

AJMERA INFOTECH PRIVATE LIMITED

INDIA | UNITED STATES

www.ajmerainfotech.com



CODING ROUND

INTRODUCTION

Welcome to the practical coding round of the selection process for Software Development Engineer. This round is designed to evaluate your coding skills, problem-solving abilities, and practical application of programming concepts

ABOUT AJMERA INFOTECH

Join Our Global Tech Team – Redefine Success with Us!

Welcome to our dynamic venture, where our Product Engineering team is at the forefront of innovation, actively crafting groundbreaking products such as Redpen.ai and Assetron.ai, each holding the promise of becoming billion-dollar successes. Not only we do drive our own product development, but we also extend our expertise through Product Engineering consulting for some of the world's leading companies. With a global perspective, our team collaborates seamlessly across borders, shaping the future of technology

ROUND DETAILS: CHOOSE ANY ONE PROBLEM STATEMENT/ SOLVE ANY ONE PROBLEM

Problem Statement 1:

Certainly! Here's a practical challenge for a React interview. This challenge involves creating a simple master-detail view application. The application should display a list of items in the master view, and when an item is clicked, the details of that item should be displayed in the detail view.

Online Store Challenge

The "Online Store Challenge" is a project or coding challenge focused on building an online store using the React library. The challenge involves creating a web application that allows users to browse products through an intuitive and visually appealing interface.

Here are key components and features that may be included in the challenge.

CATEGORY	TOOLS
Design	FIGMA
Master View	<ul style="list-style-type: none">• Display a list of items (e.g. products).• Each item in the list should show at least a title and a brief description

Detail View	<ul style="list-style-type: none"> Initially, the detail view should be empty. When an item in the master view is clicked, the detail view should update to show the details of the selected item. Display title, description, price, category, image, rating
Data	<ul style="list-style-type: none"> API Calls Using fetch or Axios Product <ul style="list-style-type: none"> GET https://fakestoreapi.com/products/ Details <ul style="list-style-type: none"> GET https://fakestoreapi.com/products/1
React Components	<ul style="list-style-type: none"> Organize your code into reusable React components Consider using state and props to manage the data and communication between components
Guidelines	Use create-react-app or a similar tool to set up your React Project.

EVALUATION CRITERIA

YOU WILL BE EVALUATED BASED ON
Code organization and structure
React component design and reusability
Handling of state and props
The ability to implement the master-detail view functionality

SUBMISSION GUIDELINES

- Commit code to GitHub and share the link to jobs@ajmerainfotech.com
- Candidates should submit their solutions as a single zip file containing all necessary source code files.

Problem Statement 2

Certainly! Here's a practical challenge for an SDE interview. As an SDE, the task is to develop a web scraping solution for the Flipkart website's mobile search page. The objective is to create a robust and efficient system that extracts pertinent details about mobile phones and stores them in a CSV file for further analysis.

Web Scraping Challenge

- Navigate to Flipkart and search for iPhone.
- Retrieves information for each mobile phone listed on the search page.
- Use web scraping and extract specific details such as product name, price, ratings, and any other relevant attributes.
- Stores the extracted data in a structured CSV file.
- Solve the above problem using C++, C#, Java, Python, Go and JavaScript.

REQUIREMENTS	TOOLS
Web Crawling	<ul style="list-style-type: none"> The application should be able to programmatically access the Flipkart page. Utilize web crawling techniques to navigate through the search results.
Data Extraction	<ul style="list-style-type: none"> Extract relevant information for each mobile phone listed on the search page. Key details to extract include product name, price, ratings, and any additional attributes that may be valuable
Data Storage	<ul style="list-style-type: none"> Store the extracted data in a CSV file. Ensure that the CSV file is well-organized with appropriate headers for each data field
Efficiency	<ul style="list-style-type: none"> Implement the solution in a way that minimizes unnecessary requests and optimizes the crawling process for performance
Error Handling	<ul style="list-style-type: none"> Implement robust error-handling mechanisms to handle potential issues such as network errors, page structure changes, or unexpected behaviour.
Guidelines	<ul style="list-style-type: none"> The task of scraping the Flipkart page and storing the details in a CSV file can be addressed using C++, C#, Java, Python, Go and JavaScript Feel free to use Google Search and Chat GPT

EVALUATION CRITERIA

YOU WILL BE EVALUATED BASED ON
Source code of the web scraping application.
The CSV file contains the extracted mobile phone details.
A well-documented README file with instructions for configuring and running the application.

INSTRUCTIONS FOR CANDIDATES

- Ensure a stable internet connection.
- Have your coding environment set up with the chosen programming language.
- You would be allowed to do Google searches.
- Freely ask questions if you need any clarifications
- Give your best attempt. It is okay if you can complete only portions of the functionality
- We trust that you will uphold ethical standards and refrain from engaging in any form of cheating.

RECOMMENDATIONS

Think a document that looks this good has to be difficult to format? Think again! To easily apply any text formatting you see in this document with just a tap, in the Home tab of the ribbon, take a look at Styles.

NEXT ROUND

To be conducted next week in our office premises

CONTACT INFORMATION

If you encounter any technical issues or have questions regarding the practical round, please contact HR at jobs@ajmerainfotech.com.