AGENTIC AI:- FITNESS BUDDY

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OUTLINE

- Problem Statement
- Proposed System/Solution
- System Development Approach
- Algorithm & Deployment
- Result (Output Image)
- Conclusion
- Future Scope
- References



PROBLEM STATEMENT

In today's fast-paced world, many individuals struggle to maintain a healthy lifestyle due to lack of personalized guidance, time constraints, and inconsistent motivation. Traditional fitness solutions often require expensive subscriptions, inperson consultations, or rigid schedules that don't adapt to personal preferences or daily routines. There is a growing need for an accessible, friendly, and intelligent virtual assistant that can provide on demand fitness advice, healthy lifestyle suggestions, and basic nutrition guidance—all tailored to individual needs and available at any time. Fitness Buddy aims to solve this problem by offering a conversational, Al-powered health and fitness coach that can:



PROPOSED SOLUTION

To address the modern-day challenges of **fitness and wellness**, **I propose Fitness Buddy**, **an AI-powered virtual assistant designed** to act as a personal fitness coach, **nutritional guide**, **and daily motivator**—all accessible through a simple conversational interface.

- Fitness Buddy is a virtual AI health assistant that:
- Recommends personalized home workout routines
- Provides motivational tips and reminders
- Suggests healthy, easy-to-make meals
- Gives 24/7 Access Without Costly Subscriptions:
- Tracks previous habit and activities.



SYSTEM APPROACH

System Requirements:

- Web browser (client)
- IBM Cloud account

Libraries / Tools Used:

- IBM Watsonx service
- IBM Cloud for data storage
- IBM Functions for backend logic
- IBM Cloud for deployment space
- IBM Granite



ALGORITHM & DEPLOYMENT

Algorithm Logic:

- Collects user inputs (e.g., fitness goal, time available, diet)
- Maps inputs to pre-defined categories for workouts/meals

Training & Input Data:

Manual rules and user profiles

Deployment:

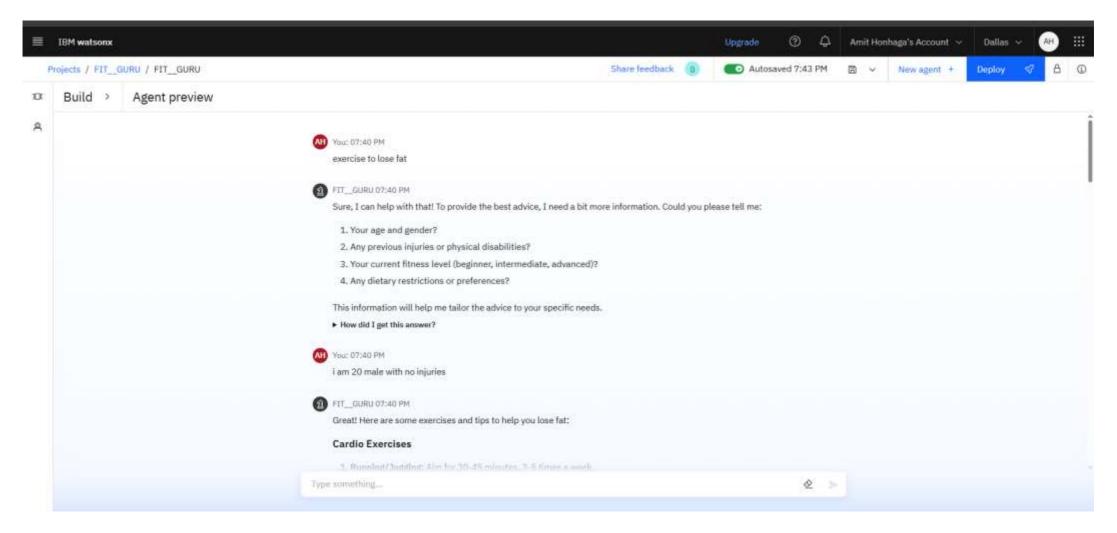
- Hosted on IBM Cloud
- Integrated with Watson Assistant and Cloud



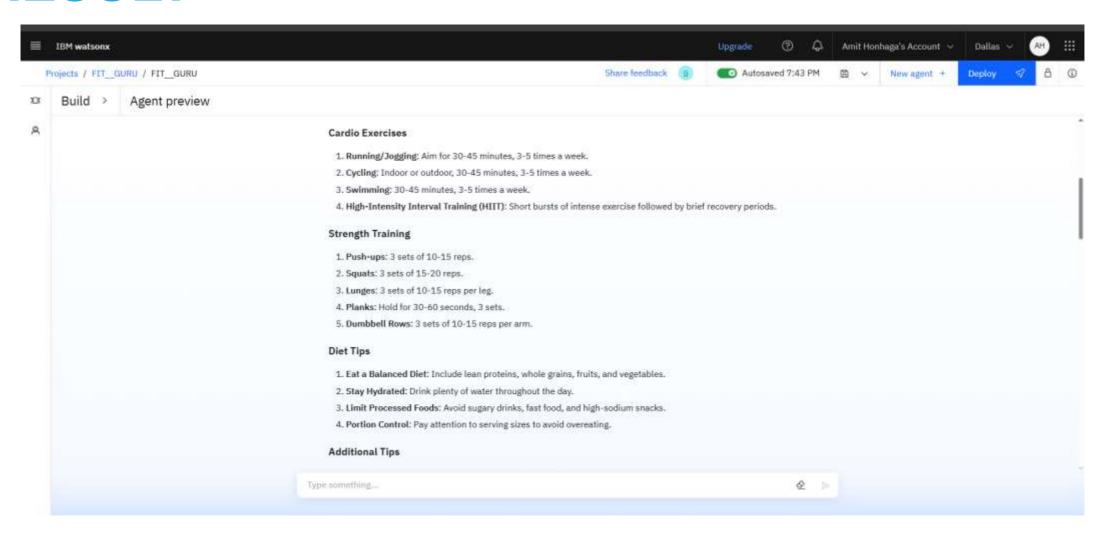
STEPS TO CREATE AN AGENTIC AI – FITNESS BUDDY

- 1. Login on cloud.ibm.com
- 2. Delete all previous resources that are taking space from resource list
- 3. Click on Watsonx in the navigation drop down
- now click on Watsonx.ai
- 5. Choose Al agents
- 6. Scroll down a little, then click on Agentic Lab and click on Watsonx.ai homepage
- 7. Create project, give name \rightarrow add storage space \rightarrow then create project
- 8. click on Build an Al agent to automate tasks.
- associate watsonx runtime service
- 10. My instruction to agentic ai → You are a friendly, helpful fitness assistant. When answering fitness, exercise, or diet-related questions, always use trusted sources (Healthline, Mayo Clinic, WHO, etc.). Use simple, positive language. Never offer medical diagnoses. Always clarify if user input is unclear. Respect user preferences (diet, time, fitness level). Stay non-judgmental and encouraging. If unsure, ask or politely say you don't know.And before answering the questions take some preferences from the user first like age, gender, any previous injuries and or any difficulty moving any body part etc. and about eating don't give direct answer like giving order to eat what and what not instead just suggest them and give the related website and articles from the internet. and at last ask the user question if they want any other help
- 11. Turn on the required tool

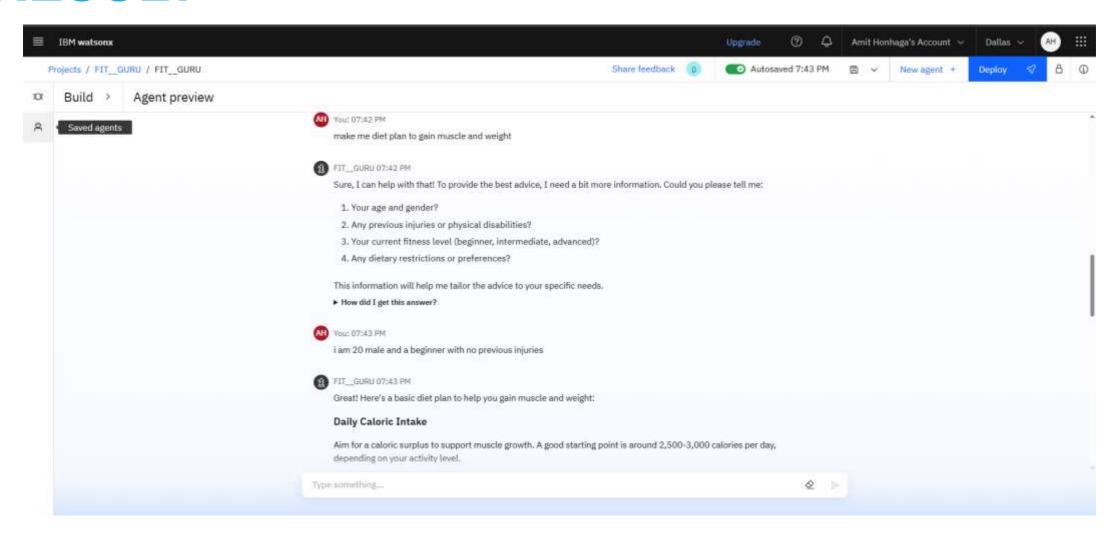




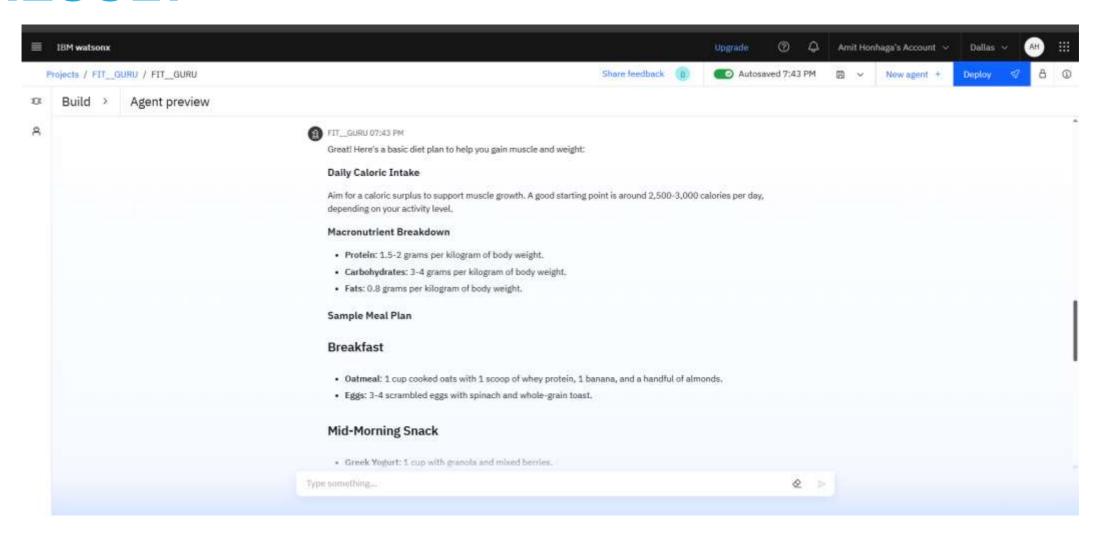




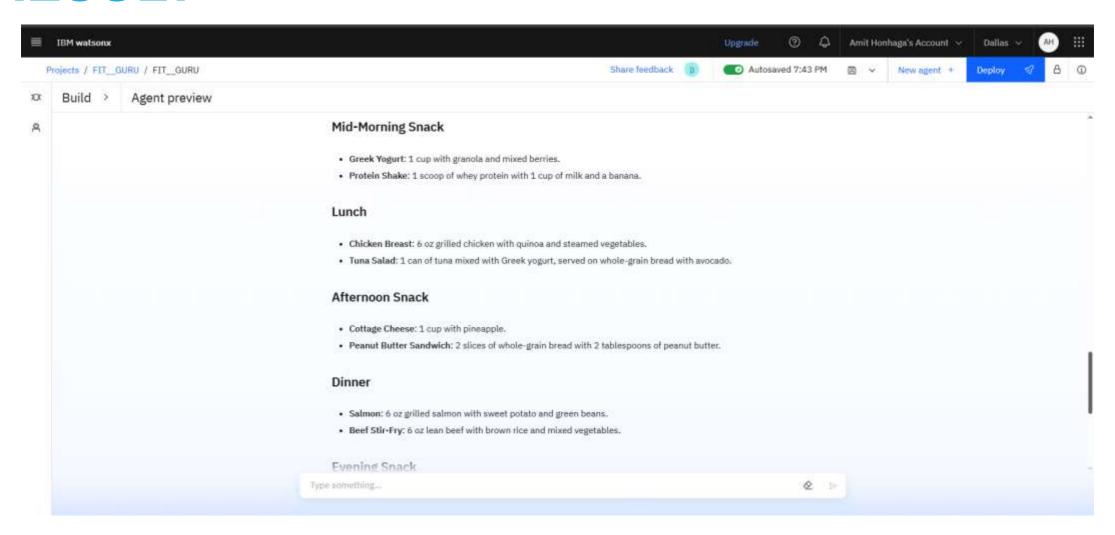














CONCLUSION

The AI Fitness Assistant serves as a reliable, accessible, and personalized solution for individuals seeking fitness guidance, healthy meal suggestions, and motivational support. By combining conversational AI with trusted web sources and user-specific preferences, it bridges the gap between expert advice and everyday accessibility. It encourages healthy lifestyle habits through consistent, friendly, and adaptable interactions—making fitness guidance available to anyone, anytime, without the need for expensive subscriptions or rigid routines.



FUTURE SCOPE

- Integration with wearables (Fitbit, Mi Band, etc.)
- Voice-based interface via Alexa or Google Assistant
- Add community features (group goals, friend challenges)
- Enhanced ML for automatic plan adaptation
- Expansion to mental health features



REFERENCES

- IBM Watson Assistant Documentation
- IBM Cloudant Docs
- IBM Functions Guide
- IBM Granity Overview
- Fitness & Nutrition APIs
- WHO: Global Physical Activity Guidelines



IBM CERTIFICATIONS





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Completion Certificate



This certificate is presented to

Amit Honhaga

for the completion of

Lab: Retrieval Augmented Generation with LangChain

(ALM-COURSE_3824998)

According to the Adobe Learning Manager system of record

Completion date: 25 Jul 2025 (GMT)

Learning hours: 20 mins



THANK YOU!

