

A Chatbot works on 2 major principles:-

- 1) NLU : Natural Language Understanding
- 2) NLG : Natural Language Generation

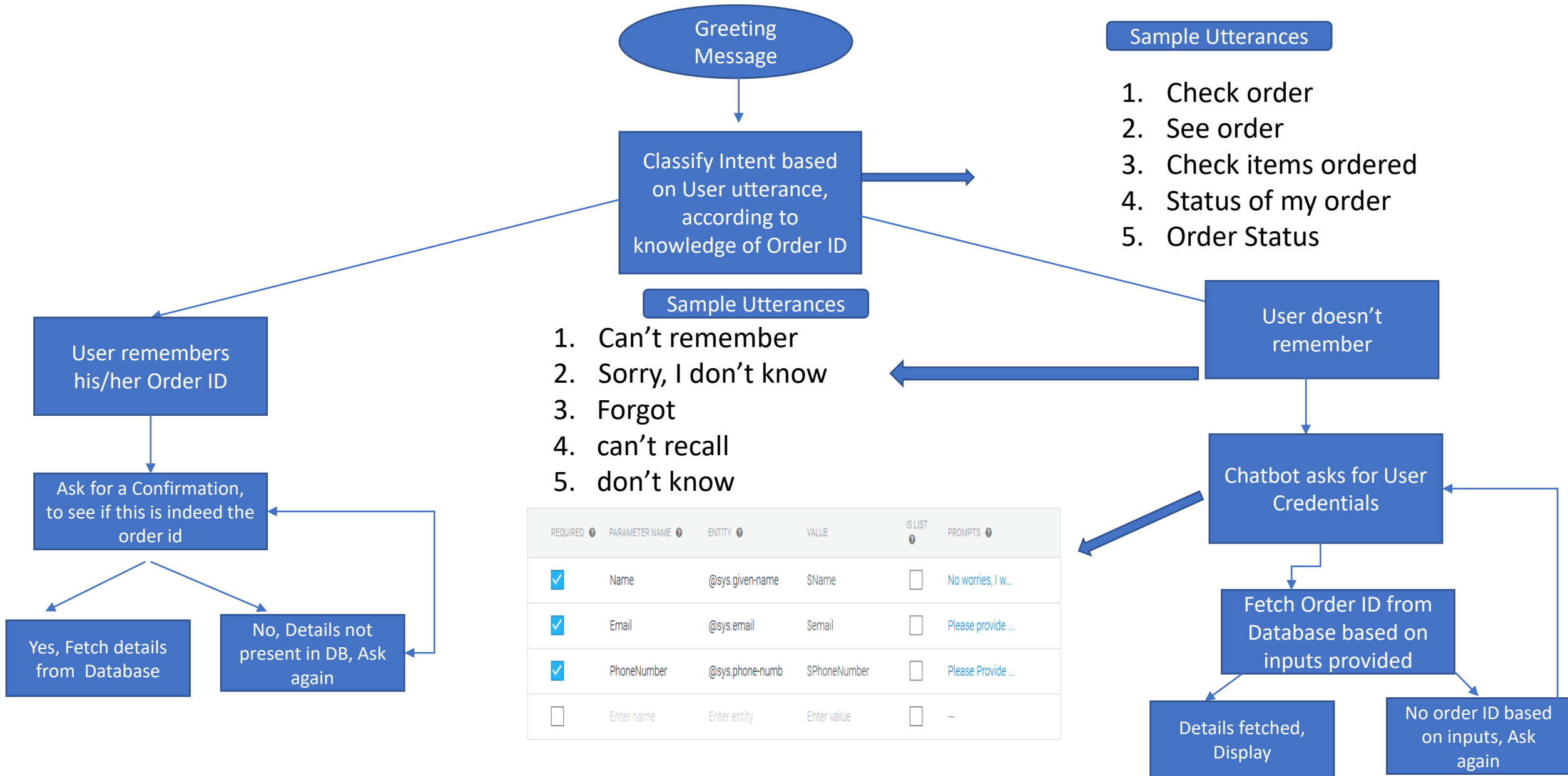
NLU : A typical Chatbot classifies **the intent of the User** based on **pre-trained utterances**, extracts entities from these utterances and decides on the next course of action

NLG : The output shown to a User by a chatbot can be crudely considered as a case of Natural Language Generation

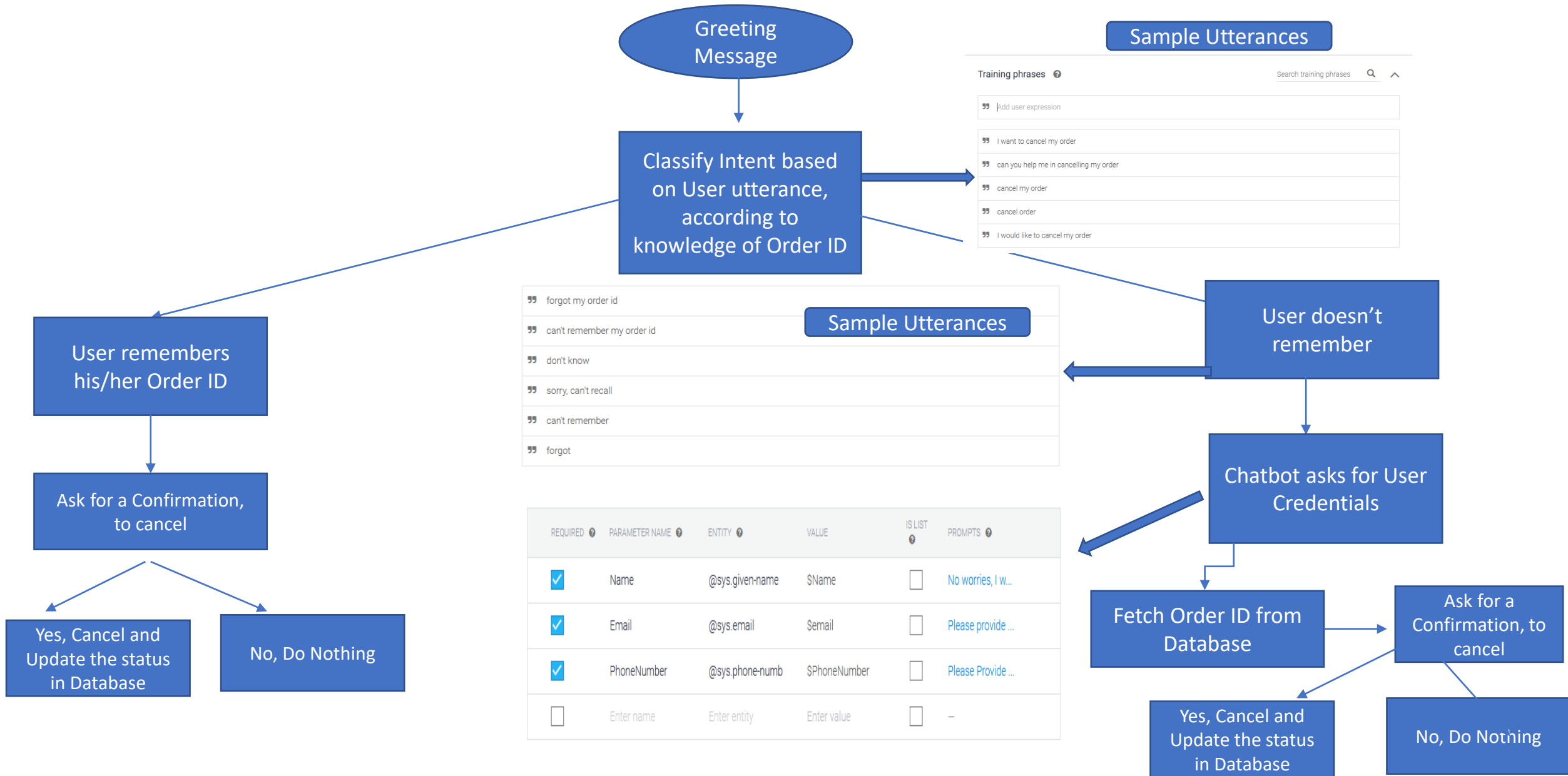
The elements you may use in a chatbot conversation are:

- Greeting:** Used to say hello or start a conversation. Formality is dependent on relationship (return versus new users).
- Asking:** For engaging or seeking information. Helps keep the conversation going.
- Informing:** Giving information that is either requested or pertinent to the conversation.
- Checking:** Testing the user's understanding. Restating details and information for clarity.
- Error:** When the chatbot doesn't understand or fails to fulfill a request.
- Apologizing:** Politely acknowledging the chatbot's shortcomings. Should be brief and serve as a bridge to alternative solutions.
- Suggesting:** Presents the user with relevant actions or options.
- Conclusion:** A clear end to the conversation.

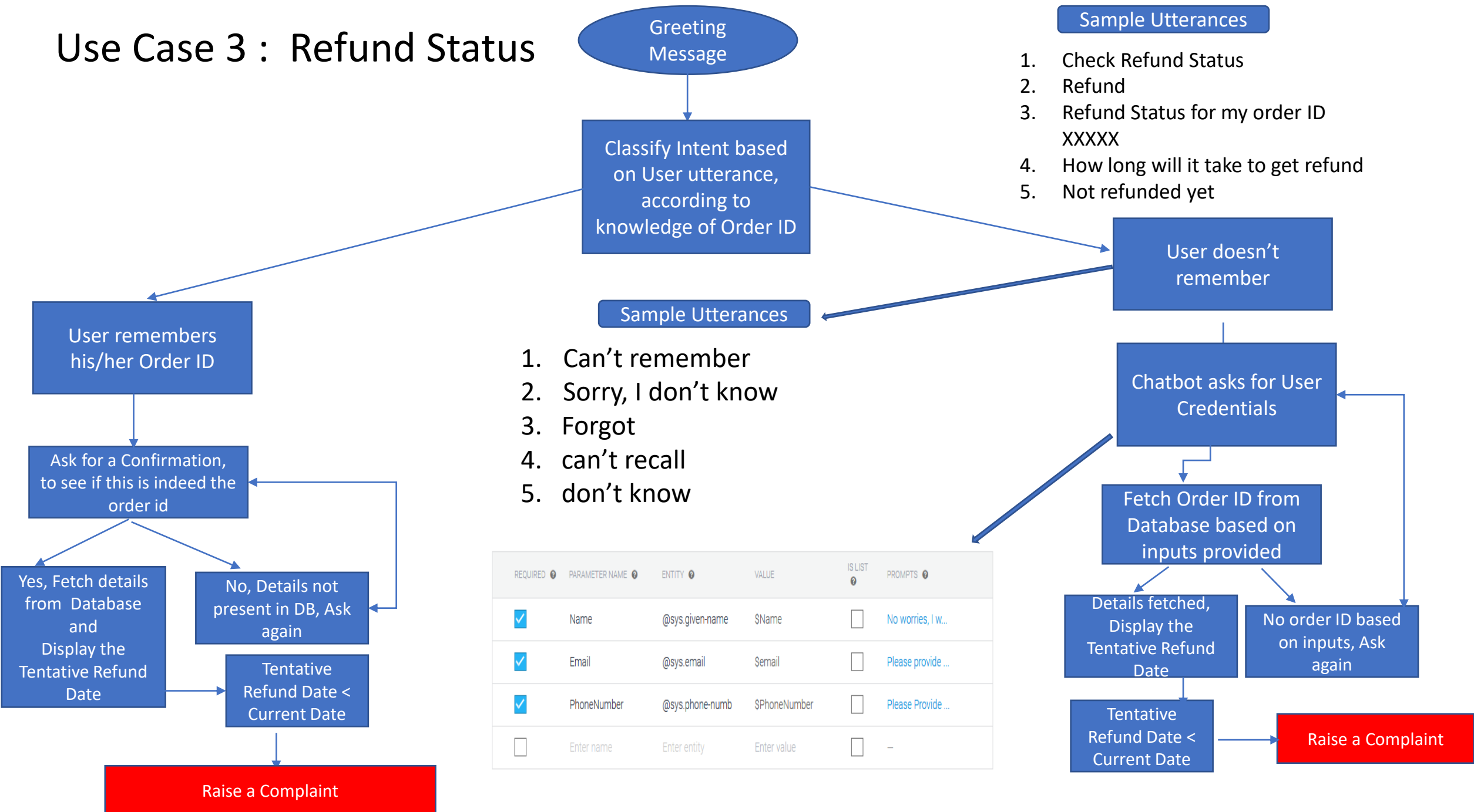
# Use Case 1 : Order Enquiry



# Use Case 2 : Order Cancellation



# Use Case 3 : Refund Status



# Illustration Using Google DialogFlow-Use Case 2

## Intents

CREATE INTENT



Search intents



● Cancellation\_Step1 ^

● ↳ ORDER-ID ^

● ↳ cancellation-confirmation-no

● ↳ cancellation-confirmation-yes

🔖 Default Fallback Intent

● Default Welcome Intent

● No\_orderID ^

● ↳ No\_orderID - cancellation-yes

● ↳ No\_orderID - cancellation-No

● User\_Details

# Illustration Using Google DialogFlow-Use Case 2

## • Cancellation\_Step1

SAVE

Add input context

2 Cancellation\_Step1-followup Add output context

Events

Training phrases

Search training phrases

Add user expression

I want to cancel my order

can you help me in cancelling my order

cancel my order

cancel order

I would like to cancel my order

Responses

DEFAULT

Text Response

1 I am so sorry to hear that. Can you please help me with your Order ID?

2 Enter a text response variant

ADD RESPONSES

☐ Set this intent as end of conversation

# Illustration Using Google DialogFlow-Use Case 2

ORDER-ID

SAVE

Contexts

Cancellation\_Step1-followup

Add input context

2 ORDER-ID-followup

Add output context

Events

Training phrases

Search training phrases

" Add user expression

" DD1233

" SG7723

" AB0012

" DG1234

orderid

SAVE

☒ Define synonyms

☒ Regexp entity

☐ Allow automated expansion

☐ Fuzzy matching

^[a-zA-Z]{2}[0-9]{4}\$

Enter value

+ Add a row

ORDER-ID

SAVE

Action and parameters

Cancellation\_Step1.ORDER-ID

REQUIRED	PARAMETER NAME	ENTITY	VALUE	IS LIST
<input type="checkbox"/>	orderid	@orderid	Sorderid	<input type="checkbox"/>
<input type="checkbox"/>	Enter name	Enter entity	Enter value	<input type="checkbox"/>

+ New parameter

Responses

DEFAULT

Text Response

1

Thanks for Providing Your Order ID.  
Please Confirm your Cancellation  
Yes  
No

For illustration purpose, the order id consists of 2 letters followed by 4 numbers. Any order-id that doesn't follow this convention is invalid

# Illustration Using Google DialogFlow-Use Case 2

## • cancellation-confirmation-no

SAVE

### Contexts ?

ORDER-ID-followup ⓘ Add input context

Add output context

### Events ?

### Training phrases ?

Search training phrases

” Add user expression

” Nah

” No

### Action and parameters

Cancellation\_Step1.ORDER-ID.cancellation-confirmation-no

REQUIRED ?	PARAMETER NAME ?	ENTITY ?	VALUE	IS LIST ?
<input type="checkbox"/>	Responses	@Responses	\$Responses	<input type="checkbox"/>
<input type="checkbox"/>	Enter name	Enter entity	Enter value	<input type="checkbox"/>

+ New parameter

### Responses ?

DEFAULT +

#### Text Response

- 1 That's awesome! I see you have changed your mind. Thanks for shopping with us. Your order will be delivered as expected.
- 2 Enter a text response variant





# Illustration Using Google DialogFlow-Use Case 2

- cancellation-confirmation-yes

SAVE

## Contexts ?

ORDER-ID-followup  Add input context

Add output context 

## Events ?

### Training phrases ?

Search training phrases



” Add user expression

” yeah

” yes

Cancellation\_Step1.ORDER-ID.cancellation-confirmation-yes

REQUIRED ?	PARAMETER NAME ?	ENTITY ?	VALUE	IS LIST ?
<input type="checkbox"/>	Responses	@Responses	\$Responses	<input type="checkbox"/>
<input type="checkbox"/>	Enter name	Enter entity	Enter value	<input type="checkbox"/>

+ New parameter

## Responses ?

DEFAULT +

### Text Response

- 1 Thank You for your confirmation. Your order #ORDER-ID-followup.orderid is now cancelled. Your refund will be processed in 7 working days
- 2 Enter a text response variant

# Illustration Using Google DialogFlow-Use Case 2

## User\_Details

SAVE

## Action and parameters

Enter action name

REQUIRED ?	PARAMETER NAME ?	ENTITY ?	VALUE	IS LIST ?	PROMPTS ?
<input checked="" type="checkbox"/>	Name	@sys.given-name	\$Name	<input type="checkbox"/>	No worries, I w...
<input checked="" type="checkbox"/>	Email	@sys.email	\$email	<input type="checkbox"/>	Please provide ...
<input checked="" type="checkbox"/>	PhoneNumber	@sys.phone-numb	\$PhoneNumber	<input type="checkbox"/>	Please Provide ...
<input type="checkbox"/>	Enter name	Enter entity	Enter value	<input type="checkbox"/>	—

+ New parameter

## Events ?

## Training phrases ?

Search training phrases



” Add user expression

” forgot my order id

” can't remember my order id

” don't know

” sorry, can't recall

” can't remember

” forgot

## Responses ?

DEFAULT +

## Text Response



1 Thanks for providing the details. Please wait till I fetch your Order ID

2 Enter a text response variant

# Illustration Using Google DialogFlow-Use Case 2

## • No\_orderID

SAVE

### Contexts ?

User\_Details-Followup ⓘ Add input context

2 No\_orderID-followup ⓘ Add output context

### Events ?

### Training phrases ?

Search training phrases

” Add user expression

” COOL

” OKAY

” OK

## • No\_orderID

SAVE

### Responses ?

DEFAULT +

#### Text Response

- 1 Based On Your Inputs:  
Name : #User\_Details-Followup.Name  
Email: #User\_Details-Followup.Email  
Phone Number: #User\_Details-Followup.PhoneNumber
- 2 Enter a text response variant

#### Text Response

- 1 Your Order ID is KA2904
- 2 Enter a text response variant

#### Text Response

- 1 Please Confirm your cancellation:  
Yes or No
- 2 Enter a text response variant

# Deployment Using Telegram

Thursday, February 11, 2021

**SS** **Swapna Samir** 6:30:49 AM  
/start

**EC** **ECOM\_CHAMPBOT** 6:30:54 AM  
Good day! This is Ecom\_CHAMP, your personal assistant. What can I do for you today?

**SS** **Swapna Samir** 6:31:03 AM  
CANCEL

**EC** **ECOM\_CHAMPBOT** 6:31:07 AM  
I am so sorry to hear that. Can you please help me with your Order ID?

**SS** **Swapna Samir** 6:31:18 AM  
DON'T KNOW

**EC** **ECOM\_CHAMPBOT** 6:31:22 AM  
No worries, I will get it for you. But I would need some details. Please Provide your Name

**SS** **Swapna Samir** 6:31:26 AM  
|

📎 📷 🎤 😂 🤔 ❤️ 😊 🙄 🤔 👍 SEND

**SS** **Swapna Samir** 6:31:26 AM  
SAM

**EC** **ECOM\_CHAMPBOT** 6:31:29 AM  
Please provide your email address

**SS** **Swapna Samir** 6:31:36 AM  
SAM@MAIL.COM

**EC** **ECOM\_CHAMPBOT** 6:31:39 AM  
Please Provide your Phone Number

**SS** **Swapna Samir** 6:31:46 AM  
1234567890

**EC** **ECOM\_CHAMPBOT** 6:31:49 AM  
Thanks for providing the details. Please wait till I fetch your Order ID

**SS** **Swapna Samir** 6:31:52 AM  
OK

**EC** **ECOM\_CHAMPBOT** 6:31:55 AM  
Based On Your Inputs:

Name : Sam  
Email: SAM@MAIL.COM  
Phone Number: 1234567890

Your Order ID is KA2904 6:31:55 AM

Please Confirm your cancellation: 6:31:55 AM  
Yes or No

**SS** **Swapna Samir** 6:32:07 AM  
YES

**EC** **ECOM\_CHAMPBOT** 6:32:09 AM  
Thank You for your confirmation. Your order KA2904 is now cancelled. The Refund will be processed in 7 working days

Live Demo at

[t.me/ECOM\\_CHAMP\\_BOT](https://t.me/ECOM_CHAMP_BOT)