

Take-Home Challenge Disclaimer

Introduction

Thank you for participating in the interview process with Astral. As part of our hiring process, we are providing you with a take-home challenge. By accepting and completing this challenge, you agree to the following terms and conditions:

1. Ownership of Work Product

You acknowledge that any work you submit for this challenge (the "Submission") is part of the interview process and that Astral has the right to use, review, and evaluate your submission for the purposes of evaluating your qualifications for the position you have applied for. Unless otherwise agreed in writing, Astral will not own any rights, title, and interest in the Submission, including any intellectual property rights associated with it.

2. Confidentiality

You agree to keep all information related to this challenge, including the challenge instructions, any proprietary materials shared by Astral, and your Submission, confidential. You shall not disclose, discuss, or share any details of the challenge with third parties, whether before or after submission. This confidentiality obligation extends even if you are not offered a position with Astral following the interview process.

3. Purpose of the Challenge

The challenge is being provided solely to assess your qualifications for the position you have applied for and to evaluate your technical skills and problem-solving abilities. Your Submission will not be used for any commercial purposes or incorporated into any products or services of Astral.

4. No Compensation

Please note that this take-home challenge is part of the interview process and is not compensated. The Submission is a voluntary part of your interview and will not be paid for,

regardless of the outcome of the hiring decision. Submitting the challenge does not constitute an offer of employment or a guarantee of any future employment with Astral.

5. Timeframe for Submission

You are expected to complete and submit the challenge within 7 days after receiving the challenge instructions. If you require additional time or have any questions regarding the challenge, please inform us at your earliest convenience. Failure to submit the completed challenge within the specified timeframe may impact the evaluation of your candidacy.

6. Non-Discrimination and Equal Opportunity

Astral is an equal opportunity employer. We are committed to providing a fair and equitable interview process, and we evaluate candidates without regard to race, color, gender, gender identity or expression, sexual orientation, age, disability, religion, or any other characteristic protected by law.

7. No Obligation to Hire

Completion of the take-home challenge does not guarantee an offer of employment with Astral. The challenge is one part of the overall interview process, and your candidacy will be evaluated based on a combination of factors, including but not limited to your Submission, interviews, and qualifications.

8. Data Privacy and Security

Any personal information or data you provide to Astral during the interview process, including information submitted as part of this take-home challenge, will be handled in accordance with Astral's Privacy Policy. We are committed to safeguarding your data and complying with applicable data protection laws.

9. Use of Third-Party Tools/Services

If the challenge requires the use of any third-party tools or services (e.g., a coding platform or version control system), you agree to use those platforms in accordance with the applicable terms of service of those third-party providers. You are responsible for ensuring that your use of such tools complies with any licensing or legal requirements.

10. Additional Terms

- **Disqualification:** If Astral determines that any part of your Submission is plagiarized, copied from another individual or source, or otherwise violates the terms of this agreement, your Submission may be disqualified.
 - **Right to Modify:** Astral reserves the right to modify the terms and conditions of this agreement at any time, with notice to you.
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By accepting and completing this take-home challenge, you acknowledge that you have read, understood, and agree to these terms and conditions. If you have any questions or concerns, please contact us before submitting your challenge.

Challenge: Digital Lessons

Summary: You are tasked with building a two-page full-stack application that allows you to generate lessons and view them.

Page 1: Generate Lessons Page (at route /)

This page should have a very simple UI with the following elements:

- Single Form:
 - Text Area to enter in a “Lesson Outline” for the lesson
 - “Generate” button
- Single Table
 - Shows the lesson titles, and their statuses of generating, or generated, and allows us to click to access them.

Page 2: View Lesson Page (at route /lessons/<id>)

This page should render the lesson provided by the <id>.

Start your repo with the following command:

```
bun create next-app --example with-supabase
```

Requirements:

1. User can visit the / route and be able to enter in a lesson outline such as “A 10 question pop quiz on Florida”, hit “Generate”, and then be able to see the lesson generating status in the table, and once it is done, the user should be able to click to view the lesson itself. There should be no refreshing of the page required in this journey.
2. You must generate TypeScript, and render it in the browser when the page is viewed. No other forms of generated content are acceptable. The root must be TypeScript.
3. Other examples of Lesson Outlines might include:
 - a. “A one-pager on how to divide with long division”
 - b. “An explanation of how the Cartesian Grid works and an example of finding distances between points”
 - c. “A test on counting numbers”
4. No auth requirements whatsoever.
5. Deploy your app to a production environment with Vercel & Supabase. You may use other tools for tracing, workflows / jobs, etc IF NECESSARY only. Do not over-complicate.
6. Depending on how you decide to generate the lesson, you will need to figure out the most appropriate way (how & where) to generate the content itself.
7. Provide proper tracing for the AI-generated workflow to create your content, so that we can see the full trace, along with the prompts used, outputs along the way, etc. You may use any tracing platform suitable for LLM’s. Provide a sample trace so we can read

through it with your submission & give “shivam@astralcopilot.com” any access necessary.

Success Criteria:

- Is this production-ready? Does the deployed application work seamlessly? Is it fast? Is there a smooth user experience?
- Is the generation handled in the backend correctly? Can we easily add / remove capabilities?
- Is TypeScript generated in a safe way that ensures robustness? How do you know for certain that the AI-generated code will work?
- Reliability: If we generate 10 times, will it succeed 10 of 10 times?
- Milestones:
 - 1) Does the basic web2 functionality work? I.e., the FE pages, kicking off of a generated lesson job, and then viewing the result?
 - 2) Does the generated content always work? Find bugs along the way and nuances, and fix them for highest reliability & robustness....
 - 3) Does the generated content have great taste? Add your own flavour now to make the content *useful* to the kids it might be generated for...
- I would start with a very simple pipeline, get everything around it to work first, and then put your focus into making the pipeline the best possible.
- Bonus:
 - How can SVG's be used?
 - How can we use AI-generated images in the mix?

Things to avoid:

- Rabbit holes. There is ambiguity in this challenge to test your taste & knowing where to look, but also this tests whether you can know when to not go down a rabbit hole. If you find too big a rabbit hole, you can also ask more questions on various requirements - just like in the real world... be prepared to come with good reasoning & what thought you have put in so far...
- Don't be afraid to ask questions! Clarify things... pretend like we are working together on this...

Tech stack to use:

- NextJS, TypeScript, Supabase, Tailwind CSS. You may use any NPM package out there.
- You can use other technologies as well, such as vendors, or other providers. Anything that you would actually use in the real world.
- Start your repo with the following command:
- `bun create next-app --example with-supabase`

For any immediate questions - you may call / text Shiv at +1 647 938 0024.

As an AI-first company, you are welcome to use any AI tools of your choice in helping you with this challenge. Best of luck!