UPDATE ORDER FLOW

FOOD ORDERING BOT

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Problem statement:

- In today's fast-paced e-commerce environment, ==customers often need to modify their orders== after placing them. Our team has developed a chatbot that addresses this need by allowing users to update their orders seamlessly. The chatbot can take and place orders, update existing orders, cancel orders, and list out orders. Our focus is on the **order update** functionality.

OBJECTIVE:

- To enable users to update their orders efficiently through a chatbot interface.

Approach:

Order ID Verification: The chatbot prompts the user to enter their order ID.

Order Validation: If the order ID exists in the API, the chatbot proceeds with the update using a PUT call. If the order ID is invalid, the user is asked to recheck and re-enter the correct order ID.
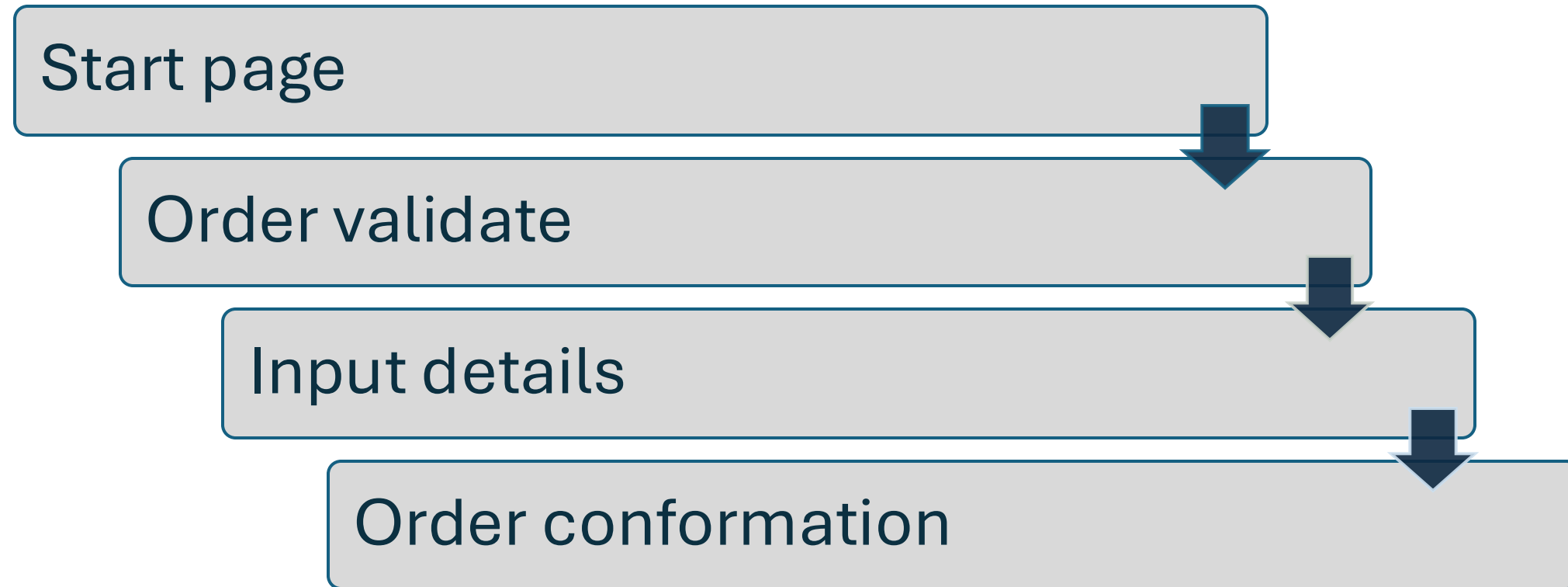
Order Details Retrieval: Upon entering a valid order ID, the chatbot fetches the previous order details and displays them to the user.

Order Update: The user can update the order details. The chatbot then updates the order using a PUT API call.

Flow Design:

Start page

Order validate

Input details

Order conformation

Webhook logic:

The webhook uses two tags to manage the update flow:

<mark>validate_order</mark>: Sends a GET request to check if the order number is valid in the **Orders** API.

<mark>update_order</mark>: Sends a PUT request to update the item and quantity for the given order.

Sample API Response:

```
{
    "id": 234567,
    "name": "john", "items": "Pizza",
    "quantity": 9,  "address": "city",
    "mode_of_payment": "COD"
}
```

This approach ensures that only valid orders are updated and item details are preserved during the update process.

Challenges and Solutions:

Challenge: Validating invalid or non-existent order numbers

Solution: Implemented a GET request in the webhook to check order validity before proceeding

Challenge: Managing user input variations (e.g., typos in item names)

Solution: Used Dialogflow's entity mapping to handle synonyms and improve item recognition

Challenge: Handling missing parameters (e.g., quantity not provided)

Solution: Added fallback responses and parameter re-prompts in Dialogflow

Testing:

The "Update Your Order" flow was tested thoroughly using multiple tools:

==Dialogflow Simulator==: Used to simulate real-time conversations and verify intent triggering, parameter extraction, and webhook responses.

==Thunder Client (VS Code extension)==: Helped send test API requests (GET and PUT) to the Cloud Run webhook endpoint for validation and order update.

==Postman & Beeceptor==: Created mock APIs to simulate the Orders API. This allowed sending different request types and testing webhook logic without needing a live backend.

Summary:

The "Update Your Order" flow enhances the overall user experience by allowing customers to modify their existing food orders using natural language. It validates the provided order number through a webhook and updates the selected item and quantity in real-time.
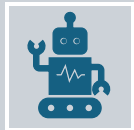
This flow improves the bot's flexibility, reduces manual intervention, and ensures smoother interactions, making the ordering system more efficient and user-friendly.

THANK YOU