

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)

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 nodes.
 - 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 displays the IBM watsonx web interface in a browser window. The address bar shows the URL: `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 title is "Fitness Buddy" with a green "Deployed" status and an "Online" badge. Below the title are tabs for "API reference", "Test", and "Preview", with "Preview" being the active tab. The main content area shows a chat interface with a user message: "Give me 6 months weight lose workout plan i can give 2 hours daily for workout". The assistant's response is: "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

". A text input field at the bottom contains "Type something...". On the right, a sidebar titled "About this deployment" provides details: Name (Fitness Buddy), Description (AI-powered virtual coach offering workouts, meals, and motivation for a healthy lifestyle—anytime!), 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), and Associated asset (Fitness Buddy).

Deployment spaces / Fitness_Buddy / Fitness Buddy /

Fitness Buddy

Deployed Online

RESULTS

The screenshot displays the IBM watsonx web interface. The browser 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 "New chat +" button is visible. On the right, a sidebar titled "About this deployment" provides details: Name (Fitness Buddy), Description (AI-powered virtual coach), 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), and Associated asset (Fitness Buddy). The bottom of the screen shows a Windows taskbar with the date and time as 20:28 on 01-08-2025.

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
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 shows a web browser window displaying the IBM Watsonx interface. The browser's address bar shows the URL: `dataplatfrom.cloud.ibm.com/ml-runtime/spaces/843787b8-d0a1-41f1-aa01-f0a97cc708d5/deployments?context=wx`. The page title is "Fitness_Buddy". Below the title, there are tabs for "Overview", "Assets", "Deployments", "Jobs", and "Manage", with "Deployments" being the active tab. A search bar is located at the top of the deployment list. The table below lists the deployment details:

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)

At the bottom of the table, there is a pagination bar showing "Items per page: 20" and "1-1 of 1 items". The right side of the bar shows "1 of 1 pages" with navigation arrows. The Windows taskbar at the bottom indicates the system time is 20:26 on 01-08-2025, with a temperature of 28°C and "Haze" weather.

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



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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