As part of this exercise build a basic chatbot and tooling that allows an SMB to send promotional messages.

You will create a predefined **chatbot flow** for SMBs to

- send coupons to the customers
- collect statistics on the clicks.

You should **structure** your code so that it's

- testable.
- We are not looking for exact coverage numbers, (70%)
- testing philosophy should be represented in coding decisions.

Expect to spend ~ 4 hours on this exercise.

- use a simple architecture to maximize your output.
- mock any downstream dependencies that you would consider utilizing.

Your code should be **deployable**

- in a PaaS provider (heroku or AWS Lambda) serverless
- run in a development machine.
- use a container to create a deployable image as well.

Take care

- Handle your errors
- to properly handle errors returned from downstream dependencies (or other errors like timeouts) and fallback graciously.

show Strengths: As you're working on your bot, focus If you're a

- great architect, focus on that. If you're good at
- building UX, focus on that. If you're strong in
- ML, showcase that.
- We want to see what you're best at.

Pair Programming Interview

When we meet for the pair programming interview you will be asked to

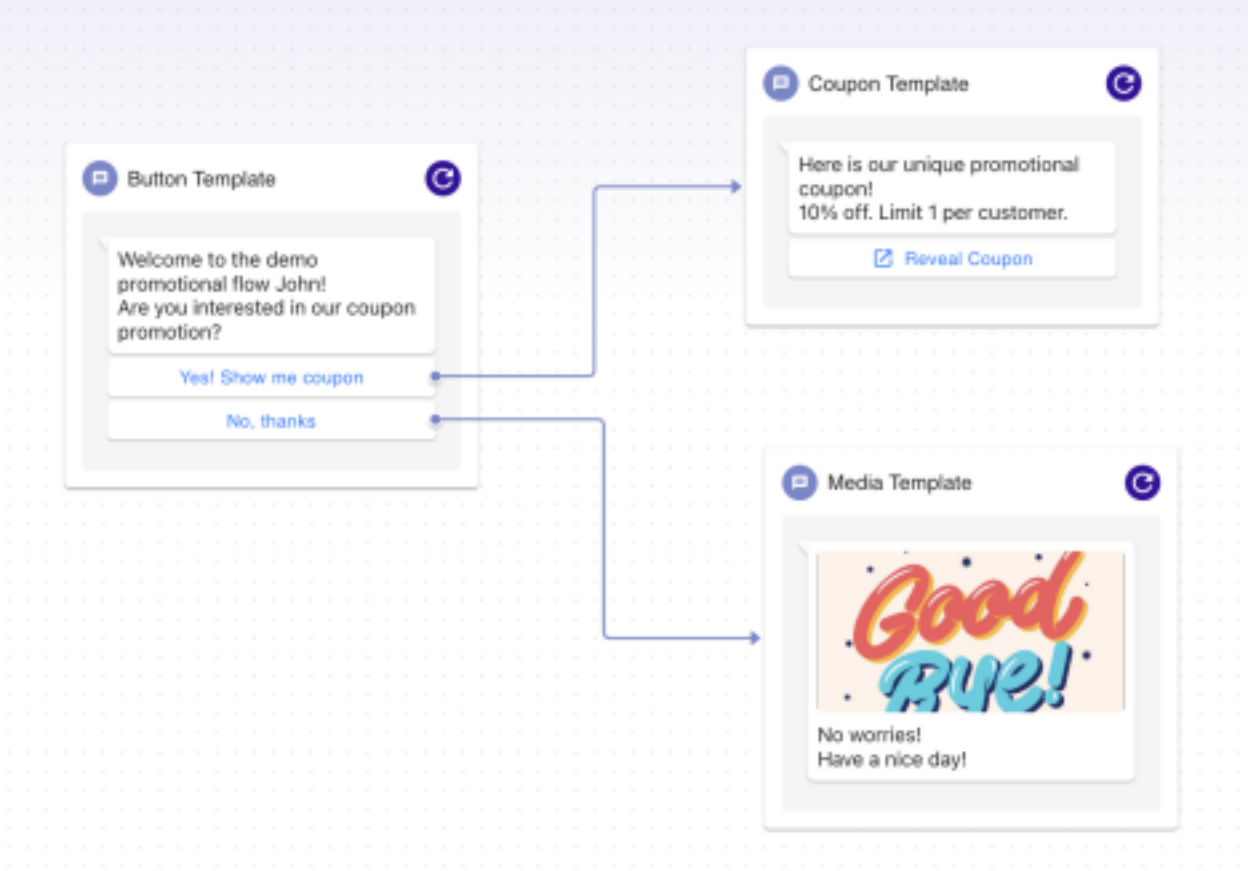
- demo the basic requirements outlined above and
- we will work to add some more functionality to your application,
- so please don't build more features than we outline here!
- We will also ask you about architecture choices you made while building the bot.

Be prepared to answer these questions as they come up.

You can find the FB Messenger api documentation here to draw some inspiration about message structure etc.

Details

The flow should look similar to this:



1. The first message should welcome the customer and the message must be personalized (greet with the **customer name**)
2. Clicking “Yes! Show me coupon” should show the coupon message
    a. Clicking on reveal the coupon acknowledges that the coupon was redeemed
    b. SMBs should be able to see how many coupon reveal clicks have been made on the statistics dashboard
3. Clicking “No, thanks” sends a thank you message with the image
    a. The image must be easily customizable
4. Ideally, we also want to collect the statistics about each button click in the flow and breakdown of customer journey within the flow
    a. For example, how many customers responded to the first message
    b. How many customers saw the second message
    c. Coupon statistics
    d. Visualize the information