# CAPSTONE PROJECT

# FITNESS BUDDY

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### **OUTLINE**

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

### 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.

### TECHNOLOGY USED

IBM cloud lite services

Natural Language Processing (NLP)

Retrieval Augmented Generation (RAG)

**IBM** Granite model

### IBM CLOUD SERVICES USED

- IBM Cloud Watsonx Al Studio
- IBM Cloud Watsonx AI runtime
- IBM Cloud Agent Lab
- IBM Granite foundation model

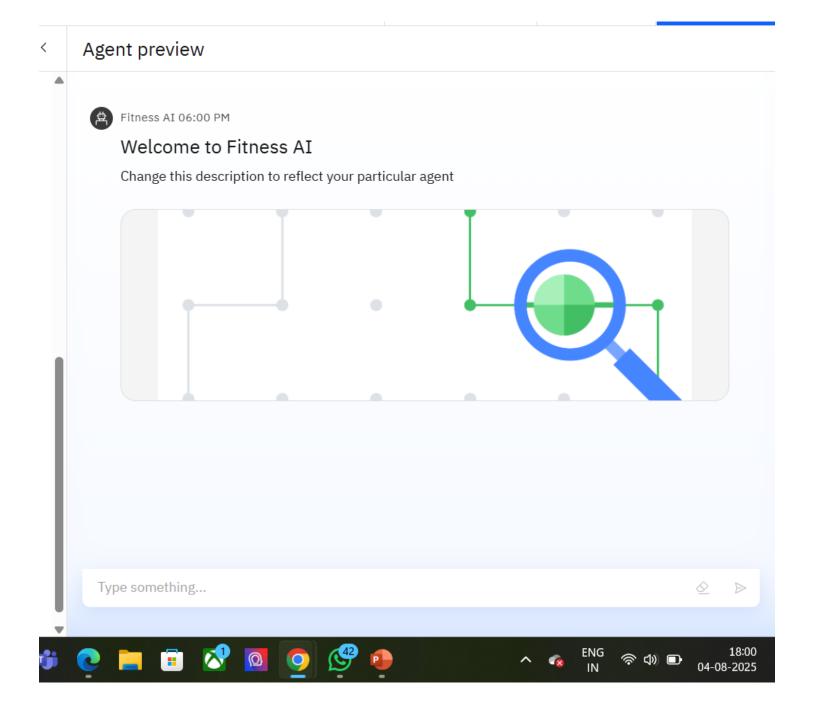
# **Wow factors**

- This agent will significantly enhance personal fitness journeys, streamline workout planning, and empower users with real-time, data-driven health insights. It supports beginners and experienced individuals alike by delivering tailored fitness guidance, promoting consistency, and improving overall health outcomes.
- **Personalized workout recommendations** based on fitness goals, body type, and progress

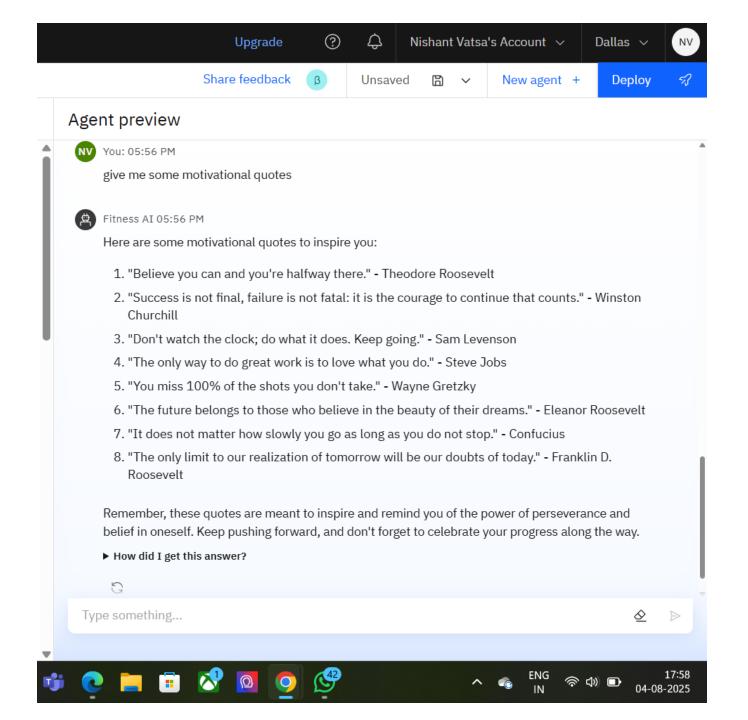
### End users

- Academic Researchers
- Research Institutions and Universities
- Industry R&D Teams
- Educators

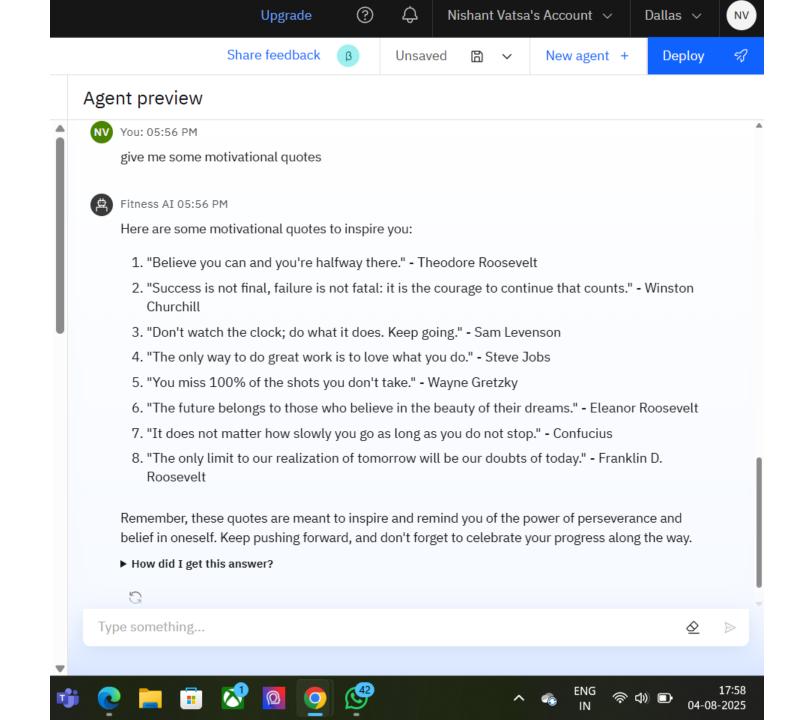
# **RESULTS**



### **RESULTS**



### RESULTS



# CONCLUSION

- The agent can generate reports, suggest hypotheses, and even draft sections for body builders.
- It saves time by automating repetitive tasks like citation management and data extraction.
- It can be used by sick patients to get a daily routine and best food possible.

### **FUTURE SCOPE**

#### Hyper-Personalized Training Plans

Al will analyze real-time physiological data (like heart rate, sleep patterns, and metabolism) to design dynamical

#### Virtual Fitness Coaches with Real-Time Feedback

Using computer vision and wearable sensors, Al can offer real-time posture correction, form analysis, and motiv

#### Predictive Injury Prevention

Al models will be trained to detect early signs of strain or injury risk based on movement patterns, fatigue levels,

#### Integration with Mental Wellness & Lifestyle

Future AI fitness systems will not just focus on physical health but integrate stress levels, sleep quality, mood, ar

#### •Al-Powered Social & Competitive Fitness

Leveraging AI to match users with similar goals, suggest group workouts, create smart competitions, and promo

# IBM CERTIFICATIONS

IBM SkillsBuild

Completion Certificate



This certificate is presented to

Nishant Vatsa

for the completion of

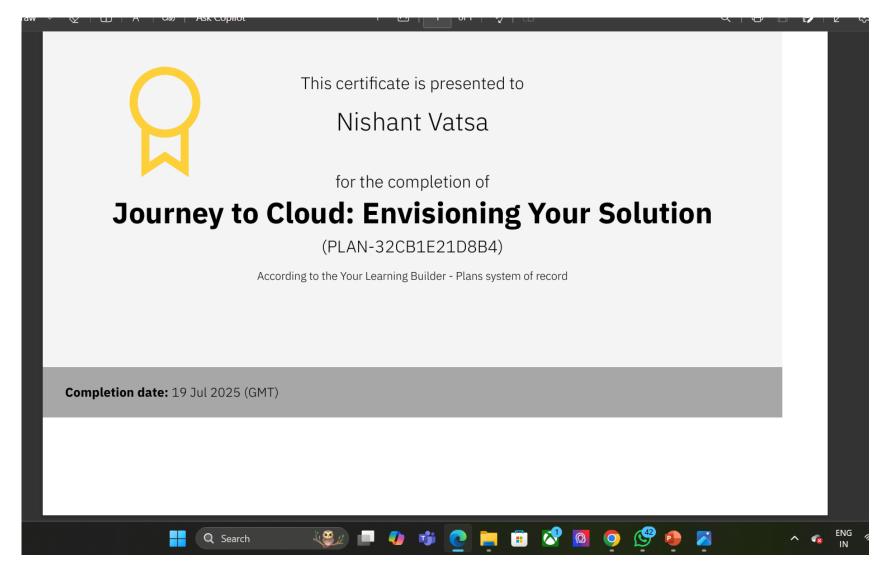
### **Getting Started with Artificial Intelligence**

(PLAN-E624C2604060)

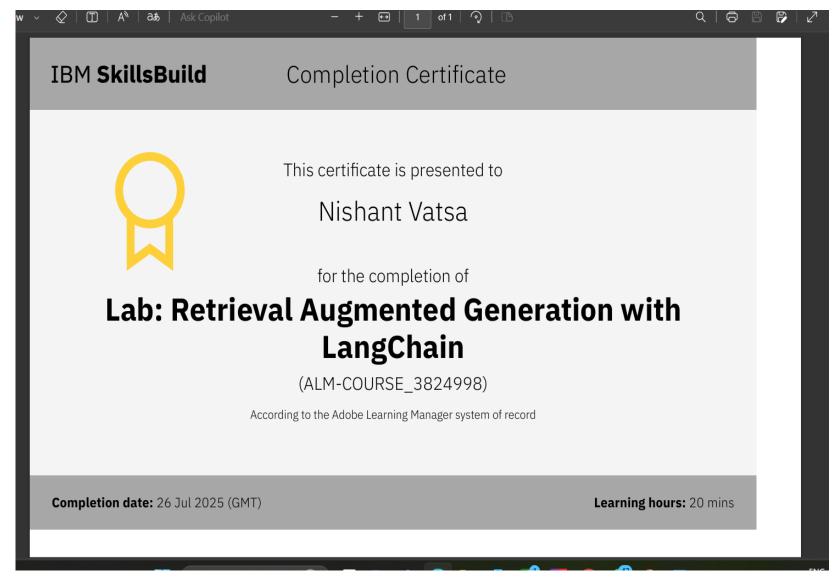
According to the Your Learning Builder - Plans system of record

Completion date: 19 Jul 2025 (GMT)

# IBM CERTIFICATION



### IBM CERTIFICATION



# **GITHUB LINK**

• aicte/README.md at main · Nish-7190/aicte

# THANKYOU