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# CAPSTONE PROJECT

## FITNESS AGENT

**Presented By:**

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# OUTLINE

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

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# PROBLEM STATEMENT

In today's fast-paced lifestyle, people struggle to maintain a healthy routine due to lack of time, motivation, and personalized guidance. Most fitness apps offer generalized plans that fail to address individual needs. The challenge is to develop a Fitness Agent that provides intelligent, personalized health and fitness recommendations based on user data, preferences, and goals.

## Proposed Solution:

An AI Research Agent that uses Natural Language Processing (NLP), to assist users in conducting efficient literature reviews, generating summaries, identifying research gaps, and recommending relevant papers, datasets, or collaborators.

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# 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

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## WOW FACTORS

- AI-powered personalized fitness suggestions
- Interactive chatbot that acts as a virtual fitness trainer
- Real-time feedback on workouts and diet
- Progress tracking with dynamic goal adjustments
- Voice-enabled support using IBM Watson Assistant
- Gamification elements to boost user engagement

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## END USERS

- Fitness enthusiasts looking for personalized plans
- Beginners in health and wellness needing guidance
- People with medical conditions needing tailored routines
- Busy professionals aiming for quick and efficient workouts
- Students or remote workers who prefer virtual coaching

# RESULTS

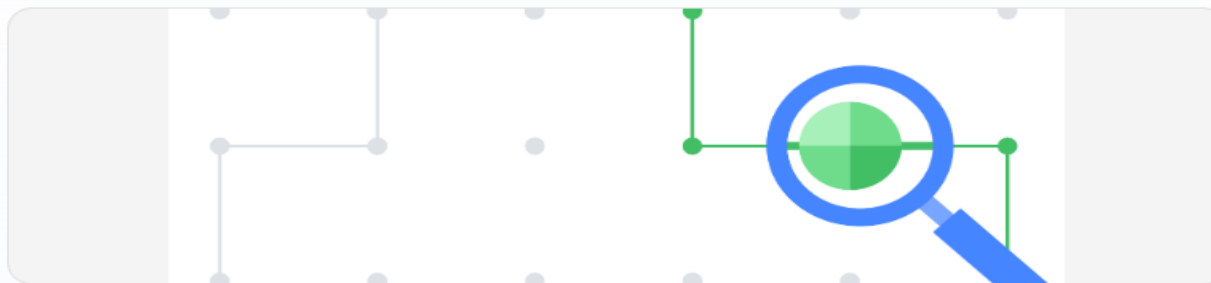
## Agent preview



watsonx Agent 11:18 PM

Welcome to watsonx Agent

Health and Fitness-buddy to provide fitness advice , healthy lifestyle suggestions



Type something...





# RESULTS

## Agent preview



You: 11:23 PM

provide motivational tips and daily fitness inspiration



watsonx Agent 11:23 PM

Absolutely, I'm here to help you stay motivated and inspired on your fitness journey! Here are some tips and inspiration for today:

1. **Set Clear Goals:** Having specific, measurable, achievable, relevant, and time-bound (SMART) goals can keep you focused and motivated. Whether it's running a 5k, lifting a certain weight, or improving your flexibility, knowing what you're working towards can be a great motivator.
2. **Mix Up Your Routine:** Variety is the spice of life, and it's true for fitness too! Try different workouts, sports, or fitness classes to keep things interesting and challenge different muscle groups.
3. **Track Your Progress:** Keep a fitness journal or use a fitness app to track your workouts and progress. Seeing how far you've come can be a powerful motivator.
4. **Celebrate Small Wins:** Don't wait until you've reached a major goal to celebrate. Acknowledge and reward yourself for every small step forward.
5. **Stay Positive:** Maintain a positive mindset. Remember, it's a journey, not a race. There will be good days and bad days, but what matters is that you keep going.

For daily fitness inspiration, you might want to follow fitness influencers or accounts on social media platforms like Instagram or YouTube. They often share motivational quotes, workout tips, and success stories that can keep you going.

Also, did you know that regular physical activity can boost your mood and reduce feelings of anxiety and depression? It's not just about physical health, but mental health too!

Remember, every step you take towards your fitness goals is a step in the right direction. Keep going, you're doing great!

► How did I get this answer?



Type something...



# RESULTS

## Agent preview



You: 11:25 PM

suggest simple,nutritious meal ideas



watsonx Agent 11:25 PM

Absolutely, I'd be happy to suggest some simple, nutritious meal ideas for you! Here are a few suggestions:

1. **Quinoa Salad:** Quinoa is a complete protein and a great source of fiber. Mix cooked quinoa with cherry tomatoes, cucumber, red onion, and feta cheese. Dress it with olive oil, lemon juice, salt, and pepper.
2. **Grilled Chicken with Roasted Vegetables:** Grilled chicken is a lean protein source, and roasted vegetables like bell peppers, zucchini, and eggplant are packed with vitamins and fiber.
3. **Avocado Toast:** Whole grain bread topped with mashed avocado, a sprinkle of salt, pepper, and chili flakes. You can add a boiled egg for extra protein.
4. **Stir-Fry:** A quick and easy meal. Use a variety of colorful veggies like bell peppers, broccoli, and carrots. Add some tofu or lean meat for protein. Use low-sodium soy sauce or make your own stir-fry sauce with garlic, ginger, and a bit of honey.
5. **Smoothie Bowl:** Blend frozen fruits (like bananas, berries, or mangoes) with a bit of Greek yogurt for protein. Top it with nuts, seeds, or granola for added crunch and healthy fats.
6. **Lentil Soup:** Lentils are a great source of plant-based protein and fiber. Make a big batch at the start of the week for easy, nutritious meals.

Remember, a balanced diet includes a variety of foods from all food groups: fruits, vegetables, whole grains, lean proteins, and healthy fats. Stay hydrated and try to limit processed foods and added sugars.

For more specific dietary advice, it would be beneficial to know more about your dietary preferences, restrictions, or goals. Would you like to explore meal ideas based on a specific diet (like vegetarian, vegan, gluten-free, etc.)?

► How did I get this answer?



Type something...



# RESULTS

## Agent preview



You: 11:28 PM

encourage habit-building and consistency



watsonx Agent 11:28 PM

Absolutely, habit building and consistency are key to achieving long-term success in fitness and healthy living. Here are some tips to help you establish and maintain these habits:

1. **Start Small:** Don't try to overhaul your entire lifestyle at once. Start with small, manageable changes. For example, aim for a 10-minute walk each day, then gradually increase the duration as your fitness improves.
2. **Create a Routine:** Consistency is easier when habits are part of a routine. Try to schedule your workouts or healthy meals at the same time each day. Over time, these activities will become automatic.
3. **Set Realistic Goals:** Setting unrealistic goals can lead to disappointment and abandonment of your plans. Make sure your goals are specific, measurable, achievable, relevant, and time-bound (SMART).
4. **Track Your Progress:** Keep a journal or use a fitness app to track your workouts and healthy meals. Seeing your progress can be a great motivator.
5. **Reward Yourself:** Celebrate your achievements, no matter how small. This could be a new workout outfit, a massage after a big fitness milestone, or just taking some time to relax and enjoy a favorite activity.
6. **Stay Positive:** There will be days when you don't feel like working out or eating healthy. That's okay! Just get back on track the next day. Remember, consistency is about showing up, not about perfection.
7. **Find a Workout Buddy:** Exercising with a friend can make workouts more enjoyable and help keep you accountable.
8. **Prepare Ahead:** Plan your meals and workouts in advance. This can help remove barriers and make it easier to stick to your healthy habits.

Remember, building habits takes time. Don't be discouraged if you slip up occasionally. Just get back on track and keep going. You're doing great!

► How did I get this answer?

Type something...



# RESULTS

## Deployed AI Agent

IBM watsonx

Upgrade ? 🔔

chandana Manohar's Acco... Dallas CM

[Deployment spaces](#) / [deployment](#) / [watsonx Agent](#) /

watsonx Agent 🟢 Deployed Online

[API reference](#) [Test](#) [Preview](#)

New chat +

C You 11:47 PM

give some fitness tips with healthy lifestyle

😊 watsonx Agent 11:47 PM

Absolutely, I'd be happy to help you with that! Here are some on-demand fitness tips and healthy lifestyle suggestions:

- Regular Exercise:** Aim for at least 30 minutes of moderate-intensity exercise most days of the week. This could be anything from brisk walking, cycling, swimming, or even dancing.
- Strength Training:** Incorporate strength training exercises at least twice a week. This could be bodyweight exercises like push-ups, squats, or using weights. Strength training helps build muscle, which in turn boosts your metabolism.
- Stay Hydrated:** Drink plenty of water throughout the day. It's crucial for overall health and helps in maintaining energy levels during workouts.
- Balanced Diet:** Focus on a balanced diet rich in fruits, vegetables, lean proteins, and whole grains. Try to limit processed foods, high sugar content, and unhealthy fats.
- Adequate Sleep:** Ensure you're getting 7-9 hours of quality sleep each night. Sleep is essential for muscle recovery and overall health.
- Mindful Eating:** Pay attention to what you're eating, and try to eat slowly. This can help you feel satisfied with less food, preventing overeating.
- Regular Check-ups:** Regular health check-ups are important to keep track of your health status and make necessary lifestyle adjustments.

6. Mental Health: Don't forget about mental health. Incorporate stress-management techniques like yoga, meditation, or deep breathing exercises.

Type something... ➤

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## CONCLUSION

- The agent can generate reports, suggest hypotheses, and even draft sections of research papers.
- It saves time by automating repetitive tasks like citation management and data extraction.
- The Fitness Agent bridges the gap between fitness goals and real-world constraints by offering a smart, AI-based solution that tailors routines to individual needs. Its user-friendly design, interactive chatbot, and personalized recommendations make it a powerful tool for promoting healthy lifestyles.

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# FUTURE SCOPE

- Integration with smartwatches and fitness wearables
- Advanced analytics using deep learning for injury prevention
- Multi-language support for global accessibility
- AI-powered mental wellness coaching integration
- Social and community features for group workouts or challenges
- Real-time video form correction using computer vision

# IBM CERTIFICATIONS

In recognition of the commitment to achieve  
professional excellence



## Chandana Manohar

Has successfully satisfied the requirements for:

### Getting Started with Artificial Intelligence



Issued on: Jul 15, 2025  
Issued by: IBM SkillsBuild

Verify: <https://www.credly.com/badges/f0ea2aae-9377-44b6-b346-ca7dcfeca2b1>



**IBM SkillsBuild**

Completion Certificate



This certificate is presented to

**Chandana M**

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



## GITHUB LINK

- Git hub link : <https://github.com/chandana-manohar/Fitness-agent>



**THANK YOU**