



Richpanel Assignment – Build a Web App

Role: Full Stack Javascript Developer

Author: Shubhanshu Chouhan

Intro and Interview Process

Firstly, thank you for your application at Richpanel. We are excited to speak with you and get to know you more during the interview process.

Our interview process is fairly straightforward. This assignment is the 2nd step in the interview process. And this is the main criteria for getting selected in the company. If you got this assignment, it means you have cleared the online interview.

Here's our interview process -

1. **Online assessment (Day 1):** We send you an online assessment which can be done at home in your own time.
2. **Assignment - *Build a web app* (Day 2):** We'll send you an assignment and you'll have 24 hours (1 days) to make the web app.
3. **Evaluation (Day 3-5):** We'll evaluate your assignment and let you know how you performed. We usually take 1 business day to assess the submissions.
4. **Technical Interviews (Day 6-8):** We'll conduct 1-2 tech interviews. Based on that we might give one more assessment.

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5. **Documentation and Reference Check (Day 10):** If you clear 4, we'll ask for documentation and two professional references.
 6. **Offer (Day 11/12):** We'll release an offer letter and agree on a joining date.

** Communication with candidates is our no. 1 priority. We'll keep you updated about your performance each step of the way. If you are not selected for some reason, you can ask for detailed feedback

Scoring Criteria for the web app:

We are seeking Full Stack Developers. So we are going to score the assignments based on the below criteria

1. Time to deliver
2. Code Structure and Cleanliness
3. Ability to understand requirements and execute
4. UI and UX (HTML/CSS) ***Important.**

What is the assignment?

You have to make a FB Helpdesk

Your assignment is to create a POC (Proof of Concept) app. This app will allow clients to connect their fb accounts, listen to their comments or messenger messages and reply to them within the application.

Imagine a company like Amazon - they get mentioned on fb thousands of times each day. It's humanly impossible to reply to each comment by logging in to FB.

Solution: They'll use your FB helpdesk to connect their FB account and listen to all comments and messages. Then they will invite their internal team members on the Helpdesk app so they can share the workload. And team members can reply to the messages from the helpdesk.

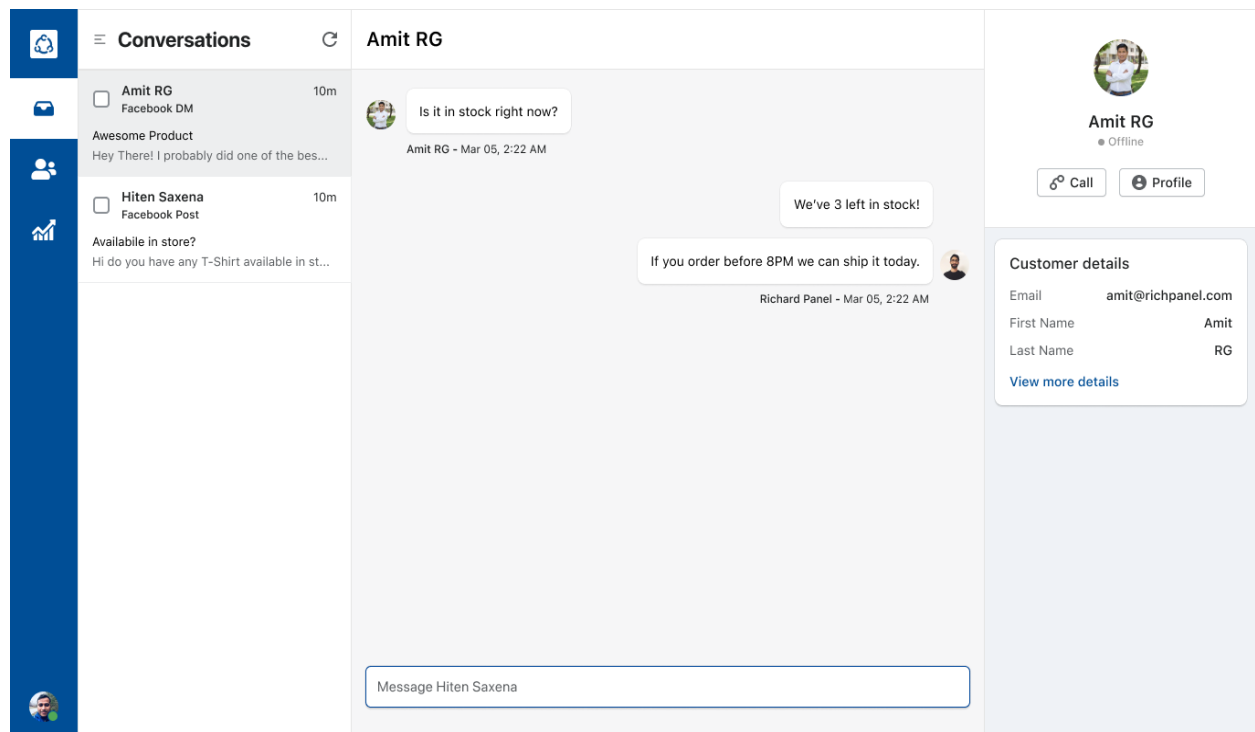
Your app will make their lives easier. It will give them a unified view of all their post/messages and give them a user-friendly way to reply to the comments or messages.

How Will It Work?

1. Client will login to your app
2. They'll be prompted to login using FB. Your app will also ask for permission to manage pages, comments and listen to messenger events
3. Service should listen to comments and messenger events, and process them.
4. Both comments and messages will appear as a conversation in the app.
Comments in a single post will appear in a single conversation and messages will create different conversations only if two messages are 24h apart.
5. Agent (app user), can select those conversations and reply to comments or messages from there.

Reference UI

1. **Login and Register:** Clients will use this screen to either sign in or register their FB accounts. Use database to manage users and their connected FB accounts
2. **Agent Screen:** Agents will see a list of conversations on the left column. Once a conversation is selected, the agent will see the conversation thread on the center of the screen. And the customer's profile (the one who commented or messaged) on the right side of the screen.



IMPORTANT - We believe in creating beautiful products. Everything at Richpanel is crafted with care. Please ensure that your HTML/CSS matches with the design above exactly. That's an important step of your evaluation.

Technical Notes

1. Use a database to store the account info, conversations and other details.
2. Refer these documents for development
 - <https://developers.facebook.com/docs/messenger-platform/>
 - <https://developers.facebook.com/docs/pages/>
 - <https://developers.facebook.com/docs/facebook-login/>
3. Work in development mode only, do not make it live.
4. To make sure we'll be able to test, add following users as test user
 - shubhanshu@richpanel.com
 - manoj@richpanel.com

Test cases & Video Submission

Please submit a working video of the app covering the below test cases.

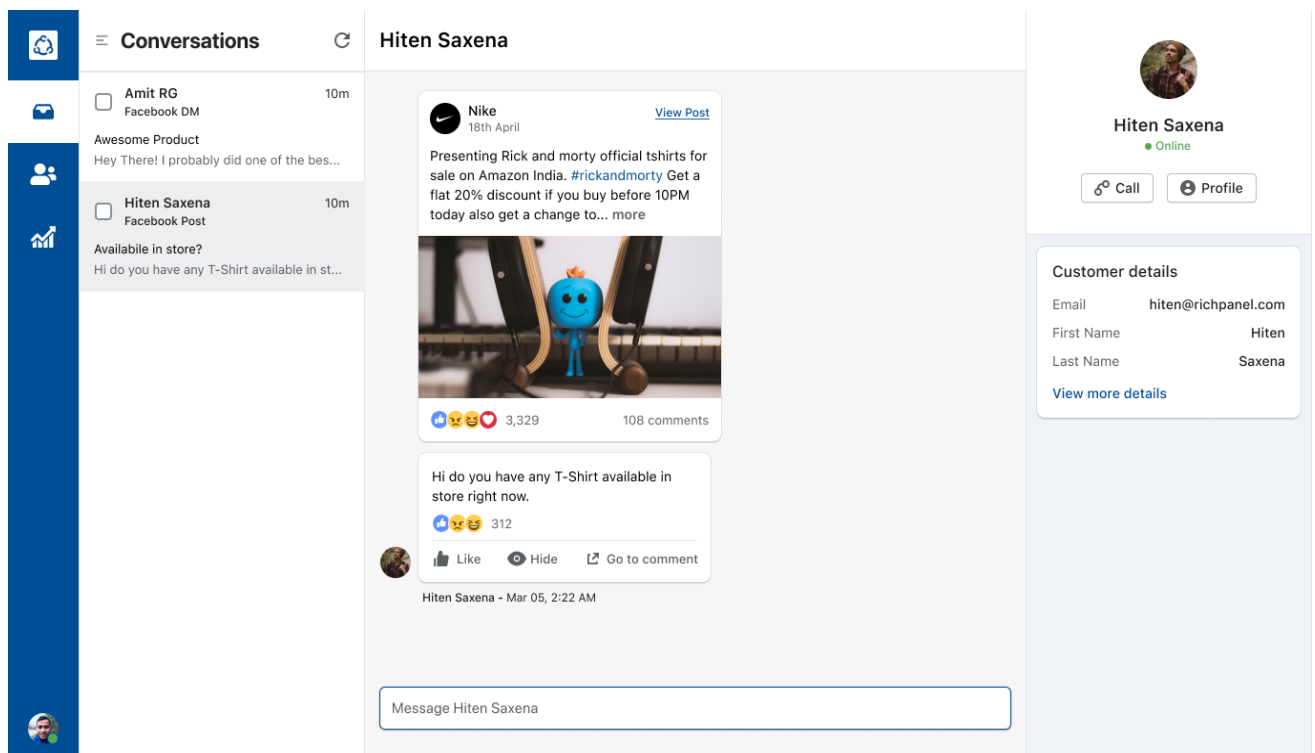
1. Users should be able to login via FB account. Each login will create a new account if it does not already exist.
2. Initially there won't be any conversations
3. Handling messenger messages
 - On new messages on the FB messenger page, users will be able to see a new conversation showing that message.
 - Users should be able to reply to that conversation. Reply can be seen on FB messenger as well.
 - Each new message will appear in the same conversation thread unless a new message is coming after 24h of the last message.
4. Handling post comments
 - When any customer posts a new comment on a FB post, a new conversation will get created showing post description and comment as a message.
 - Users can reply to this comment by adding a reply to this conversation.
 - Reply will appear in the comment's reply in FB post.
 - Note: Post description must appear only once per conversation.
 - Each new comment (not part of the same comment thread), should create a new conversation.

Screenshots

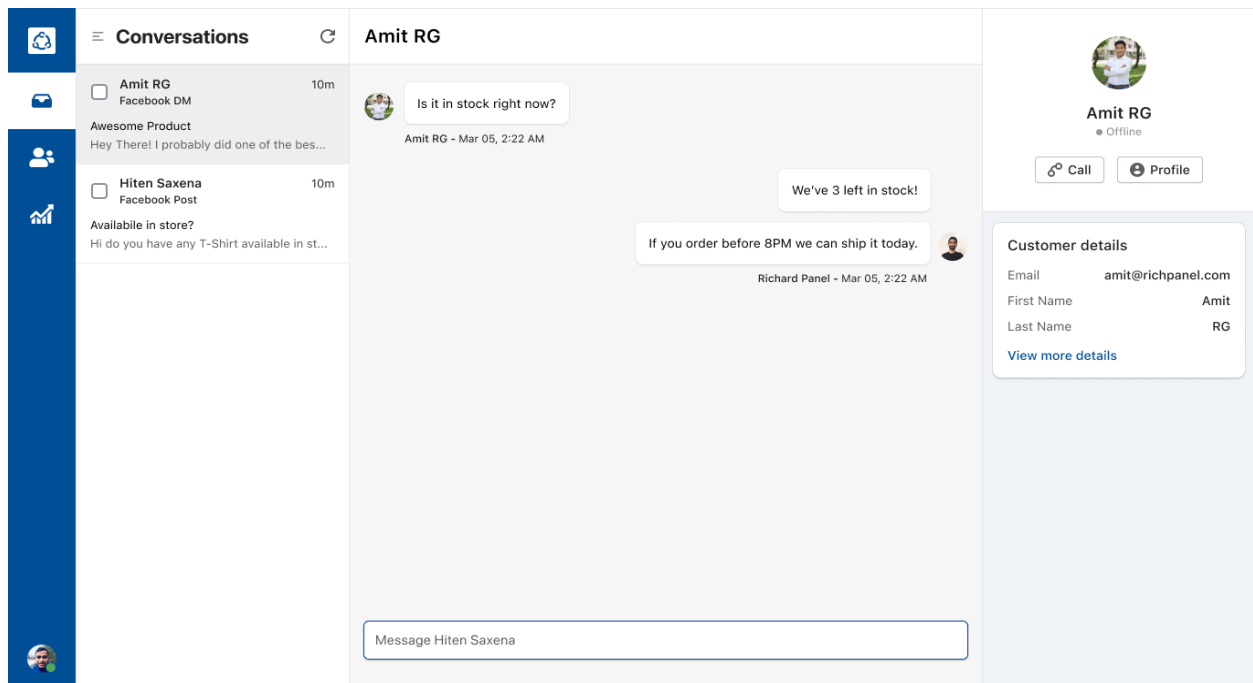
- Comment thread on FB Post



- A post conversation



- A messenger conversation



FAQs

- Do we need to submit the FB App for verification?
 - No, the app will work normally in development mode. Just add emails provided above (Technical Notes section) as test users.
- Do users have to log in through Facebook only?
 - This is optional.
- What should be the App's privacy policy URL?
 - You can add any url there, it doesn't matter unless you submit it for verification.

Questions?

We want to help you be successful in your assignment. Feel free to reach out in case of any questions/queries.

----- Contact 1 -----

Manali Vartak

Email: manali@richpanel.com

----- Contact 2 -----

Pooja Sonawne

Email : pooja@richpanel.com

----- Contact 3 -----

Shubhanshu Chouhan

Email: shubhanshu@richpanel.com