
IBM HACKATHON PROJECT

FITNESS AI 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

- With rising sedentary lifestyles and busy schedules, many individuals struggle to stay physically active, eat healthy, and maintain consistency in their wellness routines. Traditional fitness solutions often lack personalization, require expensive subscriptions, or fail to provide timely motivation—making it difficult for users to build sustainable habits.
- There is a growing need for an accessible, intelligent, and user-friendly solution that can offer personalized fitness support based on individual preferences, goals, and constraints.

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

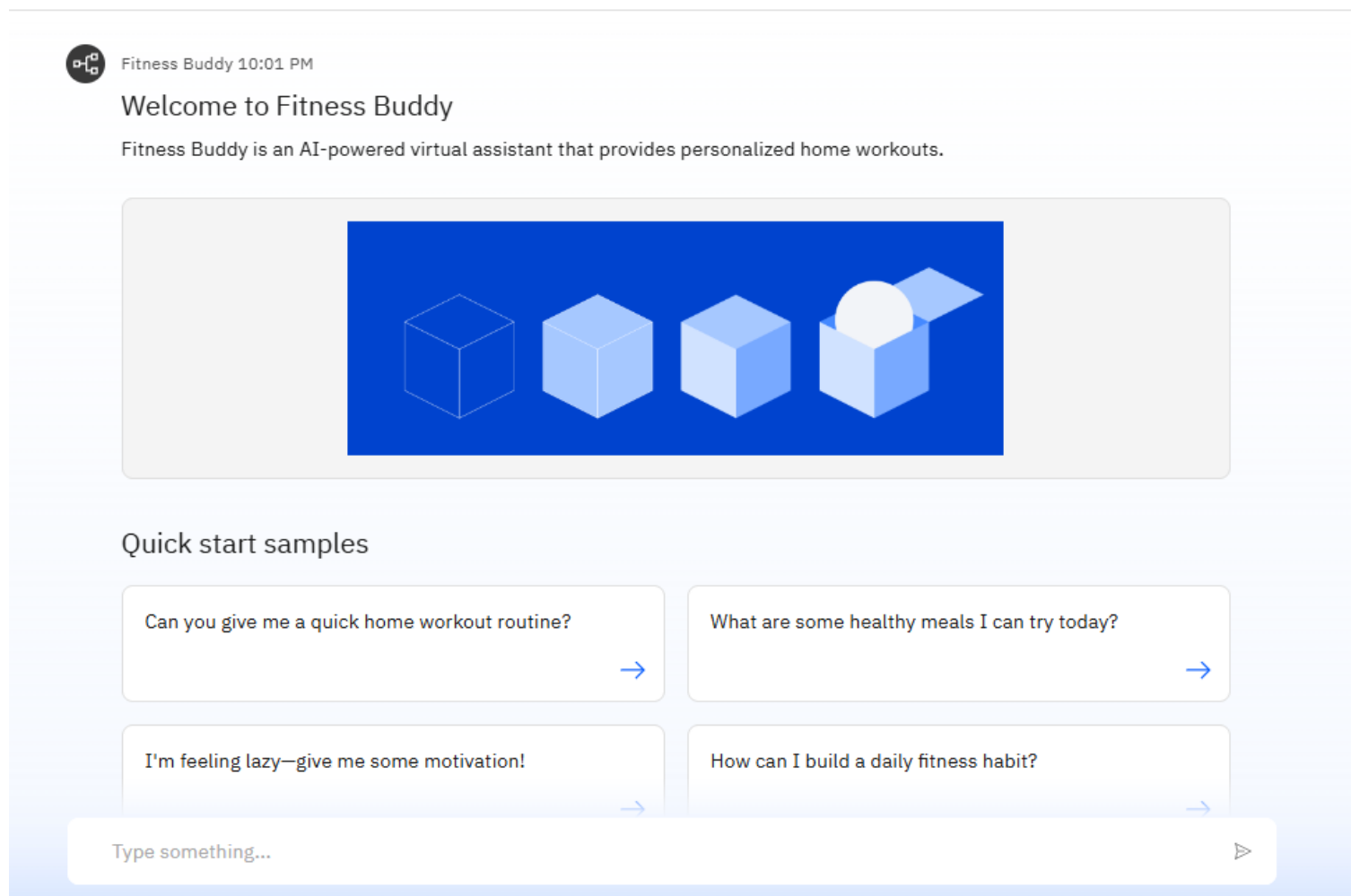
WOW FACTORS

- **Natural Language Interaction**
Engages users in a conversational, user-friendly manner.
- **Personalized Fitness & Meal Guidance**
Delivers tailored workouts and healthy meal suggestions based on user input.
- **RAG-Powered Intelligence**
Provides accurate, context-aware responses using Retrieval-Augmented Generation.
- **No-Equipment Workouts**
Accessible routines designed for all users without gym access.
- **IBM Granite Integration**
Built using enterprise-grade AI models for reliability and scalability.
- **Scalable and Modular Design**
Easily extendable with features like reminders or progress tracking.

END USERS

- **Students and Young Adults**
Looking for simple, home-based fitness and wellness guidance.
- **Working Professionals**
Seeking quick workouts and health tips to balance busy schedules.
- **Fitness Beginners**
Individuals starting their fitness journey who need personalized, low-barrier support.
- **Home-makers and Remote Workers**
Users with limited access to gyms or trainers.
- **Educational Institutions**
For promoting physical well-being among students through digital wellness agents.

RESULTS



RESULTS

[Deployment spaces](#) / [Fitness_Buddy](#) / [Fitness Buddy](#) /

Fitness Buddy ✓ Deployed Online


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

[New chat](#) +

J

You 10:17 PM

What are some healthy meals I can try today?



Fitness Buddy 10:17 PM


I'd be happy to suggest some healthy meal ideas for you! Here are a few simple, nutritious options:







1. **Quinoa Salad:** Cook quinoa and mix with chopped cucumbers, tomatoes, red onion, and feta cheese. Dress with olive oil, lemon juice, salt, and pepper. Quinoa is a great source of protein and fiber.

2. **Grilled Chicken with Steamed Vegetables:** Grill a chicken breast seasoned with herbs and lemon. Serve with a side of steamed broccoli, carrots, and bell peppers. This meal is rich in lean protein and vitamins.


3. **Vegetable Stir-Fry:** Stir-fry a mix of colorful vegetables like bell peppers, zucchini, and snap peas in a bit of olive oil. Add tofu for protein. Serve it over brown rice for a balanced meal.

4. **Avocado Toast:** Mash avocado and spread it on whole grain toast. Sprinkle with chia seeds, a dash of salt, and a squeeze of


Type something... 

About this deployment ×

Name 


Fitness Buddy


Description 

Fitness Buddy is an AI-powered virtual assistant that provides personalized home workouts.


Deployment Details


Deployment ID: `68bb71be-2a6f-41...`

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 

wx-agent

Associated asset 

 [Fitness Buddy](#)

`ac0175ee-4a2e-46c7-8218-85d24556ac15`

RESULTS

[Deployment spaces](#) / [Fitness_Buddy](#) / [Fitness Buddy](#) /

Fitness Buddy ✔ Deployed Online

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

New chat +

J

You 10:18 PM

Can you give me a quick home workout routine?

o-12

Fitness Buddy 10:18 PM

Absolutely! Here's a quick, full-body workout routine you can do at home without any equipment. It should take about 20 minutes, including a warm-up and cool-down.

Warm-up (5 minutes)

- Jumping jacks: 2 sets of 20 reps
- Arm circles: 1 set of 10 forward and 10 backward
- High knees: 1 set of 20 reps
- Butt kicks: 1 set of 20 reps
- Hydrate by drinking a glass of water

Workout (10 minutes)

1. Squats: 2 sets of 15 reps

type something...

About this deployment ×

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wx-agent

Associated asset [✎](#)

[Fitness Buddy](#)

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Last modified

1 minute ago

edunet
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RESULTS

Deployed AI Agent

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Fitness Buddy

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- Squats:** 2 sets of 15 reps
 - Stand with feet hip-width apart, lower your body as if sitting in a chair, then stand back up. If standard squats are too hard, try chair squats.
- Push-ups:** 2 sets of 10 reps (modify if needed)
 - Start in a high plank position. Lower your body until your chest nearly touches the floor, then push back up. If standard push-ups are challenging, try wall push-ups or knee push-ups.
- Plank:** 2 sets of 30 seconds
 - Hold a push-up position, but rest on your forearms instead of your hands. Keep your body in a straight line from head to toe.
- Lunges:** 2 sets of 10 reps per leg
 - Step forward with one leg and lower your body until your front knee is at a 90-degree angle. Push back up and switch legs.
- Glute bridges:** 2 sets of 15 reps

About this deployment ×

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Associated asset [Fitness Buddy](#)
`ac0175ee-4a2e-46c7-8218-85d24556ac15`

Last modified
1 minute ago

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CONCLUSION

The Fitness Buddy AI Agent demonstrates the potential of conversational AI in promoting healthier lifestyles through personalized, accessible, and engaging guidance. By integrating natural language interaction with intelligent workout and nutrition suggestions, the system offers a practical solution for users of all backgrounds. With its scalable design and AI-powered foundation, this project not only addresses current fitness challenges but also sets the groundwork for future enhancements in digital wellness support.

GITHUB LINK

- <https://github.com/joydeep1007/IBM-Internship.git>

FUTURE SCOPE

- **Voice and Multilingual Support**

Enable voice interaction and regional language compatibility for wider accessibility.

- **Progress Tracking and Analytics**

Integrate user progress logs, habit streaks, and fitness dashboards.

- **Integration with Wearables**

Connect with fitness bands or smartwatches for real-time activity monitoring.

- **Daily Reminders and Notifications**

Implement push alerts for workouts, hydration, and meal times.

- **AI-Powered Adaptive Plans**

Dynamically update workout and diet plans based on user behavior and feedback.

IBM CERTIFICATIONS

In recognition of the commitment to achieve
professional excellence



Joydeep De

Has successfully satisfied the requirements for:

Getting Started with Artificial Intelligence



Issued on: Jul 17, 2025

Issued by: IBM SkillsBuild

Verify: <https://www.credly.com/badges/acb71636-25fb-4dd1-becf-1d8338c9220f>



IBM **SkillsBuild**

Completion Certificate



This certificate is presented to

Joydeep De

for the completion of

Lab: Retrieval Augmented Generation with LangChain

(ALM-COURSE_3824998)

According to the Adobe Learning Manager system of record

Completion date: 24 Jul 2025 (GMT)

Learning hours: 20 mins



THANK YOU