

IBM AICTE PROJECT

FITBUDDY_AI

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OUTLINE

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

PROBLEM STATEMENT

- **Problem Statement:**

In today's fast-paced lifestyle, individuals often struggle to stay consistent with fitness goals due to lack of personalized guidance, time constraints, and low motivation. Traditional fitness programs require fixed schedules, costly subscriptions, and fail to adapt to individual routines or preferences—making it difficult to maintain a healthy lifestyle.

- **Proposed Solution:**

An AI-powered virtual fitness coach that uses Natural Language Processing (NLP) and conversational intelligence to recommend personalized home workouts, suggest simple nutritious meals, deliver daily motivation, and promote habit-building—making fitness accessible, flexible, and engaging for everyone.

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 agent will help users stay consistent with their fitness goals, improve physical and mental well-being, and build long-term healthy habits—anytime, anywhere—by making fitness guidance more personalized, accessible, and motivating.
- Unique Features:
- Personalized home workouts tailored to user goals, fitness level, and available time
- AI-generated meal suggestions based on dietary preferences and nutrition goals
- Daily habit tracking with motivational nudges to build consistency
- Goal-based coaching: sets micro-goals and celebrates progress
- Smart reminders and adaptive routines that adjust to user schedule changes
- Mood-aware check-ins: adapts tone and suggestions based on user energy or mood
- Conversational interface using NLP, powered by IBM Watson (Granity), for an engaging and human-like experience

END USERS

- Busy professionals
- Students
- Remote workers
- Fitness beginners
- Home-based individuals
- Recovery and rehab users
- Health-conscious individuals

RESULTS

Fitbuddy_AI ✓ Deployed Online

API reference

Test

Preview

New chat +



Fitbuddy_AI 03:59 PM

Welcome to Fitbuddy_AI

FitBuddy_AI is a smart virtual fitness coach that gives you personalized workouts, healthy meal idea



Quick start samples

|type something...



RESULTS

Fitbuddy_AI ✓ Deployed Online

API reference

Test

Preview



Quick start samples

what is your height?



what is your weight?



Have you had any training sessions before?



Type something...



RESULTS

Agent preview



You: 02:46 PM

create a week exercise plan



Fitbuddy_AI 02:46 PM

Here's a sample weekly workout plan you can follow. Remember, it's crucial to warm up before starting and cool down afterwards. Also, listen to your body - rest if needed!

Day 1: Strength Training (Upper Body)

- Bench Press/Push Ups: 3 sets of 8-12 reps
- Bent Over Rows: 3 sets of 8-12 reps
- Overhead Press: 3 sets of 8-12 reps
- Pull Ups or Assisted Pull Ups: As many as possible in the set range of 3x8-12 depending on your current strength level. If those are too hard, use resistance bands for assistance.
- Bicep Curls & Tricep Dips/Extensions: Each, 3 sets of 10-15 reps

Day 2: Cardio & Core Choose one option from each category below and do them back to back with minimal rest between exercises but sufficient recovery time between rounds. Aim for three rounds total.

- Option A (High Intensity): Sprinting intervals on a treadmill or

Type something...



RESULTS

Agent preview



You: 02:23 PM

so provide me a protein rich food diet



Fitbuddy_AI 02:23 PM

Absolutely, I'd be happy to help you with that! Here's a simple, protein-rich meal plan for a day:

Breakfast:

- Scrambled eggs (2 eggs) with spinach and tomatoes.
- A slice of whole grain toast.

Mid-Morning Snack:

- Greek yogurt (1 cup) with a handful of almonds.

Lunch:

- Grilled chicken breast (about 170g) with a quinoa salad (1 cup cooked quinoa, mixed with cherry tomatoes, cucumber, and feta cheese).

Afternoon Snack:

- Cottage cheese (1 cup) with sliced peaches.

|Type something...



RESULTS

Agent preview



You: 02:44 PM

what should be my diet as a vegetarian



Fitbuddy_AI 02:44 PM

As a vegetarian, you can enjoy a wide variety of nutrient-rich foods. Here are some suggestions:

1. **Protein:** Include sources like lentils, chickpeas, tofu, tempeh, seitan, quinoa and various nuts and seeds in your diet.
2. **Calcium:** Dairy products or fortified plant milks for calcium intake is recommended but if you avoid dairy consider including dark leafy greens (kale, spinach), almonds and figs in your meals.
3. **Iron:** Foods such as beans (kidney beans, black beans), lentils, tofu and iron-fortified cereals are good sources of iron for vegetarians. Pairing them with Vitamin C rich foods can enhance absorption - think bell peppers with your lentil soup!
4. **Vitamin B12:** This one's tricky because it's primarily found in animal products. Vegetarians should consider consuming fortified foods like certain breakfast cereals or plant milks or may need a supplement after

Type something...



RESULTS

[Deployment spaces](#) / [Fitbuddy](#) / [Fitbuddy_AI](#) /



Fitbuddy_AI ✓ Deployed Online

API reference

Test

Preview

[New chat](#) +



You 03:45 PM

provide a proper guide for leg exercises



Fitbuddy_AI 03:45 PM

Here's a proper guide for leg exercises:

Warm-up

- 5-10 minutes of light cardio such as jogging or jumping jacks
- Dynamic stretching for legs, such as leg swings and lunges

Leg Exercises

1. Squats:


- Stand with feet shoulder-width apart
- Slowly lower body down into a squat, keeping back straight and knees behind toes

Type something...



RESULTS

Deployed AI Agent

Fitbuddy_AI  Deployed Online

API reference

Test

Preview

[New chat](#) +



You 03:59 PM

provide a one week training session



Fitbuddy_AI 03:59 PM

Here is a one-week training session based on the provided text:

Day 1: Cardiovascular Training

- Warm-up: 5-minute jog or jumping jacks
- High-intensity interval training (HIIT): 30 seconds of burpees followed by 30 seconds of rest. Repeat for 15-20 minutes.
- Cool-down: 5-minute stretching

Day 2: Strength Training

- Warm-up: 5-minute jog or jumping jacks

Type something...



CONCLUSION

- ♦ FitBuddy AI can generate personalized workout plans, offer dietary suggestions, and even adapt routines based on user progress.
 - ♦ It saves time by automating fitness tracking, goal monitoring, and daily reminders.
 - ♦ FitBuddy enhances motivation, accountability, and overall well-being across all fitness levels.
 - ♦ It provides real-time feedback using sensor data or user input to improve form and prevent injuries.
 - ♦ FitBuddy supports long-term consistency through gamified challenges, progress badges, and AI-driven encouragement.

GITHUB LINK

- Github repo- https://github.com/Vaibhav-padharia/Fitbuddy_AI

FUTURE SCOPE

- ◆ AI-Powered Mental Wellness Support
 - ◆ Integration with Wearables
 - ◆ Voice-Based Workout Assistant
 - ◆ Adaptive Injury Recovery Plans
 - ◆ Social Fitness Challenges
 - ◆ Personalized Nutrition AI

IBM CERTIFICATIONS

- Screenshot/ credly certificate(getting started with AI)



IBM CERTIFICATIONS

- Screenshot/ credly certificate(Journey to cloud)



Attach your RAG LAB certificate here

IBM **SkillsBuild**

Completion Certificate



This certificate is presented to

Jay Padharia

for the completion of

**Lab: Retrieval Augmented Generation with
LangChain**

(ALM-COURSE_3824998)

According to the Adobe Learning Manager system of record

Completion date: 21 Jul 2025 (GMT)

Learning hours: 20 mins



THANK YOU