CAPSTONE PROJECT

STARTUP BLUEPRINT GENERATOR AGENT

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OUTLINE

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PROBLEM STATEMENT

Today, thousands of young entrepreneurs have startup ideas, but most don't know how to begin. The process of crafting a business model, identifying the right market, estimating initial funding, or structuring a roadmap requires access to expert knowledge and experience.

Many early-stage founders struggle to build a clear vision or blueprint for their startup. This often results in confusion, lack of direction, or abandoned ideas before execution.

There is a need for an intelligent assistant that can guide users by generating personalized startup plans based on their ideas.



PROPOSED SOLUTION

The proposed solution is an AI agent called the Startup Blueprint Generator Agent. Using IBM Watsonx.ai, the agent allows users to enter natural language prompts - for example, "I want to start an E-commerce Company in India" - and the agent will return a structured startup plan.

It covers:

- Business model options
- Market and customer analysis
- Operational Plan
- Marketing and scaling strategies

To provide realistic and useful recommendations, the agent uses a combination of foundation models and integrated tools like Google search and Web Search.



SYSTEM APPROACH

Technologies Used:

- IBM Watsonx.ai (to build the GenAl agent)
- Granite-13B-Chat (foundation model used)
- IBM Cloud (hosting and deployment)

Tools Integrated:

- Web Search (for real-world facts)
- Google Search
- Wikipedia Search

Libraries/Resources:

- Agentic AI framework
- Watsonx.ai Runtime services
- Deployment space for tool linking



ALGORITHM & DEPLOYMENT

Model Used: Granite-13B-Chat

Chosen for its reasoning capability and instruction-following behavior.

Example - Input: Natural language queries from users (e.g., "Generate a startup plan for a E-Commerce Comapny.")

Execution Flow:

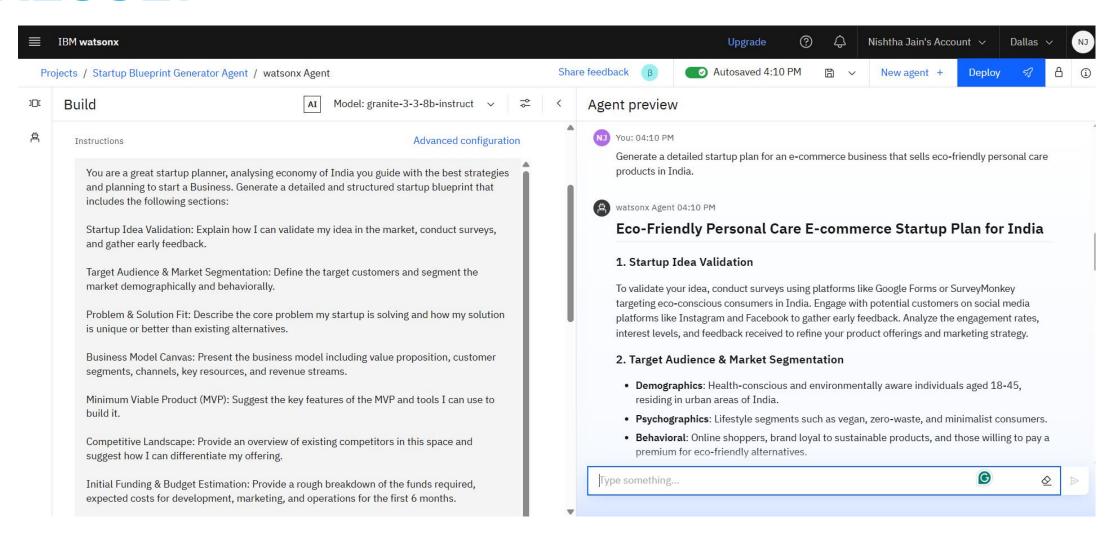
- Agent receives the user prompt
- Uses the model + tools (Web Search, Google Search)
- Produces a detailed blueprint with structured sections

Deployment Steps:

- Created Watsonx.ai Runtime Service
- Deployed Python Engine (with API Key & Deployment Space)
- Linked tools with agent
- Saved and previewed the agent for real-time output

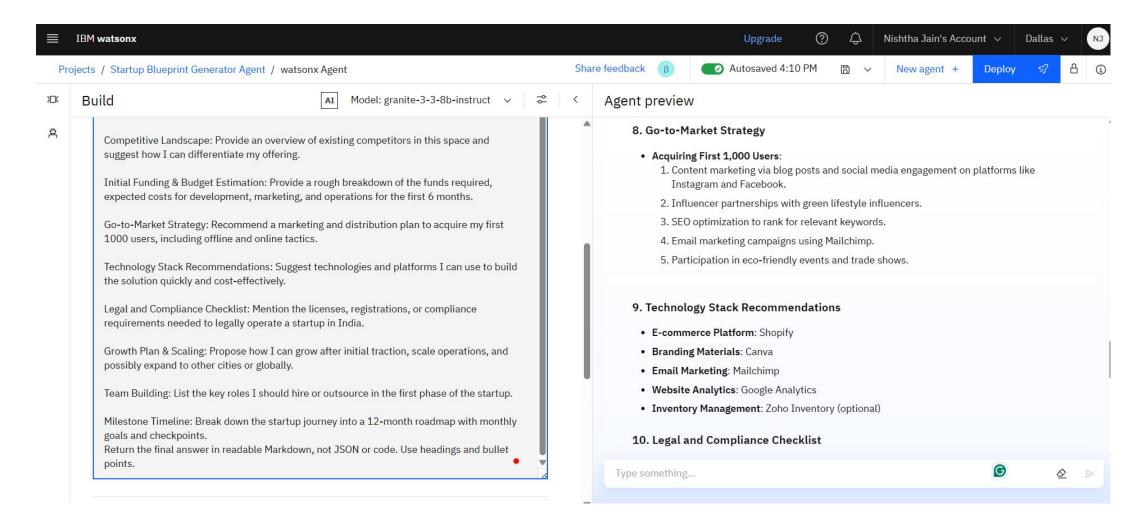


RESULT





RESULT





CONCLUSION

Working on this project helped me realize how GenAl can effectively make something as daunting as startup planning simple and creative. With a simple prompt, I was able to build an agent that could help plan everything from an idea to a complete strategy (including business models, projected costs and expenses, and a marketing strategy).

 I also learned how to create and deploy an intelligent agent using IBM Watsonx.ai, and connect it to a tool chain that included Web Crawler, Google Search, and Wikipedia Search in order to produce contextual and realistic outputs.

What I found most interesting was the potential for AI to help entrepreneurs with resources and direction towards their goal. The agent provided the encouragement, structure, and confidence to take an idea to the next step — even if that person did not have a business background.



FUTURE SCOPE

Improvements I could pursue:

- Enable exporting of created plans to PDF or Notion pages
- Include additional tools like database querying or live news feeds
- Expand to be applicable in universities, accelerators, or startup hackathons
- Build a website interface that anyone can use this agent

Integration with APIs like Google Trends, Startup India, or investor databases can take this project into all new directions.



REFERENCES

- IBM Cloud Documentation
- IBM Watsonx.ai Official Overview
- Sessions conducted by mentors during the virtual internship
- GenAl and Agentic Al concepts discussed in IBM Labs workshops
- Personal experimentation, test cases, and Watsonx deployment practice



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THANK YOU

