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# IBM HACKATHON PROJECT

## FITNESS AGENT

**Presented By:**

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**College Name & Department : CBIT CSE-AMIL**

# OUTLINE

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

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# PROBLEM STATEMENT

- The Challenge
- In today's fast-paced world, many individuals struggle to maintain a healthy lifestyle due to:
- Lack of personalized fitness and nutrition guidance
- Time constraints and irregular routines
- Low motivation or inconsistent accountability
- High costs of traditional fitness programs
- Overwhelming and often conflicting health information online

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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 fitness agent will greatly reduce the time users spend searching for reliable health information, enhance the quality of workout and nutrition planning, and support users—especially beginners—in staying consistent with their goals. It also encourages healthy habits and motivation through personalized guidance.
- **Unique features:**
  - Personalized fitness and nutrition plans based on user goals and preferences
  - Natural conversation for workout queries, dietary advice, and habit tracking
  - Smart memory to adapt suggestions over time based on user progress
  - Daily motivational prompts and wellness check-ins
  - Progress tracking and feedback using conversational history
  - Suggests new exercises, diets, or routines based on user data and fitness trends






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## END USERS





- Fitness enthusiasts
- Beginners starting workouts
- People with specific health goals
- Busy professionals
- Health coaches and trainers
- App developers and fitness platforms


# RESULTS


 IBM watsonx



Upgrade Biradar Omkar's Account  Dallas  

Projects / FitnessAgent / Agent Lab


Share feedback  Unsaved   New agent + Deploy 

 Build


Model: granite-3-3-8b-instruct 

Framework

LangGraph 

Architecture


ReAct 


Instructions

[Advanced configuration](#)

You are Fitness Buddy, an intelligent, friendly, and motivational AI-powered virtual fitness assistant. Your goal is to help users lead healthier lifestyles by providing customized fitness and nutrition support.

Your core responsibilities include:

Knowledge 

Tools 

Agent preview

 You: 01:01 AM

hi

 watsonx Agent 01:01 AM

Hi, I'm Fitness Buddy – your personal AI coach! Ready to start your healthy journey? 🍌 How can I help you today?

► How did I get this answer?





# WORKOUT RECOMMENDATION PROMPTS

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New agent +

Deploy

Build

AI Model: granite-3-3-8b-instruct

Framework: LangGraph Architecture: ReAct

Instructions [Advanced configuration](#)

You are Fitness Buddy, an intelligent, friendly, and motivational AI-powered virtual fitness assistant. Your goal is to help users lead healthier lifestyles by providing customized fitness and nutrition support.

Your core responsibilities include:

1. Recommending home workouts and fitness routines based on the user's goals, preferences, and limitations.

Knowledge

Tools

Add a tool Create custom tool

Added tools (5)

Google search

Retrieve information from the internet with the Google search engine.

DuckDuckGo search

Retrieve information from the internet with the DuckDuckGo search engine.

Agent preview

BO You: 01:02 AM

Act as a virtual fitness coach. Based on the following user input: Age: 25

Fitness Level: Beginner

Goal: Lose weight

Time per day: 30 minutes

Equipment: None

Suggest a weekly home workout plan.

watsonx Agent 01:02 AM

Great! Here's a simple 30-minute, no-equipment home workout plan for beginners looking to lose weight. Remember to start slow and gradually increase intensity as you get stronger.

Day 1: Full Body Workout

- Warm-up: Jumping jacks (3 minutes)
- Squats (3 sets of 10 reps)
- Push-ups (knee push-ups are okay for beginners, 3 sets of 5 reps)
- Plank (hold for 30 seconds, 3 sets)
- Lunges (each leg, 3 sets of 10 reps)
- Cool down: Stretching (5 minutes)

Day 2: Cardio

- High knees (3 minutes)
- Butt kicks (3 minutes)
- Jumping jacks (3 minutes)

Type something...

# MEAL & NUTRITION ADVICE PROMPTS

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Share feedback ⓘ Unsaved ▾ New agent + Deploy

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⚙️ <

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⚙️ 🗑️

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Retrieve information from the internet with the DuckDuckGo search engine.

🗑️

Agent preview

80 You: 01:03 AM

Suggest 3 simple and nutritious meal ideas for someone looking to lose weight, who is vegetarian and prefers Indian cuisine.

👤 watsonx Agent 01:03 AM

Absolutely, here are three simple, nutritious, and vegetarian Indian meal ideas perfect for weight loss:

1. Chickpea Curry (Chana Masala) with Brown Rice

- Chana Masala is a flavorful dish made with chickpeas, onions, tomatoes, and spices. It's high in protein and fiber, keeping you full and aiding in weight loss.
- Serve it with brown rice for a wholesome meal rich in complex carbs.

2. Vegetable Stir Fry (Sabz Meetha)

- Stir-fry a mix of vegetables like bell peppers, carrots, and green beans in a little olive oil. Add spices like turmeric, cumin, and coriander for flavor.
- Serve it with a side of whole grain roti or naan for a balanced meal.

3. Lentil Soup (Dal)

- Dal, made from lentils, onions, tomatoes, and spices, is a comforting and nutritious meal. It's packed with protein and fiber, which can help with weight management.
- Pair it with a simple salad of cucumbers, tomatoes, and a squeeze of lemon for added freshness.

Remember, portion control is key in weight loss. Enjoy these meals as part of a balanced diet and regular exercise routine.







🗑️ 🔍

type something...

# RESULTS

## Deployed AI Agent


[Deployment spaces](#) / [Fitness\\_coach\\_1](#) / [Fitness Coach](#) /


### Fitness Coach ✓ Deployed Online

[API reference](#) [Test](#) [Preview](#)


[New chat +](#)

 You 03:47 PM

Can you give me a low-carb vegetarian dinner idea?

 Fitness Coach 03:47 PM

Absolutely! How about a Quinoa Stuffed Bell Peppers recipe? It's packed with protein and fiber, and it's low in carbs. Here's a simple version:



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## CONCLUSION

- Fitness Agent is a smart virtual assistant that helps people stay healthy and fit. It gives personalized workout plans, meal suggestions, and daily tips based on your goals and lifestyle.
- It saves time by creating quick reports, reminding you to stay active, and adjusting plans when needed. No need for a trainer or dietitian—just ask the agent for help anytime.
- Perfect for busy people who want to stay healthy without the hassle.

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## GITHUB LINK

- <https://github.com/BiradarOmkar/FitnessAgent.git>

# FUTURE SCOPE

- Multilingual Fitness Support
- Voice-Activated Fitness Assistant
- Real-Time Workout and Diet Tracking
- Personalized Goal Suggestions and Tips
- Integration with Health Apps and Devices
- AI-Assisted Report and Plan Generation

# IBM CERTIFICATIONS

In recognition of the commitment to achieve  
professional excellence



Biradar Omkar

Has successfully satisfied the requirements for:

Getting Started with Artificial Intelligence



Issued on: Jul 21, 2025  
Issued by: IBM SkillsBuild

Verify: <https://www.credly.com/badges/bcbde4a6-3460-43d4-8b3c-2e5635f186f4>



IBM **SkillsBuild**

Completion Certificate



This certificate is presented to  
**Biradar omkar Biradar**

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 h





**THANK YOU**