

CAPSTONE PROJECT

FITNESS BUDDY

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

The challenge - 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.

Fitness Buddy aims to solve this problem by offering a conversational, AI-powered health and fitness coach that can:

Recommend home workouts and routines based on user input.

- Provide motivational tips and daily fitness inspiration.
- Suggest simple, nutritious meal ideas.
- Encourage habit-building and consistency.

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

Fitness Buddy is a virtual AI-powered fitness assistant designed to empower individuals to stay active and healthy—whether at home or in the gym. It promotes a consistent lifestyle by offering personalized exercise routines, nutrition suggestions, and motivational support tailored to individual needs and goals.

Unique features:

- Personalized workout plans for both home and gym users
- Smart adaptation to user fitness goals (weight loss, muscle gain, endurance, etc.)
- Instant healthy meal suggestions based on dietary preferences and goals
- Habit tracking and daily reminders to encourage consistency
- Daily motivational tips and fitness challenges to keep users inspired
- Built on IBM Watson and IBM Cloud Lite for intelligent NLP and scalability
- Inclusive and accessible design for all ages and fitness levels

END USERS

- Beginners Starting Their Fitness Journey
- Home Workout Enthusiasts
- Gym-goers and Fitness Enthusiasts
- Busy Professionals and Students
- Older Adults and Seniors
- People with Physical Limitations or Recovery Needs
- Anyone Seeking a Healthy Lifestyle

RESULTS

The screenshot displays the IBM Watsonx Agent Lab interface. The browser address bar shows the URL: `dataplatfom.cloud.ibm.com/wx/agents?context=wx&project_id=a541ffb5-613d-4ae4-82b6-aba23ba7c6c1`. The interface is divided into two main sections: 'Build' and 'Agent preview'.

Build Section:

- Model:** granite-3-3-8b-instruct
- Setup:**
 - Name:** Fitness Buddy
 - Description:** AI-powered virtual coach offering workouts, meals, and motivation for a healthy lifestyle—anytime! (98/100 characters)
 - Icon:** A robot head icon.
 - Placeholder image:** A diagram showing a green circle with a blue magnifying glass over it, connected by lines to other points.
 - Quick start questions:** Add up to 4 quick start questions that your users can select.

Agent preview Section:

- Header:** Fitness Buddy 07:46 PM
- Welcome to Fitness Buddy:** AI-powered virtual coach offering workouts, meals, and motivation for a healthy lifestyle—anytime!
- Sample questions:**
 - How do I stay motivated to exercise daily?
 - What should I eat after a workout?
- Input field:** Type something...

The bottom of the screen shows a Windows taskbar with the date and time: 19:47, 01-08-2025.

RESULTS

The screenshot shows a web browser window with multiple tabs. The active tab is 'Fitness Buddy — Fitness_Buddy', displaying the deployment page for 'Fitness Buddy' on the IBM watsonx platform. The URL is `dataplatfom.cloud.ibm.com/ml-runtime/deployments/cf1e0f93-357d-4990-a012-6a4a38c5d480/chat?space_id=843787b8-d0a1-41f1-aa01-f0a97cc708d5&context=wx&flush=true`. The page shows the deployment is 'Online' and has a 'Preview' tab selected. The chat interface shows a user request for a 6-month weight loss workout plan, and the AI response provides a detailed plan for 'Month 1-2: Foundation Building'.

Deployment spaces / Fitness_Buddy / Fitness Buddy /

Fitness Buddy

Deployed Online

API reference Test **Preview**

[New chat +](#)

You 08:27 PM

Give me 6 months weight lose workout plan i can give 2 hours daily for workout

Fitness Buddy 08:27 PM

Here's a 6-month weight loss workout plan that you can follow, dedicating 2 hours daily for workout:

Month 1-2: Foundation Building

Day 1: Full Body Strength Training (1 hour)

- Warm-up: 10 minutes of light cardio (jumping jacks, jogging in place)
- Squats: 3 sets of 12 reps
- Push-ups: 3 sets of 10 reps
- Dumbbell Rows: 3 sets of 12 reps per arm
- Plank: 3 sets, hold for 30 seconds to 1 minute

Type something...

About this deployment

Name
Fitness Buddy

Description
AI-powered virtual coach offering workouts, meals, and motivation for a healthy lifestyle—anytime!

Deployment Details

Deployment ID: `cf1e0f93-357d-49...`

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`
`f3945174-0751-429c-9198-98eb5ca851ad`

RESULTS

The screenshot displays the IBM watsonx web interface. The browser's address bar shows the URL: `datapatform.cloud.ibm.com/ml-runtime/deployments/cf1e0f93-357d-4990-a012-6a4a38c5d480/chat?space_id=843787b8-d0a1-41f1-aa01-f0a97cc708d5&context=wx&flush=true`. The page title is "Fitness Buddy" with a status of "Deployed Online". The interface includes tabs for "API reference", "Test", and "Preview", with "Preview" being the active tab. A chat window shows a user's request: "give me motivational quotes". The AI assistant, "Fitness Buddy", responds with a list of six motivational quotes. A text input field at the bottom of the chat window contains the placeholder text "type something...". On the right side, a sidebar titled "About this deployment" provides details about the model, including its name, description, deployment ID, serving name, software and hardware specifications, and associated asset.

Deployment spaces / Fitness_Buddy / Fitness Buddy /

Fitness Buddy

Deployed Online

API reference Test Preview

New chat +

You 08:28 PM
give me motivational quotes

Fitness Buddy 08:28 PM

1. "Strength does not come from physical capacity. It comes from an indomitable will." - Mahatma Gandhi
2. "The only bad workout is the one that didn't happen." - Unknown
3. "You, yourself, as much as anybody in the entire universe, deserve your love and affection." - Buddha
4. "Believe you can and you're halfway there." - Theodore Roosevelt
5. "Don't watch the clock; do what it does. Keep going." - Sam Levenson
6. "The last three or four weeks of pregnancy are like the last three or four yards of a football field. You know you're going to make it." - Maya Angelou

type something...

About this deployment

Name
Fitness Buddy

Description
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Deployment Details
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Copies: 1

Tags
wx-agent

Associated asset
Fitness Buddy
f3945174-0751-429c-9198-98eb5ca851ad

RESULTS

Agent Lab (beta) — Docs | IBM

Fitness_Buddy — Spaces | IBM

Fitness_Buddy — Spaces | IBM

Settings | IBM watsonx

dataplatform.cloud.ibm.com/ml-runtime/spaces/843787b8-d0a1-41f1-aa01-f0a97cc708d5/deployments?context=wx

Incognito

IBM watsonx

Upgrade

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Rudra Bhagat's Account

Dallas

RB

Deployment spaces /

Fitness_Buddy

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Name	Type	Status	Asset	Asset type	Tags	Last modified	↓
🔗 Fitness Buddy	Online	✅ Deployed	Fitness Buddy	Ai service	wx-agent	28 seconds ago Rudra Bhagat (You)	⋮

Items per page: 20

1–1 of 1 items

1 of 1 pages

CONCLUSION

- Fitness Buddy is a smart AI-powered fitness companion that supports users in both home and gym workouts.
- It personalizes workout and nutrition plans based on user goals, fitness level, and preferences.
- The agent keeps users motivated with real-time guidance, progress tracking, and reminders.
- Fitness Buddy promotes a healthy lifestyle by making fitness accessible, engaging, and tailored for everyone.

GITHUB LINK

- https://github.com/RudraBhagat/Fitness_Buddy.git

FUTURE SCOPE

- Expand accessibility by supporting multiple regional and international languages.
- Enable users to interact hands-free during workouts via voice commands.
- Adapt workouts and nutrition plans based on real-time mood and stress analysis.
- Sync with fitness bands, smartwatches, and health trackers for real-time data analysis.
- Offer proactive health suggestions and risk alerts using user behavior and fitness history.

IBM CERTIFICATIONS

In recognition of the commitment to achieve
professional excellence



Rudra Bhagat

Has successfully satisfied the requirements for:

Getting Started with Artificial Intelligence



Issued on: Jul 16, 2025
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Journey to Cloud: Envisioning Your Solution



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IBM CERTIFICATIONS

IBM **SkillsBuild**

Completion Certificate



This certificate is presented to

Rudra Bhagat

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