
IBM AICTE PROJECT

FITNESS BUDDY AGENT

Presented By:

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OUTLINE

- Problem Statement
- Technology used
- Wow factor
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- IBM Certifications

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, in-person 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.

TECHNOLOGY USED

Purpose

- 💬 Chat Interface
- ☐ AI/NLP
- 📦 Backend
- 🌐 Frontend
- ☁☐ Cloud Platform

Technologies

IBM Watson Assistant or Watsonx Assistant

IBM Watson NLP, OpenAI (for reasoning), Granity (IBM's LLM)

Python (Flask or FastAPI) or Node.js

HTML + CSS + JS (Vanilla or React), or mobile app (Flutter/React Native)

IBM Cloud (Lite plan or Code Engine for deployment)

IBM CLOUD SERVICES USED

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

WOW FACTORS

AI-Powered Dynamic Fitness Coach

A conversational assistant that **adapts workouts in real-time** based on:

- User mood (detected via sentiment analysis)
- Weather (e.g., switch to indoor workouts when it rains)
- Energy levels (“I feel tired today” → low-intensity workout)

Posture Detection & Feedback (via Image or Video Upload)

Let users upload photos/videos of their workouts, and the AI:

- Detects posture errors (e.g., wrong plank form)
- Provides tips using **computer vision** (IBM Granity or custom model)
- Adds gamification: “Great form! Keep going!”

Progressive Smart Planner

Learns and adapts as user habits evolve:

- If someone skips workouts on weekends, it suggests flexibility.
- Recommends **mini-goals**: “Let’s aim for 3,000 more steps today.”

Also shows **motivational stats**:

“You’ve burned 3,200 calories this month. That’s 10 donuts!”

END USERS

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

RESULTS

Agent preview



You: 12:00 AM

gimme the healthy routine as 24year old man



AI assistant 12:00 AM

As a 24-year-old man, it's essential to maintain a healthy routine to ensure overall well-being. Here are some tips to help you get started:

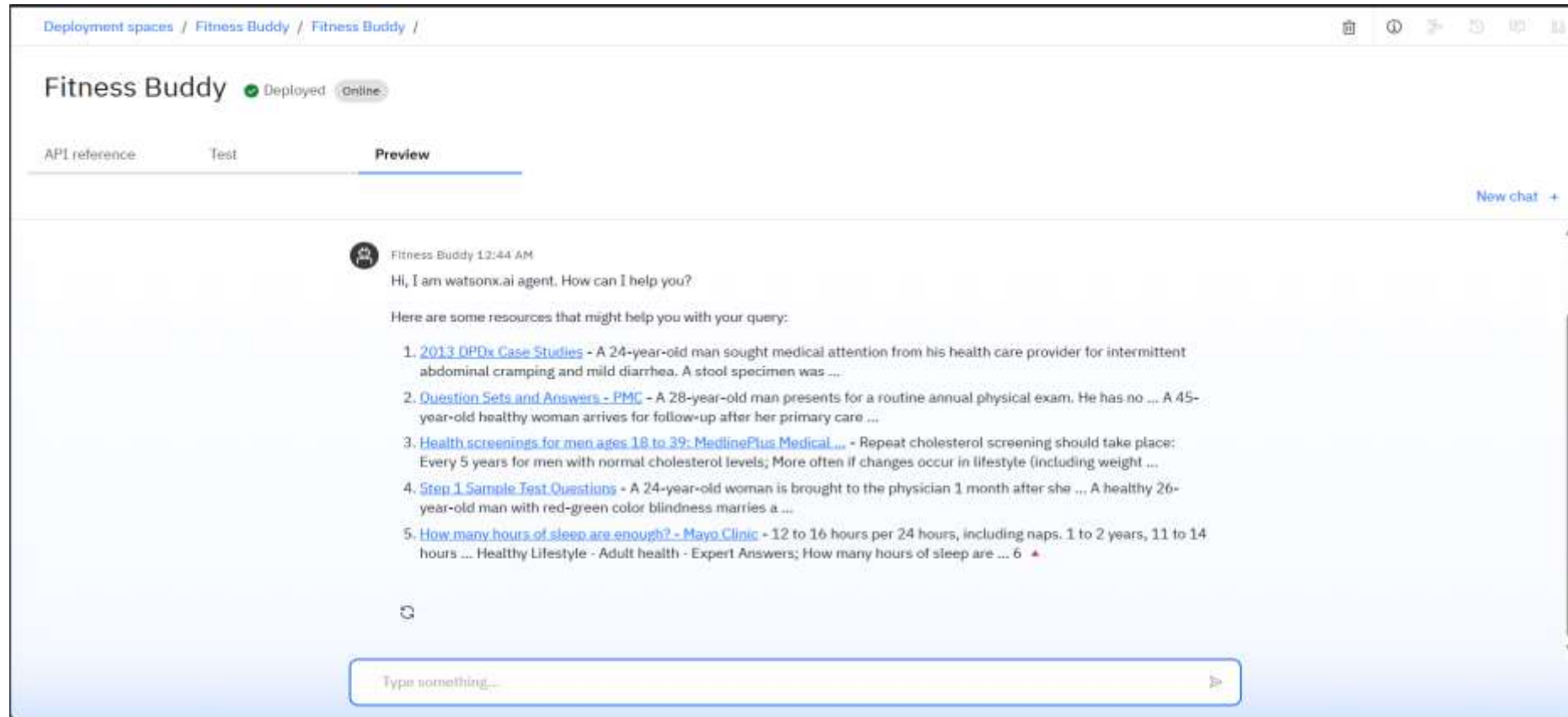
1. **Eat a balanced diet:** Focus on consuming whole foods, fruits, vegetables, whole grains, lean proteins, and healthy fats. Aim to include a variety of colors on your plate to ensure you're getting a range of nutrients.
2. **Stay hydrated:** Drink plenty of water throughout the day, aiming for at least 8 cups (64 ounces) daily.
3. **Exercise regularly:** Aim for at least 150 minutes of moderate-intensity aerobic exercise, or 75 minutes of vigorous-intensity aerobic exercise, or a combination of both, per week. Additionally, incorporate strength training exercises into your routine, focusing on all major muscle groups.
4. **Get enough sleep:** Aim for 7-9 hours of sleep each night to help your body and mind recharge.
5. **Manage stress:** Engage in stress-reducing activities, such as meditation, yoga, or deep breathing exercises, to help cope with daily stressors.
6. **Stay up-to-date on health screenings:** Regular health screenings can help identify potential health issues early on. Be sure to follow the recommended screening guidelines for your age group.
7. **Practice good hygiene:** Wash your hands frequently, especially during cold and flu season.

Type something...



RESULTS

Deployed AI Agent



CONCLUSION

- **Fitness Buddy** harnesses the power of AI and IBM Cloud technologies to deliver a personalized, intelligent, and accessible health companion. By combining natural language understanding, real-time feedback, and adaptive fitness and nutrition recommendations, it bridges the gap between rigid fitness apps and expensive personal coaching.
- Through features like tailored home workouts, motivational tips, smart meal suggestions, and habit-building encouragement, Fitness Buddy empowers users to take charge of their wellness journey—anytime, anywhere. With scalable cloud infrastructure and generative AI, this project not only promotes healthier lifestyles but also showcases how AI can truly care, coach, and connect.

GITHUB LINK

- <https://github.com/priyanshusahai/Fitness-Buddy>

FUTURE SCOPE

- Integration with Wearables & IoT Devices
- AI-Based Posture and Form Correction
- Emotional Well-being & Mental Health Support
- Voice-Only Mode & Smart Assistant Integration
- Multilingual Support
- Gamification & Community Challenges
- AI Coach Learning from Progress
- Integration with Medical Records & Healthcare Providers

IBM CERTIFICATIONS

In recognition of the commitment to achieve
professional excellence



priyanshu sahai

Has successfully satisfied the requirements for:

Getting Started with Artificial Intelligence



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IBM **SkillsBuild**

Completion Certificate



This certificate is presented to
priyanshu sahai

for the completion of

Lab: Retrieval Augmented Generation with LangChain

(ALM-COURSE_3824998)

According to the Adobe Learning Manager system of record

Completion date: 18 Jul 2025 (GMT)

Learning hours: 20 mins



THANK YOU