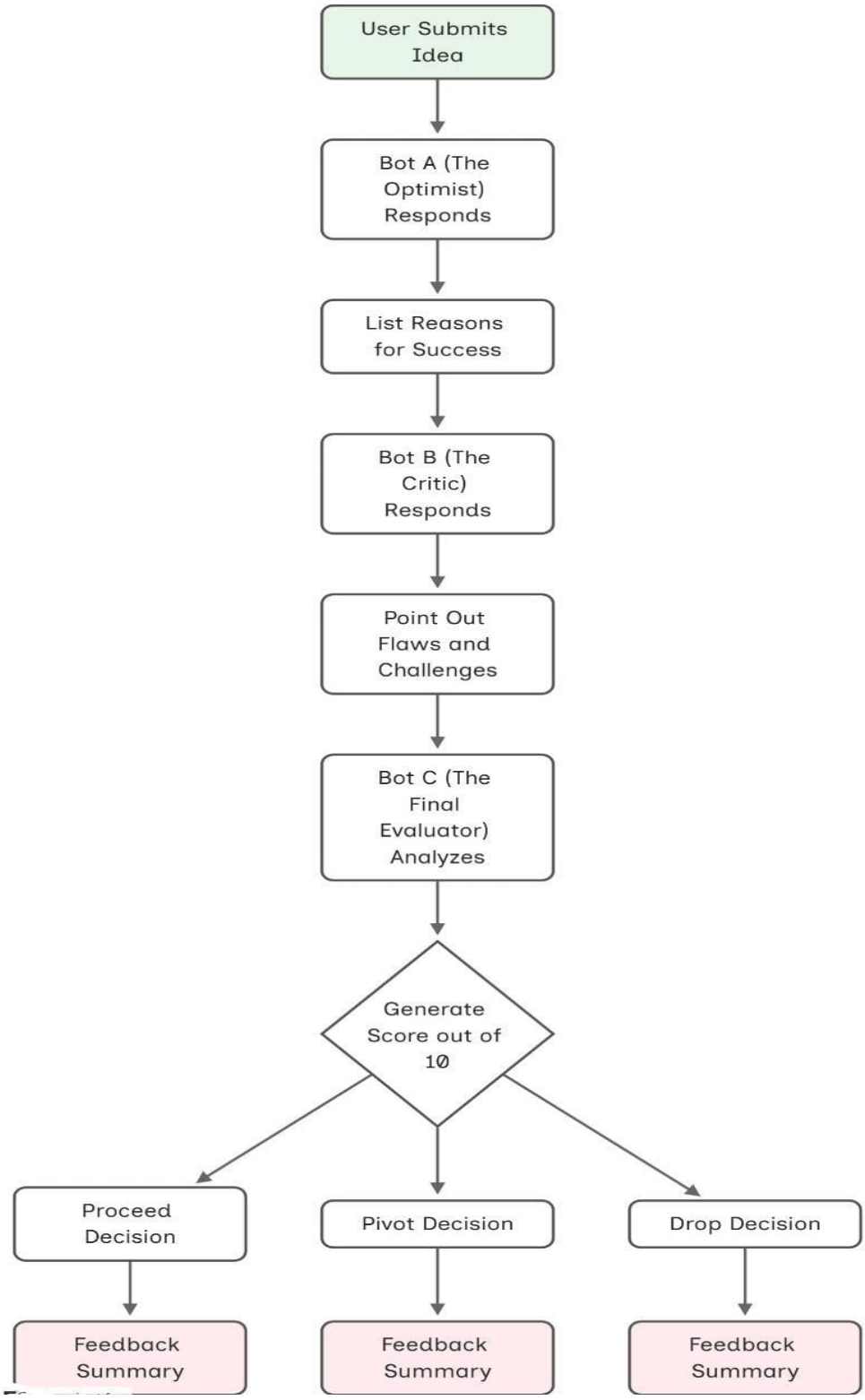
Proposed Solution / Methodology

IdeaCritic solves this problem by creating a multi-agent AI system where:

1. Optimist Bot – highlights potential, innovation, and market viability.
2. Critic Bot – identifies flaws, feasibility risks, and potential failure points.
3. Evaluator Bot – compares both perspectives using structured reasoning and delivers:
    - A score (out of 10)
    - A final verdict: Proceed, Pivot, or Drop
    - A feedback summary with recommendations

Each bot utilizes prompt engineering to maintain consistency in tone and objective. The evaluator bot uses reasoning patterns like Chain-of-Thought and can optionally access external data using Retrieval-Augmented Generation (RAG) for evidence-backed evaluation.

Flowchart


User Submits Idea
Bot A (The Optimist) Responds
List Reasons for Success
Bot B (The Critic) Responds
Point Out Flaws and Challenges
Bot C (The Final Evaluator) Analyzes
Generate Score out of 10
Proceed Decision
Pivot Decision
Drop Decision
Feedback Summary
Feedback Summary
Feedback Summary

References

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- LangChain: https://docs.langchain.com
- CrewAI (multi-agent framework): https://docs.crewai.com
- AutoGen: https://microsoft.github.io/autogen/
- Retrieval-Augmented-Generation:https://www.pinecone.io/learn/retrieval-augmented-generation/
- Chroma DB for RAG: https://docs.trychroma.com/
- Whisper Speech Recognition: https://openai.com/research/whisper
- Supabase: https://supabase.com
- React.js / Streamlit: https://react.dev, https://streamlit.io