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# CAPSTONE PROJECT

## STARTUP BLUEPRINT GENERATOR AGENT

**Presented By:**

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# OUTLINE

- Problem Statement
- Technology used
- Wow factor
- End users
- Result
- Conclusion
- Git-hub Link
- Future scope
- IBM Certifications

# PROBLEM STATEMENT

Aspiring entrepreneurs, students, and innovators often face challenges in transforming abstract ideas into structured startup concepts due to a lack of access to domain-specific knowledge, market insights, technical frameworks, and validated business models. The process of researching, synthesizing, and planning a viable startup blueprint is fragmented, time-intensive, and overwhelming—especially for those without prior entrepreneurial experience or cross-domain expertise.

Proposed Solution:

Develop an AI-powered Startup Blueprint Generator that uses Natural Language Processing (NLP) and Retrieval-Augmented Generation (RAG) to help users transform vague ideas into actionable startup plans. Users can input a problem, idea, or domain, and the system will automatically generate:

- A structured startup blueprint (problem, solution, market, tech stack, target users, etc.)
- Relevant industry trends and competitor analysis
- Recommended tools, datasets, and MVP components
- Potential collaborators, investors, and accelerators

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# TECHNOLOGY USED

IBM cloud lite services

Natural Language Processing (NLP)

Retrieval Augmented Generation (RAG)

IBM Granite model

# IBM CLOUD SERVICES USED

- IBM Cloud Watsonx AI Studio
- IBM Cloud Watsonx AI runtime
- IBM Cloud Agent Lab
- IBM Granite foundation model

# WOW FACTORS

This agent will significantly reduce research time, improve the quality of literature reviews, help early-stage researchers find direction, and foster interdisciplinary collaboration by making knowledge more accessible and actionable.

Unique features:

Semantic search across research papers, journals, and datasets

Auto-summarization of selected papers

Citation and reference analysis to trace influence

Recommendation of research papers based on a user's current topic

Trend analysis over time for specific keywords or domains.

Collaboration mapping: suggests potential co-authors or institutions based on similar research interests.

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## END USERS

- Academic Researchers
- Research Institutions and Universities
- Industry R&D Teams
- Educators

# RESULTS

[Deployment spaces](#) / [Agentic\\_AI\\_01](#) / [Startup Blueprint Generator Agent](#) /

## Startup Blueprint Generator Agent ✓ Deployed Online

[API reference](#)

[Test](#)

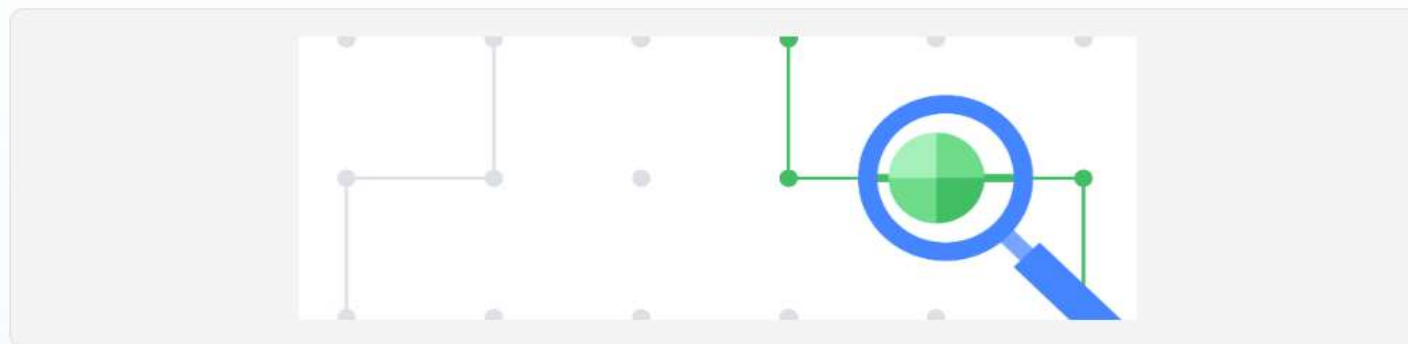
[Preview](#)



Startup Blueprint Generator Agent 07:11 PM

### Welcome to Startup Blueprint Generator Agent

I'm here to turn your raw startup dream into a complete business plan -tailored exactly to your idea



Type something...





# RESULTS

The screenshot displays the IBM watsonx user interface. At the top, a dark navigation bar includes the 'IBM watsonx' logo, an 'Upgrade' button, and user information for 'SONALI KUMARI GOUDA's ...' in the 'Dallas' region. Below this, a breadcrumb trail shows the path: 'Deployment spaces / Agentic\_AI\_01 / Startup Blueprint Generator Agent'. The main heading is 'Startup Blueprint Generator Agent', which is marked as 'Deployed' and 'Online'. Three tabs are visible: 'API reference', 'Test', and 'Preview', with 'Preview' being the active tab. A 'New chat +' button is located in the top right of the chat area. The chat history shows a user message at 07:20 PM: 'I want to create a digital platform for renting college textbooks'. The agent's response, also at 07:20 PM, begins with 'Great idea! Here's a simple blueprint to get you started:' and lists three steps: 1. Market Research, 2. Business Model, and 3. Business Model Canvas. The third step includes a sub-point for 'Key Partners'. At the bottom, there is a text input field with the placeholder 'Type something...' and a send button.

IBM watsonx Upgrade ? SONALI KUMARI GOUDA's ... Dallas SG

Deployment spaces / Agentic\_AI\_01 / Startup Blueprint Generator Agent

## Startup Blueprint Generator Agent

Deployed Online

API reference Test Preview

New chat +

**S** You 07:20 PM  
I want to create a digital platform for renting college textbooks

**AI** Startup Blueprint Generator Agent 07:20 PM  
Great idea! Here's a simple blueprint to get you started:

- 1. Market Research:** Use GoogleSearch or DuckDuckGo to understand the current market for textbook rentals. Look for competitors, pricing models, and customer reviews.
- 2. Business Model:** Consider a subscription-based model where students pay a yearly fee for unlimited textbook rentals. Alternatively, a per-book rental model could work, where students pay a fixed price for a set period.
- 3. Business Model Canvas:**
  - Key Partners:** Publishers, shipping companies.

Type something...

# RESULTS

IBM watsonx Upgrade ? SONALI KUMARI GOUDA's ... Dallas SG

Deployment spaces / Agentic\_AI\_01 / Startup Blueprint Generator Agent

## Startup Blueprint Generator Agent Deployed Online

API reference Test **Preview**

New chat +

3. **Business Model Canvas:**

- **Key Partners:** Publishers, shipping companies.
- **Key Activities:** Sourcing books, managing inventory, customer service.
- **Key Resources:** Website, database of textbooks, shipping network.
- **Value Propositions:** Affordable textbook rentals, convenience, environmental benefits (less paper waste).
- **Customer Relationships:** Easy online platform, responsive customer service.
- **Channels:** College bookstores, student unions, social media, email marketing.
- **Customer Segments:** College students, particularly those in high-cost-of-living areas.
- **Cost Structure:** Book sourcing, storage, shipping, website maintenance, customer service.

4. **Revenue Streams:** Rental fees, subscription fees, late return penalties.

5. **Go-to-Market Strategy:** Partner with colleges and universities for promotion. Leverage social media and email marketing to reach students. Offer incentives for early sign-ups and referrals.

Type something...

# RESULTS

## Deployed AI Agent

The screenshot displays the IBM Watsonx interface for a deployed AI agent. The top navigation bar includes the IBM Watsonx logo, an 'Upgrade' button, and user information for 'SONALI KUMARI GOUDA'. The breadcrumb trail indicates the path: 'Deployment spaces / Agentic\_AI\_03 / Startup Blueprint Generator Agent /'. The main heading is 'Startup Blueprint Generator Agent', which is marked as 'Deployed' and 'Online'. Below this, there are tabs for 'API reference', 'Test', and 'Preview', with 'Preview' being the active tab. A 'New chat +' button is located to the right of the tabs. The chat interface shows a conversation where the user asks, 'I want to start a handmade jewelry business using Instagram.' The agent responds with a detailed blueprint consisting of three numbered steps: 1. Market Research, 2. Unique Selling Proposition (USP), and 3. Target Audience. On the right side, a sidebar titled 'About this deployment' provides details about the agent, including its name, description, deployment ID, serving name, software and hardware specifications, and associated assets.

IBM watsonx Upgrade SONALI KUMARI GOUDA's ... Dallas 50

Deployment spaces / Agentic\_AI\_03 / Startup Blueprint Generator Agent /

### Startup Blueprint Generator Agent Deployed Online

API reference Test **Preview**

New chat +

**You** 07:13 PM  
I want to start a handmade jewelry business using Instagram.

**Startup Blueprint Generator Agent** 07:13 PM  
Great idea! Here's a simple blueprint to get you started:

- 1. Market Research:** Use Instagram to explore existing handmade jewelry brands. See what styles, prices, and aesthetics are popular. Use the WebCrawler function to analyze top-performing pages for insights.
- 2. Unique Selling Proposition (USP):** Identify what makes your jewelry unique. Is it the materials, design, or ethical production? Your USP will be key to standing out.
- 3. Target Audience:** Define your ideal customer. Consider age, gender, location, interests, and lifestyle. Use Instagram's demographic data and trends research to help.

Type something...

#### About this deployment

**Name**  
Startup Blueprint Generator Agent

**Description**  
I'm here to turn your raw startup dream into a complete business plan - tailored exactly to your idea

**Deployment Details**

Deployment ID: `dee9e8d3-3786-47...`

Serving name:  
No serving name.

Software specification:  
`runtime-24.1-py3.11`

Hardware specification:  
Extra extra small: 1 CPU and 2 GB RAM

Copies:  
1

**Tags**  
`ai-agent`

**Associated asset**  
`Startup Blueprint Generator Agent`  
`87f34878-4a87-4478-8bec-fa5b88aa33fe`

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## CONCLUSION

- The agent can generate reports, suggest hypotheses, and even draft sections of research papers.
- It saves time by automating repetitive tasks like citation management and data extraction.
- Research Agents enhance efficiency, accuracy, and innovation in both academic and industrial R&D.

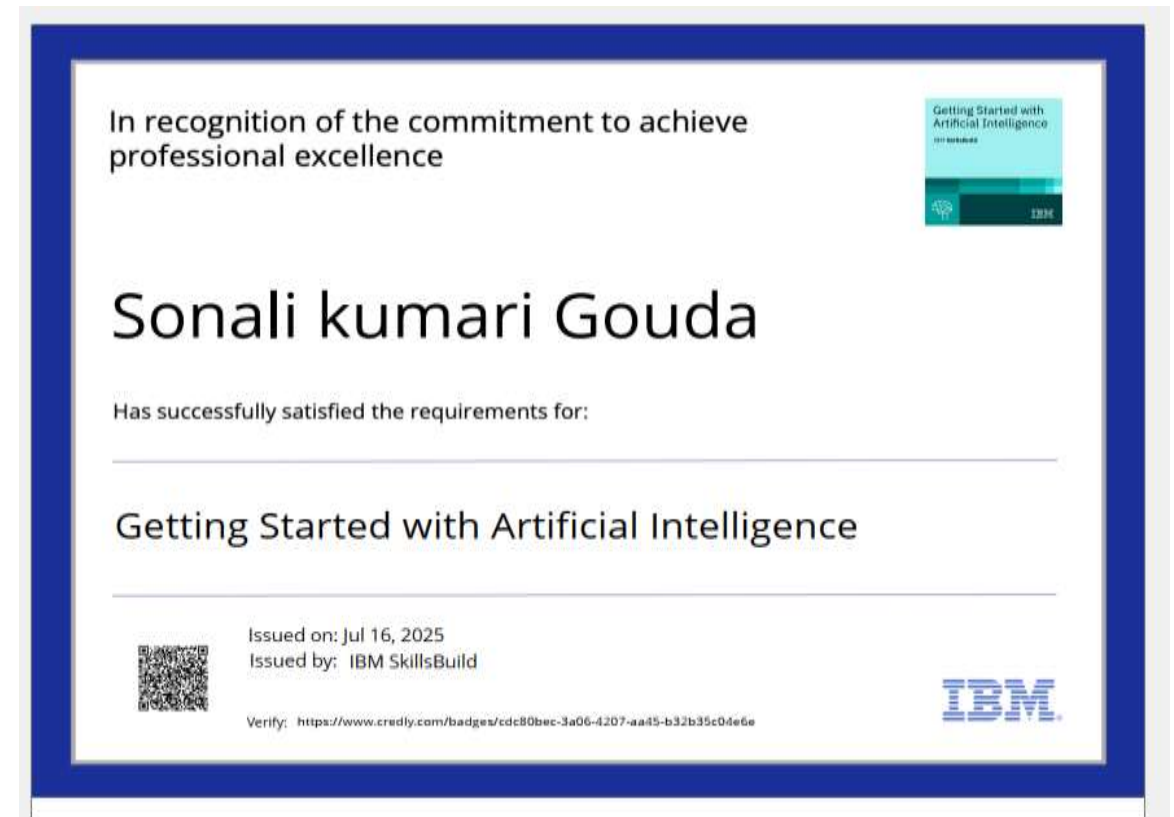
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# FUTURE SCOPE

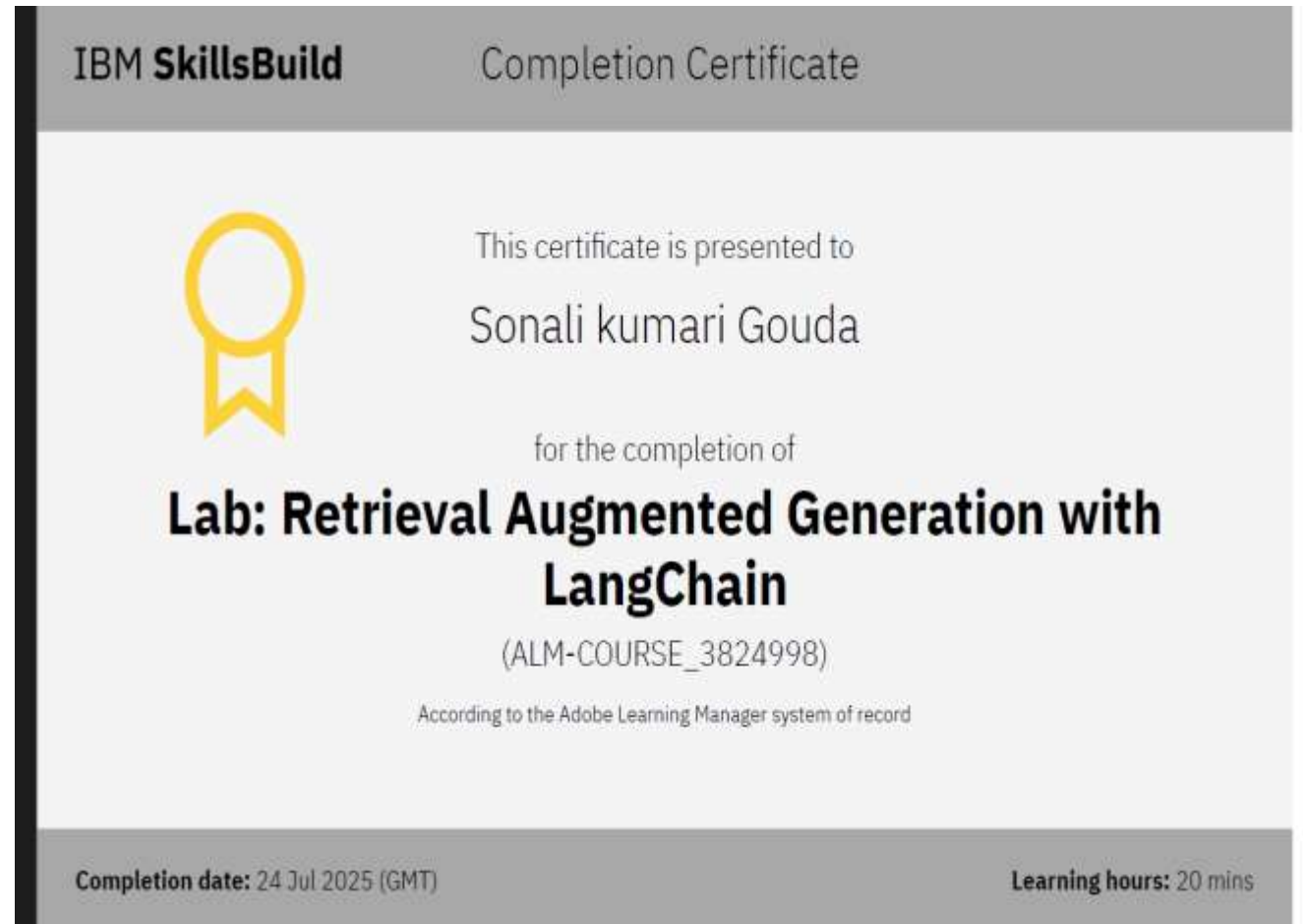
- Multilingual Research Support
- Voice-Activated Research Assistant
- Real-Time Collaboration Features
- Research Gap and Novel Topic Identification
- Integration with Publishing Platforms
- AI-Assisted Paper Drafting

# IBM CERTIFICATIONS

- Screenshot/ credly certificate( getting started with AI)



Attach your RAG LAB certificate here



Git hub link : <https://github.com/Sonalikumari2345/AICTE-IBM-internship-Cloud-and-AI.git>



## GITHUB LINK

- Make sure that there should be readme file



**THANK YOU**