
AGENTIC AI PROJECT

RECIPE PREPARATION AGENT

Presented By:

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OUTLINE

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

PROBLEM STATEMENT

Example: A Recipe Preparation Agent helps users cook meals using only the ingredients they have on hand. By inputting available groceries, users receive tailored recipe suggestions using a RAG-based AI system. The agent retrieves relevant recipes and generates step-by-step instructions adapted to ingredient limitations. It offers substitutions, cooking tips, and dietary adjustments based on user preferences or restrictions. Designed to reduce food waste and save time, it turns pantry items into practical meal solutions. This AI assistant makes everyday cooking smarter, simpler, and more sustainable.

PROPOSED SOLUTION

- The proposed system aims to address the challenge of preparing personalized recipes based on user preferences and available ingredients. This involves leveraging data analytics and machine learning techniques to recommend dishes accurately. The solution will consist of the following components:
- **Data Collection:**
Gather historical data on recipes, including ingredients, cooking time, cuisine type, and dietary factors.
Utilize real-time data sources, such as available pantry items, user allergies, and nutritional goals, to enhance recommendation accuracy.
- **Data Preprocessing:**
Clean and preprocess the collected data to handle missing entries, measurement errors, and inconsistencies.
Feature engineering to extract relevant features from the data that might influence recipe suitability.
- **Machine Learning Algorithm:**
Implement a machine learning algorithm, such as a recommendation system (e.g., content-based or collaborative filtering), to suggest recipes based on user history.
Consider incorporating other factors like seasonality, cuisine preference, and dietary restrictions to improve recipe relevance.
- **Deployment:**
Develop a user-friendly interface or application that provides real-time personalized recipe suggestions.
Deploy the solution on a scalable and reliable platform, considering factors like cloud storage, response time, and device compatibility.
- **Evaluation:**
Assess the model's performance using appropriate metrics such as precision, recall, F1-score, or user satisfaction ratings.
Fine-tune the model based on user feedback and continuous monitoring of suggestion accuracy.

SYSTEM APPROACH

The "System Approach" section outlines the overall strategy and methodology for developing and implementing the RECIPE PREPARTION prediction system. Here's a suggested structure for this section:

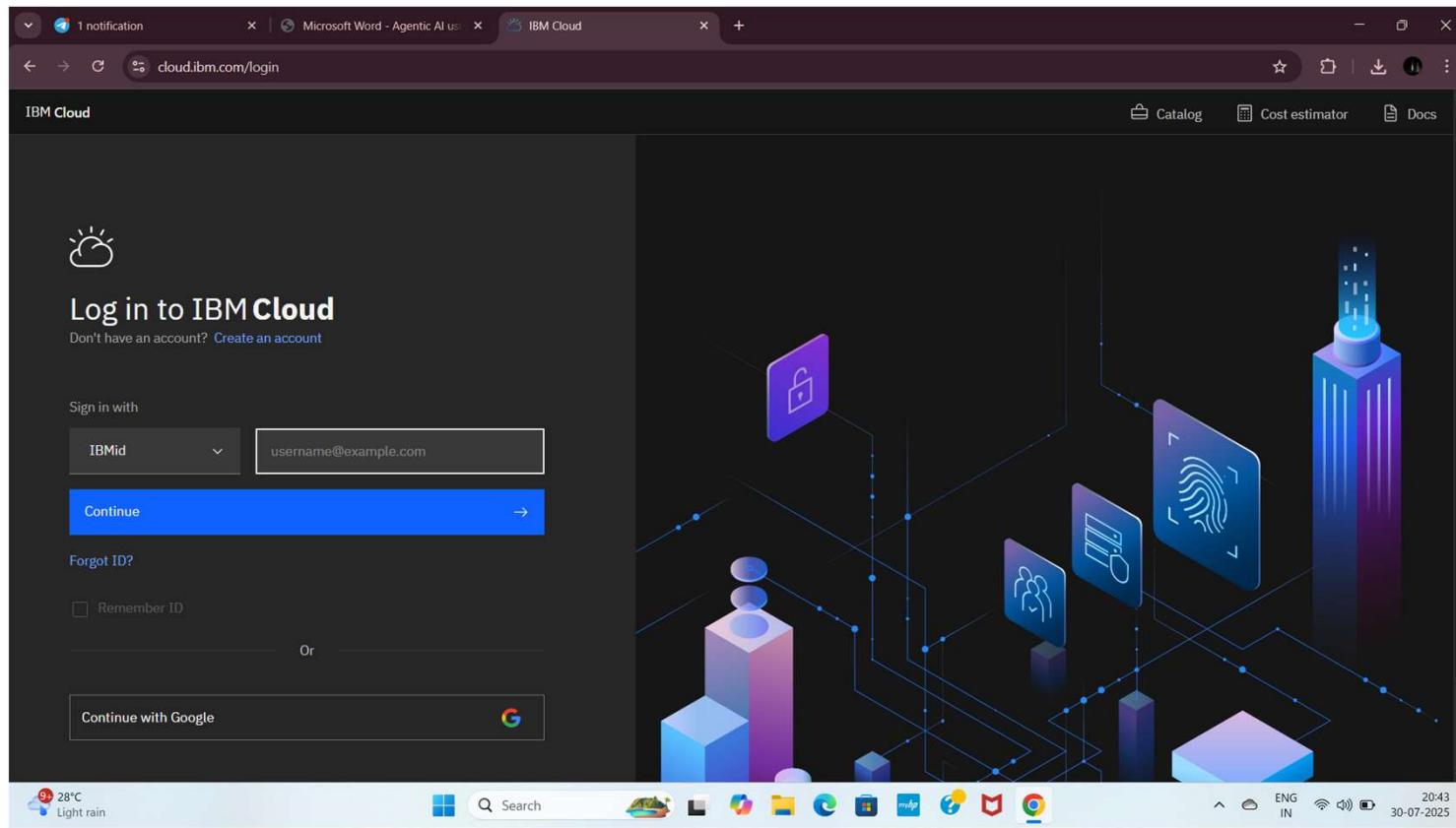
- System requirements
- Library required to build the model

ALGORITHM & DEPLOYMENT

- In the Algorithm section, describe the machine learning algorithm chosen for recommending personalized recipes. Here's an example structure for this section:
 - **Algorithm Selection:**
Provide a brief overview of the chosen algorithm (e.g., collaborative filtering or content-based model) and justify its selection based on the problem scope and data attributes.
 - **Data Input:**
Specify the input features used by the algorithm, such as available ingredients, past recipe selections, dietary restrictions, and other relevant user preferences.
 - **Training Process:**
Explain how the algorithm is trained using historical recipe interaction data. Highlight any specific techniques or considerations, such as user clustering or model fine-tuning.
 - **Prediction Process:**
Detail how the trained algorithm suggests recipes based on input data. Discuss how it integrates real-time availability of ingredients or seasonal constraints during prediction.

RECIPE AGENT USING AI

Step1: Open IBM Cloud login page with this link cloud.ibm.com/login, enter your Gmail and click on Continue



STEP2- USE CONTINUE WITH GOOGLE AND THIS PAGE APPEARS

The screenshot shows the IBM Cloud dashboard with a dark theme. At the top, there are three tabs: "IBM SkillsBuild Internship on AI", "Microsoft Word - Agentic AI us...", and "IBM Cloud". The "IBM Cloud" tab is active. The dashboard features a sidebar on the left with icons for navigation and a "Create resource" button. The main area is titled "Dashboard" and includes a "For you" section with cards for "Build", "Track emissions with Carbon Calculator", "Use Watson Assistant", "Use Watson Studio", "Build with Watson", and "Retrieval Augmented Generation (RAG) Pattern". Below this, there are sections for "IBM Cloud status", "Recent support cases", "Planned maintenance", and "Total emissions". The bottom of the screen shows the Windows taskbar with various pinned icons and the date/time: "20:45 30-07-2025".

STEP3-CLEAR THE PREVIOUS REESOURCES

The screenshot shows the IBM Cloud Resource list interface. The top navigation bar includes tabs for Catalog, Manage, and SHUBHAM SHARMA's Account. The main area is titled "Resource list" and displays a table with columns: Name, Group, Location, Product, Status, and Tags. The table lists several resources:

Name	Group	Location	Product	Status	Tags
Cloud Object Storage-wj	Default	Global	Cloud Object Storage	Active	cpdaas
watsonx.ai Runtime-dm	Default	Dallas (us-south)	watsonx.ai Runtime	Active	cpdaas
watsonx.ai Studio-df	Default	Dallas (us-south)	watsonx.ai Studio	Active	cpdaas

The left sidebar shows resource categories: Compute (0), Containers (0), Networking (0), Storage (1), Converged infrastructure (0), Enterprise applications (0), AI / Machine Learning (2), Analytics (0), Blockchain (0), and Data布署 (0). The bottom status bar shows the date (30-07-2025), time (20:46), and system information (ENG IN).

STEP4-CLICK ON THE NAVIGATION KEY THE THREE LINES AT THE TOP LEFT CORNER AND THEN CLICK ON WATSONX

The screenshot shows the IBM Cloud Resource list interface. On the left, there is a navigation sidebar with various service categories like Projects, Resource list, Containers, Databases, Infrastructure, Observability, Platform Automation, Security, API Management, Cloud Pak for Data, Partner Center, SAP, Satellite, VMware, and WatsonX. The WatsonX service is highlighted with a blue border. The main area displays a table with columns: Group, Location, Product, Status, and Tags. There are no resources listed in the table. Below the table, there are sections for Overview, Locations, Connectors, Config - Continuous delivery, Configurations, Clusters and Cluster groups, and Cluster resources. At the bottom of the screen, there is a taskbar with icons for search, file explorer, and other applications, along with system status indicators like weather, battery, and network.

Step5: This is the interface, now click on Watsonx.ai. (from Documentation tab)

The screenshot shows a web browser window with three tabs open: "IBM SkillsBuild Internship", "Microsoft Word - Agentic AI us...", and "watsonx - IBM Cloud". The "watsonx - IBM Cloud" tab is active and displays the "cloud.ibm.com/watsonx/overview" page. The left sidebar has "watsonx" selected under the "Documentation" section. The main content area features a dark background with abstract blue and purple line art. It includes sections for "Watsonx", "Data Fabric", and "Watsonx.data". Each section contains a "Start free trial" button and a brief description. The bottom of the screen shows a taskbar with various icons and a system tray indicating "Light rain" weather and "28°C".

Watsonx

Watsonx

Documentation

watsonx.ai

watsonx.governance

watsonx.data

watsonx.data intelligence

watsonx.data integration

Build AI solutions with IBM watsonx

IBM watsonx™ provides multiple integrated experiences to focus on the core workflows for building custom generative AI solutions.

watsonx

Build, evaluate, and deliver AI solutions that are informed by your enterprise knowledge.

[Start free trial](#)

watsonx.ai
Build and deploy AI apps

watsonx.governance
Trust AI models

Data Fabric

Design a data architecture to deliver high-quality, trusted data products that are ready for AI.

[Start free trial](#)

watsonx.data intelligence
Manage, trust, and share data

watsonx.data integration
Integrate any data, any style

watsonx.data Premium

The only hybrid, open data lakehouse for enterprise AI and analytics.

[Start free trial](#)

watsonx.data
Scale AI models

watsonx.ai
Build and deploy AI apps

28°C
Light rain

Search

ENG IN

20:48

30-07-2025

Jnet foundation

Step6: Choose AI agents.

The screenshot shows a web browser window with the URL dataplatform.cloud.ibm.com/docs/content/wsj/getting-started/welcome-main.html?context=wsj&audience=wdp. The page title is "Documentation for IBM watsonx as a Service". On the left, there is a navigation sidebar with a dropdown menu titled "Overview" containing links like "Planning an AI solution", "Getting started and tutorials", "Gen AI solutions", "Projects", "Preparing data", "Data science solutions", "Deploying AI", "Governing AI", "Administration", and "Glossary". The main content area features several cards: "Developer Hub" (with an arrow icon), "Foundation models" (with an arrow icon), "AI agents" (with an arrow icon), "What's new" (with an arrow icon), "Quick start tutorials" (with an arrow icon), and "AI risk atlas". At the bottom of the screen, the Windows taskbar displays the weather (28°C, Light rain), a search bar, pinned application icons (File Explorer, Edge, File History, Task View, Microsoft Store, Mail, Photos, OneDrive, Microsoft Edge, Google Chrome), system status icons (battery, signal, volume), and the date/time (30-07-2025). The bottom right corner also shows the "net foundation" logo.

Step7: Scroll down a little, then click on Agentic Lab and click on Watsonx.ai homepage

IBM watsonx

Log In Sign Up

Docs / Gen AI solutions / Automating tasks with AI agents / Agent-driven chat

Find information

Overview

Planning an AI solution

Getting started and tutorials

Gen AI solutions

Terms of use

Tokens

Supported foundation models

Building prompts

Automating tasks with AI agents

Agent Lab (beta)

Agent-driven chat

Coding generative AI solutions

Retrieval-augmented generation

Tuning models

Projects

Preparing data

Data science solutions

Building agent-driven workflows with the chat API

Last updated: Jul 25, 2025

Use the watsonx.ai chat API with foundation models that support tool calling to build agent-driven applications.

Ways to develop

You can build agent-driven workflows by using these programming methods:

- [REST API](#)
- [Python](#)
- [Node.js](#)
- [LangChain \(Python\)](#)
- [LangChain \(JS\)](#)
- [CrewAI](#)

Overview

Agentic applications allow a foundation model to function as an agent that controls the flow of interaction with the user. You define the interaction, including the tools that the foundation model can use, but you allow the foundation model to decide the next best action.

Cookie Preferences

28°C Light rain

Search

Cloud ENG IN 20:49 30-07-2025

net foundation

24 notifications Microsoft Word - Agentic AI usi Agent Lab (beta) — Docs | IBM

dataplatform.cloud.ibm.com/docs/content/wsj/analyze-data/fm-agent-lab.html?context=wsj&audience=wdp

IBM watsonx Log In Sign Up

Docs / Gen AI solutions / Automating tasks with AI agents / Agent Lab (beta)

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Retrieval-augmented generation

Tuning models

Projects

Preparing data

Data science solutions

9+ 28°C Light rain

Instructions

You are a helpful assistant that uses tools to answer questions in detail.

Build an agent with Agent Lab: IBM watsonx

To build an AI agent, complete the following steps:

- From the [watsonx.ai home page](#), choose a project, and then click the **New asset > Build an AI agent to automate tasks** tile.
- Select a foundation model and optionally update model parameters. For details, see [Foundation model configuration](#).
- To set up your agent, specify a name for the agent and describe the tasks the agent performs.
- Optional:* Select an icon and background image to customize how your agent appears in the **Agent Preview** pane.
- Select the AI agent framework you want to use to create, deploy and, manage your agent.

Note: Currently, watsonx.ai offers LangGraph as the only framework choice.

- Select the architecture that implements agentic AI reasoning.

Note: Currently, watsonx.ai offers ReAct as the only architecture choice.

- Define specific instructions for your agent that is used to enhance the system prompt for the foundation model. The instructions

Cookie Preferences

Search

Up arrow

ENG IN

20:49 30-07-2025

Step8: This is next interface, now scroll down this page, create project (+) icon

The screenshot shows the IBM WatsonX interface. At the top, there is a navigation bar with tabs for "IBM SkillsBuild Internship", "Microsoft Word - Agentic AI us...", "Agent Lab (beta) — Docs | IBM", and "Home | IBM watsonx". Below the navigation bar, the URL is "dataplatform.cloud.ibm.com/wx/home?context=wx&context=wx&locale=en". The main content area is divided into two main sections: "Resource hub" on the left and "What's new" on the right.

Resource hub:

- Foundation models:** Explore foundation models from IBM and other third-parties depending on your use case. Includes links to "Explore foundation models" and sub-sections: Prompts, Data, Projects, Notebooks, and Agents.
- What's new:** A list of recent announcements:
 - The granite-3-2-8b-instruct foundation model is now available in the Mumbai region (Jul 25, 2025)
 - Deprecation of Federated Learning (Jul 25, 2025)
 - Evaluation Studio for Agentic AI applications (Jul 24, 2025)

Recent work:

Projects	Deployment spaces
Recipe Preparation Agent (ss) 3 h ago	
Generative_chat (ss) 6 d ago	
Shubham prompt (ss) 7 d ago	After you create or join deployment spaces, they will appear here.

At the bottom of the screen, there is a taskbar with icons for weather (28°C, Light rain), search, file explorer, and various application icons. The system tray shows battery level, network status, and the date/time (20:52, 30-07-2025). The bottom right corner features the "unet foundation" logo.

Step09: Enter your project name and scroll down.

Define details

Name

Fitness_buddy_agent

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.



STEP10-CLICK ON ADD BUTTON

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

Define storage

- ① Select storage service

[Add](#)

Add an object storage instance, and then return to this page and click Refresh.

- ② Refresh

Project includes integration with [Cloud Object Storage](#) for storing project assets.

Advanced settings



Cancel

Create

Step11: Choose second plan, which is free plan, click on Create.

Cloud Object Storage

Author: IBM • Date of last update: Apr 15, 2025 • [Docs](#) • [API Docs](#)

[Create](#) [About](#)

Pricing plan

Displayed prices do not include tax. Monthly prices shown are for country or region: United States

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)	<p>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.</p> <p>None</p> <p>Lite plan services are deleted after 30 days of inactivity.</p>	Free <input checked="" type="checkbox"/>
Standard	Standard Plan is a flexible Pay-as-You-Go option with no minimum fee—ideal for workloads with large	

9+ 28°C Light rain

Search

SHUBHAM SHARMA's Acco... Dallas SS

Summary

Cloud Object Storage

Region: Global
Plan: Lite(deprecated)
Service name: Cloud Object Storage-zp
Resource group: Default

Create View terms Cancel

ENG IN 20:56 30-07-2025 J.net foundation



Step12: click on Refresh, click on Create.

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-zp

Project includes integration with [Cloud Object Storage](#) for storing project assets.

Advanced settings

Cancel

Create

Step13: This page opened. (Don't do anything here)

The screenshot shows a Microsoft Edge browser window with multiple tabs open. The active tab is titled 'Fitness_buddy_agent — Project' and is part of the 'IBM WatsonX' interface. The page displays the 'Overview' section for the 'Fitness_buddy_agent' project. It features a 'Start working' section with four cards: 'Add users as collaborators', 'Add data to work with', 'Chat and build prompts with foundation models', and 'Tune a foundation model with labeled data'. Below this, there's a 'Jump back in' section with a 'View all' link, a 'Resource usage' section showing 0 CUH, 0 Tokens, and 0 Hosting hours, and a 'Your documentation' section with a 'New!' badge and a 'Get started with your documentation' link. The bottom of the screen shows the Windows taskbar with various pinned icons and the system tray.

Step14: Go to the previous tab in browser.(remember this step).

The screenshot shows a Microsoft Edge browser window with multiple tabs open. The active tab is titled "Agent Lab (beta) — Docs" and displays the "WatsonX Agent Lab (beta)" documentation page from [dataplatform.cloud.ibm.com](https://dataplatform.cloud.ibm.com/docs/content/wsj/analyze-data/fm-agent-lab.html?context=wx&audience=wdp). The page content is as follows:

Instructions
You are a helpful assistant that uses tools to answer questions in detail.
Build an agent with Agent Lab: IBM watsonx

To build an AI agent, complete the following steps:

1. From the [watsonx.ai home page](#), choose a project, and then click the **New asset > Build an AI agent to automate tasks** tile.
2. Select a foundation model and optionally update model parameters. For details, see [Foundation model configuration](#).
3. To set up your agent, specify a name for the agent and describe the tasks the agent performs.
4. *Optional:* Select an icon and background image to customize how your agent appears in the **Agent Preview** pane.
5. Select the AI agent framework you want to use to create, deploy and, manage your agent.

Note: Currently, watsonx.ai offers LangGraph as the only framework choice.

6. Select the architecture that implements agentic AI reasoning.

Note: Currently, watsonx.ai offers ReAct as the only architecture choice.

The left sidebar contains a navigation menu with sections like Overview, Planning an AI solution, Getting started and tutorials, Gen AI solutions (expanded), Terms of use, Tokens, Supported foundation models, Building prompts, Automating tasks with AI agents (expanded), Agent Lab (beta) (selected), Agent-driven chat, Coding generative AI solutions, Retrieval-augmented generation, Tuning models, Projects, and Preparing data. The status bar at the bottom shows the URL <https://dataplatform.cloud.ibm.com/wx/home?context=wx&context=ws&locale=en>, the weather (28°C, Light rain), system icons, and the date/time (30-07-2025, 20:59).

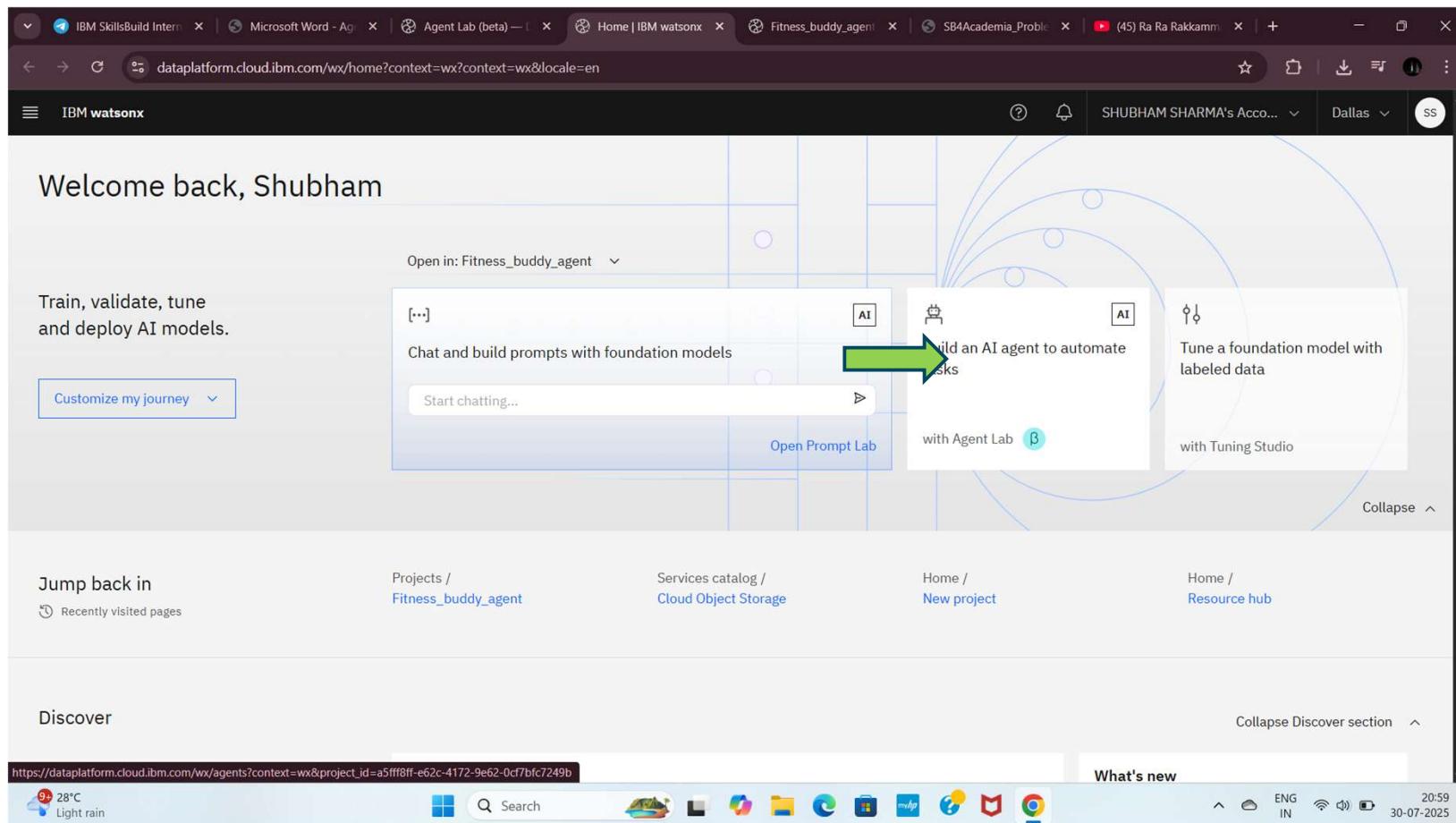
Step15: Click on Watsonx.ai home page and this tab appears

The screenshot shows the IBM Watsonx.ai home page. At the top, there is a navigation bar with several tabs and a user profile for "SHUBHAM SHARMA's Acco...". Below the navigation bar, the main content area features a large, stylized graphic of blue circles and lines. A prominent message says "Welcome back, Shubham". To the left, there is a section titled "Train, validate, tune and deploy AI models." with a "Customize my journey" button. In the center, there are three main call-to-action boxes:

- "Chat and build prompts with foundation models" (with "Open Prompt Lab" button)
- "Build an AI agent to automate tasks" (with "with Agent Lab" button)
- "Tune a foundation model with labeled data" (with "with Tuning Studio" button)

Below these sections, there are links for "Jump back in", "Projects / Fitness_buddy_agent", "Services catalog / Cloud Object Storage", "Home / New project", and "Home / Resource hub". At the bottom, there is a "Discover" section with a weather widget (28°C, Light rain), a search bar, and various application icons. The URL in the address bar is https://dataplatform.cloud.ibm.com/wx/agents?context=wx&project_id=a5fff8ff-e62c-4172-9e62-0cf7bfc7249b.

Step16: Now you can click on Build an AI agent to automate tasks.(If you not in this page during this experiment kindly check previous step. carefully)



Step17: Click on Associate service

The screenshot shows the Watsonx Agent Lab interface in a browser window. The URL in the address bar is `dataplatform.cloud.ibm.com/wx/agents?context=wx&project_id=a5fff8ff-e62c-4172-9e62-0cf7bfc7249b`. The main area displays an "Agent preview" with a welcome message: "Welcome to watsonx Agent" and "Change this description to reflect your particular agent". A modal dialog box is overlaid on the screen with the title "No watsonx.ai Studio service detected". The text inside the dialog states: "To access the Prompt Lab, you must provision a watsonx.ai Studio service instance in your account." Below this text is a blue button labeled "Associate service" with a right-pointing arrow. The background of the interface shows sections for "Build" (Setup, Configuration, Framework: LangGraph), "Knowledge", and "Tools" (Add a tool, Create custom tool). At the bottom of the interface is a search bar with the placeholder "Type something...". The browser taskbar at the bottom includes icons for weather (28°C, Light rain), search, file explorer, and various applications like Microsoft Word, Agent Lab (beta), and Fitness buddy.agent.

Step18:Choose a free plan and then Click on Create

The screenshot shows a browser window with multiple tabs open, including Microsoft Word, Agent Lab (beta), Agent Lab — Fitness, Fitness_buddy_agent, SB4Academia_Problem, and (45) Chuttamalle | D. The main content area is the Watsonx.ai Studio interface for creating a new agent. The 'Create' tab is selected. A modal dialog box is open on the right, titled 'Summary'. It displays the following details:

- watsonx.ai Studio**
- Region:** Dallas
- Plan:** Lite
- Service name:** watsonx.ai Studio-dm
- Resource group:** Default

Below the summary, there are three buttons: 'Create' (highlighted in blue), 'View terms', and 'Cancel'. The 'Create' button is the primary focus of the step.

Pricing plan
Displayed prices do not include tax. Monthly prices shown are for country or region: United States

Plan	Features	Pricing
Lite	1 authorized user 10 capacity unit-hours monthly limit Environment = # of capacity units required per hour <ul style="list-style-type: none">• 1 vCPU + 4 GB RAM = 0.5• 2 vCPU + 8 GB RAM = 1• 4 vCPU + 16 GB RAM = 2• Decision Optimization + Watson NLP = Environment + 5• Synthetic Data Generator, 2 vCPU + 8 GB RAM = 7 (requires watsonx.ai)	Free

At the bottom of the screen, the taskbar shows the date as 30-07-2025 and the time as 21:12. The net foundation logo is also visible in the bottom right corner.

Step19: Click on Associate service.(This service is Watsonx.ai Runtime service)

The screenshot shows a browser window with multiple tabs open. The active tab is titled "Prompt Lab — Fitness_buddy_agent" and has the URL `dataplatform.cloud.ibm.com/wx/prompts?context=wx&project_id=a5fff8ff-e62c-4172-9e62-0cf7bfc7249b&nocache=true`. The page is part of the IBM Watsonx interface, specifically the "Prompt Lab" section for the "Fitness_buddy_agent" project. A modal dialog box is centered on the screen with the message "No watsonx.ai Runtime service detected". Below this message, it says "To access the Prompt Lab, you must associate a watsonx.ai Runtime service instance to this project." At the bottom right of the modal is a blue button labeled "Associate service" with a white arrow icon. The background of the page shows a list of sample prompts and a search bar at the bottom.

Step20: Click on New service.

The screenshot shows a browser window for the IBM WatsonX platform. The URL in the address bar is `dataplatform.cloud.ibm.com/projects/a5fff8ff-e62c-4172-9e62-0cf7bfc7249b/manage/services?context=wx&associate=true`. The page title is "Associate service". The main content area displays a message: "No services available" with a sub-message: "You don't have a service available to associate with this project. Change your filters to display more services, or click Add service to create a new service instance." There is a large blue question mark icon above the message. At the bottom right of the content area are two buttons: "Cancel" and "Associate". The browser's taskbar at the bottom shows various open tabs and system icons.

Step21: Click on Watson.ai Runtime & Click on Create.

The screenshot shows the IBM WatsonX service catalog interface. The top navigation bar includes tabs for 'Projects / Fitness_buddy_agent' and 'Associate service'. The main content area is titled 'Services' and displays a search bar with 'Find services' placeholder text. Below the search bar, there is a category filter for 'AI / Machine Learning' and a list of services:

Service	Type	Description	Plan
watsonx.ai Runtime	AI / Machine Learning	(Formerly known as Watson Machine Learning) Quickly build, run and manage generative AI and machine learning applications with built-in...	Lite • Free
watsonx.ai Studio	AI / Machine Learning	(Formerly known as Watson Studio) Develop powerful AI solutions with an integrated collaborative studio and...	Lite • Free
watsonx.governance	AI / Machine Learning • Analytics	Accelerate responsibility, transparency and explainability in your data and AI workflows	Lite • Free

Below the service list, there is a section titled 'Analytics'.

At the bottom of the screen, the taskbar shows the URL https://dataplatform.cloud.ibm.com/data/catalog?context=wx&target=wx&tarsheet_mode=true#. The system tray indicates a weather forecast of 'Light rain' at 28°C, the date as 30-07-2025, and the time as 21:14. The bottom right corner features the .NET Foundation logo.

STEP22-CLICK ON CREATE BUTTON

The screenshot shows a web browser window with multiple tabs open at the top. The active tab is for managing services in a project titled 'Fitness_buddy_agent'. A modal dialog box is centered on the screen, prompting the user to 'Associate service'.

Select a region: Dallas

Pricing plan: Displayed prices do not include tax. Monthly prices shown are for country or region: United States

Plan	Features	Pricing
Lite	Service instance Instance includes: <ul style="list-style-type: none">• 20 capacity unit-hours (CUH) per month• 50,000 tokens/data points per month• 100 pages per month ----- Foundation models: <ul style="list-style-type: none">• Inferencing for text generation consumes tokens (as Resource Units)• Token usage is the sum of input and output tokens• Time series forecasting consumes data points (as Resource Units)• Data point usage is the sum of input and output data points	Free

Summary

watsonx.ai Runtime

Region: Dallas
Plan: Lite
Service name: watsonx.ai Runtime-az
Resource group: Default

Create

View terms

Cancel

At the bottom of the screen, there is a taskbar showing various icons and system status information, including the date (30-07-2025), time (21:14), and weather (Light rain, 28°C).

Step23: Click on Watson.ai Runtime check box and click on Associate.

The screenshot shows a browser window with multiple tabs open, including 'IBM SkillsBuild Intern', 'Microsoft Word - Ag...', 'Agent Lab (beta) -', 'Fitness_buddy_agent', 'Fitness_buddy_agent', 'SB4Academia_Proble...', and '(45) Chuttamalle'. The main content area is titled 'Associate service' and displays a table of services. The table has columns: Name, Type, Plan, Location, Status, and Group. One row is visible, showing 'watsonx.ai Runtime-az' as the Name, 'watsonx.ai Runtime' as the Type, 'Lite' as the Plan, 'Dallas' as the Location, 'Not associated' as the Status, and 'Default' as the Group. A checkbox next to the name is checked. At the bottom right of the dialog are 'Cancel' and 'Associate' buttons. The status bar at the bottom shows weather information ('9+ 28°C Light rain'), system icons, and the date/time ('30-07-2025 21:15').

Name	Type	Plan	Location	Status	Group
watsonx.ai Runtime-az	watsonx.ai Runtime	Lite	Dallas	Not associated	Default

Step24: Repeat step17 & Step 18 i.e. go to the previous tab and then click on watsonx homepage. This the page. Click on Build AI agent to automate tasks.

The screenshot shows the IBM WatsonX homepage. At the top, there's a navigation bar with tabs like "116 notifications", "Microsoft Word", "Agent Lab (beta)", "Home | IBM wat...", "Fitness_buddy_...", "Fitness_buddy_...", "SB4Academia_Pro", and "(45) Dholida". Below the navigation bar, the main header says "IBM watsonx" and "Welcome back, Shubham". A banner on the left says "Train, validate, tune and deploy AI models." and has a "Customize my journey" button. The central part of the page features a large circular diagram with three main sections: "Chat and build prompts with foundation models" (with "Start chatting..." and "Open Prompt Lab" buttons), "Build an AI agent to automate tasks with Agent Lab" (with a beta indicator), and "Tune a foundation model with labeled data with Tuning Studio". Below this diagram, there are links to "Jump back in" (Recently visited pages), "Projects / Fitness_buddy_agent", "Fitness_buddy_agent / Prompt Lab", "Fitness_buddy_agent / Agent Lab", and "Services catalog / Cloud Object Storage". At the bottom, there's a "Discover" section with a "Resource hub" containing icons for search, file manager, and other tools, and a "What's new" section. The status bar at the bottom right shows weather (28°C, Light rain), language (ENG IN), battery level (21:17), and date (30-07-2025).

Step25:This is Watsonx Agent , now change the model here

The screenshot shows the IBM Watsonx Agent Lab interface. On the left, the 'Build' configuration panel is open, displaying the selected model as 'llama-3-3-70b-instruct'. A blue arrow points from the text 'Now change the model here' to this selection. The 'Agent preview' panel on the right shows a welcome message: 'Welcome to watsonx Agent' and 'Change this description to reflect your particular agent'. It features a large magnifying glass icon over a map-like background. At the bottom, there is a search bar with the placeholder 'Type something...'.

Watsonx Agent 09:17 PM

Welcome to watsonx Agent

Change this description to reflect your particular agent

Type something...

Model: llama-3-3-70b-instruct

Build

Setup

Configuration

Framework

LangGraph

Architecture

ReAct

Instructions

You are a helpful assistant that uses tools to answer questions in detail.
When greeted, say "Hi, I am watsonx.ai agent. How can I help you?"

Advanced configuration

Knowledge

Tools

Add a tool

Create custom tool

Added tools (1)

28°C Light rain

Search

Cloud

ENG IN

30-07-2025

21:19

net foundation

Step26: Click on “ View all foundation models” to change the model. Then select the large model

The screenshot shows a browser window with multiple tabs open, including Microsoft Word, Agent Lab (beta), and Fitness_buddy_agent. The main focus is a modal dialog titled "Select a foundation model". The dialog has a tab bar with "All models" (which is selected) and "Model benchmarks". Below the tabs is a search bar with placeholder text "Search for a model or task" and a dropdown menu set to "Agents". The main area displays five foundation models in a grid:

Model Name	Provider	Type	Description
granite-3-3-8b-instruct	IBM	Provided by IBM	Granite-3.3-8b-Instruct is an IBM-trained, dense decoder-only models, which is particularly well-suited for generative...
llama-3-2-11b-vision-in...	Meta	Provided by Meta	Llama-3.2-11b-vision-instruc is an auto-regressive language model that uses an optimized transformer architecture.
llama-3-2-90b-vision-in...	Meta	Provided by Meta	Llama-3.2-90b-vision-instruct is an auto-regressive language model that uses an optimized transformer architecture.
llama-3-3-70b-instruct	Meta	Provided by Meta	This version of Llama-3.3-70b-instruct is also the FP8 quantized version of the original FP16 weights.
mistral-large	Mistral AI	Provided by Mistral AI	Mistral Large, the most advanced Large Language Model (LLM) developed by Mistral AI, is an exceptionally powerful...

At the bottom of the dialog, there is a link "Want to bring your own model?". The background of the dialog shows the "Fitness_buddy_agent" project in the "Agent Lab" section of the IBM WatsonX interface.

Step27: Now click on Select model .

The screenshot shows a web browser window with multiple tabs open at the top, including '127 notifications', 'Microsoft Word', 'Agent Lab (beta)', 'Agent Lab — Fit', 'Fitness_buddy_a...', 'Fitness_buddy_e...', 'SB4Academia_P...', and '(45) Dholida'. The main content area displays the 'IBM watsonx' interface under 'Projects / Fitness_buddy_agent / Agent Lab'. A modal dialog box is centered on the screen, titled 'mistral-large' with a yellow warning icon. The dialog includes a note about the provider being 'Mistral AI | Version: 2.0 | Type: Provided model'. Below this, there are several buttons for different AI tasks: 'Question answering', 'Summarization', 'Retrieval-Augmented Generation...', 'Classification', 'Generation', 'Code generation and conversion', 'Extraction', 'Translation', and 'Function calling'. A note at the bottom states: 'Note: This model is a Non-IBM Product governed by a third-party license that may impose use restrictions and other obligations. By using this model you agree to these terms.' with a 'Read terms' link. At the bottom right of the modal, a blue button is highlighted with a white border, labeled 'Select model'. The status bar at the bottom of the screen shows weather information ('28°C Light rain'), system icons, and the date/time ('21:20 30-07-2025').

Step28: Click on Add a tool

The screenshot shows the IBM WatsonX Agent Lab interface. On the left, under the 'Tools' section, there are two buttons: 'Add a tool' (highlighted with a blue border) and 'Create custom tool'. A vertical arrow points downwards from the 'Add a tool' button towards the 'Agent preview' section.

Build

- Model: mistral-large
- Framework: LangGraph
- Architecture: ReAct
- Instructions: You are a helpful assistant that uses tools to answer questions in detail. When greeted, say "Hi, I am watsonx.ai agent. How can I help you?"
- Knowledge
- Tools
 - Add a tool
 - Create custom tool

Agent preview

watsonx Agent 09:20 PM

Welcome to watsonx Agent

Change this description to reflect your particular agent

Type something...

A yellow warning box is displayed on the right side of the screen, stating: "Model in deprecated state" and "mistral-large is in the deprecated state and will be removed on Oct 08, 2025".

At the bottom of the screen, the taskbar shows various application icons and system status indicators, including the date (30-07-2025), time (21:21), and network connection.



Step29: Enable the tools. By which u want to proceed

Q Search for a tool

 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.	 Document search Search documents with vector indexes.
 Tavily search Retrieve information from the internet with the Tavily search engine.	 Webcrawler Retrieve information from a website.	 Python Interpreter ! Execute Python code generated by the agent.	 Weather Retrieve the weather of a city.

Step30: Give the instructions to be the specific AI agent

The screenshot shows the IBM Watsonx Agent Lab interface. The top navigation bar includes tabs for Microsoft Word, Agent Lab (beta), Agent Lab — Fitness, Fitness_buddy_agent, Fitness_buddy_agent, SB4Academia_Proble, (45) Woh Kisna H, and a new tab indicator. The user is logged in as SHUBHAM SHARMA's Account.

The main area is titled "Build" and displays the following configuration:

- Model:** mistral-large (status: yellow)
- Framework:** LangGraph (selected) and ReAct (available)
- Instructions:** A text box contains the instruction: "YOU ARE A FITNESS AGENT, WHEN GREETED WITH HI , ASK THE USER ABOUT THIER AGE, HEIGHT, DAILY ROUTINE, DIET, EXERCISES, GIVE THE EXACT RESULT OF THE USER QUERIES".
- Knowledge:** A collapsed section.
- Tools:** Buttons for "Add a tool" and "Create custom tool". Below this, it says "Added tools (5)".

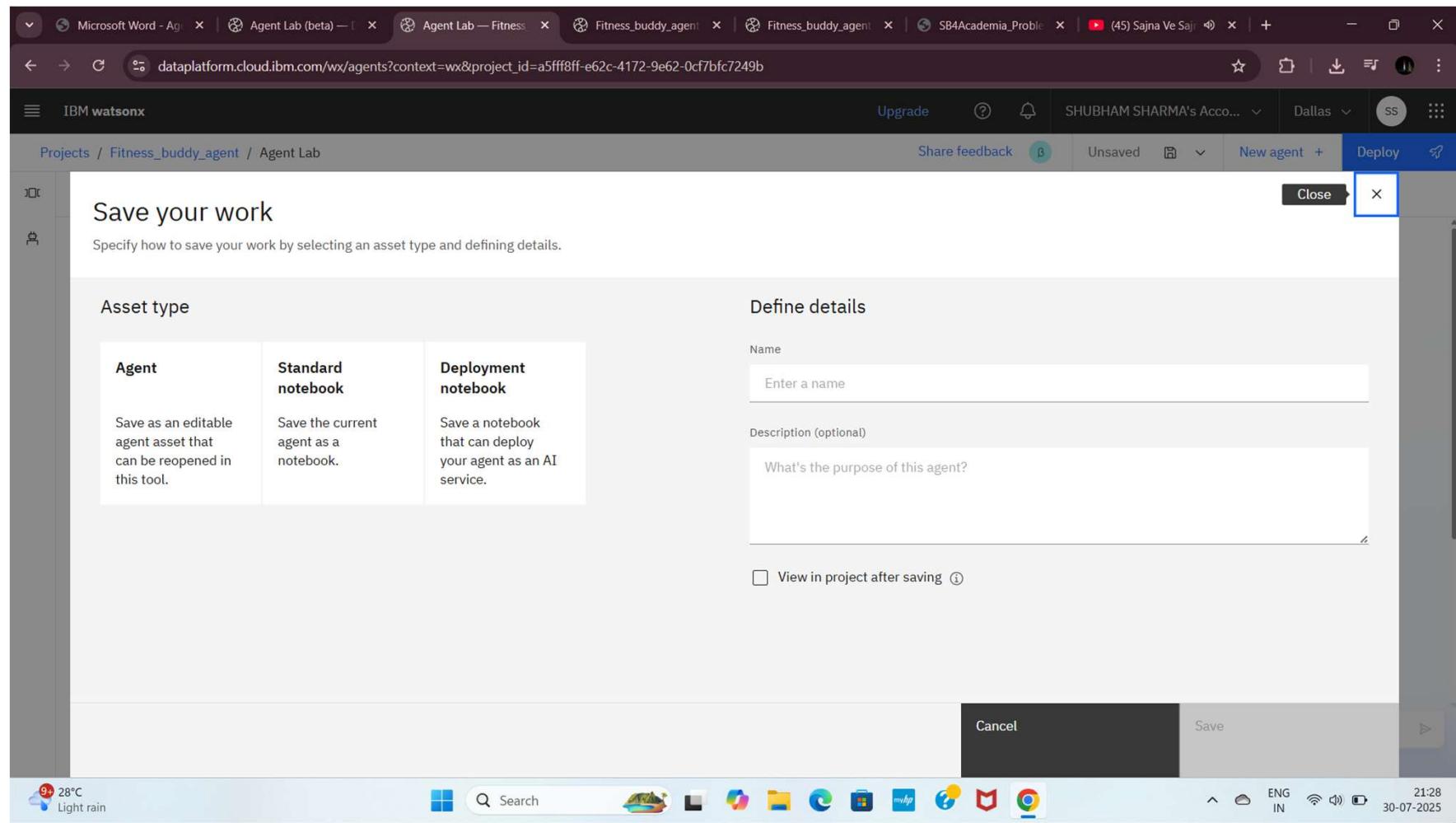
The right side features an "Agent preview" panel. It shows a message from "watsonx Agent 09:25 PM": "Welcome to watsonx Agent". Below it, a placeholder text "Change this description to reflect your particular agent" is present. The preview area contains a graphic of a magnifying glass focusing on a green circle, with a network of nodes and connections visible in the background.

The bottom of the screen shows a taskbar with various icons, weather information (28°C, Light rain), system status (ENG IN), and a timestamp (21:25, 30-07-2025). The Edunet foundation logo is also visible in the bottom right corner.

Step31: Type here your question here. This is output

The screenshot shows the IBM WatsonX Agent Lab interface. On the left, the 'Build' section is visible, featuring a sidebar with 'Setup', 'Configuration', 'Framework' (LangGraph selected), 'Architecture' (React selected), 'Instructions' (containing the text: 'YOU ARE A FITNESS AGENT, WHEN GREETED WITH HI , ASK THE USER ABOUT THIER AGE, HEIGHT, DAILY ROUTINE, DIET, EXERCISES, GIVE THE EXACT RESULT OF THE USER QUERIES'), and 'Tools' with buttons for 'Add a tool' and 'Create custom tool'. On the right, the 'Agent preview' section shows a conversation between a user ('SS') and the agent ('watsonx Agent'). The user greets with 'HI', and the agent responds with a welcome message asking for age, height, daily routine, diet, and exercises. The user then provides the information: 'AGE-21, HEIGHT-181, DIET- NOT SPECIFIC, EXERCISE-GYM EVERYDAY'. The agent replies, thanking the user for providing information and stating it needs more detail about diet and daily routine. At the bottom of the preview, there is a text input field with the placeholder 'Type something...'. The browser's address bar shows the URL: dataplatform.cloud.ibm.com/wx/agents?context=wx&project_id=a5fff8ff-e62c-4172-9e62-0cf7bfc7249b.

Step32: Click on Save as icon . Then click on agent and then click on save



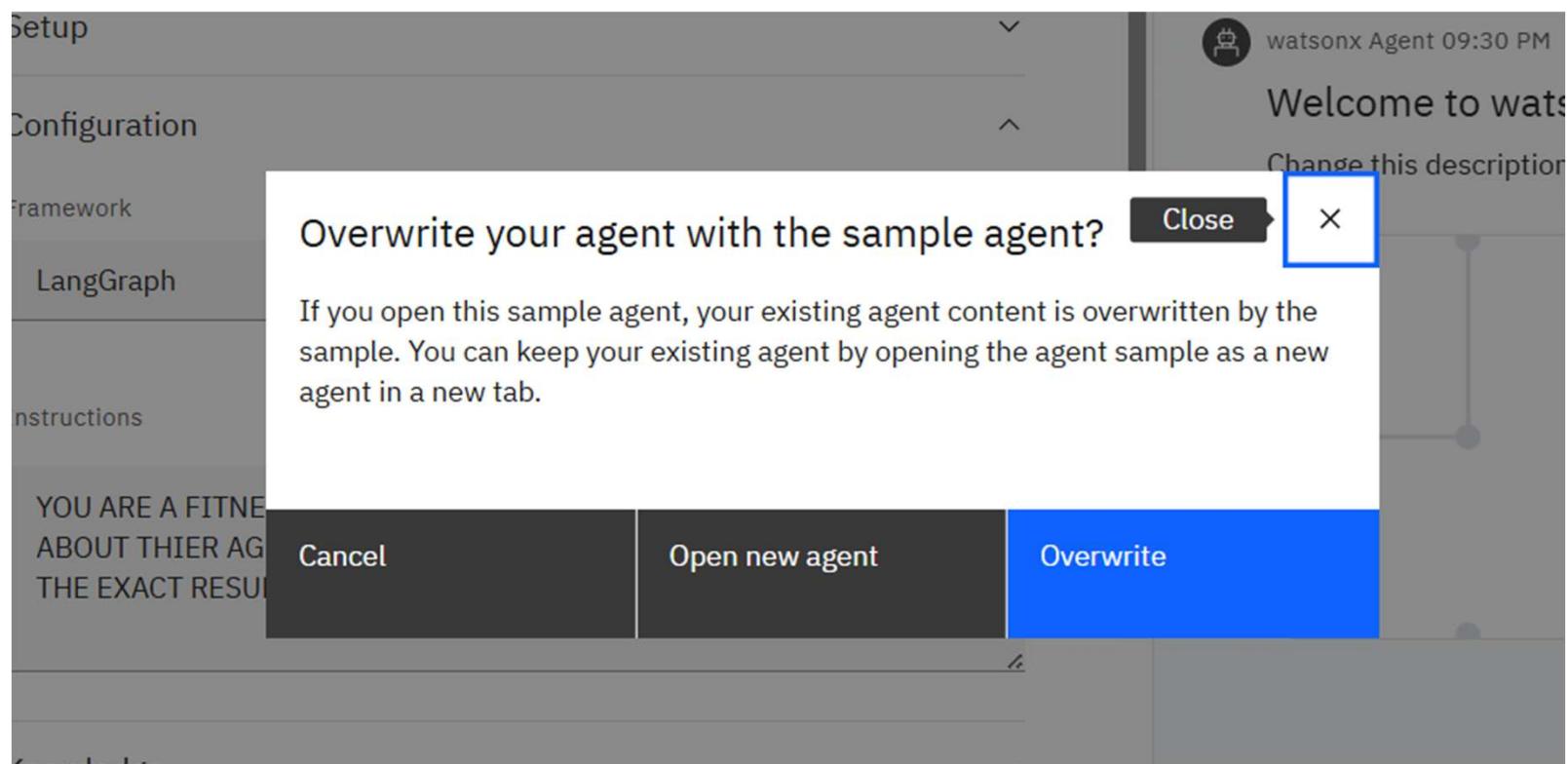
Step33: Your saved agents are available here

The screenshot shows the IBM Watsonx Agent Lab interface. On the left, under 'Saved agents', there is a card for 'Fitness_buddy_agent'. The card includes a profile icon, the name 'Fitness_buddy_agent', and a note: 'Change this description to reflect your particular agent'. To the right of the card is the 'Build' section, which contains tabs for 'Setup', 'Configuration', 'Framework' (set to LangGraph), and 'Architecture' (set to ReAct). Below these are sections for 'Instructions' (containing the text: 'YOU ARE A FITNESS AGENT, WHEN GREETED WITH HI , ASK THE USER ABOUT THIER AGE, HEIGHT, DAILY ROUTINE, DIET, EXERCISES, GIVE THE EXACT RESULT OF THE USER QUERIES') and 'Knowledge' and 'Tools'. Under 'Tools', there are buttons for 'Add a tool' and 'Create custom tool', and a section for 'Added tools (5)'. On the right side of the interface is the 'Agent preview' section, which displays a message from 'watsonx Agent 09:29 PM': 'Welcome to watsonx Agent' and 'Change this description to reflect your particular agent'. It also features a large magnifying glass icon over a network graph. At the bottom of the screen, there is a taskbar with various icons and a system tray showing the date and time.

Step34: Here sample agents are available

The screenshot shows the IBM Watsonx Agent Lab interface. The top navigation bar includes tabs for Microsoft Word - Agentics, Agent Lab (beta) — Docs, watsonx Agent — Fitness, Fitness_buddy_agent — Pr, Fitness_buddy_agent — Pr, and (45) Piya Ke Bazaar Me. The main title bar says "IBM watsonx". The left sidebar is titled "Sample agents" and lists "Sous Chef", described as "Generating tasty recipe ideas based on the ingredients they have available." The central workspace is titled "Build" and contains sections for "Setup" (with "Configuration" expanded), "Instructions" (containing the text: "YOU ARE A FITNESS AGENT, WHEN GREETED WITH HI , ASK THE USER ABOUT THIER AGE, HEIGHT, DAILY ROUTINE, DIET, EXERCISES, GIVE THE EXACT RESULT OF THE USER QUERIES"), "Knowledge", and "Tools" (with "Add a tool" and "Create custom tool" buttons). On the right, the "Agent preview" section shows a message from "watsonx Agent 09:30 PM": "Welcome to watsonx Agent. Change this description to reflect your particular agent." Below this is a search bar with "Type something...". The bottom taskbar shows system icons for weather (28°C Cloudy), search, file explorer, and browser, along with network and battery status.

Step35: Click on sample agents and click on overwrite



Step36: This is the output from sample agent & click on Deploy

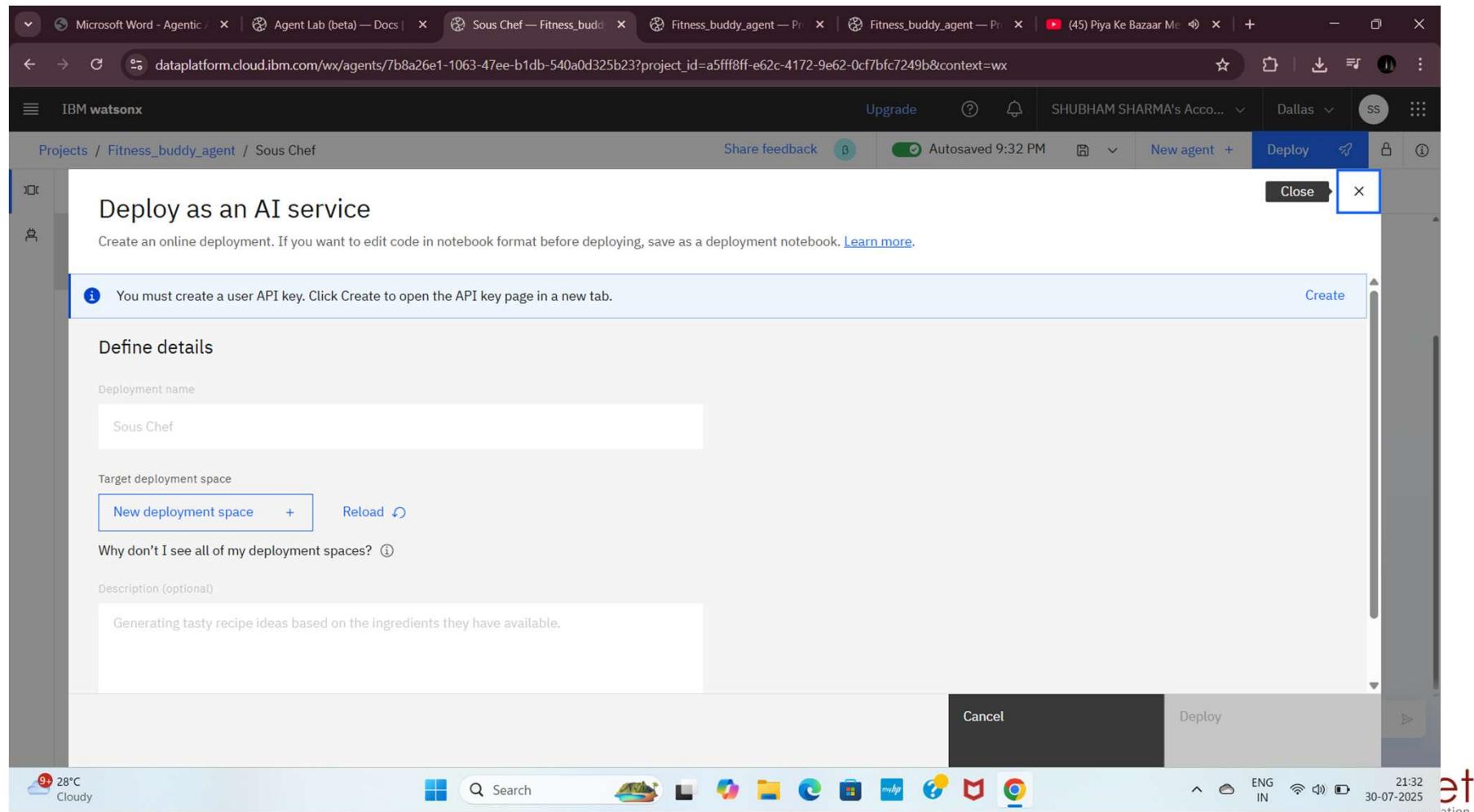
The screenshot shows the IBM WatsonX interface for deploying a sample agent. The left sidebar lists 'Sample agents' with one entry: 'Sous Chef'. The main area is titled 'Build' and shows the configuration for the 'Sous Chef' agent. The 'Model' dropdown is set to 'llama-3-3-70b-instruct'. The 'Framework' dropdown is set to 'LangGraph' and the 'Architecture' dropdown is set to 'ReAct'. The 'Instructions' section contains the following text:

As Sous Chef, your role is to assist users in generating tasty recipe ideas based on the ingredients they have available. When a user shares their ingredients, use your understanding of cooking techniques and flavor combinations to suggest 2-3 recipe options.

The 'Agent preview' pane on the right shows a conversation between the user ('You') and the agent ('Sous Chef'). The user asks for a chicken recipe, and the agent responds with a message about ingredients and weather, followed by a JSON function call to get recipe ideas. The user then asks how the agent got the answer, and the agent responds with a link to its own configuration.

At the bottom of the interface, there is a toolbar with various icons and a status bar showing the date and time (30-07-2025, 21:32), language (ENG IN), and network connectivity.

Step37: Now we have to create a API key (Click create to open the API key page in new window.)



Step38: Click on create a key option, User API key successfully created. Click on reload button and then on New deployment space

The screenshot shows a browser window with multiple tabs open at the top, including Microsoft Word, Agent Lab (beta), Sous Chef — Fitness, Settings | IBM Watson, Fitness_buddy_agent, and Fitness_buddy_agent. The main content area is the IBM WatsonX interface, specifically the 'Deploy as an AI service' dialog for the 'Fitness_buddy_agent' project under 'Sous Chef'. The dialog has a dark header with 'IBM watsonx' and various navigation and status icons. Below the header, there's a message bar with a blue info icon and the text: 'You must create a user API key. Click Create to open the API key page in a new tab.' To the right of this message is a 'Reload' button. The main form is titled 'Define details' and contains fields for 'Deployment name' (set to 'Sous Chef'), 'Target deployment space' (with a 'New deployment space' button and a 'Reload' button next to it), and 'Description (optional)' (containing the text 'Generating tasty recipe ideas based on the ingredients they have available.'). At the bottom right of the dialog are 'Cancel' and 'Deploy' buttons. The bottom of the screen shows the Windows taskbar with various pinned icons like File Explorer, Edge, and Google Chrome, along with system status icons for battery, signal, and date/time (21:34, 30-07-2025). A weather widget on the left shows '28°C Cloudy'.

Step39: Enter deployment space name and select Watsonx.ai Runtime service. Click on create.

The screenshot shows a web browser window with the URL dataplatform.cloud.ibm.com/ml-runtime/spaces/create-space?context=wx. The page title is "Create a deployment space". The left sidebar has a "+ New" button and a "Local file" option. The main form area is titled "Define details" and contains fields for "Name" (with placeholder "Enter a name"), "Description (Optional)" (with placeholder "What's the purpose of this space?" and a character count of 0/100), "Deployment stage" (with a dropdown placeholder "Select or enter a name that describes the purpose of the space"), and "Tags (optional)" (with a dropdown placeholder "Find or create tags"). At the bottom right are "Cancel" and "Create" buttons. The browser taskbar at the bottom shows various open tabs and system icons.

Microsoft Word | Agent Lab (beta) | Sous Chef — Fitri | IBM watsonx | Settings | IBM watsonx | Fitness_buddy_a | Fitness_buddy_a | (45) Mummy | +

dataplatform.cloud.ibm.com/ml-runtime/spaces/create-space?context=wx

IBM watsonx Upgrade ? SHUBHAM SHARMA's Acco... Dallas ss :

Create a deployment space

Use a space to collect assets in one place to create, run, and manage deployments

Development

Tags (optional)

Find or create tags

Add tags to make assets easier to find

Storage

Cloud Object Storage-zp

Space will include integration with Cloud Object Storage for storing space assets.

watsonx.ai Runtime (optional)

watsonx.ai Runtime-az

Advanced Settings

Cancel Create

9+ 28°C Cloudy Search

ENG IN 21:36 30-07-2025

STEP40-Select a stage, development

Deployment stage 

Select or enter a name that describes the purpose of the space 

New stage	
Development	
Production	
Testing	
Cloud Object Storage-zp	

Microsoft Word | Agent Lab (beta) | Sous Chef — Fit | IBM watsonx | Settings | IBM wa | Fitness_buddy_a | Fitness_buddy_a | (45) Mummy | +

dataplatform.cloud.ibm.com/ml-runtime/spaces/create-space?context=wx

IBM watsonx SHUBHAM SHARMA's Acco... Dallas ss

Create a deployment space

Use a space to collect assets in one place to create, run, and manage deployments

Development

Tags (optional)

Find or create tags

Add tags to make assets easier to find

Storage

Cloud Object Storage-zp

Space will include integration with [Cloud Object Storage](#) for storing space assets.

watsonx.ai Runtime (optional)

watsonx.ai Runtime-az

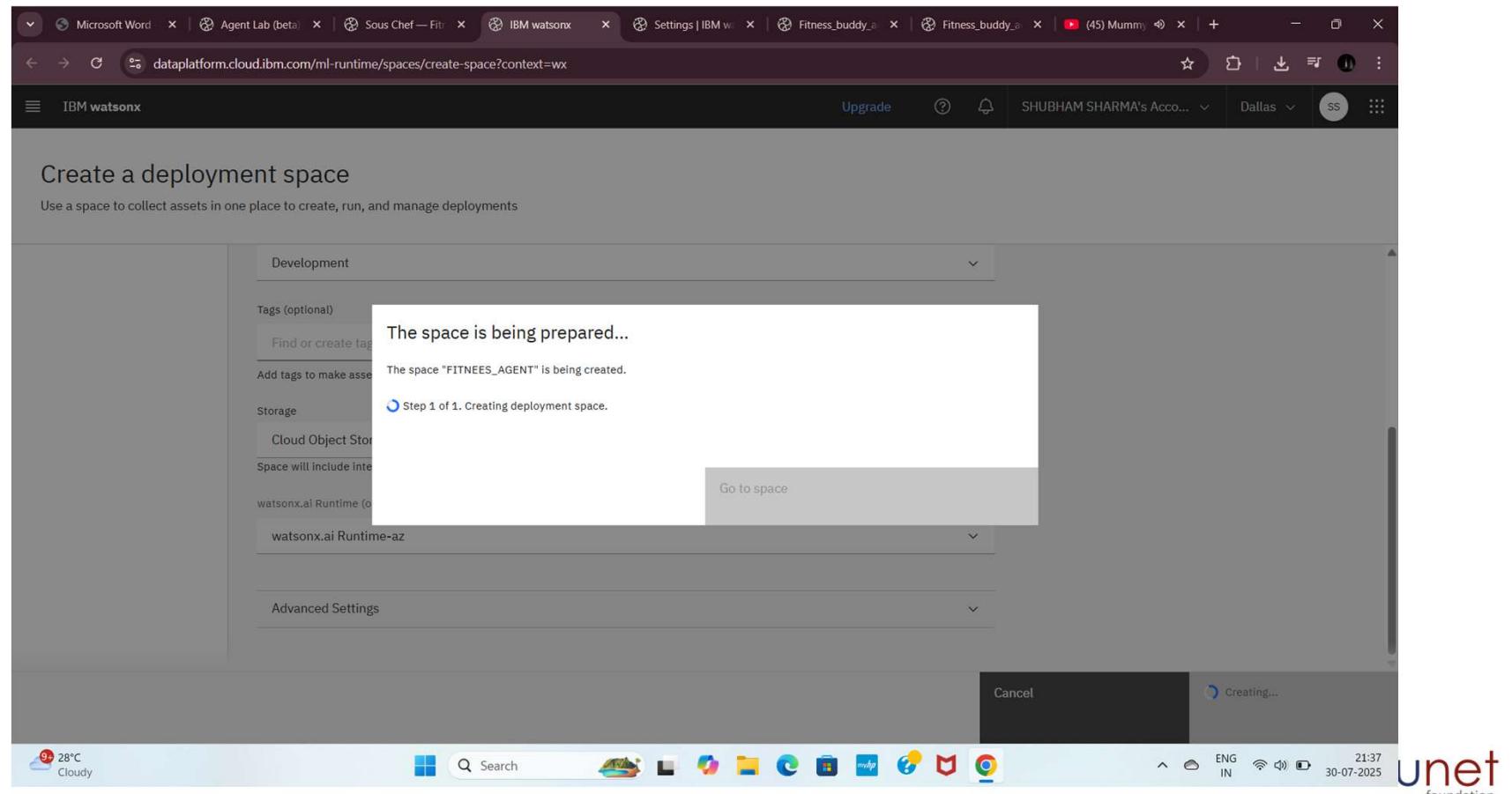
Advanced Settings

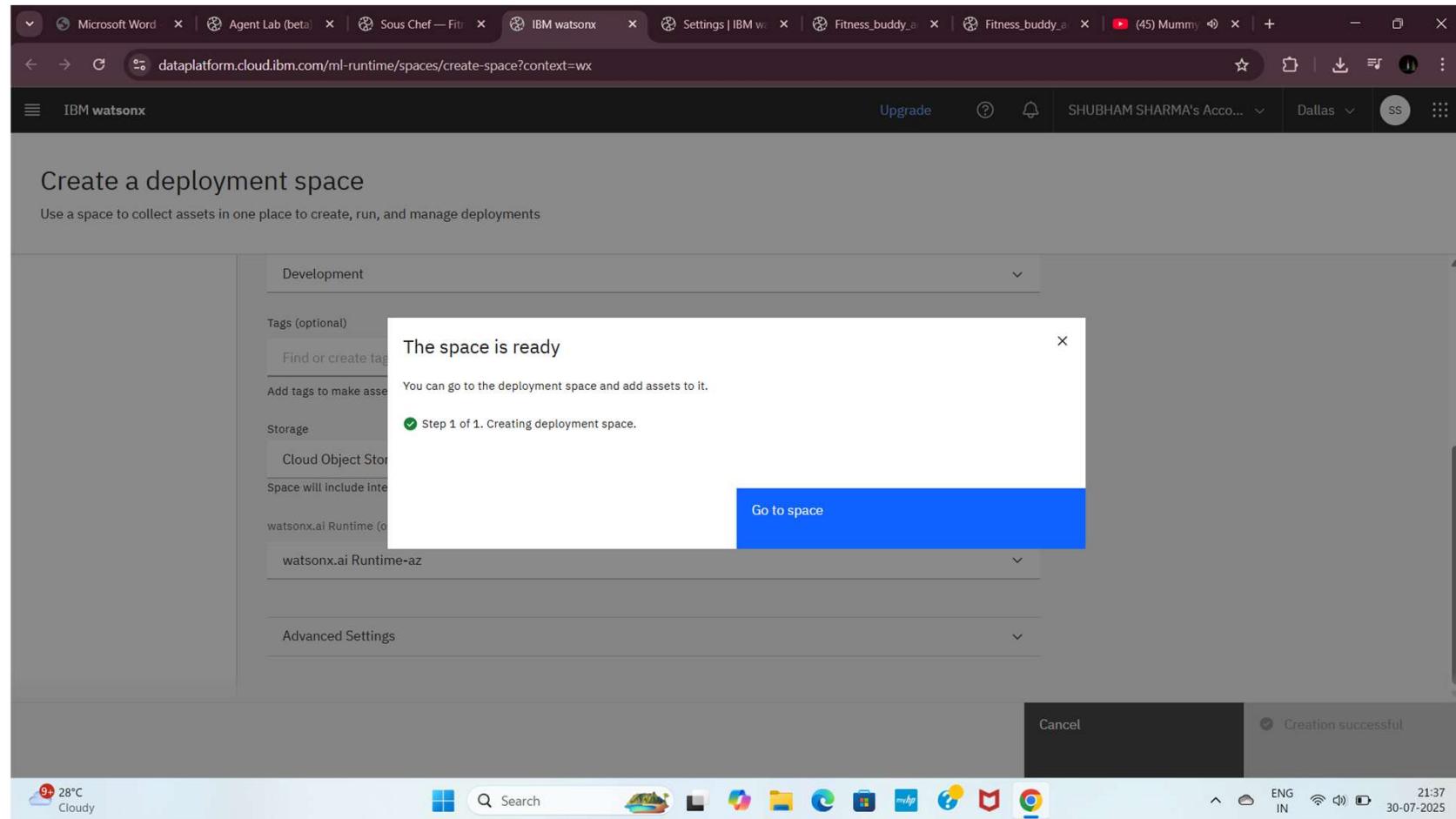
Cancel Create

9+ 28°C Cloudy Search

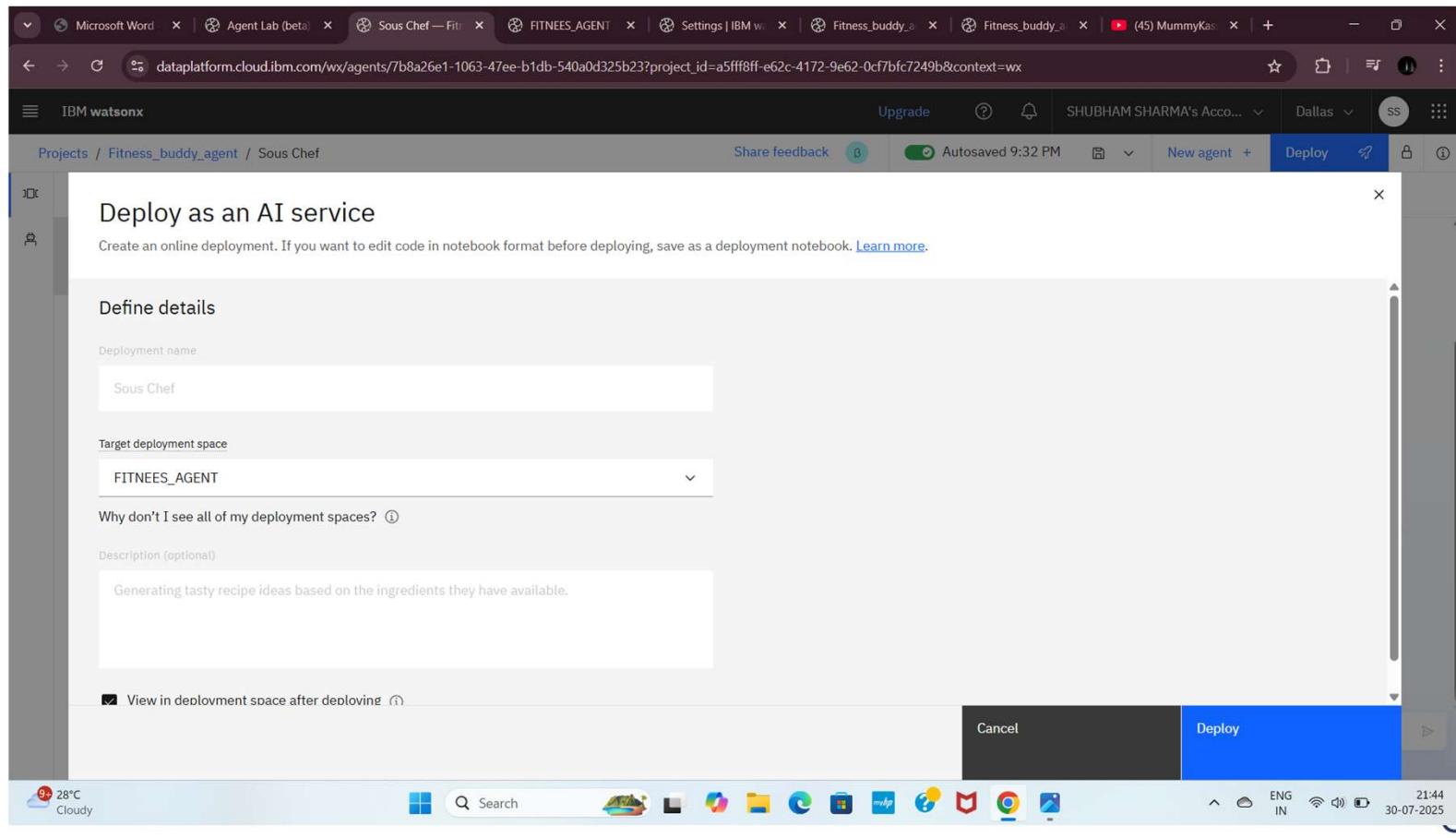
21:36 30-07-2025

Step41: Now your space is preparing, once prepare it's shown as below





Step42: Click on Deploy. Select target deployment space. Click on Deploy



Step43: Once deployed click on View status.

The screenshot shows the IBM WatsonX interface with the following details:

- Project:** Fitness_buddy_agent / Sous Chef
- Build:** Model: llama-3-3-70b-instruct
- Agent preview:** Deployment has started. Your AI service deployment has started. (Timestamp: 9:44:41 PM)
- Chat History:**
 - You: 09:32 PM CHICKEN RECIPE
 - Sous Chef: 09:32 PM Hi there! I'm Sous Chef, ready to help you create delicious meals with the ingredients you have. I'll even consider the current weather in your area to suggest the perfect dishes for the day! Could you please share your location and the ingredients you have on hand?
 - Sous Chef: Once I have that information, I can provide you with some tasty chicken recipe ideas.
 - Sous Chef: Here is a JSON for a function call to get recipe ideas: {"type": "function", "name": "GoogleSearch", "parameters": {"q": "chicken recipes"}}
- Tools:** Add a tool, Create custom tool

Step44: It's initializing and deployed

The screenshot shows a browser window with multiple tabs open, including Microsoft Word, Agent Lab (beta), FITNEES_AGENT, Settings | IBM WatsonX, Fitness_buddy_a, Fitness_buddy_b, and (45) MummyKas. The main content area is the IBM WatsonX interface, specifically the 'Deployment spaces / FITNEES_AGENT' section. The 'Deployments' tab is selected. A table lists one deployment entry:

Name	Type	Status	Asset	Asset type	Tags	Last modified	Options
(i) Sous Chef	Online	Deployed	Sous Chef	Ai service	wx-agent	1 minute ago SHUBHAM SHARMA (You)	[More Options]

At the bottom, there are navigation links for 'Items per page: 20', '1-1 of 1 items', '1 of 1 pages', and a toolbar with various icons. The system tray at the bottom right shows the date (30-07-2025), time (21:45), battery level (ENG IN), and weather (Cloudy, 28°C).

Step45: Click on Sous chef and then on preview

The screenshot shows the IBM WatsonX interface with the following details:

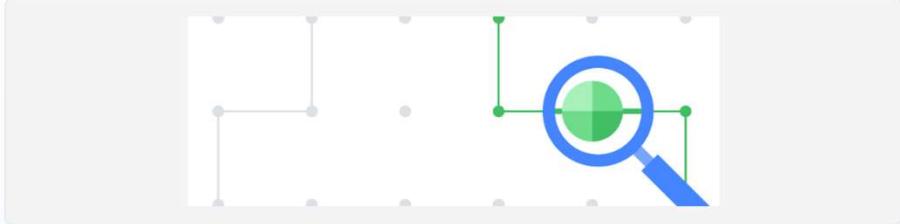
- Sous Chef** is listed as **Deployed** and **Online**.
- API reference** tab is selected.
- Endpoints for inferencing**:
 - Private endpoint**:
 - Two URLs are listed, both starting with `https://us-south.ml.cloud.ibm.com/ml/v4/deployments/48a160d7-9b3c-49bf-a65a-46b2fbea73dc/ai_service?version=2021-05-01`. The first URL has a redacted token placeholder.
 - Bearer <token> IAM
 - Public endpoint**:
 - Two URLs are listed, both starting with `https://us-south.ml.cloud.ibm.com/ml/v4/deployments/48a160d7-9b3c-49bf-a65a-46b2fbea73dc/ai_service?version=2021-05-01`. The first URL has a redacted token placeholder.
- About this deployment** panel:
 - Name**: Sous Chef
 - Description**: Generating tasty recipe ideas based on the ingredients they have available.
 - Deployment Details**: Deployment ID: 48a160d7-9b3c-49bf-a65a-46b2fbea73dc, Serving name: No serving name, Software specification: Extra extra small: 1 CPU and 2 GB RAM, Copies: 1.
 - Tags**: wx-agent
 - Associated asset**: Sous Chef, ae615c2b-4ab4-4eec-9277-3a3e2f2f6f87
- Code snippets** section: curl, Java, JavaScript, Python, Scala.
- System tray icons: Cloud (28°C), Search, File, Browser, Task View, msdp, Mail, Google Chrome, Microsoft Edge.
- Bottom right corner: 21:46, ENG IN, 30-07-2025, Edition.

Step46: Now give some question click on send like Mutton Biryani

Sous Chef 09:46 PM

Welcome to Sous Chef

Generating tasty recipe ideas based on the ingredients they have available.



Quick start samples

MUTTON BIRYANI

About this deployment

Name: Sous Chef

Description: Generating tasty recipe ideas based on the ingredients they have available.

Deployment Details

Deployment ID: 48a160d7-9b3c-49bf-a65a-46b2fbea73dc

Serving name: No serving name.

Software specification: runtime-24.1-py3.11

Hardware specification: Extra extra small: 1 CPU and 2 GB RAM

Copies: 1

Tags: wx-agent

Associated asset

Sous Chef
ae615c2b-4ab4-4eec-9277-3a3e2f2f6f87

Cloudy 28°C

Search

21:46 30-07-2025

ENG IN

Unet foundation

Microsoft Word | Agent Lab (beta) | Sous Chef — FIT | FITNEES_AGENT | Settings | IBM wa | Fitness_buddy_a | Fitness_buddy_a | (45) MummyKas | +

dataplatform.cloud.ibm.com/ml-runtime/deployments/48a160d7-9b3c-49bf-a65a-46b2fbea73dc/chat?space_id=dab266ba-bde8-432c-b50f-eaabedc9e735&context=wx&flush=true

IBM watsonx

SHUBHAM SHARMA's Account Dallas ss

Deployment spaces / FITNEES_AGENT / Sous Chef /

Sous Chef

✓ Deployed Online

API reference Test Preview

New chat +

Ingredients:

- 2 cups basmati rice
- 2½ to 3 cups water
- ¾ cup onions (sliced thinly)
- 2 to 4 green chilies
- ½ cup tomatoes (optional)
- Salt

Instructions:

1. Marinate the mutton pieces in a mixture of yoghurt, ginger paste, garlic paste, and spices.
2. Cook the basmati rice in water until it is half cooked.
3. Layer the cooked rice and marinated mutton in a pot, along with fried onions, chopped coriander, and mint leaves.
4. Cook the biryani on low heat for about 15-20 minutes, or until the rice is fully cooked and the flavors have melded together.

Type something... ➤

About this deployment

Name: Sous Chef

Description: Generating tasty recipe ideas based on the ingredients they have available.

Deployment Details

Deployment ID: 48a160d7-9b3c-49...
Serving name: No serving name.
Software specification: runtime-24.1-py3.11
Hardware specification: Extra extra small: 1 CPU and 2 GB RAM
Copies: 1

Tags: wx-agent

Associated asset

Sous Chef ae615c2b-4ab4-4eec-9277-3a3e2f2f6f87

9+ 28°C Cloudy ENG IN 21:46 30-07-2025



RESULT

- Present the results of the machine learning model in terms of its accuracy and effectiveness in recommending suitable recipes. Include visualizations and comparisons between user-accepted suggestions and model-generated predictions to highlight the system's recommendation performance.
- Demonstrate the model's ability to consistently provide personalized recipe suggestions that align with user preferences and ingredient availability. Include metrics such as precision, recall, and user satisfaction ratings. Graphs can compare the number of accepted recipes versus total recommendations over a defined period, along with heatmaps showing alignment with dietary goals. Showcase examples of successful recommendations and explain scenarios where the model outperformed traditional methods. Highlight any feedback-driven improvements in newer iterations of the model, reinforcing the agent's adaptability and usefulness in real-world cooking environments.



CONCLUSION

- The Recipe Preparation Agent effectively provided personalized and accurate recipe suggestions by leveraging user preferences and real-time ingredient data. While challenges like data inconsistencies and diverse user tastes were encountered, the system improved meal planning and user experience. Future enhancements could boost ingredient recognition and device integration, making it a valuable tool for modern cooking needs.



FUTURE SCOPE

- The system can be enhanced by integrating more diverse data sources, refining algorithms for faster and more accurate suggestions, and scaling to support broader user bases. Future expansion could include smart kitchen integration, edge computing for offline use, and the application of advanced machine learning for deeper personalization.

REFERENCES

- Teng et al. (2012): *Recipe recommendation using ingredient networks*, ACM Web Science Conference.
- Figueiredo et al. (2014): *Health-aware recipe recommendations*, ACM CIKM.
- He et al. (2017): *Neural collaborative filtering*, WWW Conference.

IBM CERTIFICATIONS

In recognition of the commitment to achieve professional excellence



Shubham Sharma

Has successfully satisfied the requirements for:

Getting Started with Artificial Intelligence

Issued on: Jul 16, 2025

Issued by: IBM SkillsBuild



Verify: <https://www.credly.com/badges/0f56e6a5-4166-4964-85c0-ab21822b0b3d>



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Issued on: Jul 20, 2025

Issued by: IBM SkillsBuild

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This certificate is presented to
Shubham Sharma

for the completion of

Lab: Retrieval Augmented Generation with LangChain

(ALM-COURSE_3824998)

According to the Adobe Learning Manager system of record

Completion date: 24 Jul 2025 (GMT)

Learning hours: 20 mins



THANK YOU