Tutorial & Assignment Week 8-
APIs and API Keys

Goals: Connect your own app to an external service and understand what the API key makes possible.

Due: Submit the indicated portions on Gradescope by Sunday Nov. 15th at 11:59pm, and be ready to discuss your work with your TA in Week 9.

Hi all! You have used a coding agent to help build things. This week, we will explore how those things can use capabilities from other services. An API lets your code request something, such as an AI response, map data, or event listings. An API key authorizes access to a service and connects usage to an account or project.

In tutorial, we will walk through examples with different levels of difficulty. Then you will choose one to try or add an API feature to your final project. Pick a scope that gives you something new to learn, whether this is your first API call or you already use APIs.

Assignment outline:

This document is intended to be started in tutorial and completed for homework if necessary. Work through it in the order given.

- Submit a short final project update
- Choose and build an API integration
- Reflect on what you connected and how it went

Part 1: Individual project work

We want to hear how it is going! Submit a short update on Gradescope:

- Who are you working with?
- What have you done, and what is your plan for the remaining work?
- Will this project be something you will be proud of? If not, how can we help?

Be ready to share your project with a partner in tutorial in Week 9. Plan to finish it for your TA grading session in Week 10. The final poster session is on December 8 at 3:30pm, with a 36 by 42 inch poster and a demo if possible.

Deliverable: Fill these questions out on Gradescope

Part 2: Group Tutorial Activity

Choose your build

Choose one of the examples from the slides, or use the same approach in your own project. You only need to attempt one option. Start with the first build and add stretch goals if you have time.

- Fridge helper (beginner). Enter ingredients and receive three meal suggestions. Stretch: save favorites or generate a shopping list.
- Interview practice partner (intermediate). Build a three-question text interview with feedback. Adds conversation history and a sequence of steps.
- Game character (advanced). Build one character with one clue. Adds character knowledge, player progress, and rules that your code enforces.
- DIY campus map (intermediate). Show five locations with manually entered notes. Adds coordinates and your own location data.
- Club event finder (intermediate to advanced). Show events from one source with a location and date filter. Adds changing data and missing or empty results.
- Meet in the middle planner (advanced). Compare three venues for two starting locations. Adds multiple service requests and travel-time comparisons.

Deliverable: Nothing for now! You'll describe your work more in the selection

Part 3: Reflection — How did it go?

What did you connect using an API, and what does that connection let your project do? Write one short paragraph, approximately 4–6 sentences, covering:

- What you built or attempted and which API you used
- What you got working, including what your app sends and what it receives
- One challenge you encountered and what you would try next

Deliverable: Copy and paste your reflection into Gradescope.

Submission

You should have two items to submit to Gradescope by Sunday Nov. 15th at 11:59pm:

1. Your API build reflection

2. Your final project update

Once you are done, use this time to work on your final project!