Take Home Kata Guidelines

What is it?

A take home kata is a coding challenge that tests your engineering skills and problem-solving abilities. It involves writing a program or a function that meets certain specifications and passes some test cases. Direct Supply uses take home katas as part of their hiring process for engineering interns.

What do I have to do?

The problems presented align to the tech stack of solutions we use across our organization today. The expectation is to pick the **one option below** that interests you the most and spend enough time solving it to represent you and your technical style (likely more than 10 minutes, less than an evening). Documentation and imported libraries are encouraged. If your app didn't work as expected in the timeframe, consider alternatives to documenting the intended flow like pseudo code or a chart diagram like nomnoml or mermaidJS.

Option 1: Quiz

Create a web app, desktop app, or mobile app that allows the user to take a quiz on a topic of their choice. The app should fetch questions and answers from an external API, such as Open Trivia Database. The app should also keep track of the user's score and display feedback at the end of the quiz. If there is time remaining, choose one of the following to take it further:

a. (Backend) Allow the user to create their own quizzes and share them with others, or
b. (Frontend) Add features such as timers, hints, and leaderboards to enhance the user experience.

Option 2: Weather

Write a script that fetches the current weather data for a given location from an API, such as OpenWeatherMap. The script should also display the data in a user-friendly format, such as a table or a chart. Alternatively, write a script that compares the weather data for two or more locations and displays the differences.

Option 3: Chatbot

Build a chatbot that can answer simple questions and perform basic tasks, such as booking a flight, ordering a pizza, or making a reservation. You can use any framework or tool you prefer, such as Dialogflow, Rasa, or Microsoft Bot Framework. The chatbot should also handle errors and fallbacks gracefully and provide a smooth conversational experience for the user.

What does success look like?

A successful kata should demonstrate your technical ability, display a variety of techniques, physical build, and alignment with the goal or challenge. It should also show your problem-solving skills, creativity, and adaptability through experimentation and learning. A successful kata should also be clear, concise, well-documented, and tested.

If you’re eligible to proceed to the next round of the interview, you’ll be asked to present the process you used to get to your final product. Come prepared with what planning you did, what resources you used, and what challenges you encountered and how you overcame them.

I’m done, what’s next?

- Upload your changes to a public code repository such as GitHub, GitLab, bitbucket, DropBox, etc.
    - If this is your first time, the Hello World instructions for GitHub are pretty comprehensive and easy to follow.
- Email a link to your repository back to your recruitment team HRRecruitingAssistant@directsupply.com
    - Please mention your name too, not all email addresses include it. Something like:
      Subject: Kata Submission for <first, last name>
      Body: Here’s a link to my Kata Repo that you can access anonymously: <link>.
- Your code will go under review and if we proceed forward in the interviewing process, be prepared to present your work as part of a technical interview.

FAQ

- How can I do all these in one evening?
    - Please pick only one! (More than one would be really ambitious!)
    - This is not a race. It is a view of your process.
- Which option/kata should I do?
    - Please choose the one you are most comfortable with or the one that will best demonstrate your capabilities.
- This spec is incomplete! I don't know what to do - is it supposed to have missing details?
    - YES! There is no spec, no "right answer". It is on-purpose that kata is loosely defined.
    - Each kata is "real-ish" and self-directed. "Solve it for you, not for us!" We encourage you to lead with the principle of "If I were the business owner, I would want X." We are not going to fill in the details.
- What if I have a question?
    - We encourage you to come prepared with all the questions you had along the process and the answers and reasoning behind your choice(s).
- Should I take time to test my code?
    - Writing real code requires constantly testing your assumptions. Don't be afraid to take time for tests.
- What if I don't finish?
    - Kata is ***not*** an all-out sprint to quickly write the most code. We are a team of code-writing humans. No robots will judge your code. We are looking for more humans to write great code with us.