

Lab 02

Building a GPT



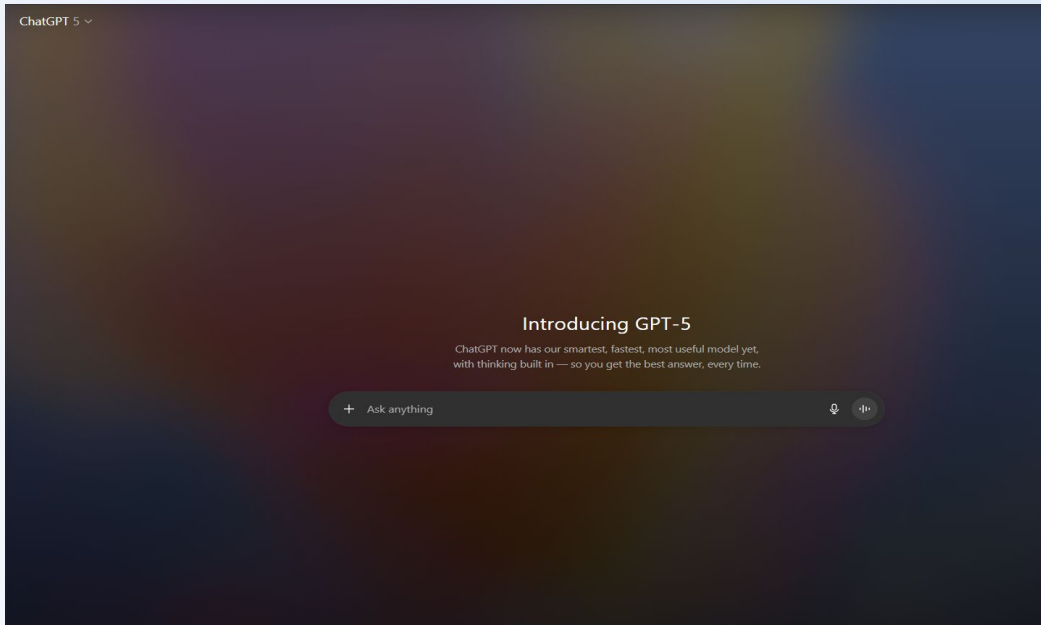
Lab Objectives

- Learn to use the OpenAI cloud tools to build a GPT
- Add in knowledge to enhance the accuracy/recall of the agent
- Learn to engineer a prompt that enables the exact functionality you're seeking



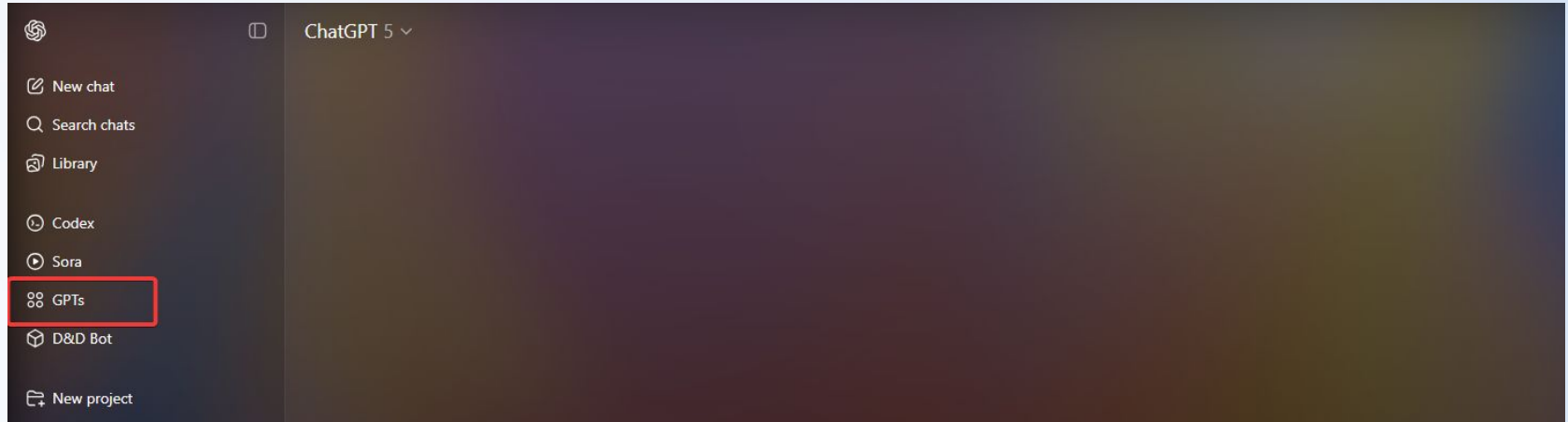
Logging into ChatGPT

- Navigate to <https://chatgpt.com/> and login



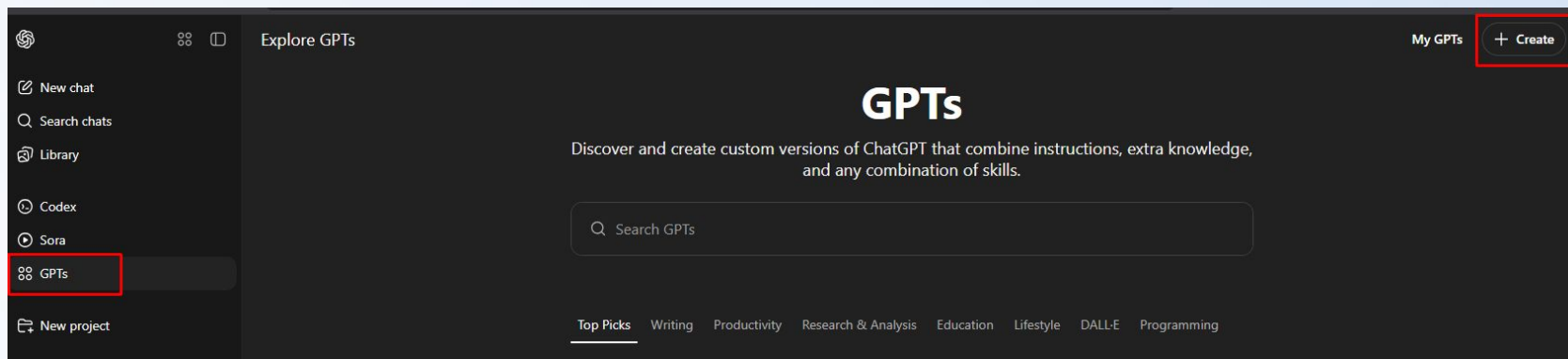
Navigating ChatGPT

- Login with your account (either your own personal or using a class a account)
- On the left hand side you will select **GPTs** and then at the top right hand side select **create**



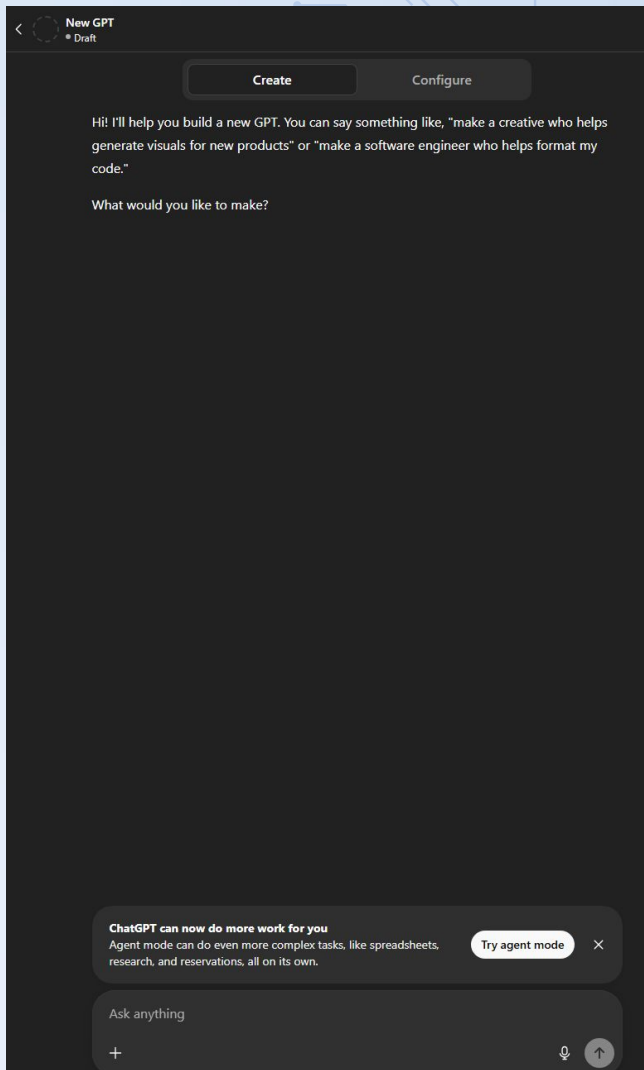
Creating a GPT

- On the left hand side you will select **GPTs** and then at the top right hand side select **create**



Creating a GPT

- You will be presented with two modes **create** and **configure**
- **Create** allows you to prompt engineer an agent and **configure** allows us to customize it
- Select **Configure** to proceed



Creating a GPT

- Name your GPT and provide a description
- Recall your prompt engineering slides—write some **explicit** instructions as to what you want the agent to do
 - Consider this **pseudocode** and be as illustrative as possible
- **Conversation starters** are bubbles that prompt the user what to do next
- **Knowledge** allows us to add documents to help improve the agents utility and recall
- **Recommended Model** allows us to explicitly select which model we want to use
- **Capabilities** enable or disable Chat GPT features such as image creation
- **Action** allows us to create OpenAI API compatible RESTful actions

The screenshot shows the 'New GPT' configuration page in a dark theme. At the top, there's a title 'New GPT' with a 'Draft' status and a 'Create' button. Below the title is a large dashed circle with a plus sign, likely for a profile picture. The form is divided into several sections: 'Name' with a text input field labeled 'Name your GPT'; 'Description' with a text input field labeled 'Add a short description about what this GPT does'; 'Instructions' with a larger text area containing the placeholder text 'What does this GPT do? How does it behave? What should it avoid doing?'; 'Conversation starters' with a text input field and a close button; 'Knowledge' with a text input field and an 'Upload files' button; 'Recommended Model' with a dropdown menu currently showing 'No Recommended Model - Users will use any model they prefer'; 'Capabilities' with a list of features: 'Web Search' (checked), 'Canvas' (checked), '4o Image Generation' (checked), and 'Code Interpreter & Data Analysis' (unchecked); and 'Actions' with a 'Create new action' button.

Creating a GPT

- Be creative! Think of a task you could benefit soliciting AI for solving
 - This could be personal such as for a hobby or home automation
 - Email drafting/summarization
 - Note Taking
 - Creating NPCs/dice rolling for Dungeons and Dragons
 - Personal Knowledge Lookup
 - This could also be for work or enterprise
 - Work prioritization
 - Wireframing
 - Documentation
 - Task automation support

The screenshot shows the 'New GPT' configuration page in a dark theme. At the top, there's a title 'New GPT' with a 'Draft' status and a 'Create' button. Below the title is a large dashed circle with a plus sign, likely for a profile picture. The form is divided into several sections: 'Name' with a text input field labeled 'Name your GPT'; 'Description' with a text input field labeled 'Add a short description about what this GPT does'; 'Instructions' with a large text area labeled 'What does this GPT do? How does it behave? What should it avoid doing?' and a note that 'Conversations with your GPT can potentially include part or all of the instructions provided.'; 'Conversation starters' with a text input field and a close button; 'Knowledge' with a note that 'Conversations with your GPT can potentially reveal part or all of the files uploaded.' and an 'Upload files' button; 'Recommended Model' with a dropdown menu currently showing 'No Recommended Model - Users will use any model they prefer'; 'Capabilities' with checkboxes for 'Web Search', 'Canvas', '4o Image Generation' (all checked), and 'Code Interpreter & Data Analysis' (unchecked); and 'Actions' with a 'Create new action' button.

New GPT
• Draft

Create Configure

+

Name

Name your GPT

Description

Add a short description about what this GPT does

Instructions

What does this GPT do? How does it behave? What should it avoid doing?

Conversations with your GPT can potentially include part or all of the instructions provided.

Conversation starters

Knowledge

Conversations with your GPT can potentially reveal part or all of the files uploaded.

Upload files

Recommended Model ?

Recommend a model to the user, which should be used by default for best results.

No Recommended Model - Users will use any model they prefer

Capabilities

- ✓ Web Search
- ✓ Canvas
- ✓ 4o Image Generation
- ☐ Code Interpreter & Data Analysis ?

Actions

Create new action

Finding Knowledge

- Once you think of your task, solicit some knowledge online to enhance your GPT
 - If for home automation, print some API documentations into PDFs
 - For D&D, find some manuals to upload
 - For enterprise, paste in some work related URLs*
- We do not want to violate any privacy/acceptable use policies in this class :)

The screenshot shows the 'New GPT' configuration page in a dark theme. At the top, there are 'Create' and 'Configure' buttons. Below them is a large dashed circle with a plus sign. The form is divided into several sections: 'Name' with a text input 'Name your GPT'; 'Description' with a text input 'Add a short description about what this GPT does'; 'Instructions' with a large text area containing the text 'What does this GPT do? How does it behave? What should it avoid doing?' and a small 'e' icon; 'Conversation starters' with a text input and a close button; 'Knowledge' with a text input and an 'Upload files' button; 'Recommended Model' with a dropdown menu showing 'No Recommended Model - Users will use any model they prefer'; 'Capabilities' with checkboxes for 'Web Search', 'Canvas', '4o Image Generation' (all checked), and 'Code Interpreter & Data Analysis' (unchecked); and 'Actions' with a 'Create new action' button.

New GPT
• Draft

Create Configure

+

Name
Name your GPT

Description
Add a short description about what this GPT does

Instructions
What does this GPT do? How does it behave? What should it avoid doing?
e

Conversations with your GPT can potentially include part or all of the instructions provided.

Conversation starters
×

Knowledge
Conversations with your GPT can potentially reveal part or all of the files uploaded.
Upload files

Recommended Model ?
Recommend a model to the user, which should be used by default for best results.
No Recommended Model - Users will use any model they prefer

Capabilities
✓ Web Search
✓ Canvas
✓ 4o Image Generation
Code Interpreter & Data Analysis ?

Actions
Create new action

Example: D&D NPC Generator

- Prompt
 - Generate a unique Dungeons & Dragons 5th Edition NPC with the following details:
 - Name: (Fantasy appropriate, culturally consistent)
 - Race & Subrace: (e.g., Half-Elf, Dwarf (Hill), Tiefling)
 - Class/Role: (e.g., Rogue informant, retired Paladin, tavern cook)
 - Appearance: (Clothing, distinctive features, posture, etc.)
 - Personality Traits: (2-3 defining behaviors, quirks, or attitudes)
 - Background: (Short backstory relevant to their location and role)
 - Motivations/Secrets: (Hidden goals or something they're not telling others)
 - Voice & Mannerisms: (How they talk, gestures, emotional tone)
 - Notable Gear or Items: (Optional – magical or interesting possessions)
 - How the party might meet them: (Scene or context hook)
 - Keep descriptions concise but evocative. Avoid clichés unless they're subverted. Assume the setting is a classic medieval-fantasy world unless stated otherwise.
 - When done, draw an image of the character!

Name: Sira Thistlewatt
Race & Subrace: Gnome (Forest)
Class/Role: Druidic Herb-Monger & Local Gossip

Appearance:
Short and wiry, with bark-brown dreadlocks braided with herbs and tiny bones. She wears patchwork robes dyed in forest hues and walks barefoot, even in town. Her eyes—one green, one amber—are always scanning.

Personality Traits:

- Whispers to plants and seems to get answers.
- Chuckles at her own obscure jokes.
- Doesn't lie, but rarely tells the full truth.

Background:

Raised deep in the Verdant Glade by an old circle of druids, Sira chose a quieter life supplying potions and poultices to village folk. She's a fixture at the local market, trading remedies and stories in equal measure.

Motivations/Secrets:

Secretly guards a slumbering dryad's grove nearby, fearing that it's being hunted by a local noble for rare reagents. She's been diverting inquiries and ingredients subtly.

Voice & Mannerisms:

Speaks in a melodic cadence, often finishing thoughts with a humming sound or a rhymed phrase. Taps her fingers rhythmically on counters or cups when thinking.

Notable Gear or Items:

- A living pouch woven from moss and vines that stores herbs longer than normal.
- A pipe that, when smoked, releases tiny glowing butterflies.

How the party might meet them:

A local innkeeper sends them to "Mad Thistlewatt" for a cure to an unusual illness—or perhaps they spot her arguing with a guard near a strange, uprooted tree.



Lab End

