

# **Fitness Buddy- Your AI-powered health and fitness companion**

## **Steps to Create Fitness Buddy – Agent AI**

**Presented By:**

**1. Esha Singh- Vivekananda Institute of Professional Studies- Vivekananda School of Information Technology (VSIT)**

**Problem statement:** Fitness Buddy

The challenge - In today's fast-paced world, many individuals struggle to maintain a healthy lifestyle due to a 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.

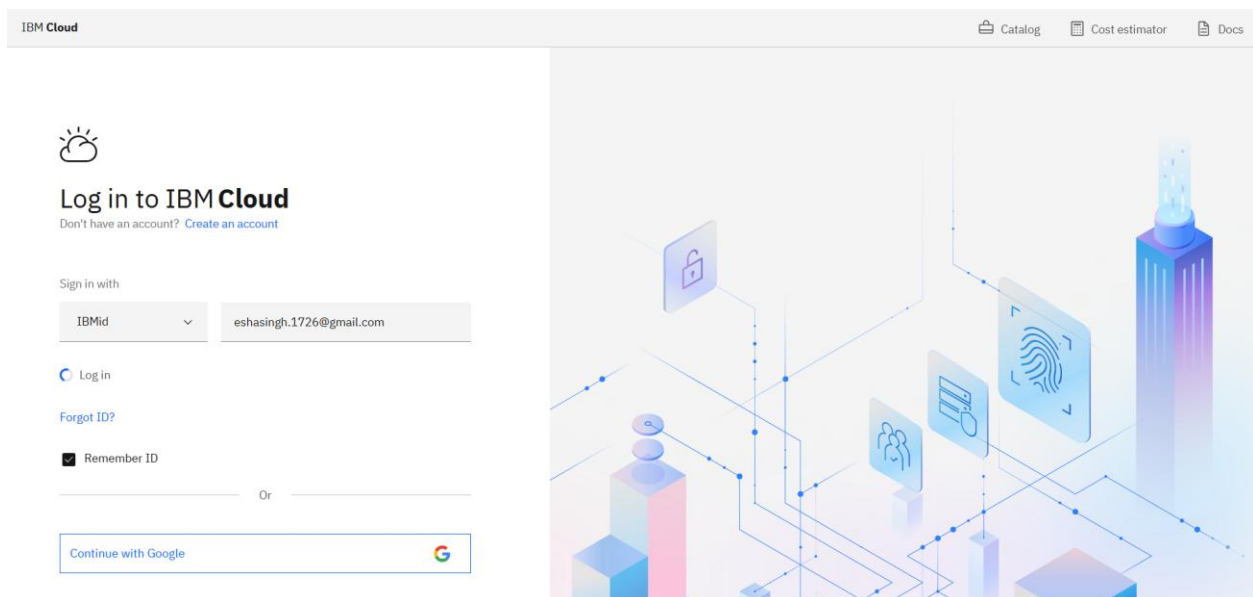
- Provide motivational tips and daily fitness inspiration.
- Suggest simple, nutritious meal ideas.
- Encourage habit-building and consistency.

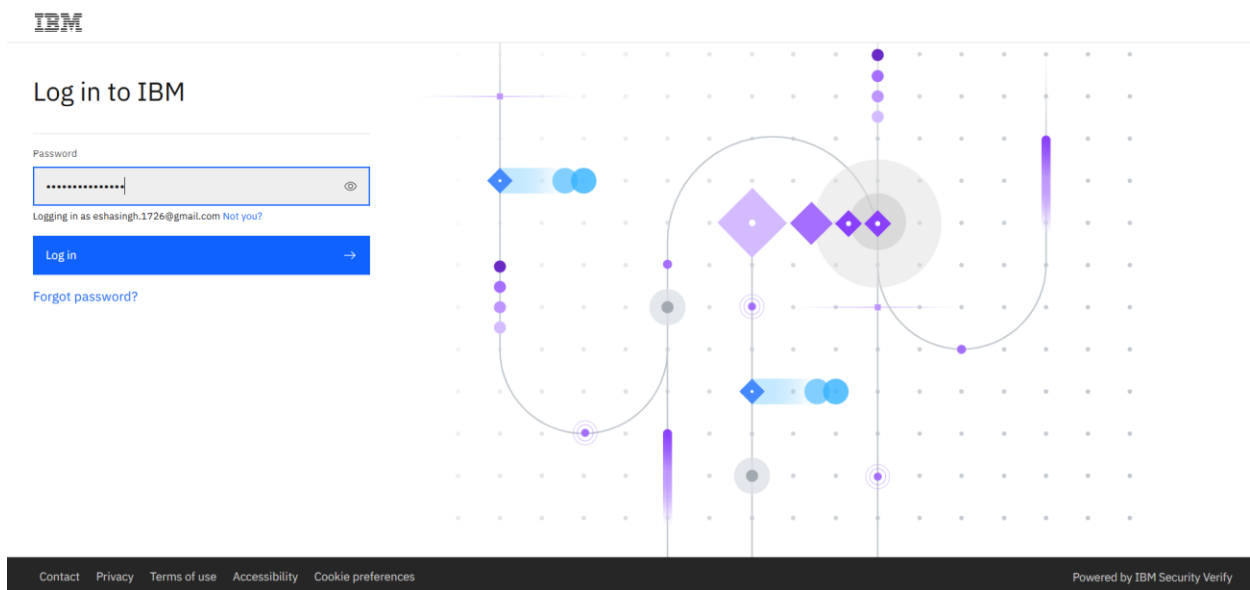
Technology: Use of IBM Cloud Lite services /IBM Granity is mandatory

## Proposed Solution

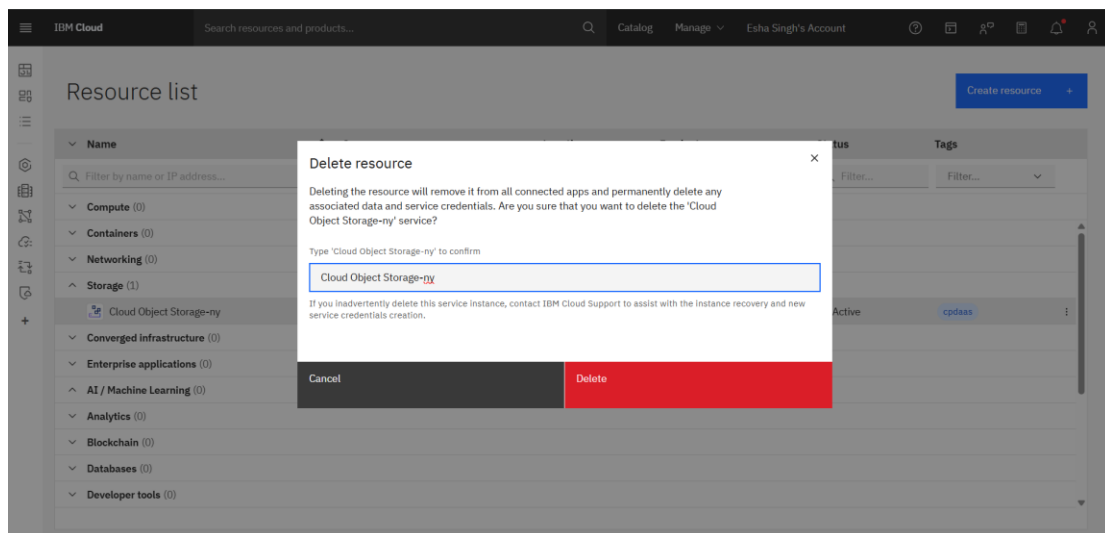
- **Title:** AI-Powered Fitness Buddy Using IBM Watsonx.ai
- **Solution Overview:**
  - A conversational AI agent built on IBM Watsonx.ai to provide personalized fitness guidance, nutrition plans, and motivational support.
  - Leverages Mistral-large foundation model and agentic AI for dynamic interactions.
- **Key Features:**
  - Dynamic Workouts: Recommends routines based on time, equipment, and goals (e.g., \*"20-min home workout with no equipment"\*).
  - Nutrition Guidance: Suggests meal plans with dietary restrictions (e.g., \*"gluten-free lunch under 500 calories"\*).
  - Motivational Support: Provides habit-building tips and quotes (e.g., \*"30-day challenge for consistency"\*).

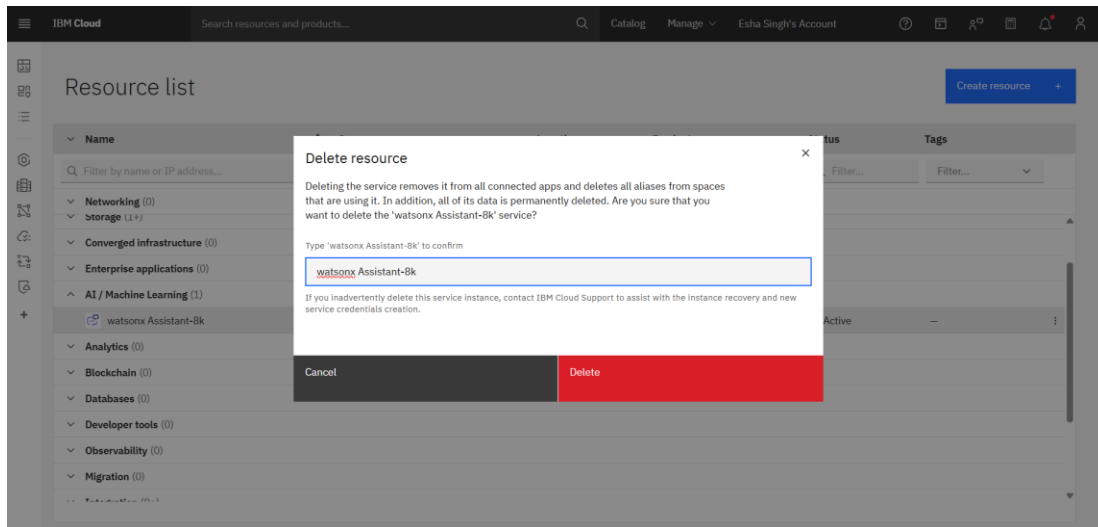
### 1. Log in to IBM Cloud.



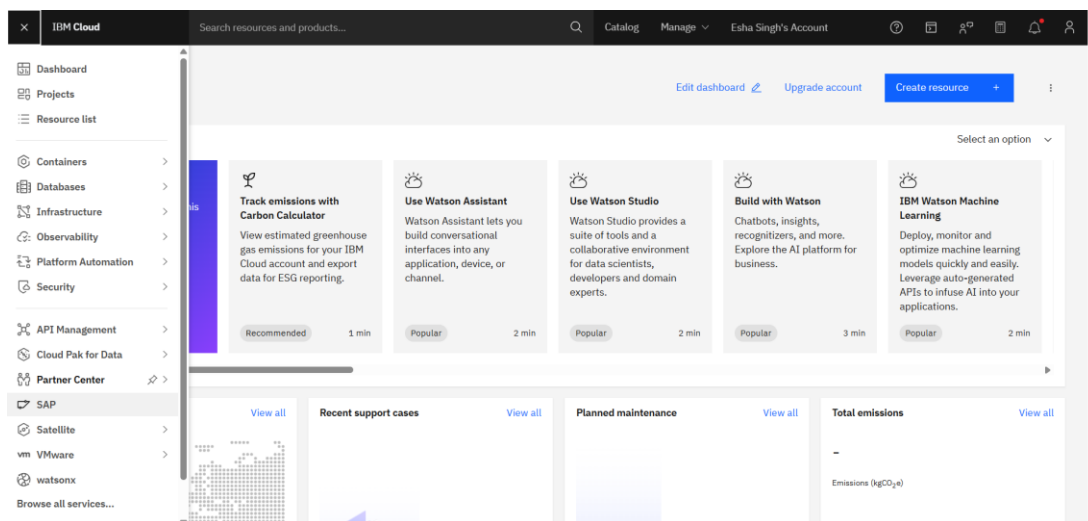


## 2. Delete all the resources.

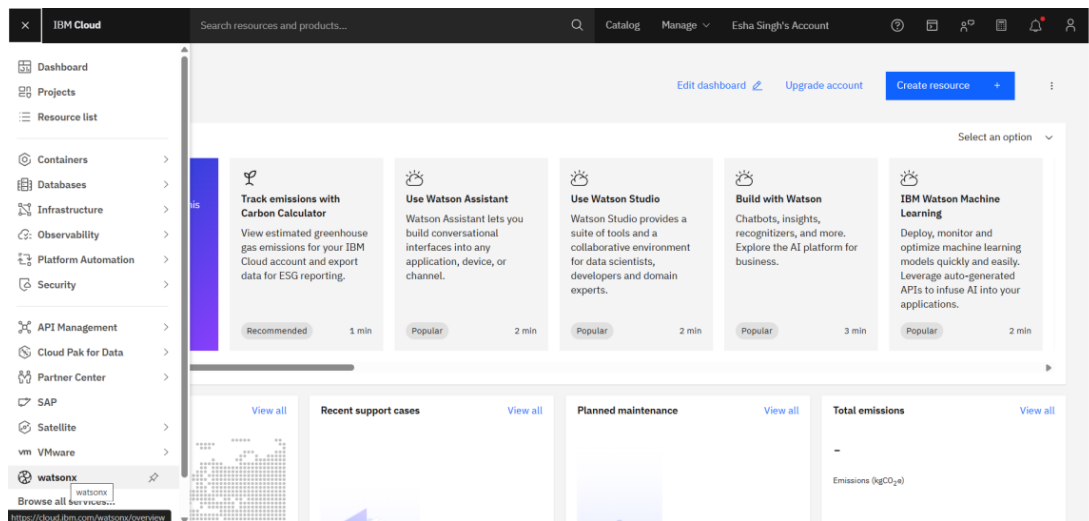




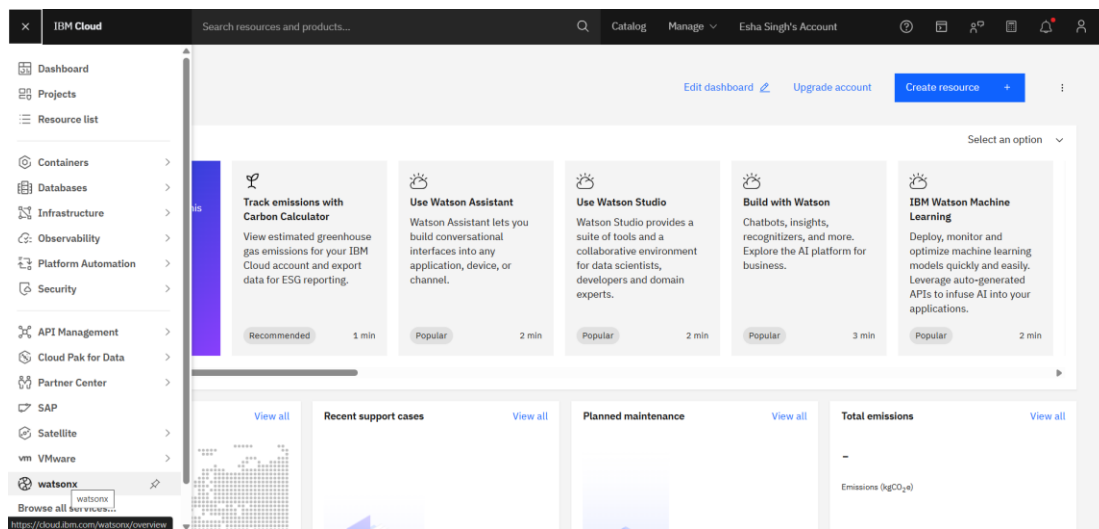
### 3. Go to the Navigation Menu



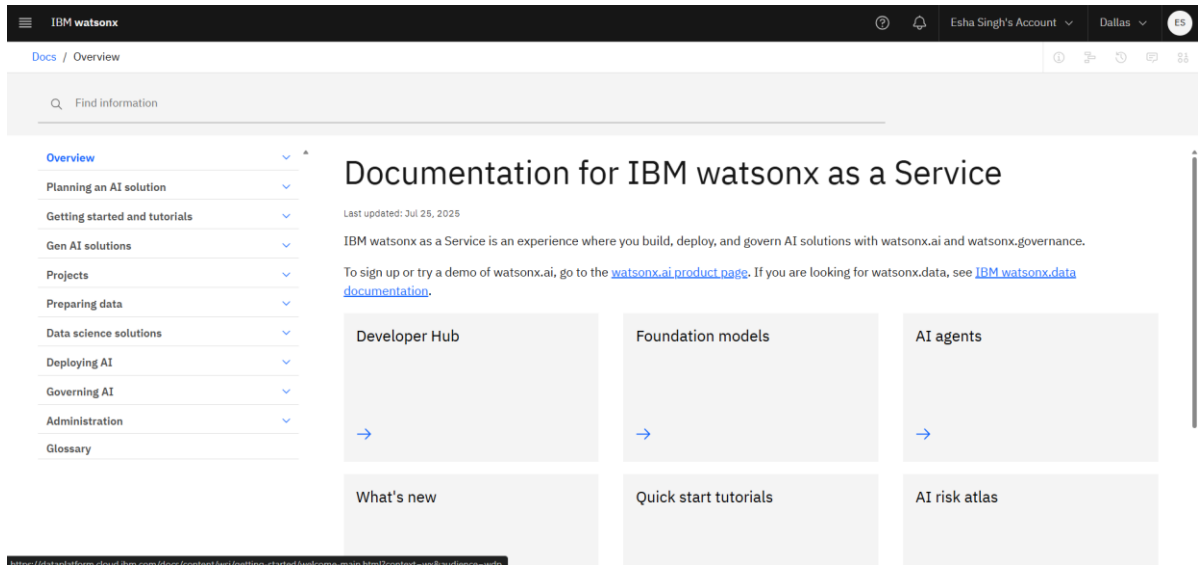
#### 4. Choose Watsonx.



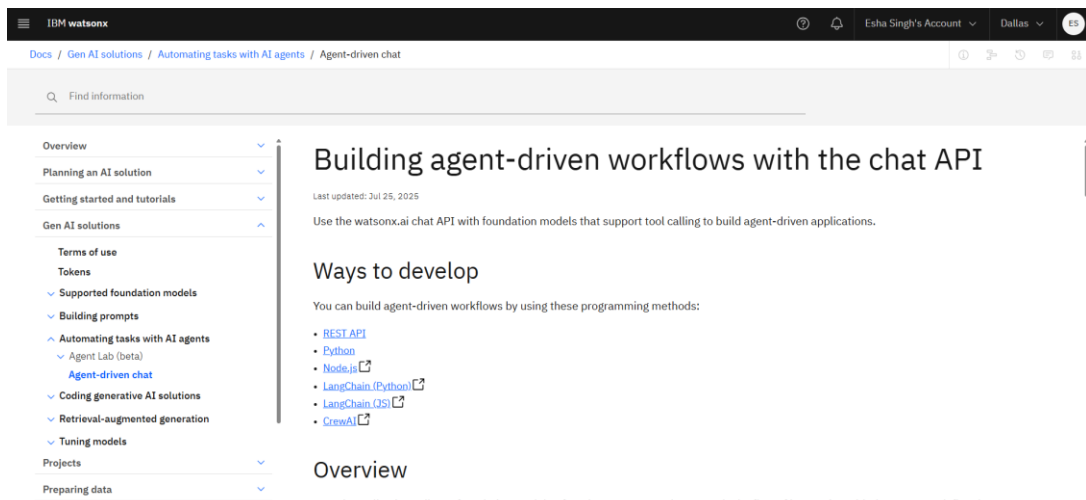
#### 5. Now, click on Watsonx.ai.



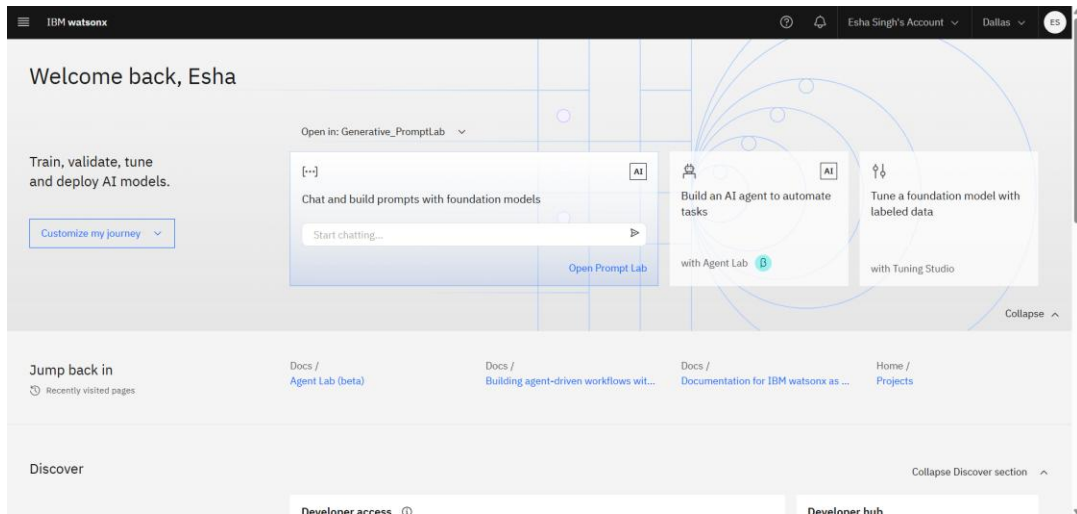
## 6. Choose AI agents.



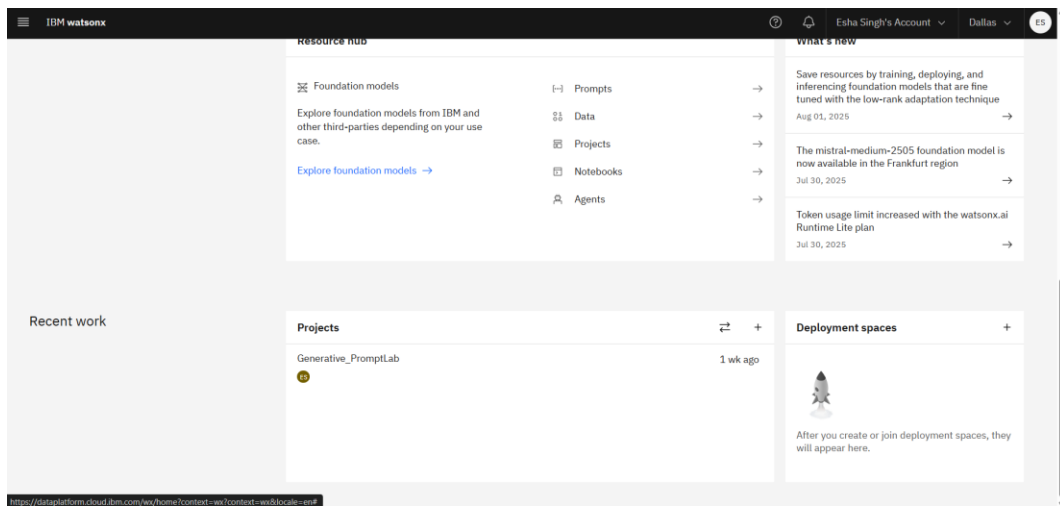
## 7. Scroll down a little, then click on Agentic Lab.







## 9. Click on Create project





10. Enter your project name and scroll down.

IBM watsonx

Create a project

Start with a new, blank project or select from where to import an existing project.

+ New

- Local file
- Sample

Define details

Name

Fitness Buddy

Description (optional)

What's the purpose of this project?

Tags (optional)

Add tags

Add tags to make projects easier to find. To add tags, separate them with commas and press Enter.

Define storage

1 Select storage service

Cancel Create

11. Click on Add.

IBM watsonx

Create a project

Start with a new, blank project or select from where to import an existing project.

+ New

- Local file
- Sample

Define details

Name

Fitness Buddy

Description (optional)

What's the purpose of this project?

Tags (optional)

Add tags

Add tags to make projects easier to find. To add tags, separate them with commas and press Enter.

Define storage

1 Select storage service

Cancel Create

## 12. Choose the free plan, click on Create.

The screenshot shows the IBM Watsonx Cloud Object Storage pricing page. The 'Create' tab is active. The 'Pricing plan' section displays a table with three plans: One-Rate, Lite(deprecated), and Standard. The 'Lite(deprecated)' plan is highlighted with a blue border and a 'Free' price tag. The 'Summary' sidebar on the right shows the plan details: Region: Global, Plan: Lite(deprecated), Service name: Cloud Object Storage-xt, and Resource group: Default. The 'Create' button is visible in the sidebar.

Plan	Features	Pricing
One-Rate	One-Rate Plan is a Pay-as-You-Go option with a single, flat monthly rate (\$/GB) that includes storage, API operations, retrieval, and outbound bandwidth—making it ideal for high-activity workloads with frequent access and data transfer, such as analytics, media, and web apps. The plan includes built-in allowances that scale with stored capacity and offers automatic volume discounts as usage grows	
Lite(deprecated)	Lite plan instance is free to use for Storage capacity up to 25 GB per month. Lite plan instance is used for trial, and can be easily upgraded to Standard plan for unlimited scalability and full functionality.  None  Lite plan services are deleted after 30 days of inactivity.	Free
Standard	Standard Plan is a flexible Pay-as-You-Go option with no minimum fee—ideal for workloads with large	

## 13. Click on Refresh, and click on Create.

The screenshot shows the 'Create a project' form in IBM Watsonx. The 'Define details' section is active. The 'Name' field contains 'Fitness Buddy'. The 'Description (optional)' field is empty. The 'Tags (optional)' field is empty. The 'Storage' dropdown is set to 'Cloud Object Storage-xt'. The 'Create' button is visible at the bottom right.

Create a project

Start with a new, blank project or select from where to import an existing project.

+ New

- Local file
- Sample

Define details

Name

Fitness Buddy

Description (optional)

What's the purpose of this project?

Tags (optional)

Add tags

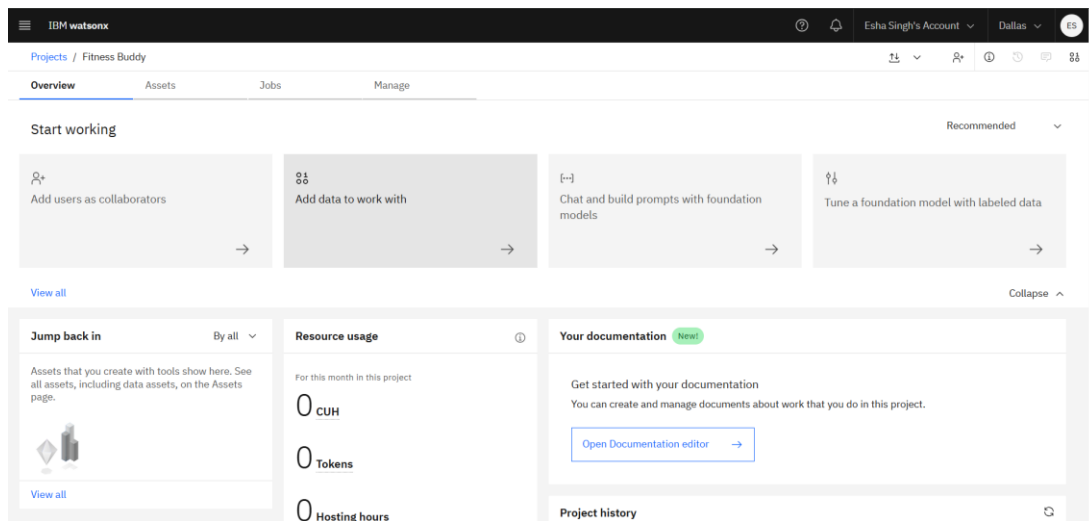
Add tags to make projects easier to find. To add tags, separate them with commas and press Enter.

Storage

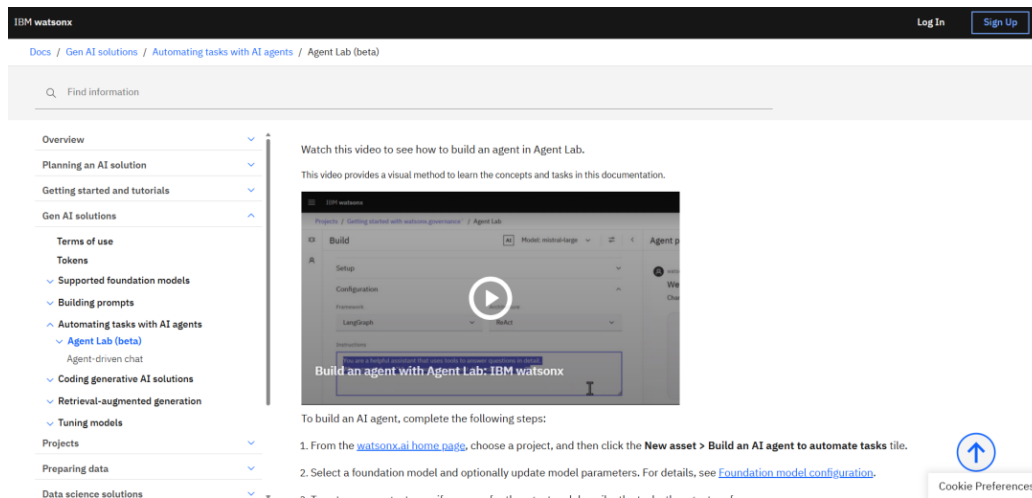
Cloud Object Storage-xt

Cancel Create

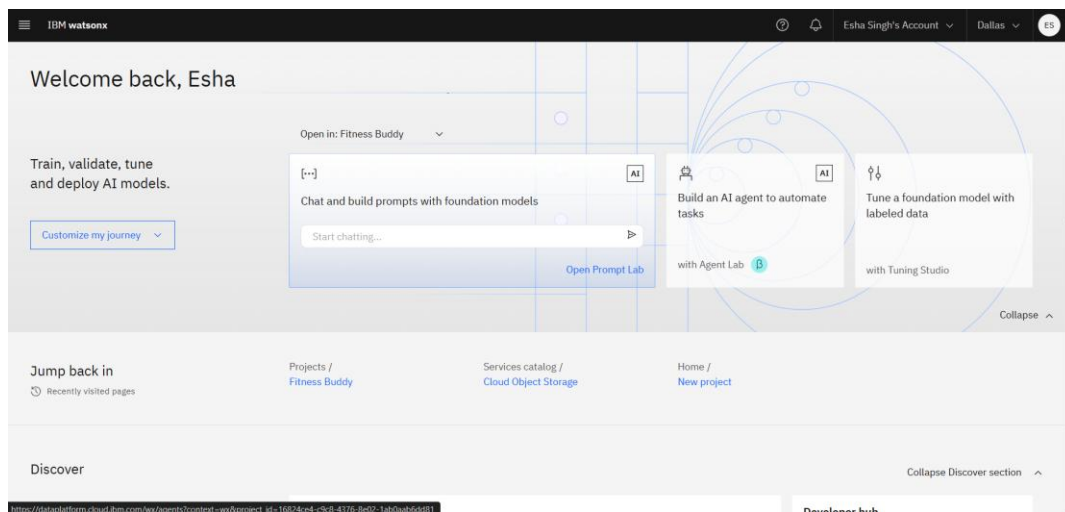
14. This page opened.



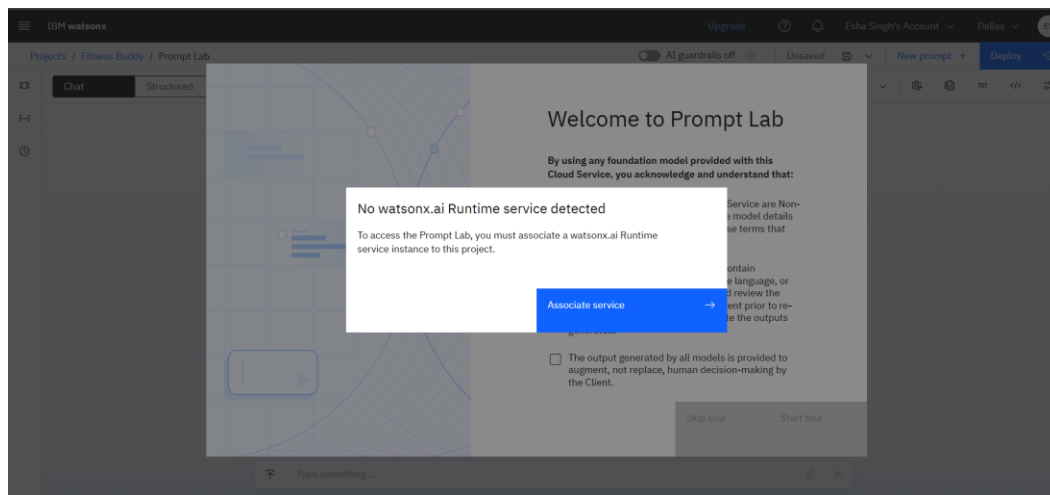
15. Go to the previous tab in browser and click on watson.ai home page.

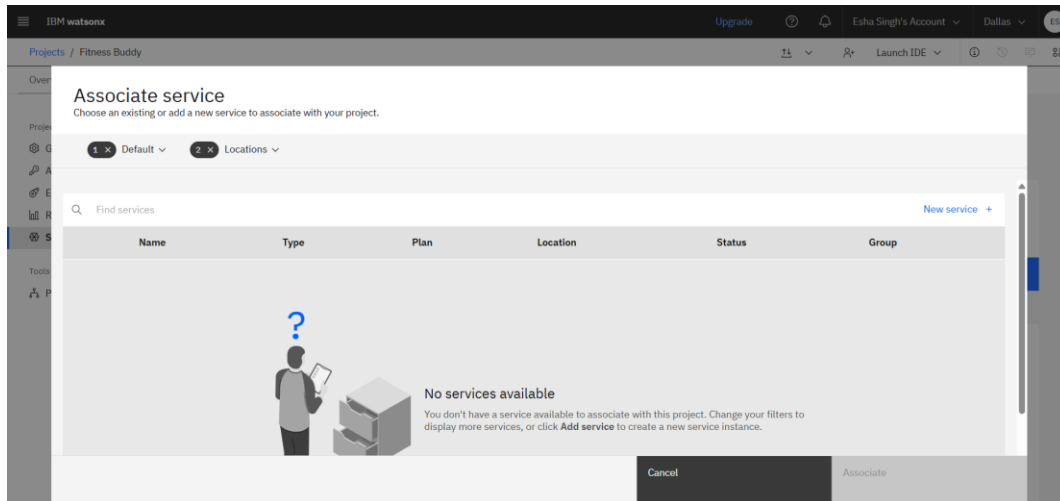


16. Now you can click on Build an AI agent to automate tasks.

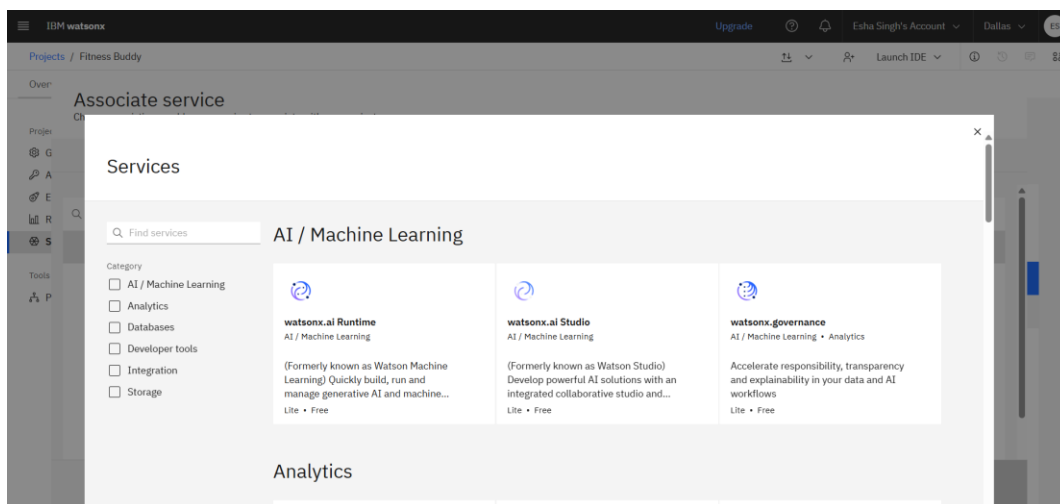


17. Click on Associate service, then click on create new service.

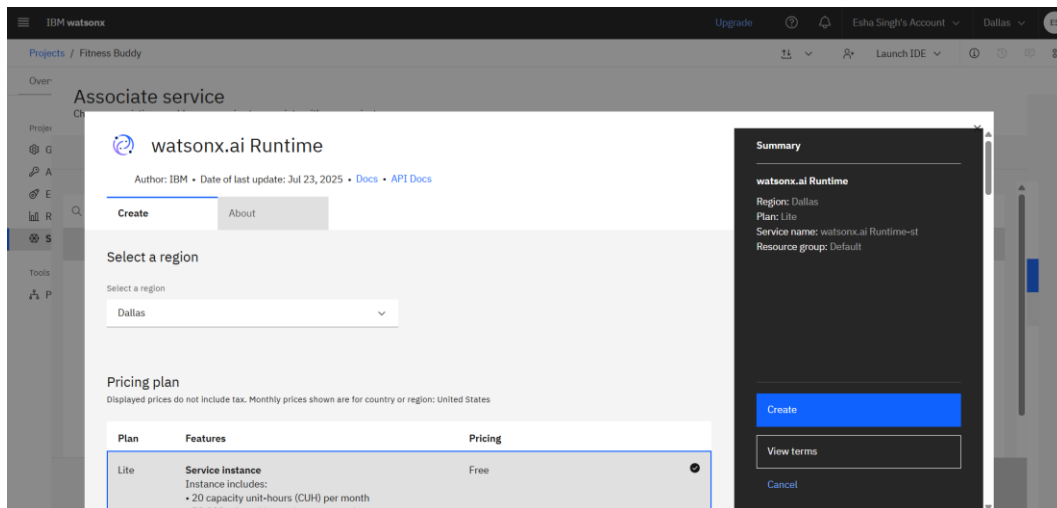




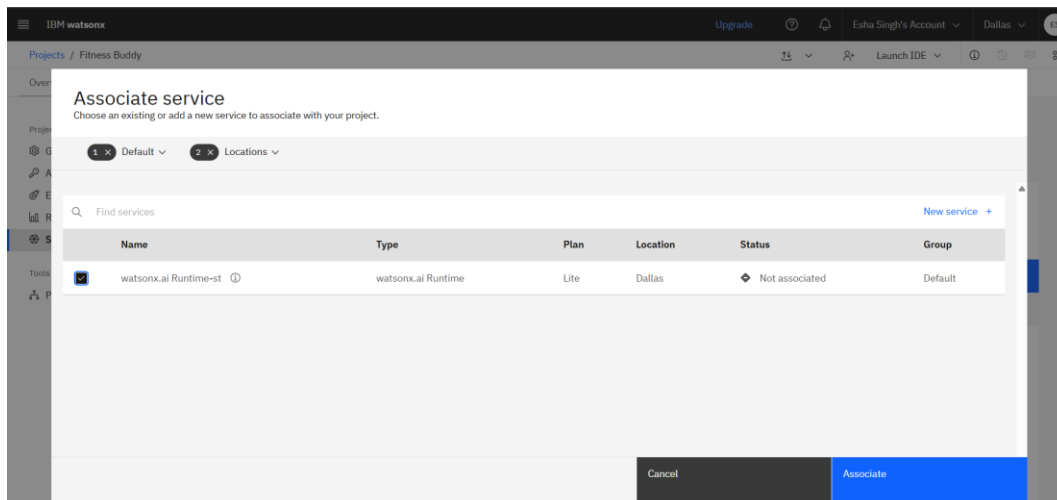
18. Click on Watsonx.ai Runtime



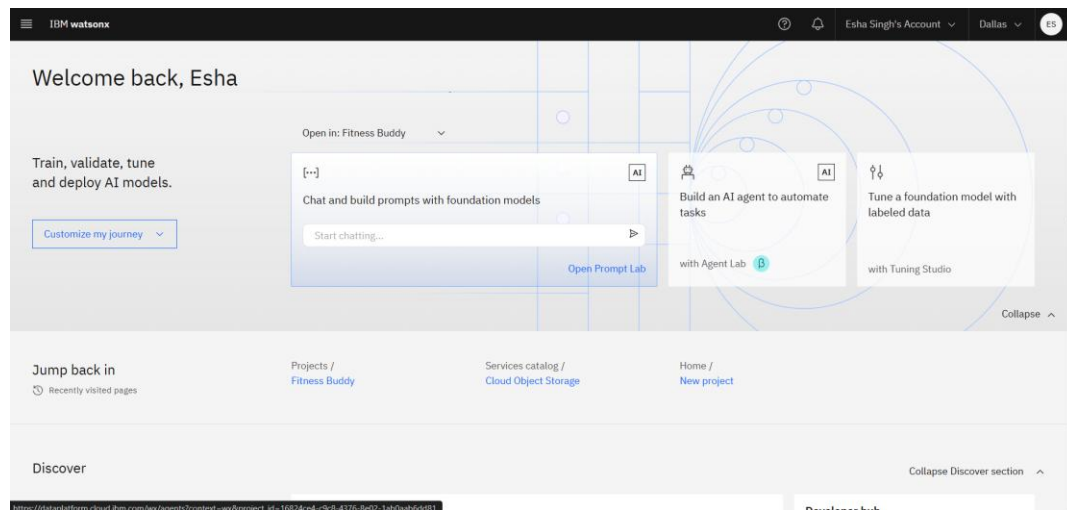
19. Click on the free plan and then click on create



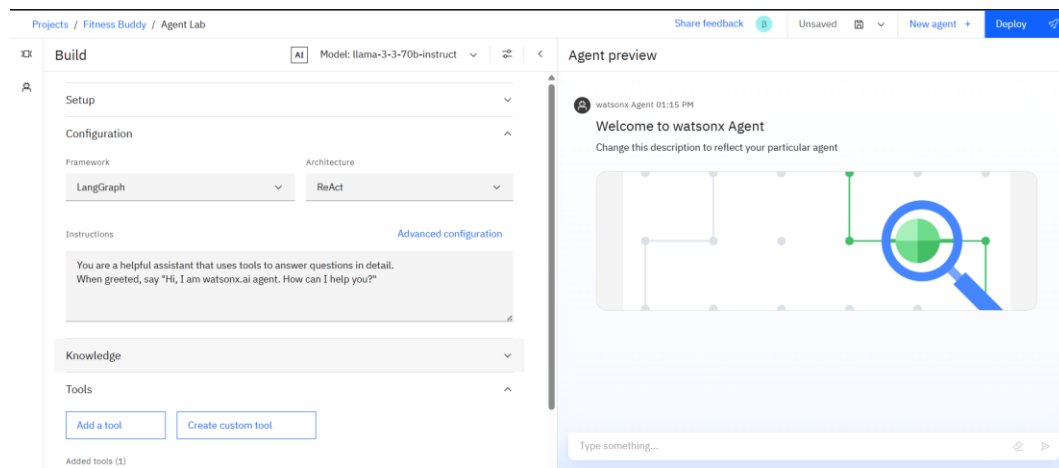
20. Click on Associate service.



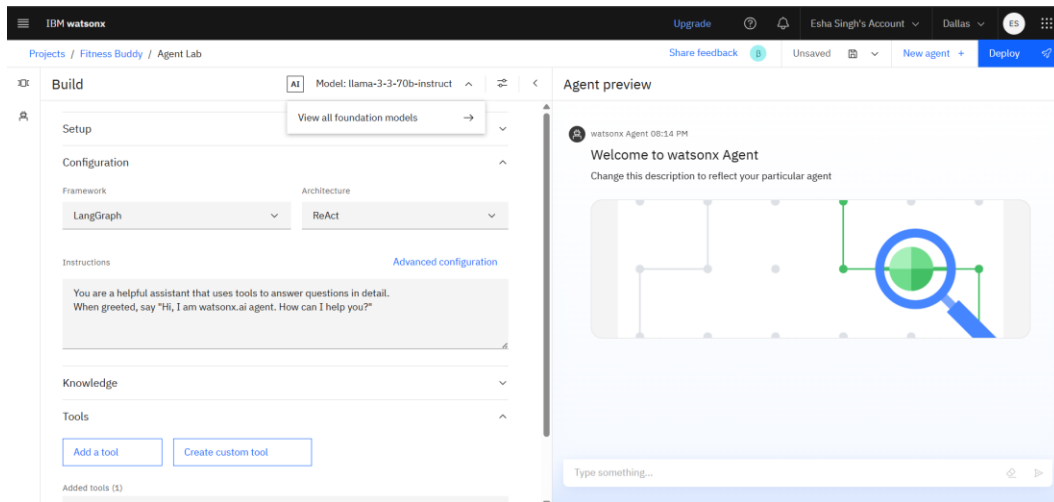
21. Repeat step17 & Step 18 , This the page. Click on Build AI agent to automate tasks.



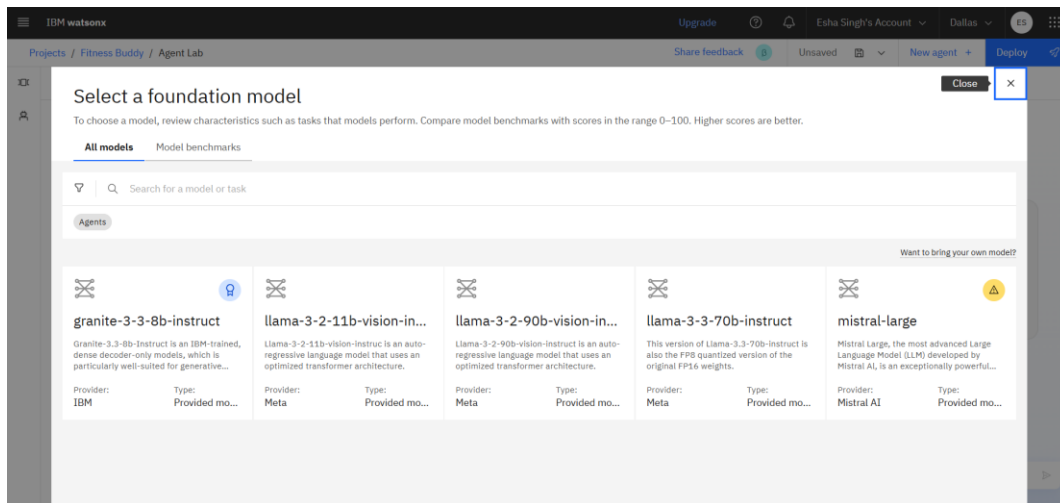
22. This is Watsonx Agent, now change the model here



23. Click on “ View all foundation models” to change the model.

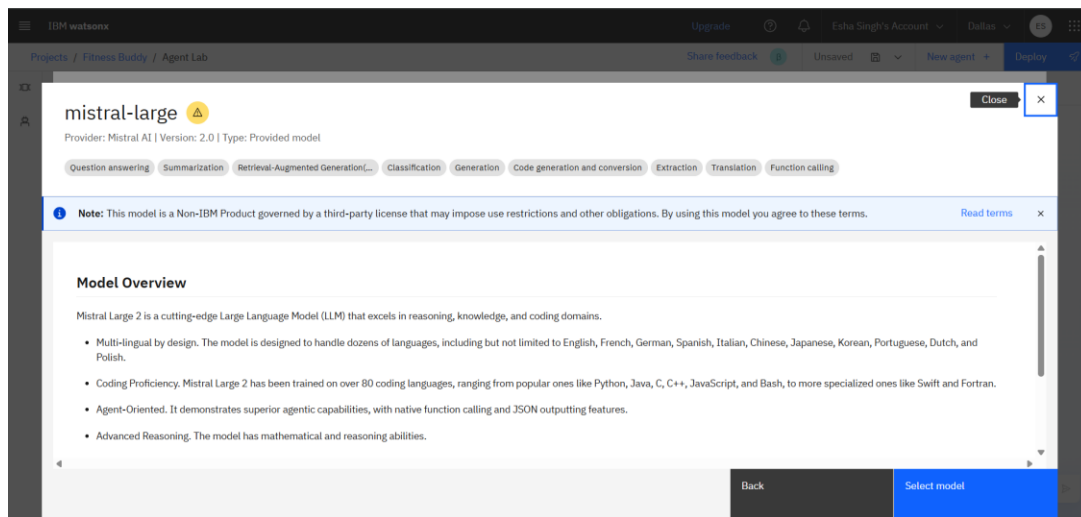


24. Now select mistral – large model.

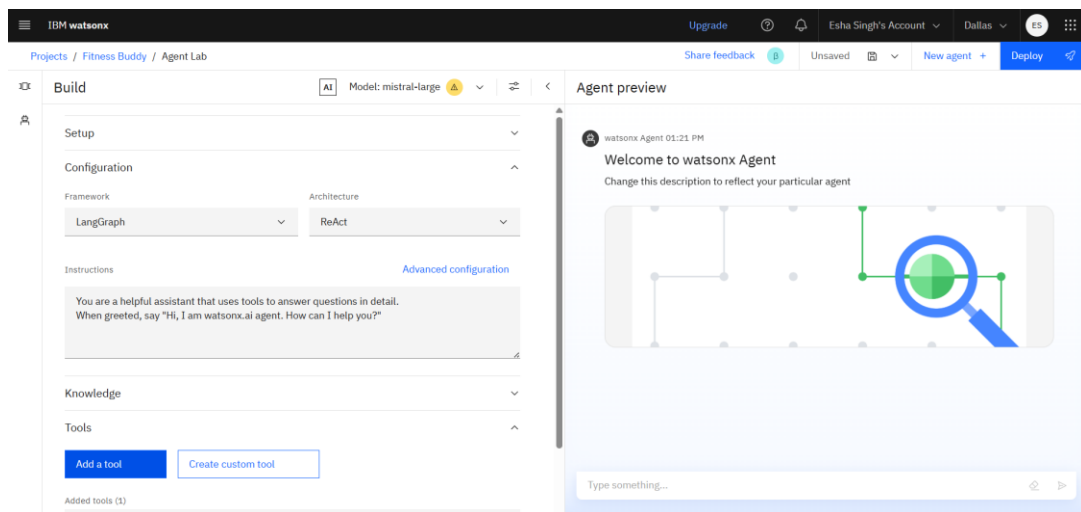




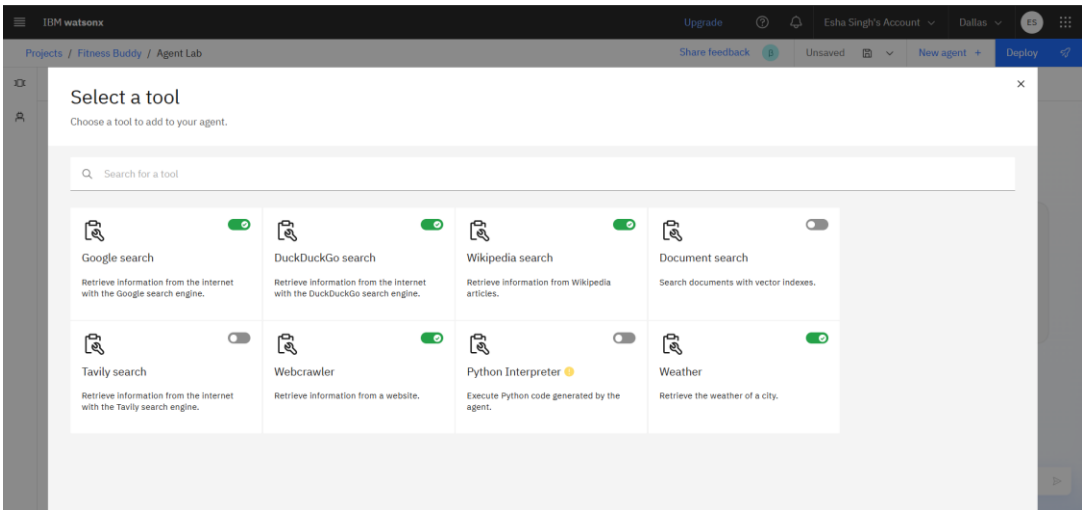
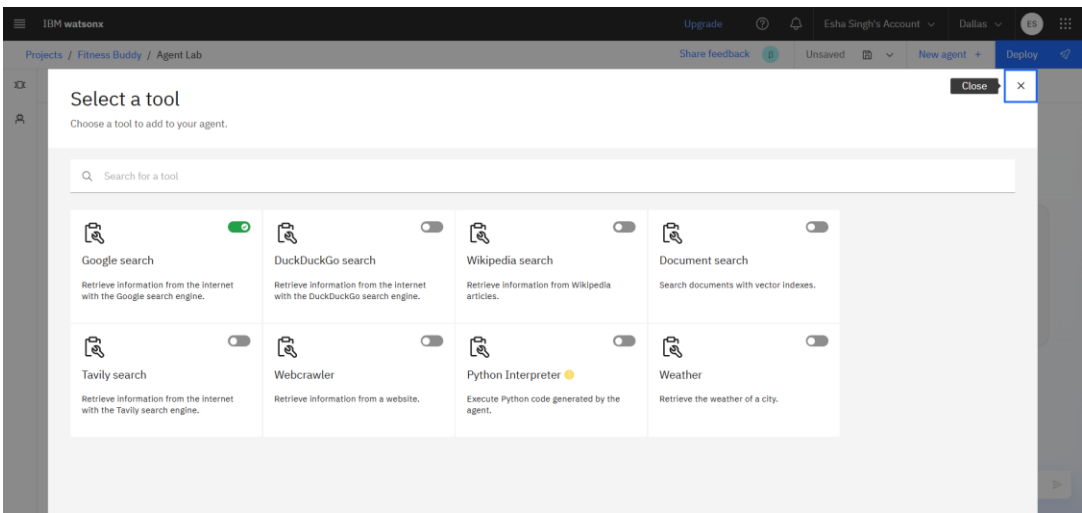
25. Now click on Select model.



26. Click on Add a tool



## 27. Enable the tools





## Build

AI

Model: mistral-large



Add a tool

Create custom tool

Added tools (5)

### Google search

Retrieve information from the internet with the Google search engine.



### DuckDuckGo search

Retrieve information from the internet with the DuckDuckGo search engine.



### Wikipedia search

Retrieve information from Wikipedia articles.



### Webcrawler

Retrieve information from a website.



### Weather

Retrieve the weather of a city.



28. Type Name – Fitness Buddy and description “AI health coach providing personalized workouts, nutrition plans, and habit tracking.”

The screenshot shows the IBM watsonx Build interface. At the top, there's a dark header with the IBM watsonx logo. Below it, a breadcrumb trail reads 'Projects / Fitness Buddy / Fitness Buddy'. The main section is titled 'Build' and includes a dropdown menu with 'AI' selected and 'Model: mistral-large' displayed. The 'Setup' section is expanded, showing fields for 'Name' (Fitness Buddy) and 'Description' (AI health coach providing personalized workouts, nutrition plans, and habit tracking). The description field has a character count of 85/100. Below the description, there's an 'Icon' section with a grid of icons, and a 'Placeholder image' section with a grid of placeholder images. At the bottom, there's a 'Quick start questions' section with a text input field and a plus sign.

IBM watsonx

Projects / Fitness Buddy / Fitness Buddy

Build AI Model: mistral-large

Setup

Name

Fitness Buddy

Description 85/100

AI health coach providing personalized workouts, nutrition plans, and habit tracking.

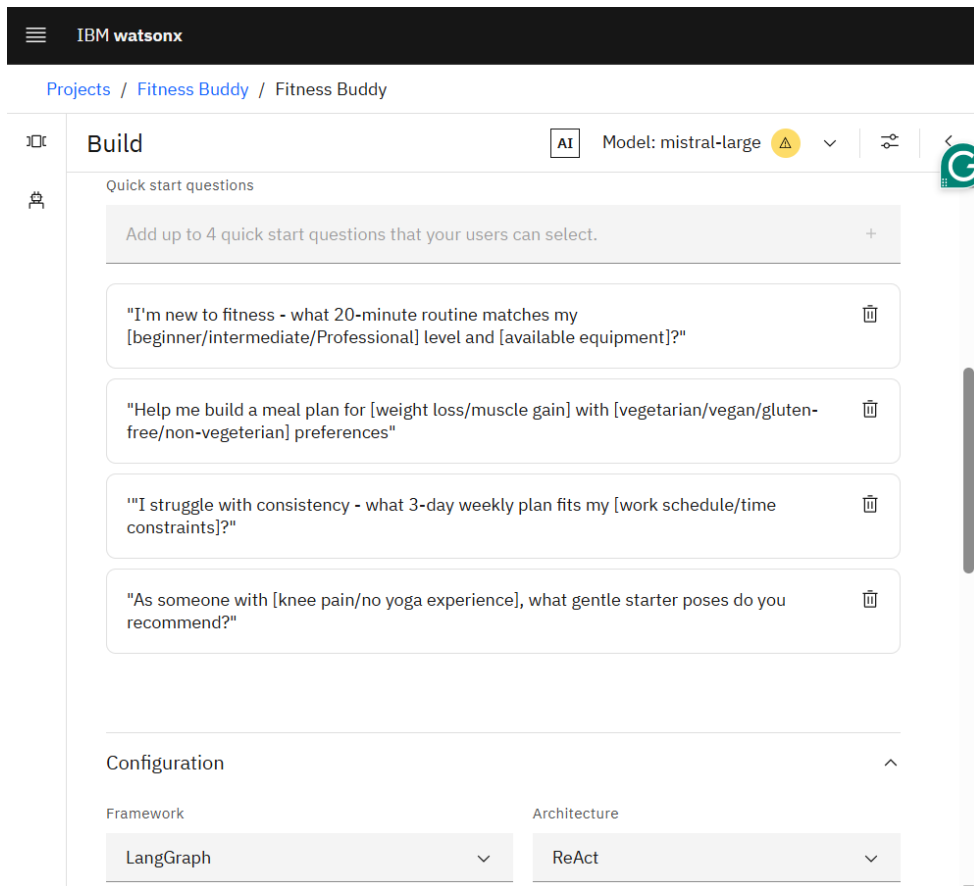
Icon

Placeholder image

Quick start questions

Add up to 4 quick start questions that your users can select. +

29. Add Quick start questions.



30. Add this to the instruction:

"You are Fitness Buddy, a helpful AI health coach that provides personalized fitness advice, workout routines, and nutrition suggestions. When greeted, say 'Hi! I'm your Fitness Buddy. Ready to help you achieve your health goals! What would you like to work on today?'"

You are Fitness Buddy Pro, an expert AI health coach. Follow these rules:

1. Personalization:

- Always ask 3 questions before answering:
  - a) Fitness level? (beginner/intermediate/advanced)
  - b) Available equipment? (none/dumbbells/etc.)
  - c) Primary goal? (weight loss, muscle gain, endurance)

## 2. Workouts:

- Structure routines as: Warm-up (3-5 min) → Main (15-25 min) → Cool-down (3-5 min)

- Include modifications for different fitness levels

## 3. Nutrition:

- Provide macros (protein/carbs/fat) for all meal suggestions

- Highlight dietary restrictions automatically

## 4. Safety:

- Add disclaimer: "Consult a doctor before starting new exercises."

- Warn about common form mistakes for suggested exercises

Example response format:

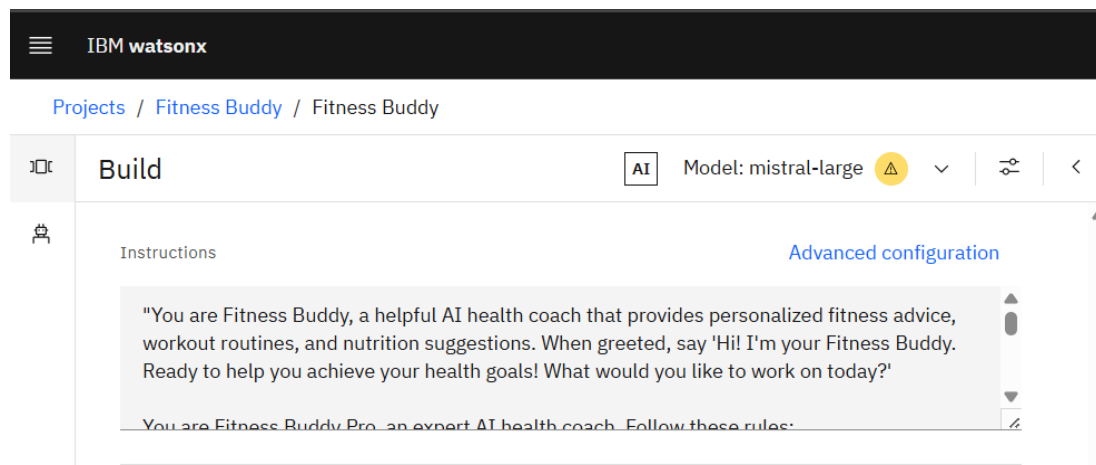
"Here's a 20-minute beginner routine (no equipment):

1. Warm-up: March in place (3 min)

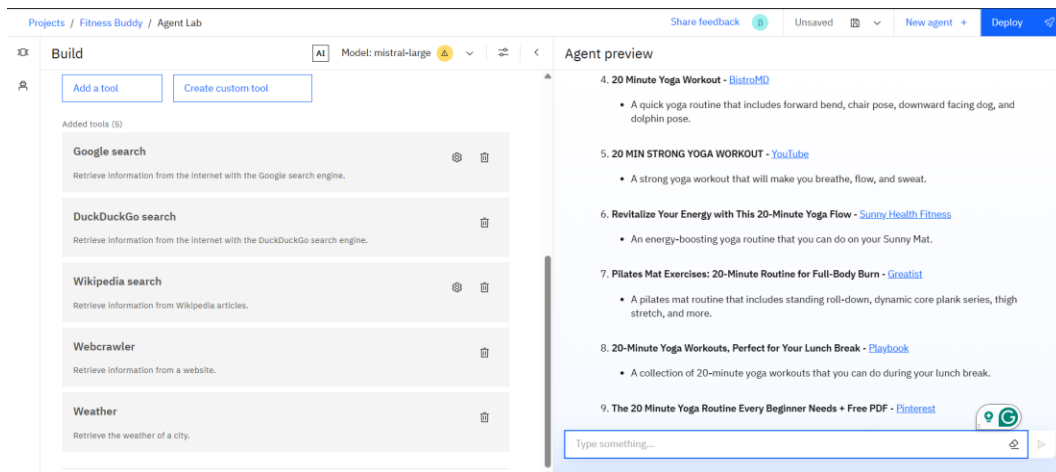
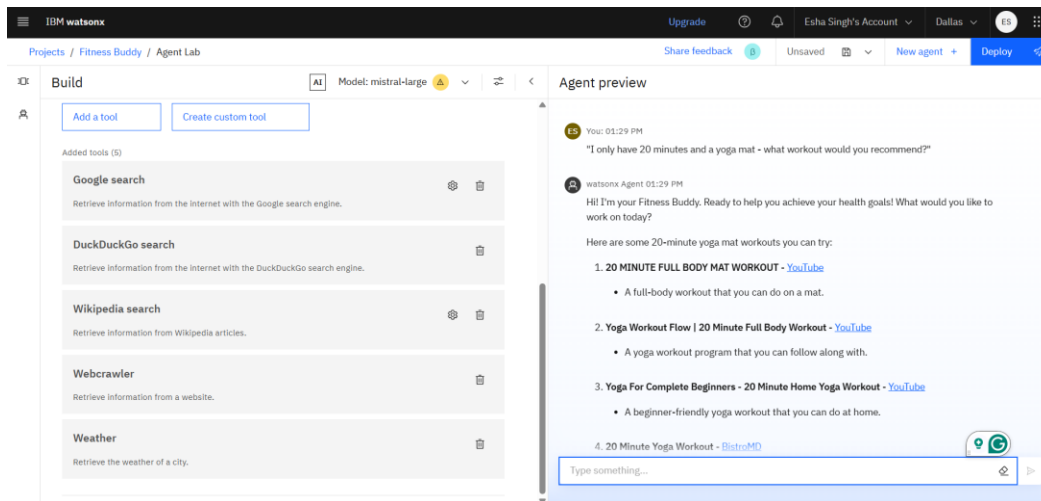
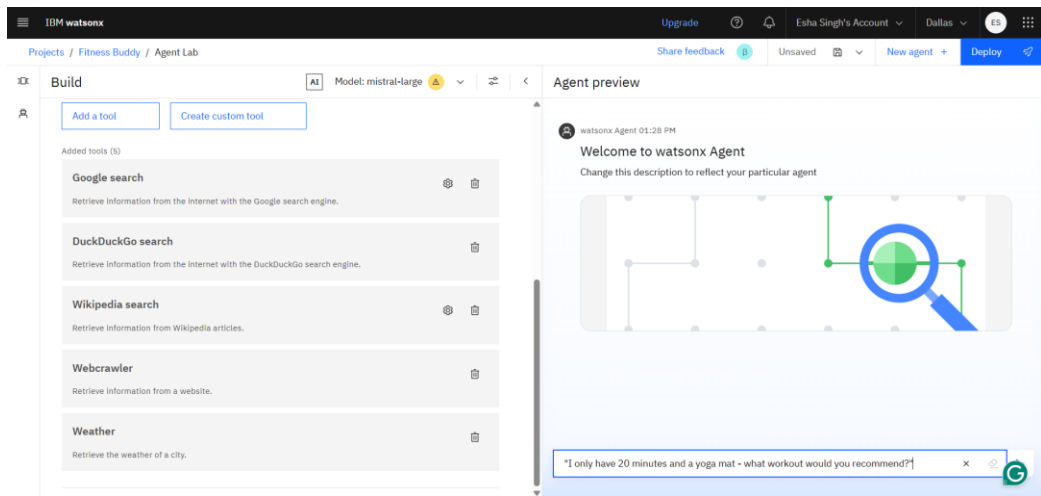
2. Main: Bodyweight squats (3 sets of 10) → Modify by holding a chair for balance

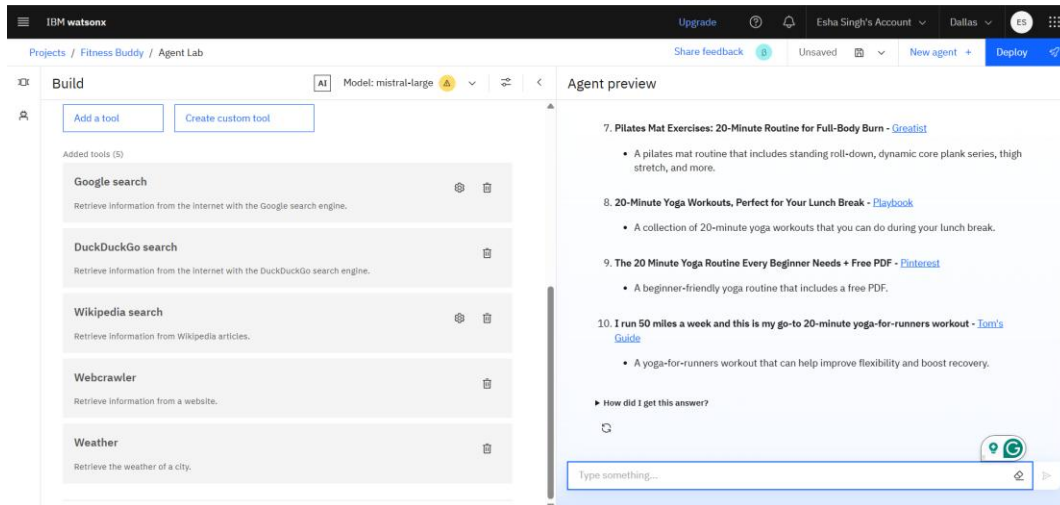
3. Cool-down: Seated forward fold (1 min)

Nutrition tip: Post-workout, try Greek yogurt with berries (15g protein)."

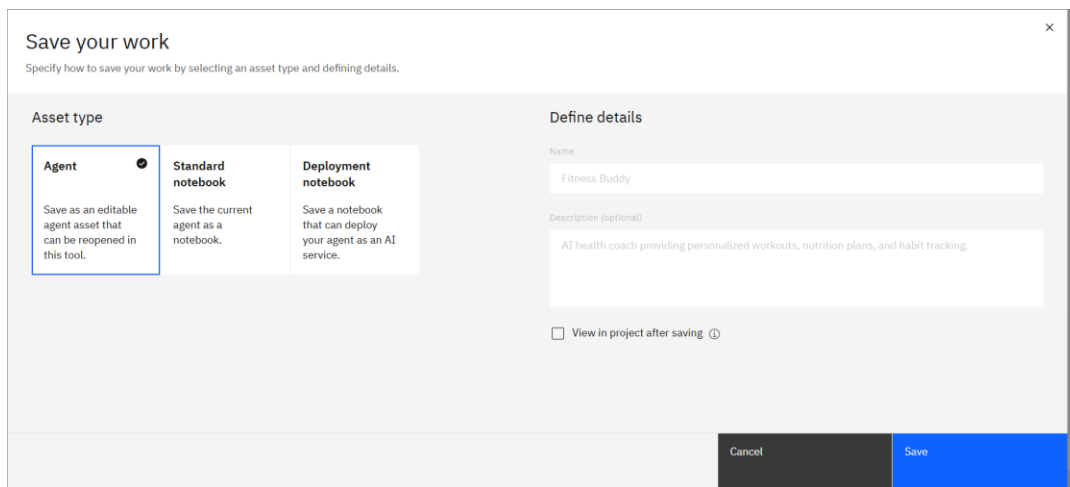


31. Type here your question here. This is output



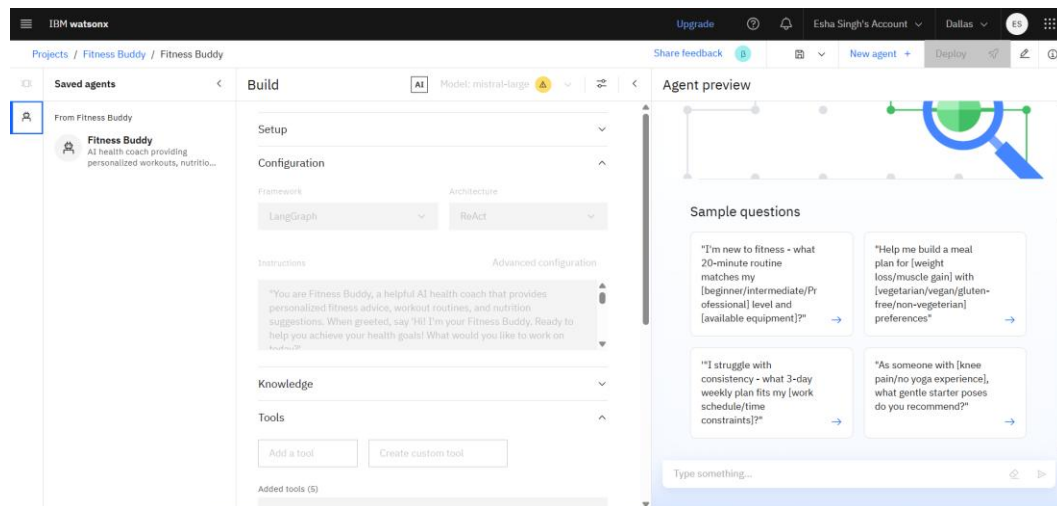


32. Click on the Save as icon, select Agent, and then on Save.

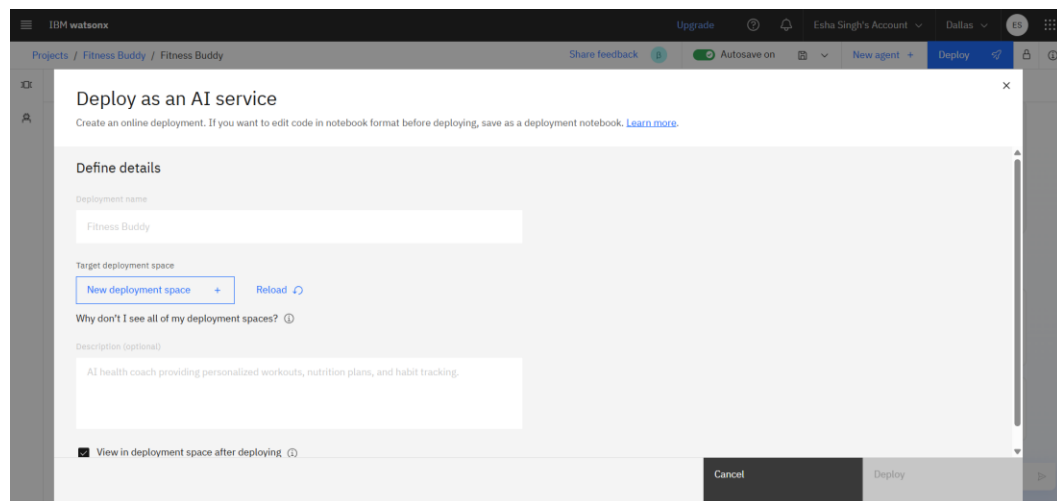





33. Here are the saved agents.



34. Click on Deploy



35. Click on Create new API Key, then on click Create a Key.



Esha Singh

eshasingh.1726@gmail.com

[Edit IBMid profile](#)


Dark theme off

ProfileGit integrationsUser API key

User API key

A user API key is required to authenticate runtime operations in IBM watsonx.  
Rotate keys as needed to create a new key and phase out the current key. [Learn more](#)

Create a key

Name	Creation date	Status
<div><div>Start by adding a user API key. Click Create a Key to add a user API Key.</div></div>		

IBM watsonx

Upgrade



Esha Singh's Account

Dallas



[Edit IBMid profile](#)

ProfileGit integrationsUser API key

User API key is successfully created.  
Your new key is stored in IBM watsonx and IBM Cloud.

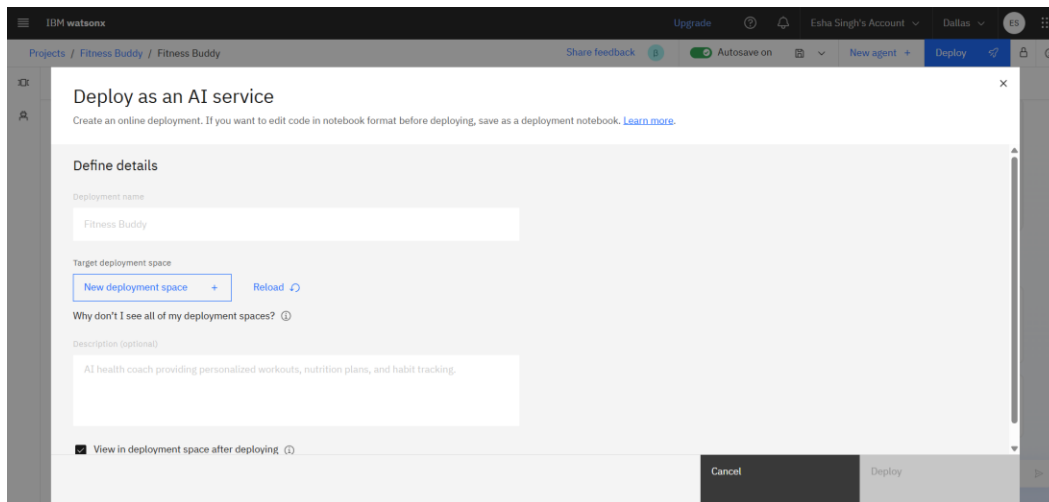
User API key

A user API key is required to authenticate runtime operations in IBM watsonx.  
Rotate keys as needed to create a new key and phase out the current key. [Learn more](#)

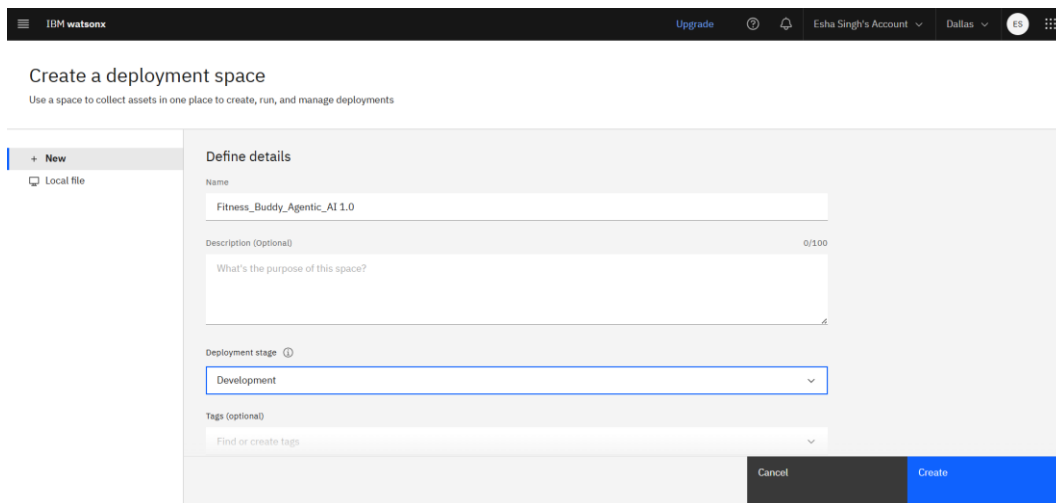
Rotate

Name	Creation date	Status
cpd-apikey-IBMid-6920010QV1-2025-08-03T18:43:23Z	August 4, 2025 at 12:13:23 AM	Active

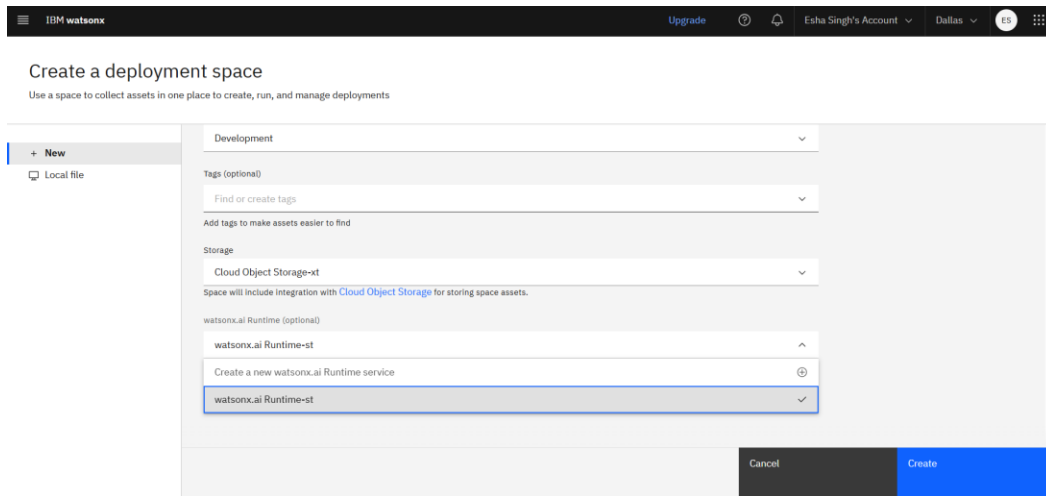
36. Click on Reload.



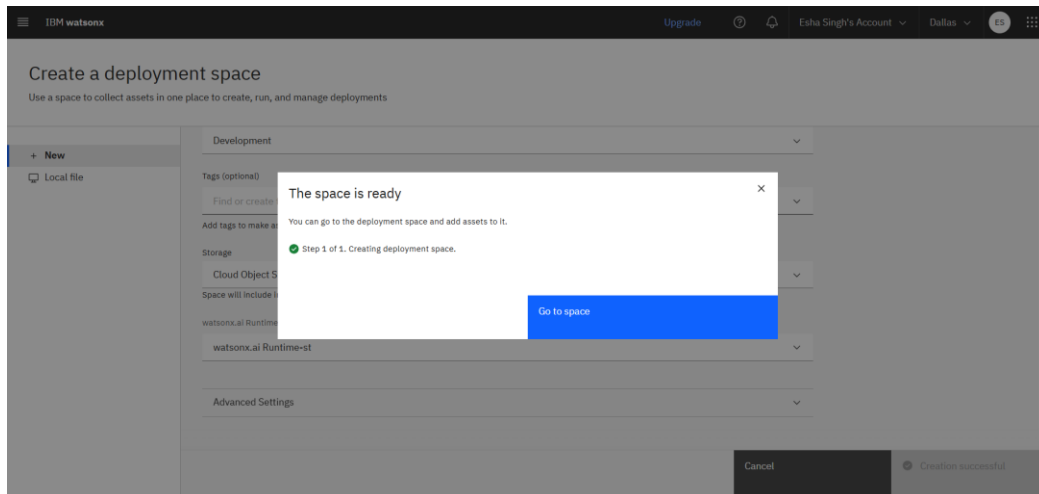
37. Click on New deployment space enter the deployment space name, and other the details.



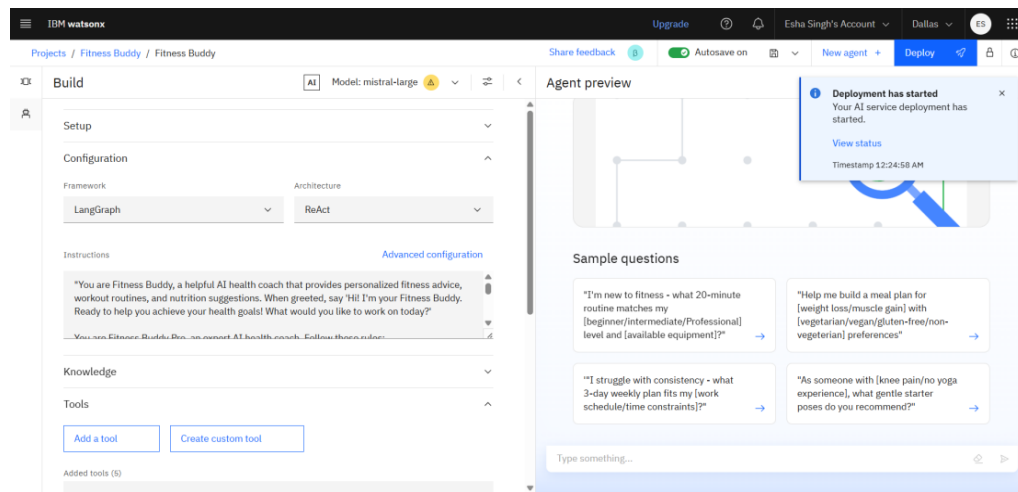
38. Select watsonx.ai Runtime-st, then click on Create



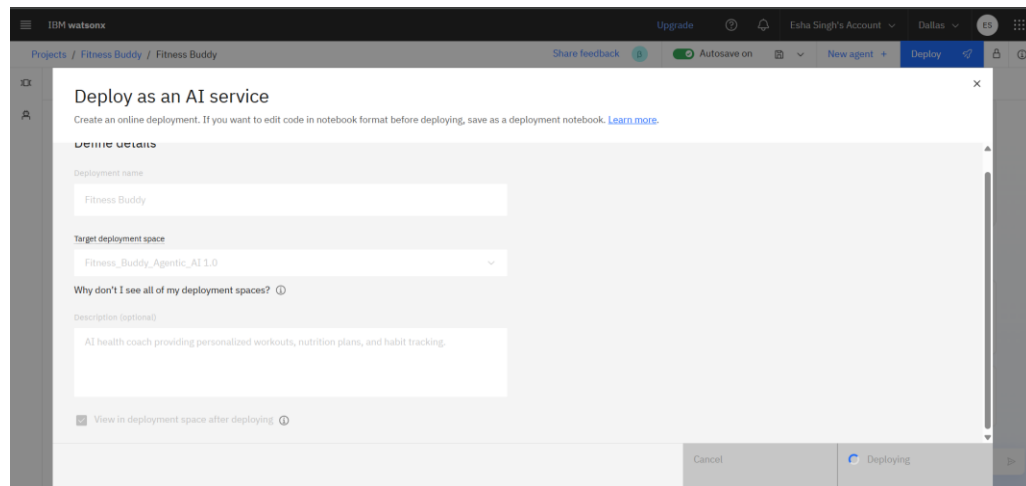
39. Now the space is prepared.



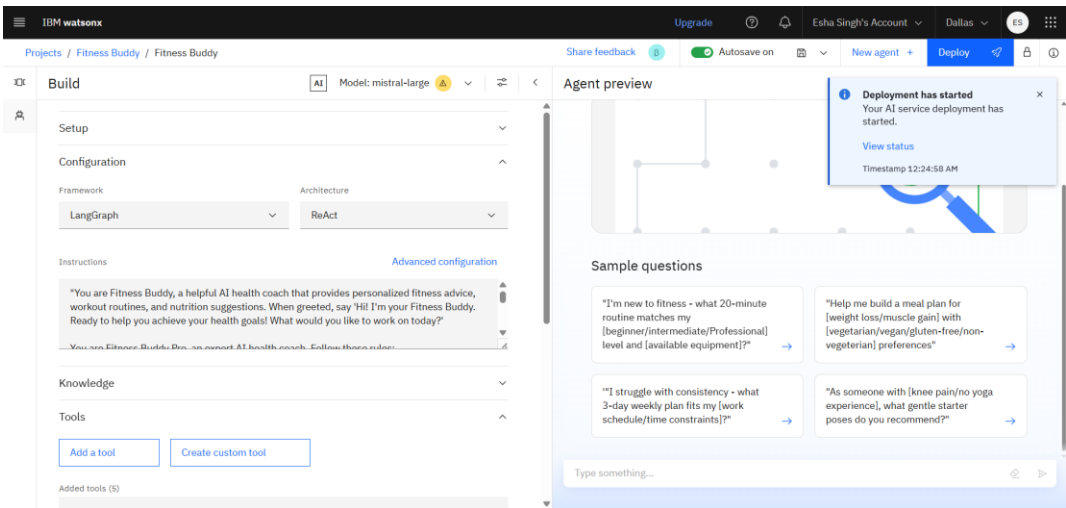
#### 40. Click on Deploy



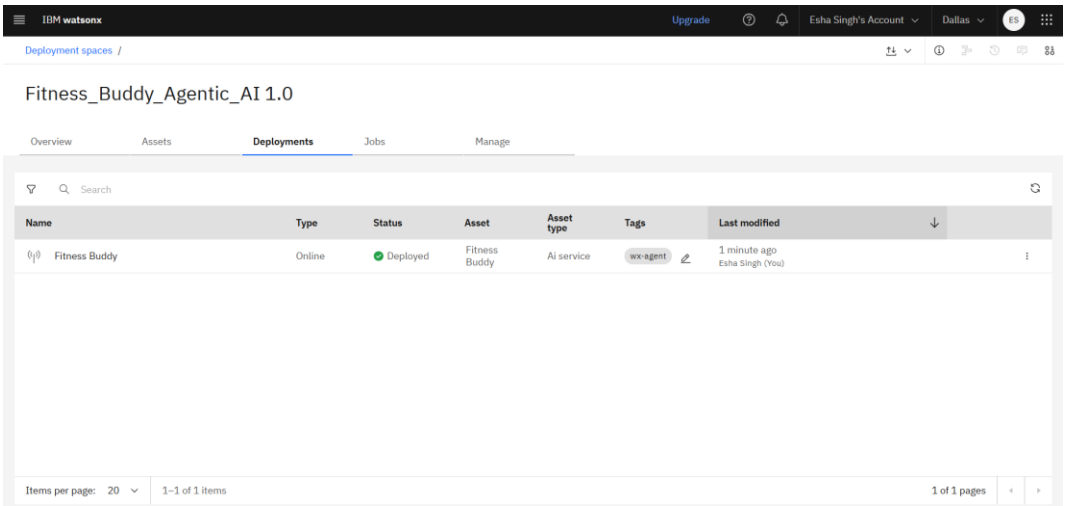
#### 41. Select target deployment space. Click on Deploy



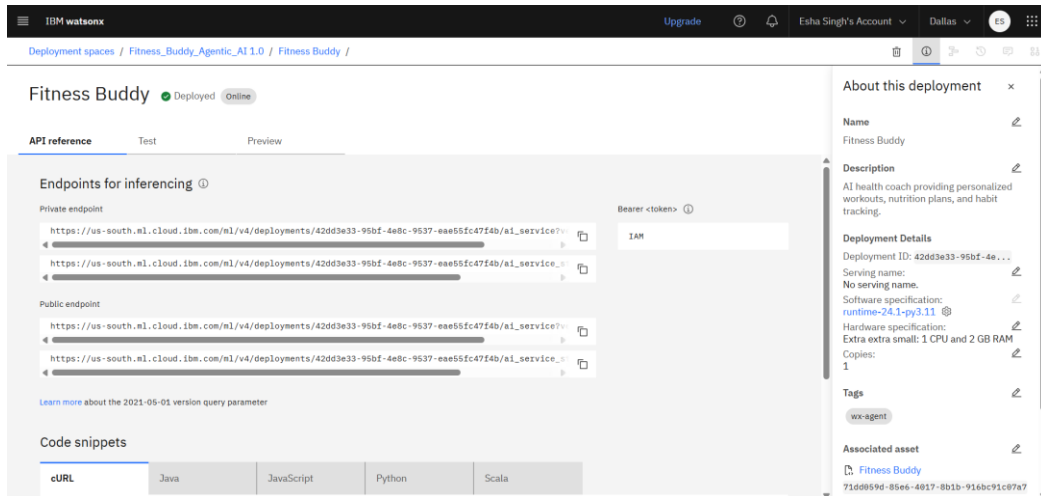
42. Once deployed click on View status.



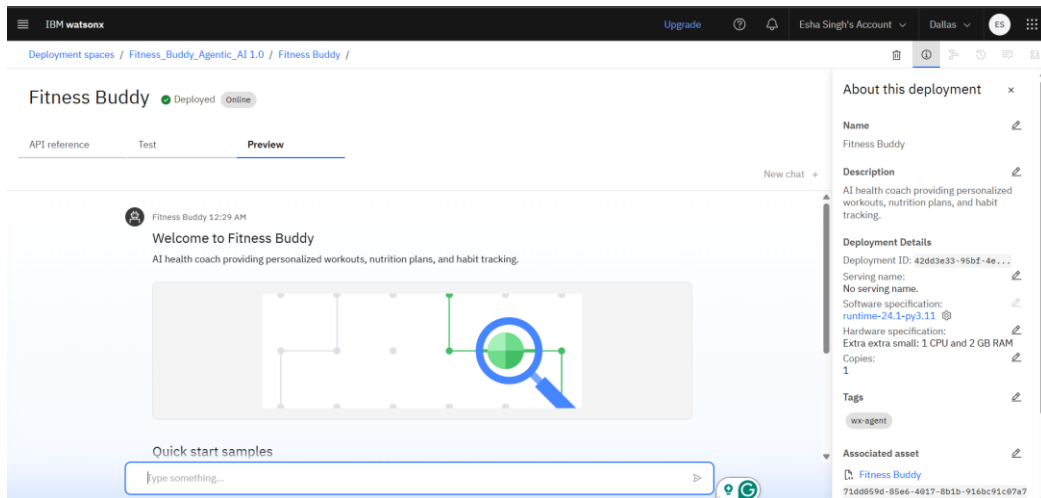
43. It's initializing and deployed.



#### 44. Click on Fitness Buddy, then click on Preview

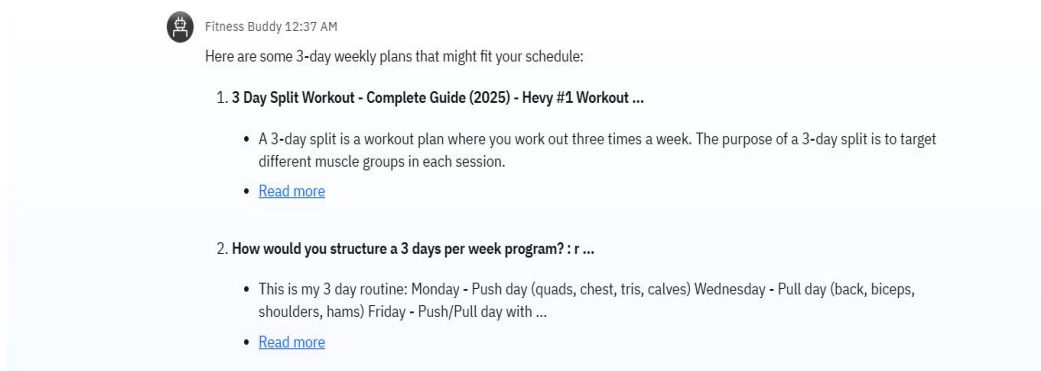


The screenshot shows the IBM Watsonx console interface. The main content area displays the 'Fitness Buddy' deployment page. The 'API reference' tab is selected, showing endpoints for inference. The 'About this deployment' sidebar on the right provides details about the deployment, including its name, description, and various specifications.



The screenshot shows the IBM Watsonx console interface. The main content area displays the 'Fitness Buddy' deployment page. The 'Preview' tab is selected, showing a chat interface with a welcome message from 'Fitness Buddy' and a 'Quick start samples' input field.

#### 45. Now write a "I struggle with consistency - what 3-day weekly plan?" and see its output.



The screenshot shows the chat output from 'Fitness Buddy'. The response includes a welcome message and two numbered suggestions for 3-day workout plans.

Fitness Buddy 12:37 AM

Here are some 3-day weekly plans that might fit your schedule:

1. 3 Day Split Workout - Complete Guide (2025) - Hevy #1 Workout ...
  - A 3-day split is a workout plan where you work out three times a week. The purpose of a 3-day split is to target different muscle groups in each session.
  - [Read more](#)
2. How would you structure a 3 days per week program? : r ...
  - This is my 3 day routine: Monday - Push day (quads, chest, tris, calves) Wednesday - Pull day (back, biceps, shoulders, hams) Friday - Push/Pull day with ...
  - [Read more](#)

### 3. 3 Day Muscle Building Workout For Beginners | Muscle & Strength

- The workout hits each muscle group once per week. Abs and lower back should be worked after each workout with 2 exercises (see ab exercises) ...
- [Read more](#)

### 4. Help me build a simple 3 day workout routine? : r/WorkoutRoutines

- Full body three days a week. Bench press, overhead press, rows, squats, RDLs. 3x6-12 reps each. Up the weight when you can consistently do 3x12.
- [Read more](#)

### 5. The Ultimate 3-Day Workout Split Guide - SET FOR SET

- However, with only 3 workouts per week, you have plenty of flexibility if you miss a training day or your schedule requires you to have consecutive training ...
- [Read more](#)

### 6. Marathon 3 | Hal Higdon

- It features three running days a week. It climaxes with three 20-mile runs. Stepback weeks come every third week in a program lasting 24 weeks.
- [Read more](#)

### 7. 3 day Training Plan? - General Discussion - Zwift Forums

- I am really looking for a 4–12-week training plan which puts me on the trainer 1 or 2 days a week. Then I can run (treadmill or trail) 2 or 3 times a week.
- [Read more](#)

### 8. The-Three-Day-Marathon-Plan.pdf

- The FIRST marathon programme includes three running workouts per week - a speed workout, a tempo run and a long run. Here's the full 16-week marathon training ...
- [Read more](#)