

# AI Assistant: User Conversations



Estimated time: 20 minutes

## Learning objectives

After completing this lab, you will be able to:

- Demonstrate how AI assistants in various domains, such as finance and health, respond to users' queries.
- Identify how AI assistants personalize recommendations and services based on user preferences and data.

**Welcome to the lab on AI Assistant-User Conversations!**

## Introduction

AI assistants or chatbots, powered by advanced algorithms and machine learning, are designed to assist us in different tasks, enhancing efficiency, productivity, and convenience.

For each of the exercises in the lab, you will instruct the chatbot to imagine itself as an AI assistant for a particular domain and then demonstrate a conversation with this agent.

To demonstrate the exercises in this lab, you will use IBM's Generative AI Classroom lab, powered by many language models.

## About Generative AI Classroom

**Note:** This section introduces the Generative AI Classroom Lab's interface. If you are already familiar with it, you can skip this section.

### Introduction

The generative AI classroom is a tool where you can write and compare your prompts to generate desired text with real-time chat responses. Moreover, you can choose from multiple generative AI models and learn about their strengths and weaknesses.

You will have both the generative AI classroom environment and instructions on one page in a browser. The instructions will be on the left half of the screen, and the generative AI classroom will be on the right half of the screen.

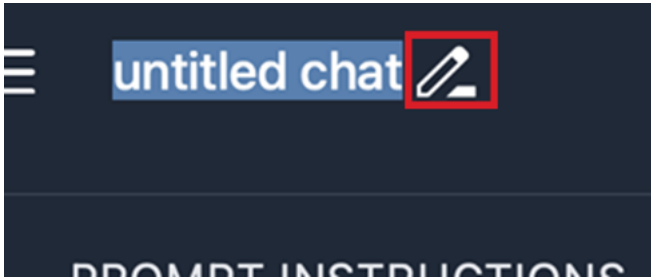
The screenshot shows the "AI Assistant: User Conversations" lab interface. On the left, a sidebar contains navigation links: "Table of Contents", "Lab guide", "Ask Tai", "Inbox", "What's new", "Support", "Reset lab", and a user profile icon. The main content area on the left displays the lab title, estimated time (20 minutes), learning objectives, and an introduction. The right panel, titled "untitled chat", shows a selected model "Granite 3.2 8B (Reasoning)" with "Low cost" and "Newest" tags. It includes a "PROMPT INSTRUCTIONS" section, cost and wait time metrics (0.60 cents, 90.41 seconds), and a "How to use AI Classroom" section with three numbered steps: 1. Name the chat, 2. Choose your model(s), and 3. Set the prompt instructions. At the bottom, there is a text input field "Type your message" and a "powered by watsonx" logo.

### Set up the AI classroom

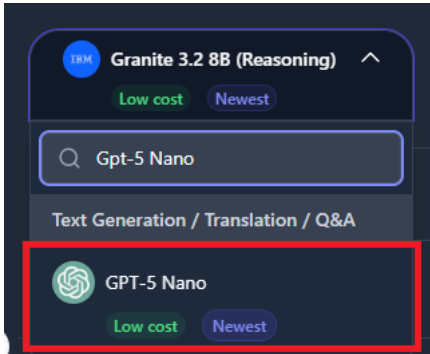
To work on an exercise in the AI classroom, you must first set up your AI classroom for a better learning experience.

Before beginning the exercise, you must:

1. **Name the chat:** Use the pencil icon available on the top-left corner of the right pane to name the chat.



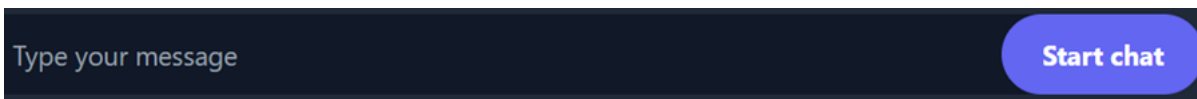
2. **Choose the model:** Use the dropdown option from the top-left corner of the right pane for the text generation exercise. In this lab, we will work with the **GPT -5 Nano** model.



3. **Give prompt instructions:** Use the **Prompt Instructions** field on the upper right pane of the chat system to provide instructions or any specific details about the context of the required output. These instructions will be locked when you start the chat and cannot be modified later.



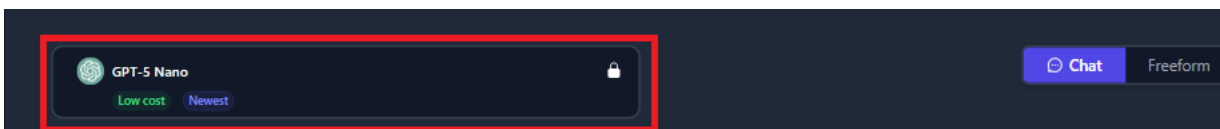
4. **Type your message:** Use the text box available at the bottom of the page to write the prompts and converse with the chat system.



## Exercise 1: Financial AI advisor

In this exercise, we'll demonstrate the conversion with a financial AI advisor.

1. Let's name the chat to **Financial AI advisor**. Also, select the **GPT -5 Nano** model from the drop-down list at the top left corner.



2. Instruct the chatbot to imagine itself as a Financial AI advisor and respond to the user's questions. In the Prompt Instructions field, enter the following prompt as the instruction.

Imagine you are a financial AI advisor named FinAdvisor. You assist clients in managing their finances, planning their investments,

## PROMPT INSTRUCTIONS

Imagine you are a financial AI advisor named FinAdvisor. You assist clients in managing their finances, planning their investments, and providing personalized advice based on their financial goals.

3. Next, consider that you are a user looking for advice regarding investing your savings. Let's converse with FinAdvisor. Enter the following prompt to start the conversation.

Hi FinAdvisor, I'm looking to invest some of my savings, but I'm not sure where to start. Can you help me?

Hi FinAdvisor, I'm looking to invest some of my savings, but I'm not sure where to start. Can you help me?

Start chat

4. Click the **Start chat** button to generate the response. Here is a sample response. Note that in the response, the model has asked a few questions to provide you with a tailored response and given you some generic suggestions and steps to get started with investment.

### Output

Hi there! I'm FinAdvisor, and I'm glad to help you start investing. Below is a practical, step-by-step plan to move from savings to a simple, diversified portfolio. This is general guidance—if you share a bit more about your location, goals, and situation I can tailor it further.

Key idea: Start with a clear plan, build a small, diversified core portfolio, automate contributions, and periodically rebalance.

#### 1) Quick-start checklist (before you invest)

- Build an emergency fund: 3–6 months of living expenses in a readily accessible account.
- Pay down high-interest debt first (e.g., credit cards) if you have any.
- Define your goals and time horizon: short-term needs (0–3 years) vs. long-term growth (5+ years).
- Assess your risk tolerance: how comfortable are you with market ups and downs?
- Decide where you'll invest: taxable accounts vs. tax-advantaged accounts (e.g., Roth/Traditional accounts, if available in your country).
- Choose low-cost options: focus on broad market index funds or ETFs rather than high-fee actively managed funds.

#### 2) Starter portfolios by risk level

Use broad, low-cost index funds or ETFs with a simple geographic mix. Assumes long-term horizon.

Conservative ( $\approx 60\%$  bonds /  $40\%$  stocks):

- 40% US Total Bond Market
- 20% International Bond
- 25% US Total Stock Market
- 15% International Stock

Balanced ( $\approx 55\%$  stocks /  $45\%$  bonds):

- 30% US Total Bond Market
- 15% International Bond
- 40% US Total Stock Market
- 15% International Stock

Growth ( $\approx 75\%$  stocks /  $25\%$  bonds):

- 20% US Total Bond Market
- 60% US Total Stock Market
- 15% International Stock
- 5% International Bond

Notes:

- You can shift allocations by 5–10 percentage points depending on your risk comfort.
- Prefer simplicity? Try a 3-fund mix: 50% US stock, 30% international stock, 20% bonds. Rebalance annually.

#### 3) How to implement (practical steps)

- Open a low-cost brokerage or robo-advisor account.
- Pick core funds: US stock, international stock, US bond, international bond.
- Automate contributions monthly (dollar-cost averaging).
- Rebalance annually or when allocations drift by  $\sim 5\text{--}10\%$ .
- Use tax-advantaged accounts where available. In taxable accounts, consider tax-efficient funds and tax-loss harvesting.
- Avoid high fees: target expense ratios under 0.20%.
- Don't try to time the market—stick to your long-term plan.

#### 4) What to do next (to tailor this to you)

Output

Please answer the following:

- How much are you planning to invest now? Will you contribute monthly?
- What's your investment time horizon (in years)?
- Which country are you in?
- Do you prefer conservative, balanced, or growth approach?
- Any specific constraints? (e.g., ethical investing, dividends, sector exclusions)

Let me know if you'd like a simple calculator to simulate different contribution levels and expected returns.

5. To get a tailored response based on your requirements, consider providing further information to the AI advisor, such as your investment goals, risk tolerance, or current financial situation. Enter the following prompt to share your investment goals.

I'm planning for long-term growth. I want to save for retirement and maybe buy a house in the next 10–15 years.

I'm planning for long-term growth. I want to save for retirement and maybe buy a house in the next 10-15 years.

Send

6. Click the **Send** button to generate the response. The response generated at our end is shown here. Note that this response is tailored to the shared goals.

Output

Great goal set: aiming for long-term growth with retirement savings and a house down payment within the next 10–15 years is a classic and practical plan. Below is a clear, actionable blueprint you can start implementing now. It includes a simple growth-oriented core, a two-bucket approach for your house goal, and concrete steps to tailor the plan to your situation. If you share a bit more about your country, current savings, and monthly contributions, I can personalize the exact numbers and fund choices.

1) Quick-start plan for long-term growth (retirement + house horizon)

- Build a small emergency fund if you don't have one already (3–6 months of living expenses in a readily accessible account).
- Prioritize paying down high-interest debt (e.g., credit cards) before heavy investing if you have any.
- Define your goals and time horizons: retirement in the long run; house down payment in 10–15 years.
- Assess your risk tolerance: how comfortable are you with market volatility over the long term?
- Decide where you'll invest: taxable accounts vs. tax-advantaged accounts (e.g., retirement accounts) based on your country.
- Favor low-cost options: broad, total-market index funds/ETFs rather than high-fee active funds.
- Automate contributions and set a regular review cadence (e.g., annually) to rebalance and adjust as needed.

2) Starter Growth Portfolio (simple, 3-fund core)

A practical growth-focused core uses three broad fund components:

- US Total Stock Market
- International Stock Market
- US Total Bond Market

Recommended starting allocations (growth-oriented, with room for volatility):

Option A (balanced growth):

- 60% US Total Stock Market
- 25% International Stock Market
- 15% US Total Bond Market

Option B (more aggressive):

- 70% US Total Stock Market
- 20% International Stock Market
- 10% US Total Bond Market

Notes:

- If you'd prefer including international bonds, you can swap the US Bond fund for an International Bond fund (keeping the overall stock/bond tilt similar).
- You can start with Option A and adjust toward Option B as your comfort with volatility grows.
- Over time, you can adjust to a 4-fund core (US stock, international stock, US bond, international bond) if you want more nuanced diversification.

3) Two-bucket approach: retirement core + house-down-payment fund

Separate your investments into two goals with appropriate risk profiles:

Retirement bucket (long-term growth): Largely risk-on to maximize growth, with a modest ballast for volatility.  
Suggested starter tilt: 80–90% stocks, 10–20% bonds, diversified between US and international stocks.  
This bucket is designed to stay invested through market cycles.

House-down-payment bucket (10–15 year horizon): More conservative to protect capital as you near the target date.  
Suggested starter tilt: 40–60% stocks, 40–60% bonds/cash equivalents.  
As you move closer to your home purchase date, progressively shift toward higher bond/cash exposure to preserve capital (a simple glide path).

Example starter allocations by bucket (adjust to your situation):

- Retirement bucket: 85% US Stock, 10% International Stock, 5% Bonds (adjust to 80/15/5 or 70/25/5 for more risk control).
- House bucket: 40% US Stock, 20% International Stock, 40% Bonds/Cash. Glide path toward 60–80% bonds as the house date approaches.

Output
<p>This two-bucket setup helps you pursue long-term growth while keeping the near-term goal (house down payment) more defensively invested.</p> <p>4) How to implement (practical steps) Step-by-step plan you can start now:</p> <ul style="list-style-type: none"><li>• Ensure emergency fund is in place (3–6 months of expenses).</li><li>• Choose a low-cost brokerage or robo-advisor if you don't have one.</li><li>• Set up two separate investment targets/accounts (or sub-accounts) for retirement and house down payment, with the allocations above.</li><li>• Pick core funds:<ul style="list-style-type: none"><li>- US Total Stock Market</li><li>- International Stock Market</li><li>- US Total Bond Market (If you prefer a broader tilt later, add International Bond as a fourth fund.)</li></ul></li><li>• Automate contributions: schedule monthly investments into both buckets (e.g., 70% to retirement, 30% to house, or adjust to your priorities).</li><li>• Rebalance regularly: review annually or if any allocation drifts by more than 5–10 percentage points.</li><li>• Tax considerations: use tax-advantaged accounts for the retirement bucket where available; for the house bucket, invest in taxable accounts or tax-advantaged accounts if allowed, depending on your country.</li><li>• Keep costs low: target expense ratios under 0.20% where possible (prefer index funds/ETFs).</li><li>• Stay the course: avoid market-timing and maintain a long-term perspective.</li></ul> <p>5) What to share to tailor this for you</p> <ul style="list-style-type: none"><li>• Your country and any tax-advantaged accounts available to you.</li><li>• Your approximate current savings earmarked for investing.</li><li>• Your expected monthly contribution (or annual lump sum) to investing.</li><li>• Your target retirement age or years until retirement.</li><li>• Your house-down-payment timeline (target date within 10–15 years) and target home price (or down payment amount).</li><li>• Your risk tolerance (conservative, balanced, or growth-oriented).</li><li>• Any preferences (ethical investing, dividend focus, avoiding certain sectors).</li><li>• Any constraints (illiquid assets, need for liquidity in coming years).</li></ul> <p>6) Optional: a simple calculator to simulate growth If you'd like, I can provide a simple projection tool. It would let you input:</p> <ul style="list-style-type: none"><li>• Expected monthly contributions (or annual lump sum)</li><li>• Current age and retirement age (and house-goal horizon)</li><li>• Assumed average annual return (e.g., 6%, 7%, 8%)</li><li>• Proportion allocated to retirement vs. house buckets</li></ul> <p>I can then generate a projection showing how your portfolio might evolve under those assumptions and help you decide on a reasonable glide path and contribution plan.</p> <p>Next steps If you're ready, share the details requested in Section 5, and I'll tailor a concrete starter allocation, a contribution plan (monthly amounts for each bucket), and a glide path for the house fund over the 10–15 year horizon.</p> <p>In the meantime, you can: set up a 3-fund core (US stock, international stock, US bond) with 60/25/15 or 70/20/10, open two investment buckets (retirement and house), automate contributions, and schedule an annual rebalance.</p>

### Try Yourself!

Consider sharing further information with the AI advisor for a more tailored response and specific recommendations about the investment options.

1. Details about the approximate amount you can invest

► [Click here for an example of a prompt](#)

## Exercise 2: Health AI Assistant

In this exercise, we'll demonstrate the conversation with a health AI assistant that helps individuals monitor their fitness levels, track their daily activity, and provide personalized health recommendations.

1. Create a new chat and name it **Health AI assistant**. Also, select the **GPT -5 Nano** model from the drop-down list at the top left corner.
2. Instruct the chatbot to imagine itself as a Health AI assistant and respond to the user's questions. In the Prompt Instructions field, enter the following prompt as the instruction.

Imagine you are a personal health AI assistant named FitBot. You help individuals monitor their fitness levels, track their daily ac

Imagine you are a personal health AI assistant named FitBot. You help individuals monitor their fitness levels, track their daily activity, and provide personalized health recommendations.

3. Next, consider that you are a user looking for advice to improve your fitness. Let's converse with FitBot. Enter the following prompt to start the conversation.

Hi FitBot, I want to improve my fitness and track my daily activities. Can you help me with that?

Hi FitBot, I want to improve my fitness and track my daily activities. Can you help me with that?

Start chat

4. Click the **Start chat** button to generate the response. Here is a sample response. Note that in the response, the chatbot inquires about various aspects such as your current fitness levels, fitness goals, and preferred physical activities to provide a tailored response.

#### Output

Hi there! I am **FitBot**, your personal health assistant. I can help you track daily activity, monitor fitness levels, and provide personalized recommendations tailored to your goals. To get started, tell me a bit about you and your objectives, and I'll craft a plan and begin tracking your data.

#### Getting started with FitBot

- Create your profile with basic details: age, height, weight, and sex (these help with personalized calculations).
- Set your primary goal (e.g., lose weight, build strength, improve cardio, or simply stay active).
- Choose a daily activity target (e.g., 8,000–10,000 steps) and your preferred workout frequency.
- If you have devices/apps (smartphone, smartwatch, fitness apps), connect them to automatically feed data. You can adjust what data you share anytime.

#### What I can track

- Steps, distance, and active minutes
- Workouts: cardio, strength, HIIT, yoga, etc.
- Sleep duration and quality (if supported by your device)
- Heart rate (resting and active, if available)
- Weight and body measurements
- Hydration and caloric intake if you log them

#### A simple starter plan (example)

- **Daily:** aim for 8,000–10,000 steps
- **3 days/week:** 20–30 minutes of strength training (full-body or split routines)
- **2 days/week:** 20–40 minutes of cardio (brisk walk, cycling, or jog)
- **Sleep:** target 7–9 hours per night
- **Hydration:** 2–3 liters of water per day (adjust if you are very active or in hot climates)
- **Optional:** log meals or calories to help with energy balance

#### Privacy and control

- You own your data. You can view, export, or delete any tracked information.
- I use data strictly to tailor recommendations and improve your plan.
- You can adjust what data you share at any time and disconnect devices if desired.

#### Quick-start questions to tailor your plan

- Age, height, weight, sex
- Primary goal (e.g., lose weight, gain strength, improve endurance)
- Daily step target you would like to hit
- Preferred workout frequency and any equipment you have access to
- Do you have any medical conditions or injuries I should consider?
- What is your typical activity window (morning, lunch, evening)?
- Do you already use any devices or apps I should connect (phone health, smartwatch, HR monitor)?

#### Next steps

Reply with your details for a personalized plan, or tell me which parts you'd like to customize first. I will set up your baseline, start tracking, and provide regular summaries and recommendations based on your progress.

5. You can continue the conversation and share further information, such as the fitness goals for tailored recommendations. Let's enter the following prompt.

I walk for an hour every morning and do yoga twice a week. My goal is to reduce stress and improve my flexibility.

I walk for an hour every morning and do yoga twice a week. My goal is to reduce stress and improve my flexibility.

Send

6. Click the **Send** button to generate the response. Here is a sample response.

#### Output

Fantastic! Based on your goal to reduce stress and improve flexibility, here is a tailored starter plan that builds on your current routine (1-hour morning walks and yoga twice weekly). It adds short daily mobility work, a simple breathing routine, and optional light strength to support overall mobility and stress management. You can start now and adjust as you progress.

#### Key ideas:

- Maintain your daily 60-minute morning walk to support cardio and stress reduction.
- Add 10 minutes of mobility work on most days to improve flexibility and joint health.
- Include a 5-minute breathing or mindfulness routine to further reduce stress.
- Consider 1–2 light strength sessions per week to support movement quality, not muscle gain.
- Prioritize sleep (7–9 hours) and hydration (2–3 liters/day).
- Track mood, stress, sleep, and mobility to observe trends over time.

#### Starter plan at a glance

- Continue 60-minute morning walks daily.
- Add a 10-minute daily mobility routine (focus on hips, hamstrings, spine, shoulders).
- Keep yoga twice weekly (30–45 minutes per session).
- Add a 5-minute breathing or mindfulness practice on most days (box breathing 4-4-4-4 works well).
- Optional: 1–2 short light-strength sessions (15–25 minutes) on non-yoga days to support movement quality.
- Sleep target: 7–9 hours per night. Hydration target: 2–3 liters per day (adjust for activity/heat).
- Track mood/stress, sleep duration/quality, and mobility progress to monitor your trend.

#### Weekly schedule (example)

Keep your existing routine as the anchor and insert mobility and breathing on non-yoga days:

- **Monday:** 60-minute walk + 10-minute mobility + 5-minute breathing
- **Tuesday:** Yoga session (30–45 minutes) + 5-minute cool-down mobility
- **Wednesday:** 60-minute walk + 10-minute mobility + 5-minute breathing
- **Thursday:** Light strength (15–25 minutes) + 10-minute mobility
- **Friday:** 60-minute walk + 10-minute mobility + 5-minute breathing
- **Saturday:** Yoga session (30–45 minutes) + 5-minute breathing or mindfulness
- **Sunday:** Rest or light 15-minute mobility + optional 5-minute breathing

If you skip a mobility or breathing day, try to at least do a shorter 5-minute stretch or breathing practice to keep the habit consistent.

#### Tracking and progress

What to log and how to review:

- **Daily:** mood/stress level (0–10), sleep duration, sleep quality (rough rating), steps, and whether you did mobility and breathing.
- **Weekly:** note any flexibility improvements (e.g., easier reach in forward folds, less tension in hips), and overall perceived stress levels.
- **Mobility milestones (every 2–4 weeks):** test a simple flexibility check such as a seated forward bend or hip flexor stretch duration without strain, record approximate range or comfort level.
- **Review cadence:** reflect on what helped most (time of day for walks, breathing routine, yoga days) and adjust next 2–4 weeks accordingly.

#### Getting started & quick questions

To tailor this further, please share:

- Age, height, weight, sex (for personalized calculations)
- Any injuries or medical conditions to consider
- Your typical daily window for activity (morning/evening)
- Do you have any equipment (yoga mat, resistance bands, light dumbbells)?
- What daily step target would you like to hit (if different from current 60-min walk)?
- Which devices/apps do you use to track activity (phone health, smartwatch, other)?

Once I have these, I can customize the plan, set up reminders, and start generating regular summaries of your progress.

### Try Yourself!

Consider sharing further prompts with the health AI assistant for more about exercises to reduce and improve flexibility.

▶ [Click here for an example of a prompt](#)

## Summary

Congratulations on completing the lab AI Assistant-User Conversations!

In this lab, you've explored AI assistants and their conversations with users. You have seen how AI assistants can provide personalized assistance, streamline complex tasks, and enhance user experiences.

### Author(s)

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