



## AcmeGrade Cloud Computing Project

- Create a Chatbot that places the order for buying the favorite car of the user choice using AWS LEX TOOL

### ABSTRACT

This project focuses on the design and implementation of a chatbot using AWS Lex to facilitate the process of purchasing users' favorite cars. The chatbot engages users in a conversation to collect their personal details, assist in choosing a preferred car model from a predefined list, and provide relevant information about the selected car, including price, color options, and delivery dates. The primary goal is to streamline the car purchasing process through natural language interactions, ensuring a user-friendly experience.

Name: Samiksha Deepak Palkar

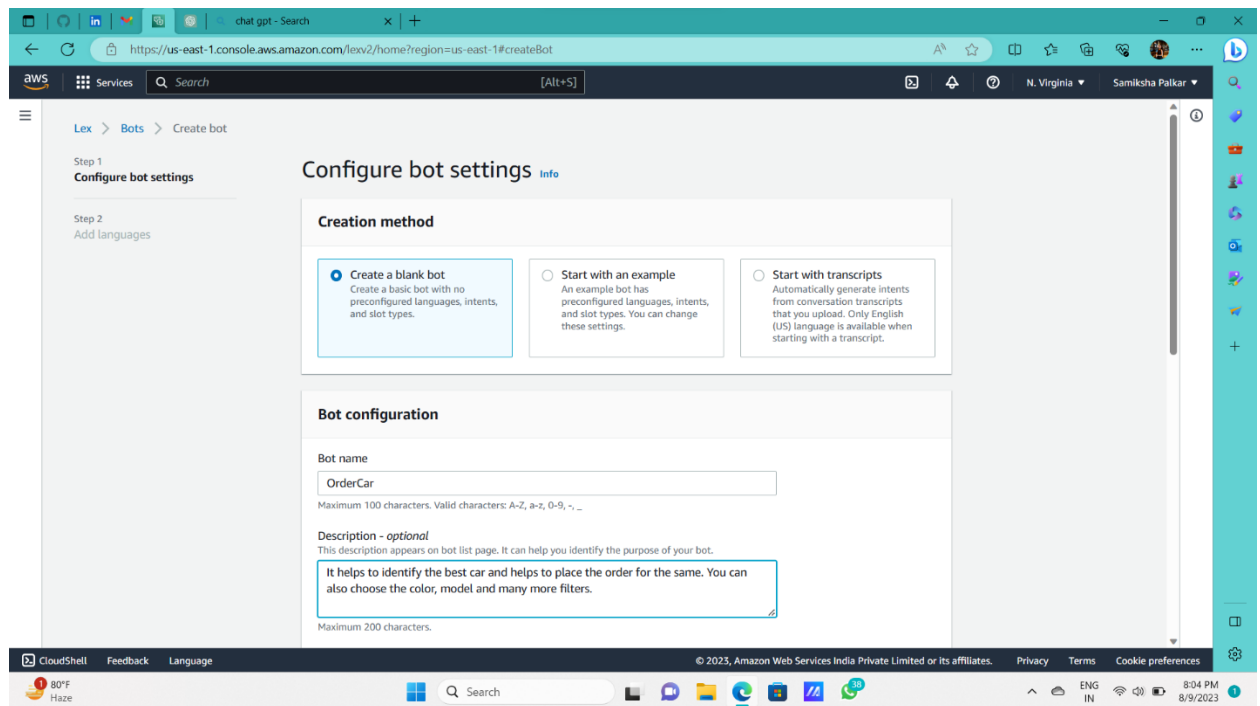
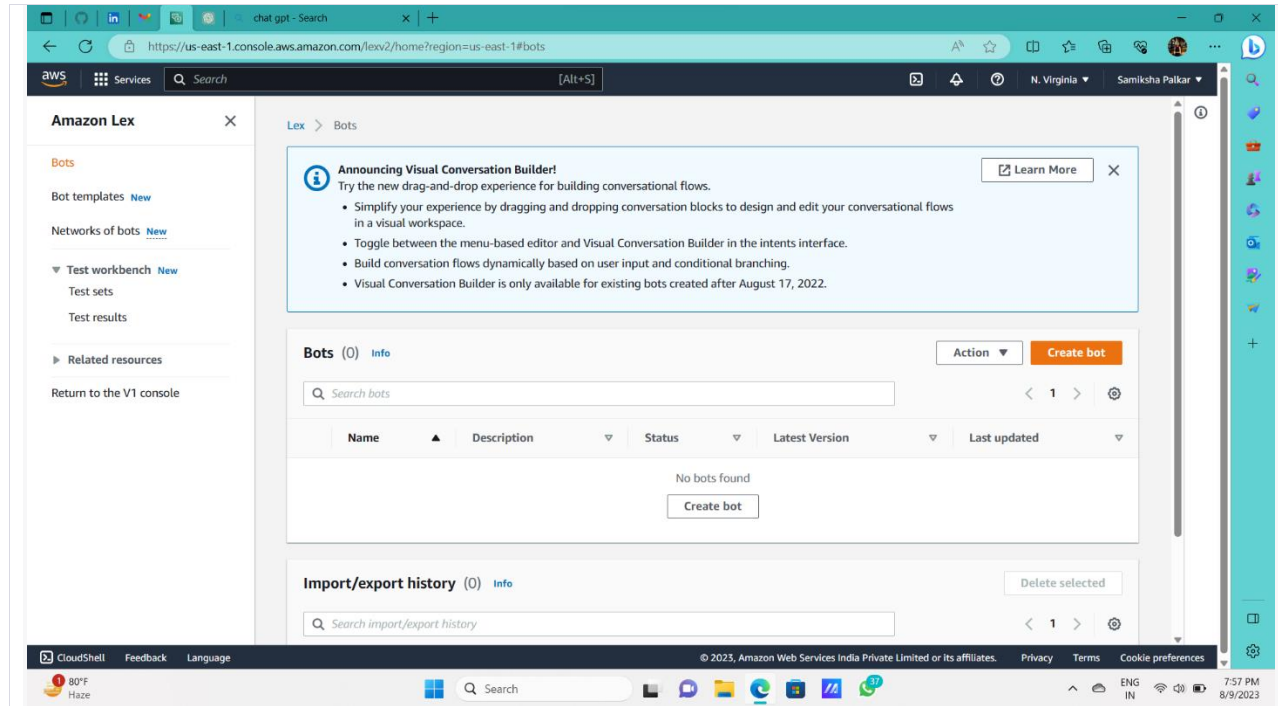
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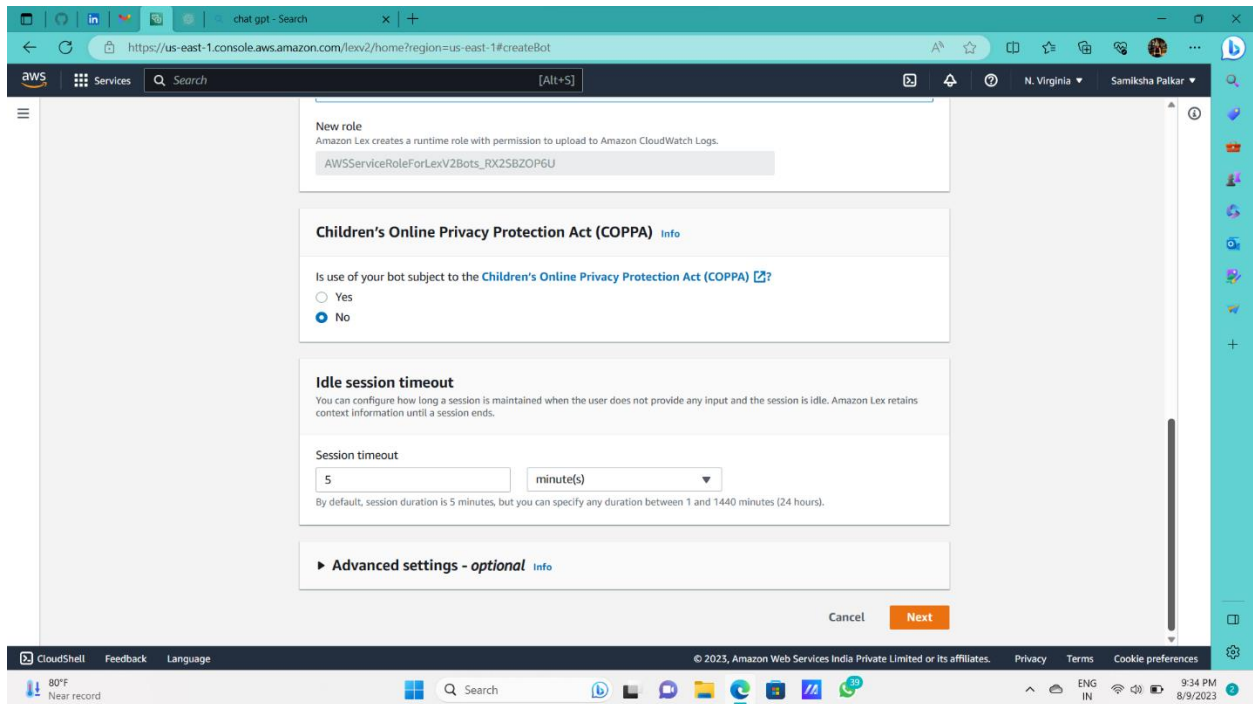
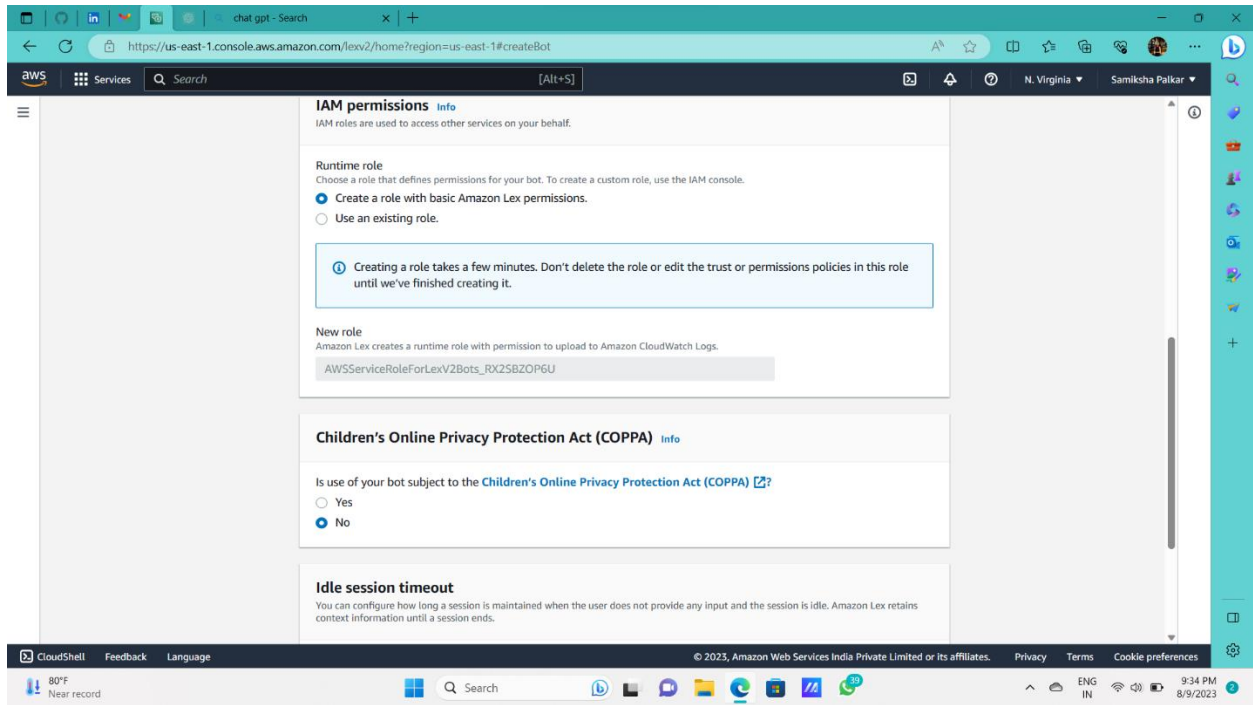
Month Opted: June 2023

## Creating a ChatBot:

- **Set Up AWS Lex:**

1. Create a new Lex bot.





chat gpt - Search

https://us-east-1.console.aws.amazon.com/lexv2/home?region=us-east-1#createBot

ServicesSearch[Alt+S]

N. VirginiaSamiksha Palkar

Step 1  
Configure bot settings

Step 2  
Add languages

### Add language to bot Info

▼ Language: English (US)

Select language

English (US)

Description - optional

Maximum 200 characters.

Voice interaction

The text-to-speech voice that your bot uses to interact with users.

Kevin

Voice sample

Hello, my name is Kevin. Let me know how I can assist you.

Play

Intent classification confidence score threshold

0.40

Min: 0.00, max: 1.00.

Cancel

Add another language

Done

CloudShellFeedbackLanguage

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NASDAQ 100  
-1.11%

Search

ENG  
IN

9:37 PM  
8/9/2023

## 2. Define necessary Intent.

Amazon Lex console showing the 'Intents (2)' page for the 'OrderCar' bot. The page indicates that the language English (US) has been successfully built. A table lists two intents:

Name	Description	Last edited
OrderCar	-	9 minutes ago
FallbackIntent	Default intent when no other intent matches	3 hours ago

Amazon Lex console showing the 'Intent: OrderCar' details page. The page includes a 'Conversation flow' section and an 'Intent details' section with fields for 'Intent name' and 'Description'.

**Intent details**

Intent name: OrderCar  
Maximum 100 characters. Valid characters: A-Z, a-z, 0-9, -, \_

Description - optional  
Maximum 200 characters.

ID: OTCH0VFFVI

Amazon Lex console interface showing the "Sample utterances" section for a draft version of an intent in English (US). The interface includes a search bar, a list of sample utterances, and a "Save intent" button.

**Amazon Lex** Draft version English (US) Not built English (US) has not built changes. Build Test

[Back to intents list \(2\)](#)

Search

Sort by last updated

OrderCar Unsaved FallbackIntent

**Sample utterances (7)** Info

Representative phrases that you expect a user to speak or type to invoke this intent. Amazon Lex extrapolates based on the sample utterances to interpret any user input that may vary from the samples. The priority order of the sample utterances is not used to determine intent classification output.

Filter Sort by added (ascending)

Preview Plain text

- hi
- hello
- I want car
- I want to buy expensive car
- I want to buy budget car
- I want to buy Ferrari car
- I want to buy Ford

Editor Visual builder New Save intent

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80°F Haze 9:45 PM 8/9/2023

Amazon Lex console interface showing the "Initial response" section for a draft version of an intent in English (US). The interface includes a search bar, a list of initial responses, and a "Save intent" button.

**Amazon Lex** Draft version English (US) Not built English (US) has not built changes. Build Test

[Back to intents list \(2\)](#)

Search

Sort by last updated

OrderCar Unsaved FallbackIntent

**Initial response** Info

You can provide messages to acknowledge the user's initial request. You can also configure next step in the conversation and branch based on conditions.

▼ Response to acknowledge the user's request

Message: Okay! Welcome to Manthan Motors Private Limited

▼ Message group Info

You can define a text message group to respond using plain text.

Message - optional

Okay! Welcome to Manthan Motors Private Limited

► Variations - optional

Advanced options

Configure user request acknowledgement response, dialog code hook and conditional branches.

▼ Slots (0) - optional Info

Information that a bot needs to fulfill the intent. The bot prompts for slots required for intent fulfillment, in priority order below.

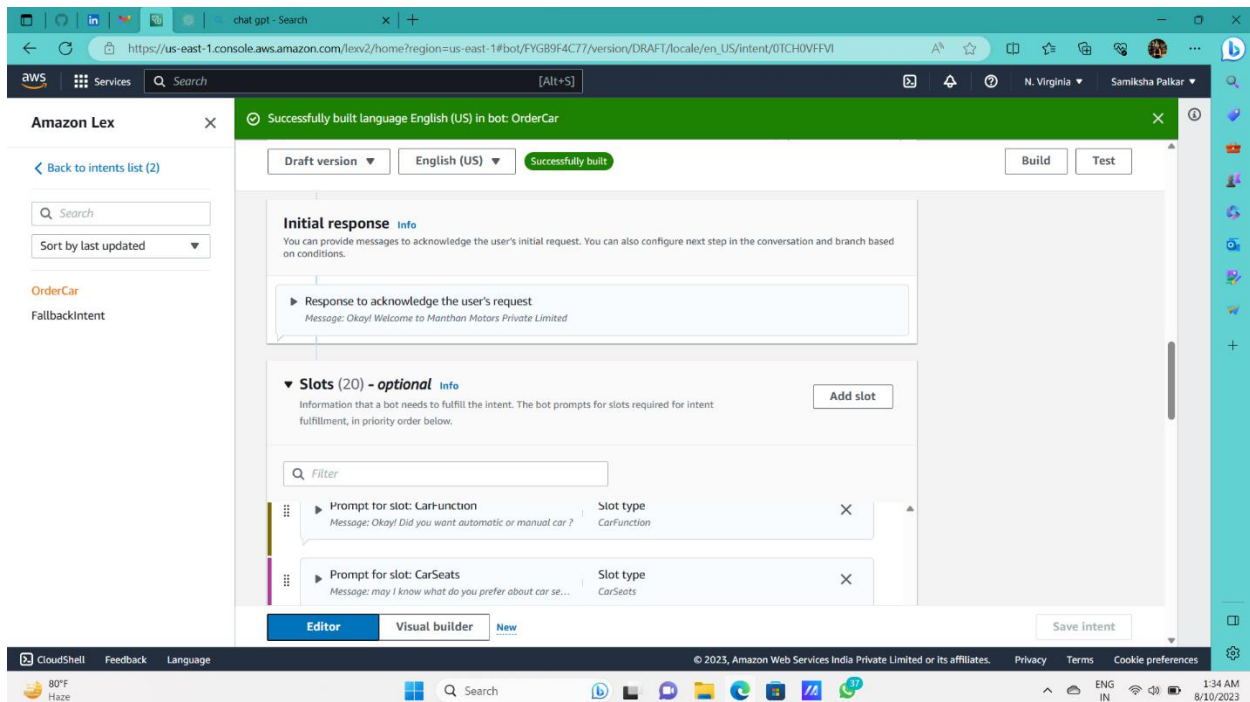
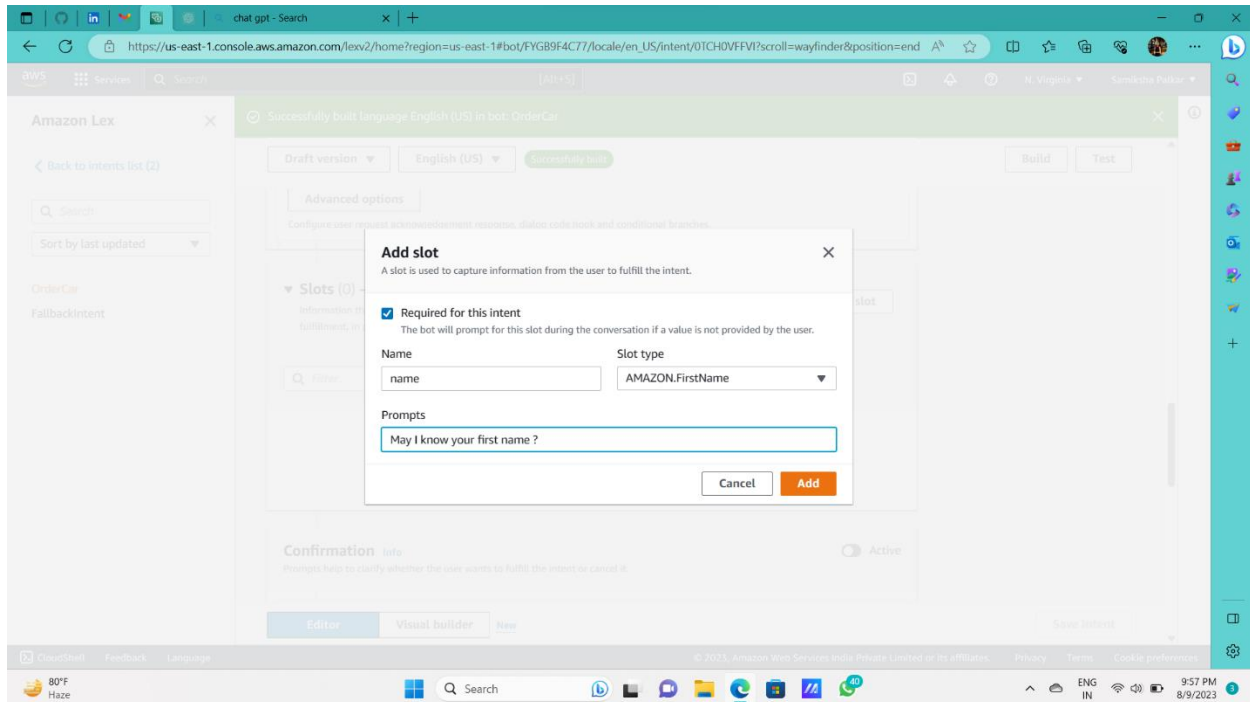
Add slot

Editor Visual builder New Save intent

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80°F Haze 9:49 PM 8/9/2023

3. Define slots for collecting user information like name, email, contact number, and address.



chat gpt - Search

https://us-east-1.console.aws.amazon.com/lexv2/home?region=us-east-1#bot/FYGB9F4C77/version/DRAFT/locale/en\_US/intent/0TCH0VFFVI

awsServicesSearch[Alt+S]

N. VirginiaSamiksha Palkar

Amazon Lex

[Back to intents list \(2\)](#)

Sort by last updated

OrderCar

Fallbackintent

Successfully built language English (US) in bot: OrderCar

Draft versionEnglish (US)Successfully built

BuildTest

▼ Slots (20) - optionalInfo

Information that a bot needs to fulfill the intent. The bot prompts for slots required for intent fulfillment, in priority order below.

▶ Prompt for slot: name

Message: May I know your first name ?

Slot type

AMAZON.FirstName

×

▶ Prompt for slot: contact

Message: Dear (name), Kindly provide your contact de...

Slot type

AMAZON.PhoneNumber

×

▶ Prompt for slot: gmail

Message: Thanks for Providing the Contact Details for...

Slot type

AMAZON.EmailAddress

×

▶ Prompt for slot: city

Message: Kindly provide your city name

Slot type

AMAZON.City

×

EditorVisual builderNew

Save intent

CloudShellFeedbackLanguage

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80°F  
Haze

Search

ENG  
IN

1:35 AM  
8/10/2023



#### 4. Add Slot Types.

The screenshot shows the Amazon Lex console interface. The left sidebar contains navigation options: Bots, Bot templates, Networks of bots, OrderCar, Bot versions, Draft version, All languages, English (US), Intents, Slot types, Deployment, Aliases, Channel integrations, Analytics, Overview, Conversation dashboard, Conversation flows, and Conversations. The main content area displays the 'Slot types' page for the 'OrderCar' bot. A green banner at the top states 'Successfully built language English (US) in bot: OrderCar'. Below this, there are tabs for 'Draft version' and 'English (US)', and a 'Successfully built' status indicator. The 'Slot types' section shows '(0)' slot types and a search bar. A 'Delete' button and an 'Add slot type' button are visible. The 'Add slot type' button has a dropdown menu with options: 'Add blank slot type', 'Use built-in type', 'Add grammar slot type', and 'Add composite slot type'. The table below the search bar is empty, with a message: 'No slot types found. Use the "Add" button to add slot types.'

Name	Description	Type	Last edited
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The screenshot shows the Amazon Lex console interface. The left sidebar contains navigation options: Bots, Bot templates, Networks of bots, OrderCar, Bot versions, Draft version, All languages, English (US), Intents, Slot types, Deployment, Aliases, Channel integrations, Analytics, Overview, Conversation dashboard, Conversation flows, and Conversations. The main content area displays the 'Slot types' page for the 'OrderCar' bot. A green banner at the top states 'Successfully built language English (US) in bot: OrderCar'. Below this, there are tabs for 'Draft version' and 'English (US)', and a 'Successfully built' status indicator. The 'Slot types' section shows '(12)' slot types and a search bar. A 'Delete' button and an 'Add slot type' button are visible. The table below the search bar lists 12 slot types, all of which are 'Custom' type. The table has columns for Name, Description, Type, and Last edited.

Name	Description	Type	Last edited
InfotainmentSystem	-	Custom	42 minutes ago
CarConnectivity	-	Custom	45 minutes ago
CarSafety	-	Custom	49 minutes ago
WheelDrive	-	Custom	1 hour ago
CarSeats	-	Custom	1 hour ago
CarFunction	-	Custom	1 hour ago
PaymentMode	-	Custom	2 hours ago
CarPrice	-	Custom	2 hours ago
CarColor	-	Custom	2 hours ago
CarOil	-	Custom	2 hours ago

## 5. Add confirmation and closing response.

The screenshot shows the Amazon Lex console interface for an intent named 'OrderCar'. The interface is in English (US) and shows the 'Successfully built' status. The 'Confirmation' section is active, with a prompt 'Can I proceed with your request?' and a response 'Okay, better luck next time ///'. The 'Fulfillment' section is also active, with a message '-' for successful fulfillment and '-' for failure. The 'Closing response' section is active, with a message '-' for the response sent to the user after the intent is fulfilled. The 'Editor' tab is selected, and the 'Visual builder' and 'New' buttons are visible at the bottom.

The screenshot shows the Amazon Lex console interface for the 'OrderCar' intent, specifically the 'Closing response' section. The 'Closing response' is active, and the 'Response sent to the user after the intent is fulfilled' is set to 'Thanks for choosing MANTHAN MOTORS PRIVATE LIMITED and see you soon!!'. The 'Message group' section is also active, with a message 'Thanks for choosing MANTHAN MOTORS PRIVATE LIMITED and see you soon!!'. The 'Variations - optional' section is visible, with a button 'More response options'. The 'Set values' section is active, with a next step in conversation 'End conversation'. The 'Add conditional branching' button is visible at the bottom.

- **Define Conversations:**

1. Set up the conversation flow using AWS Lex's dialog management.
2. Start with asking the user for their name, email, contact number, and address.
3. Proceed to asking about their favorite car model from a predefined list.

Test Draft version

Last build submitted: Now

Inspect

hello

Okay! Welcome to Manthan Motors Private Limited

May I know your first name ?

Ready for complete testing

Type a message

Test Draft version

Last build submitted: 2 minutes ago

Inspect

hello

Okay! Welcome to Manthan Motors Private Limited

May I know your first name ?

samiksha

Dear samiksha, Kindly provide your contact details ?

Ready for complete testing

Type a message

Test Draft version

Last build submitted: 3 minutes ago

Inspect

Dear samiksha, Kindly provide your contact details ?

5648795632

Thanks for Providing the Contact Details for the same and Please provide the Email as well

abc@gmail.com

Kindly provide your city name

Ready for complete testing

Type a message

Test Draft version

Last build submitted: 4 minutes ago

Inspect

Kindly provide your city name

mumbai

Kindly provide your city Street Name ?

bhanvaj

Kindly input your pincode for checking the availability for the Delivery Patners ?

Ready for complete testing

Type a message

### Test Draft version

Last build submitted: 5 minutes ago



Inspect

Kindly provide your city Street Name ?

bhanvaj

Kindly input your pincode for checking the availability for the Delivery Patners ?

420321

Mention the date of delivery if you ordered the car with us ?

✓ Ready for complete testing

Type a message

### Test Draft version

Last build submitted: 2 minutes ago



Inspect

Mention the date of delivery if you ordered the car with us ?

24 nov

Thanks for provinding all the required details. Please input your favourite car that you wants to buy

brezza

Thanks for choosing

✓ Ready for complete testing

Type a message

### Test Draft version

Last build submitted:  
10 minutes ago



Inspect

Thanks for choosing  
MARUTIBREZZA. Kindly provide  
the car model as well ?

d123

Do you want petrol or diesel or  
CNG Model ? Please input any  
one ?

cng

Okay! Did you want automatic

✓ Ready for complete testing

Type a message

### Test Draft version

Last build submitted:  
11 minutes ago



Inspect

Okay! Did you want automatic  
or manual car ?

auto

may I know what do you prefer  
about car seats ? leather seats or  
heated seats ?

leather

Okay! Which car color do you  
want ? In MARUTIBREZZA we are

✓ Ready for complete testing

Type a message

Test Draft version

Last build submitted:  
12 minutes ago

Inspect

Okay! Which car color do you want ? In MARUTIBREZZA we are having white, black and grey color

grey

kindly mention which wheel drive would you prefer 4 or 2 ?

4

which infotainment system you want ? touchscreen, USB or bluetooth ?

Ready for complete testing

Type a message

Test Draft version

Last build submitted:  
12 minutes ago

Inspect

which infotainment system you want ? touchscreen, USB or bluetooth ?

touchscreen

what would you like for connectivity ? apple acrplay or android auto ?

android

kindly mention the safety features which are sidebars, ABS

Ready for complete testing

Type a message

Test Draft version

Last build submitted: 2 minutes ago

Inspect

kindly mention the safety features which are airbags, ABS nad ESC ?

abs

Kindly provide the car range from 5lakhs to 40lakhs only

20

Thanks for providing all the car details that you want to buy and

Ready for complete testing

Type a message

Test Draft version

Last build submitted: 3 minutes ago

Inspect

Thanks for providing all the car details that you want to buy and kindly provide the payment mode that you want?

credit

kindly choose the delivery option from the below ?

Delivery time

Ready for complete testing

\$



Test Draft version

Last build submitted: 3 minutes ago

Inspect

Delivery time

10 AM

2 PM

4 PM

6 PM

4 pm

Can I proceed with your request

Ready for complete testing

Type a message

Test Draft version

Last build submitted: 4 minutes ago

Inspect

Can I proceed with your request ?

yes

Thanks for choosing MANTHAN MOTORS PRIVATE LIMITED and see you soon!!

For any enquiry feel free to contact xyz@gmail.com

Ready for complete testing

Type a message

**THANK YOU**