

# AGENTIC AI:- FITNESS BUDDY

**Presented By:**

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# OUTLINE

- Problem Statement
- Proposed System/Solution
- System Development Approach
- Algorithm & Deployment
- Result (Output Image)
- Conclusion
- Future Scope
- References

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

# PROPOSED SOLUTION

To address the modern-day challenges of **fitness and wellness**, I propose **Fitness Buddy**, an AI-powered virtual **assistant designed** to act as a personal fitness coach, **nutritional guide**, and **daily motivator**—all accessible through a simple conversational interface.

- **Fitness Buddy** is a virtual AI health assistant that:
  - Recommends personalized **home workout routines**
  - Provides **motivational tips** and reminders
  - Suggests **healthy, easy-to-make meals**
  - Gives **24/7 Access** Without Costly Subscriptions:
  - Tracks previous habit and activities.

# SYSTEM APPROACH

## System Requirements:

- Web browser (client)
- IBM Cloud account

## Libraries / Tools Used:

- IBM Watsonx service
- IBM Cloud for data storage
- IBM Functions for backend logic
- IBM Cloud for deployment space
- IBM Granite

# ALGORITHM & DEPLOYMENT

## Algorithm Logic:

- Collects user inputs (e.g., fitness goal, time available, diet)
- Maps inputs to pre-defined categories for workouts/meals

## Training & Input Data:

- Manual rules and user profiles

## Deployment:

- Hosted on IBM Cloud
- Integrated with Watson Assistant and Cloud

# STEPS TO CREATE AN AGENTIC AI – FITNESS BUDDY

1. Login on cloud.ibm.com
2. Delete all previous resources that are taking space from resource list
3. Click on Watsonx in the navigation drop down
4. now click on Watsonx.ai
5. Choose AI agents
6. Scroll down a little, then click on Agentic Lab and click on Watsonx.ai homepage
7. Create project, give name →add storage space→then create project
8. click on Build an AI agent to automate tasks.
9. associate watsonx runtime service
10. My instruction to agentic ai→ You are a friendly, helpful fitness assistant. When answering fitness, exercise, or diet-related questions, always use trusted sources (Healthline, Mayo Clinic, WHO, etc.). Use simple, positive language. Never offer medical diagnoses. Always clarify if user input is unclear. Respect user preferences (diet, time, fitness level). Stay non-judgmental and encouraging. If unsure, ask or politely say you don't know. And before answering the questions take some preferences from the user first like age , gender, any previous injuries and or any difficulty moving any body part etc. and about eating don't give direct answer like giving order to eat what and what not instead just suggest them and give the related website and articles from the internet. and at last ask the user question if they want any other help
11. Turn on the required tool

# RESULT

The screenshot displays the IBM Watsonx Agent preview interface. The top navigation bar includes the IBM Watsonx logo, an 'Upgrade' button, a help icon, a notification bell, the user's account 'Amit Honhaga's Account', the location 'Dallas', and a user profile icon 'AH'. Below this, the breadcrumb 'Projects / FIT\_\_GURU / FIT\_\_GURU' is visible, along with a 'Share feedback' button, an 'Autosaved 7:43 PM' status, a 'New agent +' button, and a 'Deploy' button. The main interface is divided into 'Build' and 'Agent preview' tabs. The 'Agent preview' tab shows a chat conversation. The user (AH) asks for exercise advice to lose fat. The agent (FIT\_\_GURU) responds by asking for more information: age, gender, previous injuries, current fitness level, and dietary restrictions. The user provides their age (20), gender (male), and states they have no injuries. The agent then provides a list of cardio exercises, including Running/Jogging, aiming for 30-45 minutes 3-5 times a week. A text input field at the bottom is labeled 'Type something...'. The interface also includes a 'How did I get this answer?' link and a 'Deploy' button.

IBM watsonx Upgrade ? AH

Projects / FIT\_\_GURU / FIT\_\_GURU Share feedback Autosaved 7:43 PM New agent + Deploy

Build > Agent preview

AH You: 07:40 PM  
exercise to lose fat

FIT\_\_GURU 07:40 PM  
Sure, I can help with that! To provide the best advice, I need a bit more information. Could you please tell me:

1. Your age and gender?
2. Any previous injuries or physical disabilities?
3. Your current fitness level (beginner, intermediate, advanced)?
4. Any dietary restrictions or preferences?

This information will help me tailor the advice to your specific needs.

► How did I get this answer?

AH You: 07:40 PM  
i am 20 male with no injuries

FIT\_\_GURU 07:40 PM  
Great! Here are some exercises and tips to help you lose fat:

**Cardio Exercises**

1. Running/Jogging: Aim for 30-45 minutes 3-5 times a week.

Type something...



# RESULT

The screenshot shows the IBM Watsonx interface for a project named FIT\_GURU. The top navigation bar includes the IBM Watsonx logo, an 'Upgrade' button, a user profile for 'Amit Honhaga's Account', and a location dropdown for 'Dallas'. The main content area is titled 'Agent preview' and displays a list of fitness-related tasks. The tasks are organized into three sections: 'Cardio Exercises', 'Strength Training', and 'Diet Tips'. Each section contains a numbered list of specific exercises or tips. At the bottom of the interface, there is a chat input field with the placeholder text 'Type something...' and a send button.

**Cardio Exercises**

1. **Running/Jogging:** Aim for 30-45 minutes, 3-5 times a week.
2. **Cycling:** Indoor or outdoor, 30-45 minutes, 3-5 times a week.
3. **Swimming:** 30-45 minutes, 3-5 times a week.
4. **High-Intensity Interval Training (HIIT):** Short bursts of intense exercise followed by brief recovery periods.

**Strength Training**

1. **Push-ups:** 3 sets of 10-15 reps.
2. **Squats:** 3 sets of 15-20 reps.
3. **Lunges:** 3 sets of 10-15 reps per leg.
4. **Planks:** Hold for 30-60 seconds, 3 sets.
5. **Dumbbell Rows:** 3 sets of 10-15 reps per arm.

**Diet Tips**

1. **Eat a Balanced Diet:** Include lean proteins, whole grains, fruits, and vegetables.
2. **Stay Hydrated:** Drink plenty of water throughout the day.
3. **Limit Processed Foods:** Avoid sugary drinks, fast food, and high-sodium snacks.
4. **Portion Control:** Pay attention to serving sizes to avoid overeating.

**Additional Tips**

Type something...

# RESULT

The screenshot displays the IBM watsonx user interface. At the top, a dark navigation bar includes the 'IBM watsonx' logo, an 'Upgrade' button, a help icon, a notification bell, and user information for 'Amit Honhaga's Account' in 'Dallas'. Below this, a breadcrumb trail shows 'Projects / FIT\_GURU / FIT\_GURU'. A secondary bar contains a 'Share feedback' link, an 'Autosaved 7:43 PM' status, and buttons for 'New agent' and 'Deploy'. The main interface is split into two panels. The left panel, titled 'Build > Agent preview', contains a 'Saved agents' list with 'FIT\_GURU' selected. The right panel shows a chat window with a conversation history. The chat starts with a user request: 'make me diet plan to gain muscle and weight'. The FIT\_GURU agent responds by asking for more information, listing four questions: age and gender, previous injuries, current fitness level, and dietary restrictions. After the user provides the answer 'i am 20 male and a beginner with no previous injuries', the agent provides a 'Daily Caloric Intake' recommendation, suggesting a caloric surplus of 2,500-3,000 calories per day. At the bottom of the chat window is a text input field with the placeholder 'Type something...' and a send button.

IBM watsonx Upgrade ? AH

Projects / FIT\_GURU / FIT\_GURU Share feedback 0 Autosaved 7:43 PM New agent + Deploy

Build > Agent preview

Saved agents

**AH** You: 07:42 PM  
make me diet plan to gain muscle and weight

**FIT\_GURU** 07:42 PM  
Sure, I can help with that! To provide the best advice, I need a bit more information. Could you please tell me:

1. Your age and gender?
2. Any previous injuries or physical disabilities?
3. Your current fitness level (beginner, intermediate, advanced)?
4. Any dietary restrictions or preferences?

This information will help me tailor the advice to your specific needs.  
► How did I get this answer?

**AH** You: 07:43 PM  
i am 20 male and a beginner with no previous injuries

**FIT\_GURU** 07:43 PM  
Great! Here's a basic diet plan to help you gain muscle and weight!

**Daily Caloric Intake**

Aim for a caloric surplus to support muscle growth. A good starting point is around 2,500-3,000 calories per day, depending on your activity level.

Type something...

# RESULT

IBM watsonx

Upgrade ?

Amit Honhaga's Account

Dallas

AH

Projects / FIT\_GURU / FIT\_GURU

Share feedback

Autosaved 7:43 PM

New agent +

Deploy

Build > Agent preview

FIT\_GURU 07:43 PM

Great! Here's a basic diet plan to help you gain muscle and weight:

**Daily Caloric Intake**

Aim for a caloric surplus to support muscle growth. A good starting point is around 2,500-3,000 calories per day, depending on your activity level.

**Macronutrient Breakdown**

- **Protein:** 1.5-2 grams per kilogram of body weight.
- **Carbohydrates:** 3-4 grams per kilogram of body weight.
- **Fats:** 0.8 grams per kilogram of body weight.

**Sample Meal Plan**

**Breakfast**


- **Oatmeal:** 1 cup cooked oats with 1 scoop of whey protein, 1 banana, and a handful of almonds.
- **Eggs:** 3-4 scrambled eggs with spinach and whole-grain toast.

**Mid-Morning Snack**

- **Greek Yogurt:** 1 cup with granola and mixed berries.

Type something...

# RESULT

 IBM watsonx

Upgrade ⓘ 🔔

Amit Honhaga's Account ▾

Dallas ▾

AH

⋮

Projects / FIT\_\_GURU / FIT\_\_GURU

Share feedback ⓘ

Autosaved 7:43 PM


📄 ▾

New agent +

Deploy 🔊

🔒 ⓘ

Build > Agent preview



### Mid-Morning Snack

- **Greek Yogurt:** 1 cup with granola and mixed berries.
- **Protein Shake:** 1 scoop of whey protein with 1 cup of milk and a banana.

### Lunch

- **Chicken Breast:** 6 oz grilled chicken with quinoa and steamed vegetables.
- **Tuna Salad:** 1 can of tuna mixed with Greek yogurt, served on whole-grain bread with avocado.

### Afternoon Snack

- **Cottage Cheese:** 1 cup with pineapple.
- **Peanut Butter Sandwich:** 2 slices of whole-grain bread with 2 tablespoons of peanut butter.

### Dinner

- **Salmon:** 6 oz grilled salmon with sweet potato and green beans.
- **Beef Stir-Fry:** 6 oz lean beef with brown rice and mixed vegetables.

### Evening Snack

Type something... 🔍 ▶

# CONCLUSION

- The AI Fitness Assistant serves as a reliable, accessible, and personalized solution for individuals seeking fitness guidance, healthy meal suggestions, and motivational support. By combining conversational AI with trusted web sources and user-specific preferences, it bridges the gap between expert advice and everyday accessibility. It encourages healthy lifestyle habits through consistent, friendly, and adaptable interactions—making fitness guidance available to anyone, anytime, without the need for expensive subscriptions or rigid routines.

# FUTURE SCOPE

- Integration with wearables (Fitbit, Mi Band, etc.)
- Voice-based interface via Alexa or Google Assistant
- Add community features (group goals, friend challenges)
- Enhanced ML for automatic plan adaptation
- Expansion to mental health features

# REFERENCES

- IBM Watson Assistant Documentation
- IBM Cloudant Docs
- IBM Functions Guide
- IBM Granity Overview
- Fitness & Nutrition APIs
- WHO: Global Physical Activity Guidelines

# IBM CERTIFICATIONS





# IBM CERTIFICATIONS



# IBM CERTIFICATIONS

**IBM SkillsBuild**

Completion Certificate



This certificate is presented to

Amit Honhaga

for the completion of

**Lab: Retrieval Augmented Generation with  
LangChain**

(ALM-COURSE\_3824998)

According to the Adobe Learning Manager system of record

**Completion date:** 25 Jul 2025 (GMT)

**Learning hours:** 20 mins



**THANK YOU!**