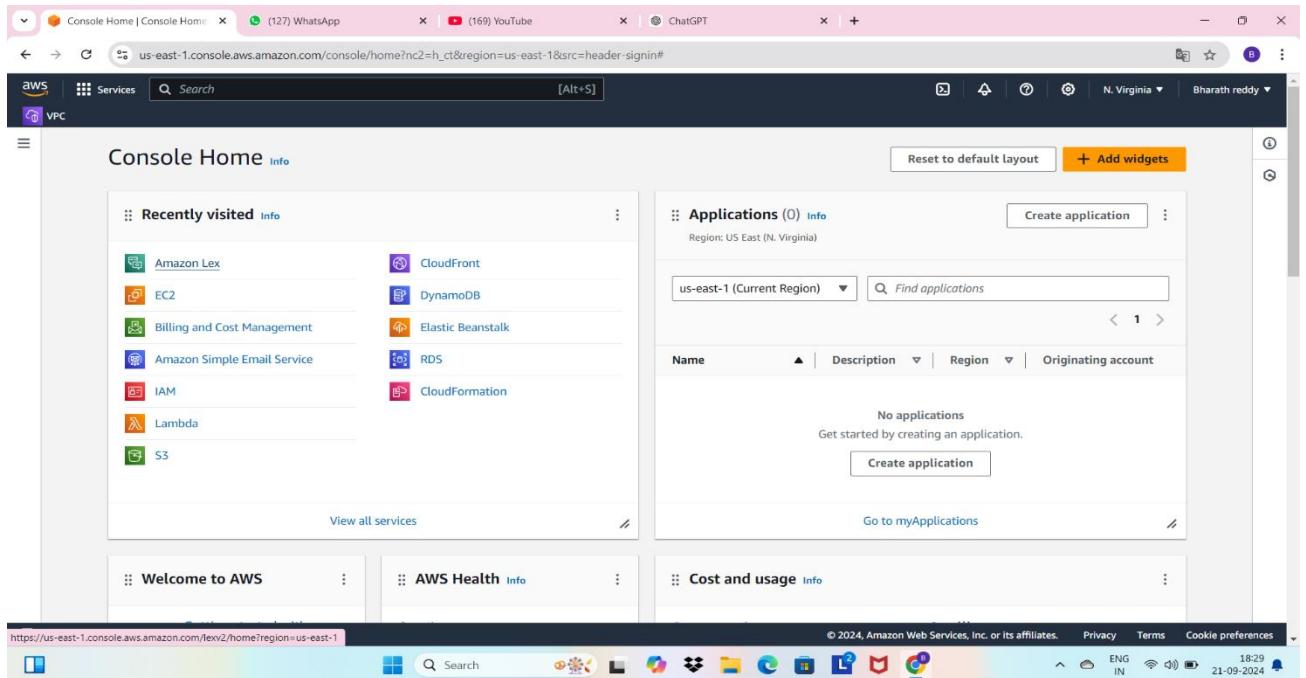
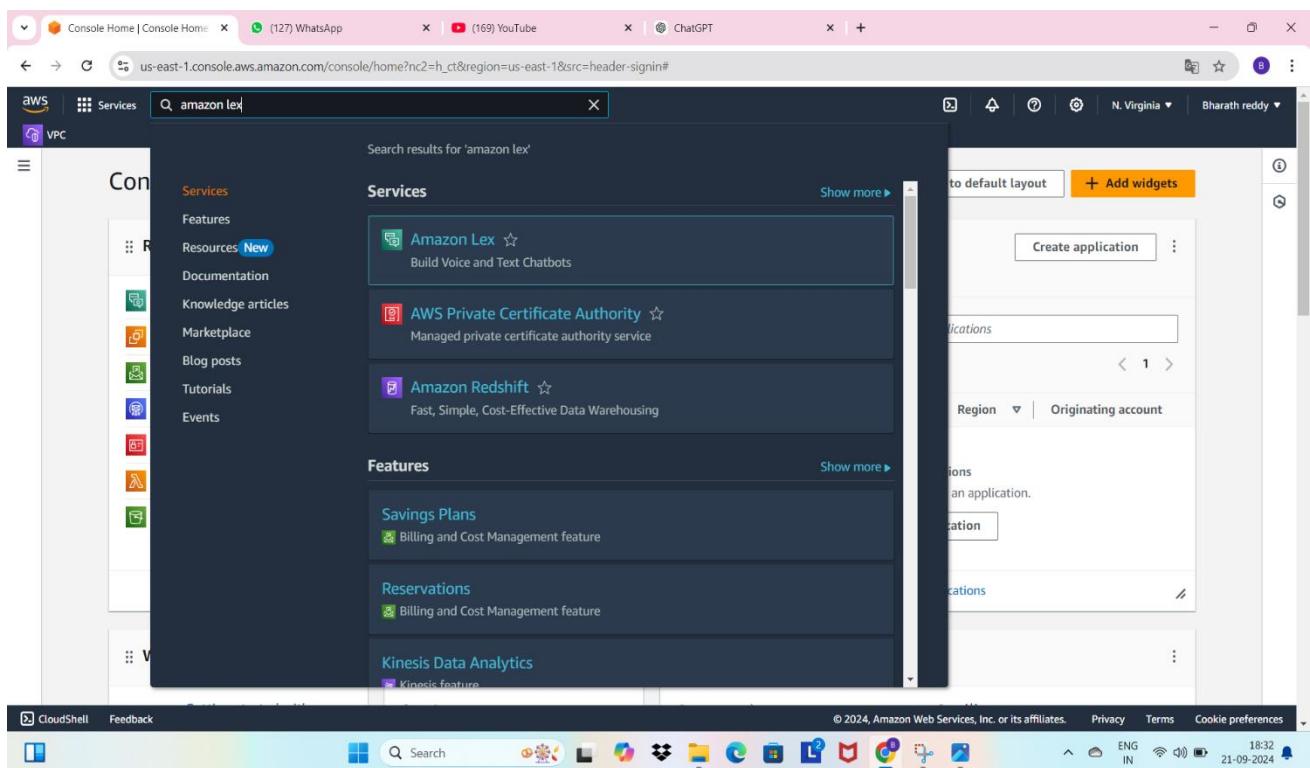


Chatbot using Amazon Lex

Open AWS Console



Search for Amazon Lex



Create a Bot with name HotelBookingBot

Announcing Amazon Lex Generative AI features powered by Amazon Bedrock.

Try the new build time and run time features to make your bot more intelligent by enabling these features on the Gen AI Configurations page in your bot.

- Descriptive Bot Builder - Provide a description in natural language to have Lex generate a bot for you using large language models.
- Assisted Slot Resolution - Leverage the intelligence of large language models to resolve slot values in a user utterance when natural language understanding fails.
- Sample Utterance Generation - Have Lex generate training utterances for your bot using generative AI.
- AMAZON.QnAIntent: A Bedrock-powered built-in intent that uses Generative AI to fulfill FAQ requests by querying authorized knowledge content.
- Generative AI Bots - Leverage large language models and your existing Bedrock knowledge bases to fulfill user requests without the need to build bots.

Bots (1) [Info](#)

Name	Description	Status	Latest Version	Last updated
HotelBookingBot	HotelBookingBot	Available	-	3 hours ago

Step 1
Configure bot settings [Info](#)

Step 2
Add languages

Creation method

Create a blank bot
Create a basic bot with no preconfigured languages, intents, and slot types.

Start with an example
An example bot has preconfigured languages, intents, and slot types. You can change these settings.

Start with transcripts
Automatically generate intents from conversation transcripts that you upload. Only English (US) language is available when starting with a transcript.

Bot configuration

Bot name

Maximum 100 characters. Valid characters: A-Z, a-z, 0-9, -, _

Description - optional
This description appears on bot list page. It can help you identify the purpose of your bot.
IT HelpDesk bot for employees in the North America office

Console Home | Lex Console | Lex Console | WhatsApp | YouTube | ChatGPT

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

Description - optional
This description appears on bot list page. It can help you identify the purpose of your bot.

Maximum 200 characters.

IAM permissions Info

IAM roles are used to access other services on your behalf.

Runtime role
Choose a role that defines permissions for your bot. To create a custom role, use the IAM console.

Create a role with basic Amazon Lex permissions.
 Use an existing role.

Creating a role takes a few minutes. Don't delete the role or edit the trust or permissions policies in this role until we've finished creating it.

New role
Amazon Lex creates a runtime role with permission to upload to Amazon CloudWatch Logs.

Children's Online Privacy Protection Act (COPPA) Info

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CloudShell Feedback ENG IN 18:35 21-09-2024

Console Home | Lex Console | Lex Console | WhatsApp | YouTube | ChatGPT

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

AWSLambdaRoleForLexV2Bots_MGF8021SXV

Children's Online Privacy Protection Act (COPPA) Info

Is your bot subject to the [Children's Online Privacy Protection Act \(COPPA\)](#)?

Yes
 No

Idle session timeout
You can configure how long a session is maintained when the user does not provide any input and the session is idle. Amazon Lex retains context information until a session ends.

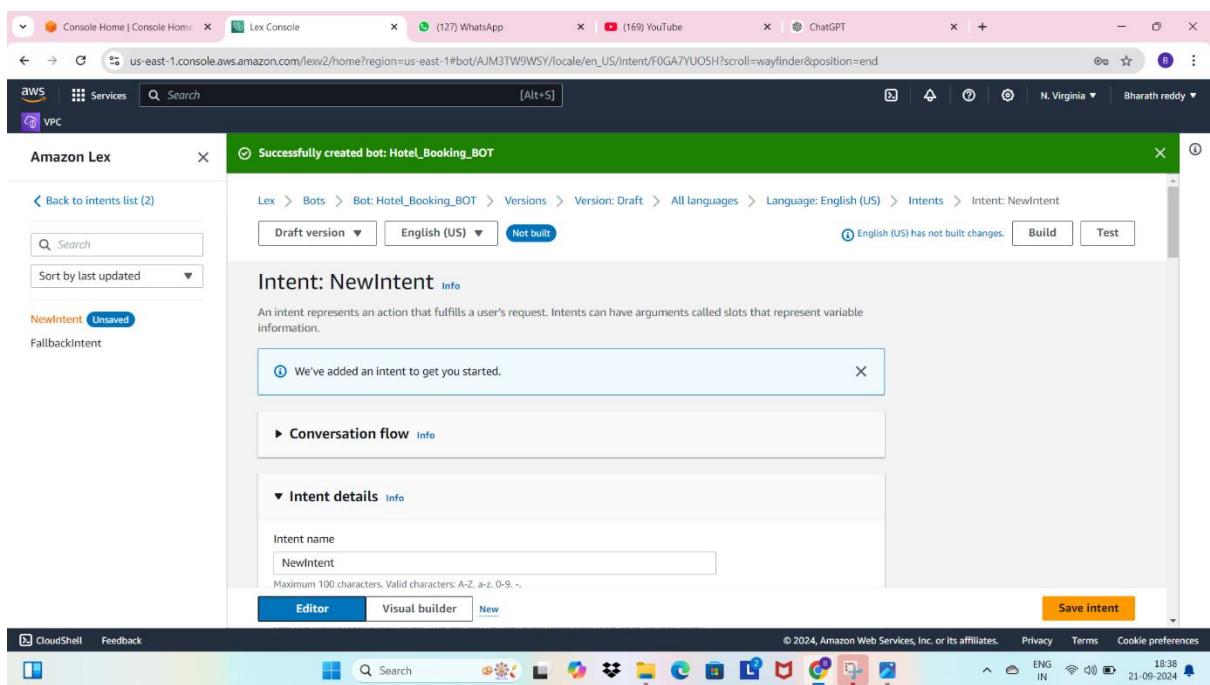
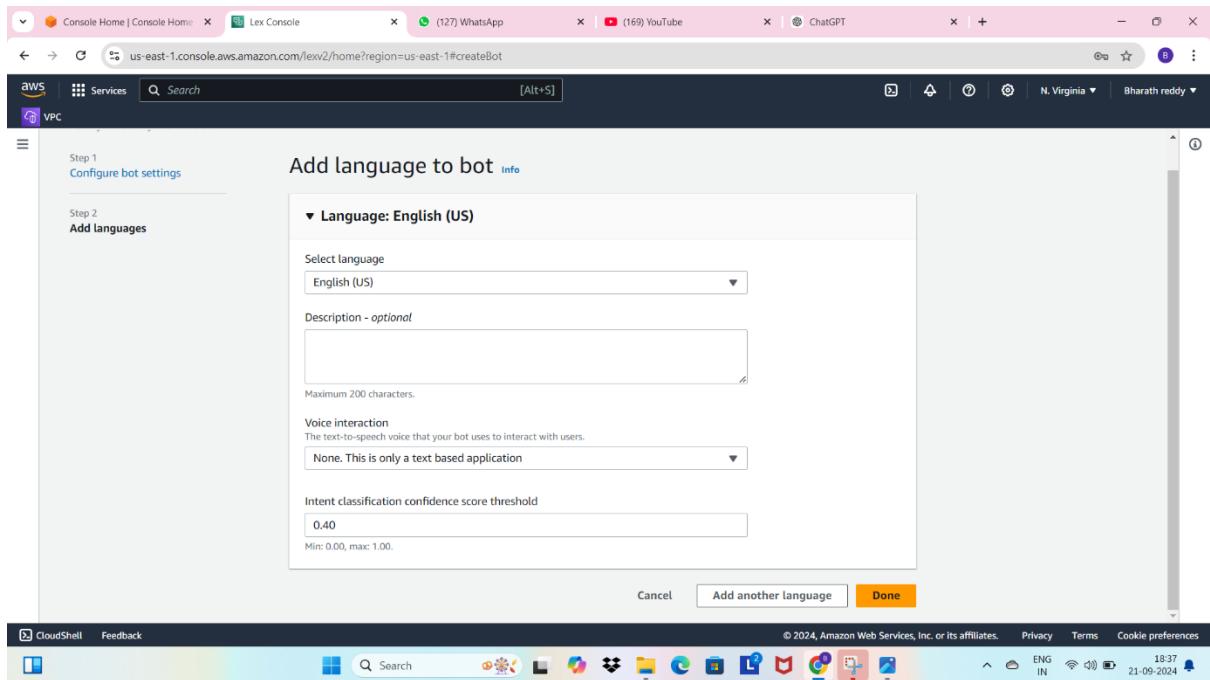
Session timeout
 minute(s)
By default, session duration is 5 minutes, but you can specify any duration between 1 and 1440 minutes (24 hours).

Advanced settings - optional Info

Cancel **Next**

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CloudShell Feedback ENG IN 18:36 21-09-2024



Create a intent details

Amazon Lex

Successfully created bot: Hotel_Booking_BOT

Draft version English (US) Not built

Intent name: Hotelbooking

Intent and utterance generation description: Hotel booking

Contexts - optional

Save Intent

CloudShell Feedback

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ENG IN 21-09-2024 18:40

Add a sample utterances

Amazon Lex

Sample utterances (0)

To generate utterances, you must have permissions to Amazon Bedrock. Amazon Lex will make calls to Amazon Bedrock. Additional charges may be incurred based on the usage of Amazon Bedrock.

Generate utterances

Filter Sort by added (ascending)

Preview Plain text

No sample utterances

Try generating utterances to get started

Generate utterances

Editor Visual builder New

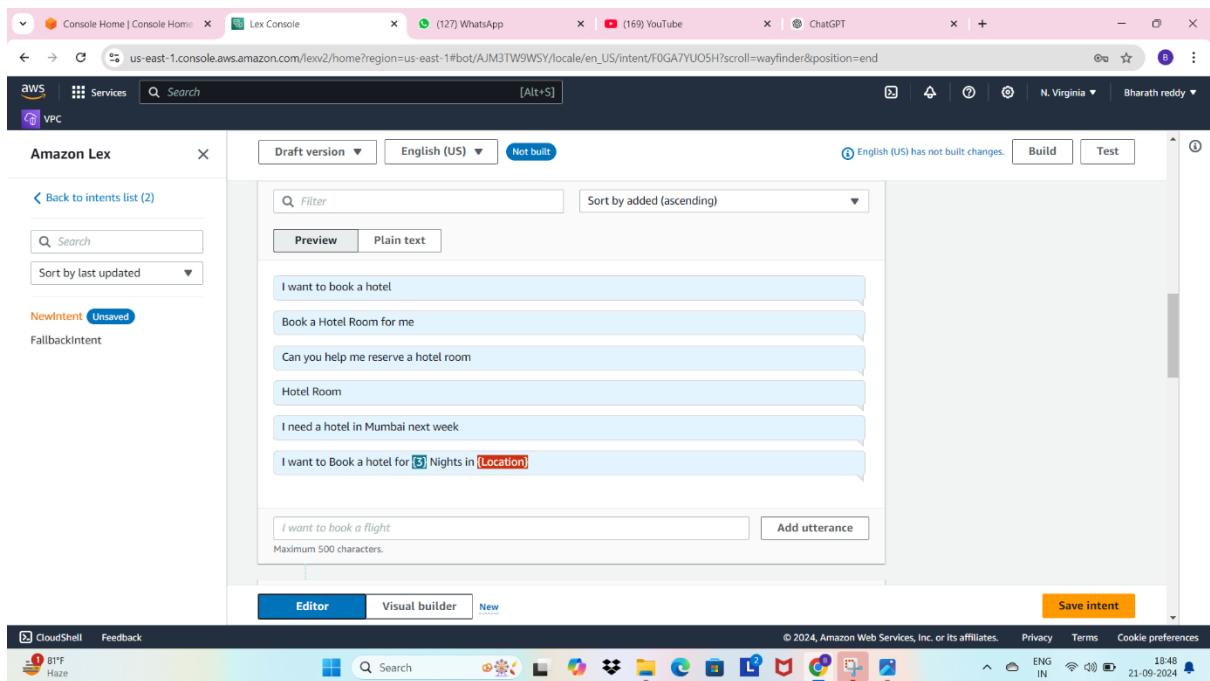
CloudShell Feedback

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ENG IN 21-09-2024 18:41

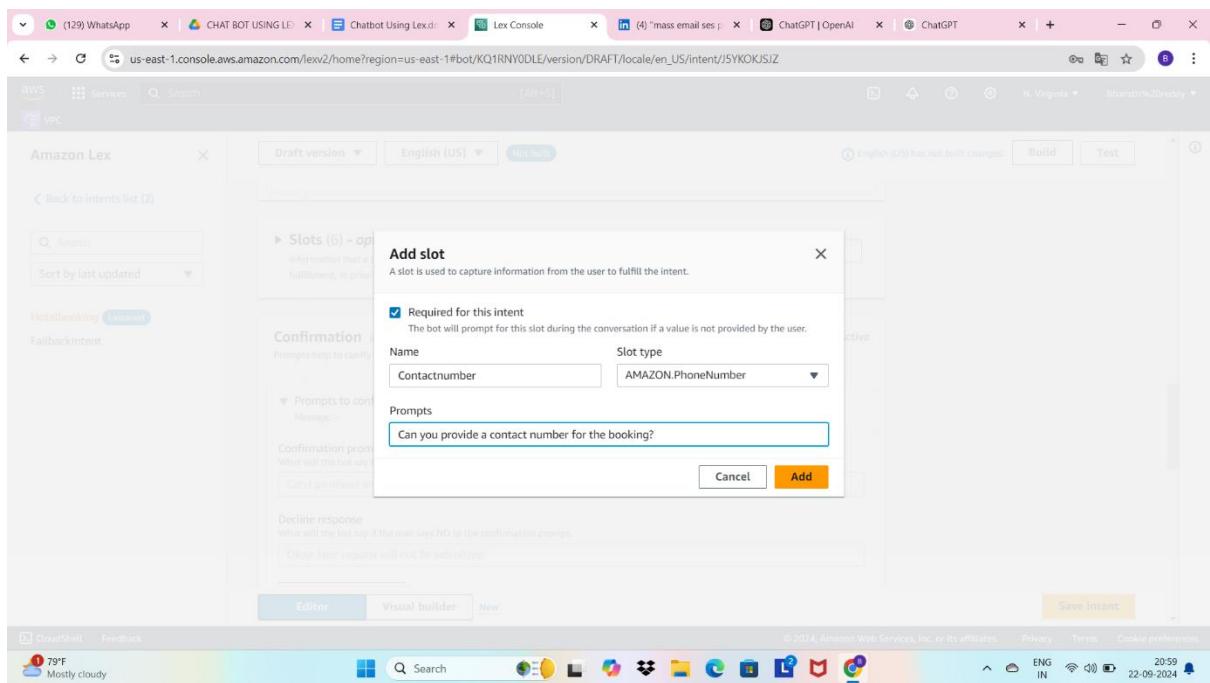
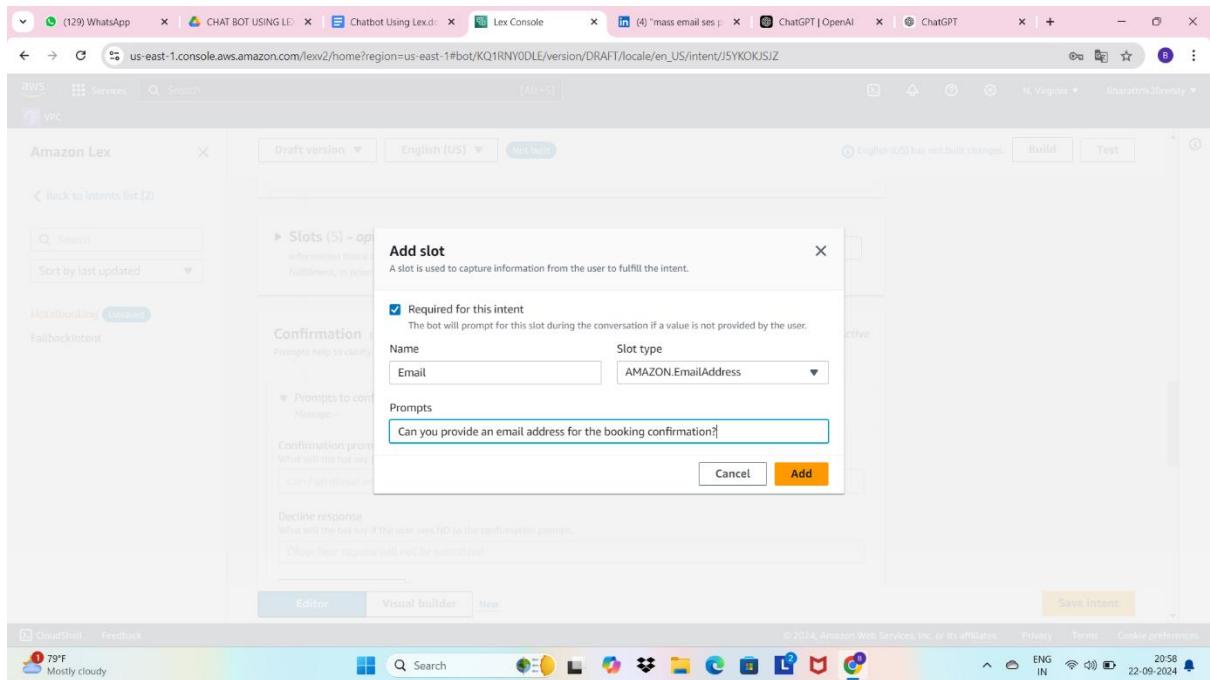
The screenshot shows the AWS Lex Console interface. In the top navigation bar, tabs for 'Console Home' and 'Lex Console' are visible. The main workspace is titled 'Amazon Lex'. On the left, there's a sidebar with a search bar and a dropdown menu for sorting intents by last updated. A status indicator 'NewIntent' and 'Unsaved' is shown above the intent list. The intent list contains three entries: 'Can you help me reserve a hotel room', 'Hotel Room', and 'I need a hotel in Mumbai next week'. Below the list, a text input field contains the utterance 'I want to Book a hotel for [3] Nights in [Location]'. A dropdown menu for slot types is open, showing options like 'AMAZON.AlphaNumeric', 'AMAZON.City', 'AMAZON.Country', 'AMAZON.Currency', and 'AMAZON.Date'. At the bottom right of the workspace, there are 'Save intent' and 'Test' buttons. The bottom of the screen shows the Windows taskbar with various pinned icons.

This screenshot is nearly identical to the one above, but the dropdown menu for slot types has been closed. The selected slot type is now 'AMAZON.Confirmation'. The other options remain the same: 'AMAZON.Number', 'AMAZON.Percentage', 'AMAZON.PhoneNumber', 'AMAZON.State', and 'AMAZON.StreetName'. The rest of the interface, including the intent list and the bottom navigation, remains consistent with the first screenshot.



Add a slots:

- Number slot
- Name slot
- City slot
- Roomtype slot
- Paymentmethod slot
- Email slot
- Phonenumbers slot
- Date prompt slot
 - 1) CHECKINDATE
 - 2) CHECKOUTDATE



The screenshot shows the AWS Lex Console interface. A modal window titled 'Add slot' is open, prompting for a slot name. The 'Required for this intent' checkbox is checked. The slot is named 'Name' and its type is set to 'AMAZON.FirstName'. A prompt message 'Hello, May I know your name?' is entered in the 'Prompts' field. The 'Save intent' button is visible at the bottom right of the modal.

This screenshot shows the continuation of slot creation. The 'Add slot' modal is still open, with the 'Slot type' dropdown menu expanded. The user has selected 'AMAZON.Date' from the list of built-in slot types. The slot name 'Checkindate' and its type 'AMAZON.Date' are now displayed in the main configuration area. The 'Save intent' button is visible at the bottom right.

The screenshot shows the Amazon Lex console interface. A modal window titled "Add slot" is open, prompting for a slot name ("Checkoutdate") and slot type ("Select slot type"). A dropdown menu lists several built-in slot types: AMAZON.AlphaNumeric, AMAZON.City, AMAZON.Country, AMAZON.Currency, AMAZON.Date, and AMAZON.Duration. The "Required for this intent" checkbox is checked. The background shows the Lex console with an intent configuration page.

Add a custom slot (Roomtype)

The screenshot shows the Amazon Lex console interface, specifically the "Slot types" management page. The page displays a table with no entries, stating "No slot types found" and instructing users to use the "Add" button to add slot types. The left sidebar shows navigation options like Bot templates, Networks of bots, Hotel_Booking_BOT, Draft version, All languages, English (US), Intents, Slot types, Deployment, Aliases, Channel integrations, Analytics, Overview, Conversation dashboard, and Conversation flows.

The screenshot shows the AWS Lex Console interface. On the left, there's a sidebar with various bot-related options like Bot templates, Networks of bots, Bot versions, Draft version, Intents, Slot types, Deployment, Aliases, Channel integrations, Analytics, Overview, Conversation dashboard, and Conversation flows. The main area is titled 'Slot types [0]'. A modal window titled 'Add blank slot type' is open, prompting for a 'Slot type name' which is currently set to 'Roomtype'. Below the name input is a note: 'Maximum 100 characters. Valid characters: A-Z, a-z, 0-9, -, _'. At the bottom of the modal are 'Cancel' and 'Add' buttons. Above the modal, the main slot types list has a header with 'Slot types [0]' and 'Info'. To the right of the modal, there are buttons for 'Delete' and 'Add slot type'. The top navigation bar includes tabs for 'Draft version', 'English (US)', and 'Not built'. The status bar at the bottom right shows the date and time as 21-09-2024.

This screenshot shows the configuration of the 'Roomtype' slot type. In the left sidebar, under 'Slot types (1)', the 'Roomtype' slot is selected. The main panel shows the configuration for this slot. Under 'Slot type values', it says 'Modify the list of values used to train the machine learning model to recognize values for a slot.' There are two radio button options: 'Expand values (default)' and 'Restrict to slot values'. The 'Restrict to slot values' option is selected, with the sub-note 'Use only values provided.' Below this, there's a list of values: 'King', 'Queen', 'Deluxe', and 'super deluxe'. Each value has a text input field next to it with the placeholder 'Tab or ; or enter return for new value'. An 'Add value' button is located at the bottom right of this list. A note at the bottom states 'Maximum 140 characters. Valid characters: A-Z, a-z, 0-9, @, #, \$'. At the very bottom right of the page, there's a 'Save Slot type' button. The top navigation bar and status bar are identical to the first screenshot.

The screenshot shows the AWS Lex Console interface. On the left, there's a sidebar titled 'Amazon Lex' with a 'Slot types (1)' section. The main area is titled 'super deluxe' and contains a 'Value' field with 'super deluxe' and a 'Add value' button. Below this is a note about character limits and a checkbox for 'Use slot values as custom vocabulary'. At the bottom right is a 'Save Slot type' button.

Add a Paymentmethod slot (custom slot)

This screenshot shows the AWS Lex Console for a bot named 'Hotel_Book...'. In the top navigation, it says 'Lex > Bots > Bot: Hotel_Book... > Versions > Version: DRAFT > All languages > Language: English (US) > Slot types > Slot type: Paymentmet...'. The slot type 'Paymentmethod' is selected, indicated by a green 'Successfully built' status bar. The 'Slot type details' section shows 'Slot value resolution' with 'Restrict to slot values' selected. The 'Slot type values' section allows modifying the list of values used for training. A 'Save Slot type' button is at the bottom right.

The screenshot shows the 'Slot type values' configuration page in the Amazon Lex console. The slot type is 'Paymentmethod'. The interface includes a search bar, a list of existing values ('Credit card', 'Debit card', 'Cash', 'Mobile payment'), and a field to add new values ('Value'). A note specifies a maximum of 140 characters and valid characters (A-Z, a-z, 0-9, @, #, \$). There is also a checkbox for 'Use slot values as custom vocabulary'.

City Slot Prompt:

Welcome {Name} In which City would you like to book a hotel?

The screenshot shows the Amazon Lex console interface. At the top, there are several tabs open, including WhatsApp, CHAT BOT USING LEX, Chatbot Using Lex.d, Lex Console, and others. The main window is titled "Amazon Lex" and shows an intent named "Hotelbooking". The intent has a single slot type, "Location", which is defined as "AMAZON.City". The "Required for this intent" checkbox is checked. A prompt message is provided: "Welcome {Name} In which city would you like to book a hotel?". Below the slot configuration, there are sections for "Confirmation" and "Info". The status bar at the bottom indicates "Active".

Name Slot Prompt:

Hello, May I know your name?

The screenshot shows the Amazon Lex console interface. The setup is identical to the previous one, but the slot type is now "AMAZON.FirstName". The prompt message is changed to "Hello, May I know your name?". The status bar at the bottom indicates "Active".

Number slot Prompt:

“Great! How many number nights do you want to stay?”

The screenshot shows the AWS Lex console interface. A modal window is open for the intent 'Number'. The 'Prompt for slot: Number' section contains the message 'Great! How many number nights do you want to stay?'. The 'Slot type' is set to 'AMAZON.Number'. A checked checkbox says 'Required for this intent'. Below it, there's a 'Name' field with 'Number' and a 'Slot type' dropdown also set to 'AMAZON.Number'. Under 'Prompts', the message is repeated. An 'Advanced options' button is visible. Another partially visible intent is 'Prompt for slot: CheckinDate'. At the bottom, there are tabs for 'Editor' (which is selected), 'Visual builder', and 'New'. A 'Save intent' button is at the bottom right.

Date slot prompt:

On what date would you like to check in?

The screenshot shows the AWS Lex console interface. A modal window is open for the intent 'CheckinDate'. The 'Prompt for slot: CheckinDate' section contains the message 'On what date would you like to check in?'. The 'Slot type' is set to 'AMAZON.Date'. A checked checkbox says 'Required for this intent'. Below it, there's a 'Name' field with 'CheckinDate' and a 'Slot type' dropdown also set to 'AMAZON.Date'. Under 'Prompts', the message is repeated. An 'Advanced options' button is visible. Another partially visible intent is 'Prompt for slot: Number'. At the bottom, there are tabs for 'Editor' (which is selected), 'Visual builder', and 'New'. A 'Save intent' button is at the bottom right.

Date Slot prompt:

When would you like to check out?

The screenshot shows the AWS Lex console interface. In the center, there is a detailed view of an intent named "Prompt for slot: Checkoutdate". This intent is set to be required for the "CheckoutIntent" intent. The slot type is specified as "AMAZON.Date". A message template "When would you like to check out?" is provided, along with a prompt "When would you like to check out?". Below this, there is a "Confirmation" section which is currently active. At the bottom right of the main window, there is a prominent orange "Save intent" button.

Email Slot Prompt:

Can you provide an email address for the booking confirmation?

This screenshot shows the AWS Lex console with a similar setup to the previous one. It displays the configuration for an intent named "Prompt for slot: Email". This intent is also marked as required for the "CheckoutIntent". The slot type is "AMAZON.EmailAddress". The message template asks for an email address for the booking confirmation. The "Confirmation" section is active here as well. The "Save intent" button is again visible at the bottom right.

Phone Number Slot Prompt:

Can you provide a contact number for the booking?

The screenshot shows the AWS Lex console interface. A modal window is open for a slot named "Contactnumber". The slot type is set to "AMAZON.PhoneNumber". A checkbox labeled "Required for this intent" is checked. The prompt message is "Can you provide a contact number for the booking?". The confirmation message is "You can use the advanced options setting to configure rich messages such as a custom payload, card groups, and SSML." The status bar at the bottom indicates "Save intent".

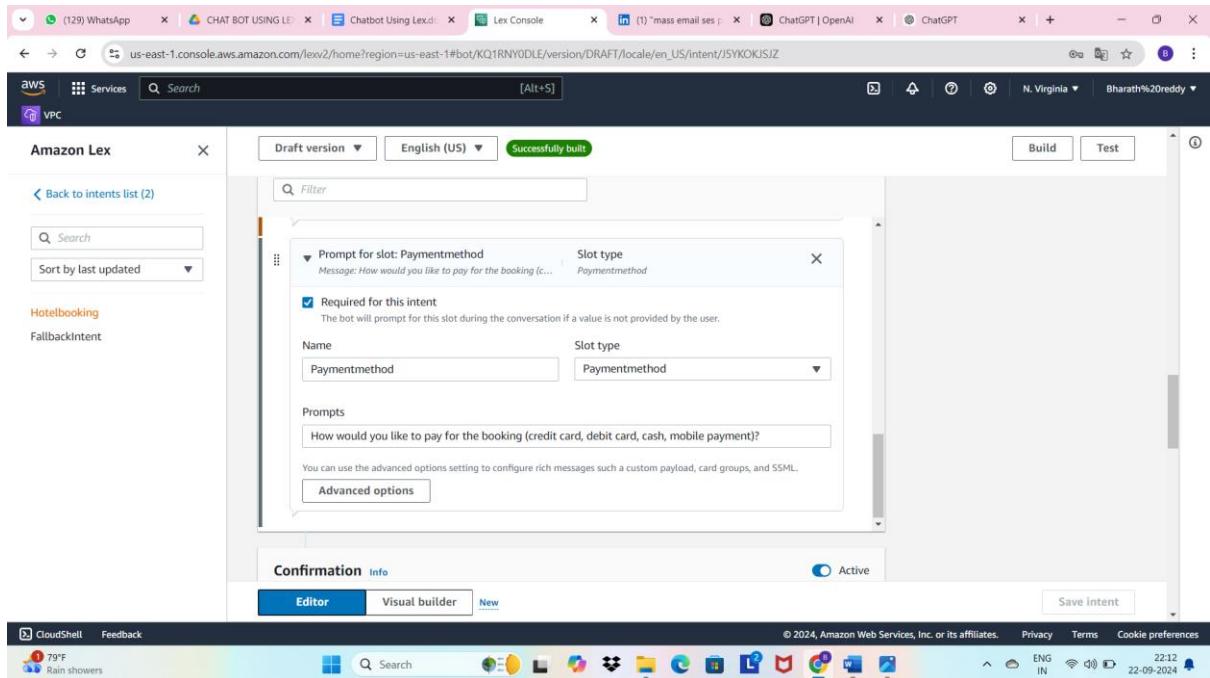
Roomtype slot prompt:

Please specify your preferred room type, such as king, Queen, Deluxe, Super deluxe?

The screenshot shows the AWS Lex console interface. A modal window is open for a slot named "Roomtype". The slot type is set to "Roomtype". A checkbox labeled "Required for this intent" is checked. The prompt message is "Please specify your preferred room type, such as king, Queen, Deluxe or super deluxe.". The status bar at the bottom indicates "Save intent".

Paymentmethod slot prompt:

How would you like to pay for the booking (credit card, debit card, cash, mobile payment)?



Add Confirmation:

Confirmation prompt:

Okay {Name}, I will book for a {Number} night stay in {Location}, on {Checkindate} and {checkoutdate} with {Roomtype}, shall I book the reservation.

Decline prompt:

Okay, the bookings has been canceled, let me know if you need help with something else.

The screenshot shows the Amazon Lex console interface. The top navigation bar includes tabs for WhatsApp, CHAT BOT USING LE, Chatbot Using Lex.d, Lex Console, mass email ses..., ChatGPT | OpenAI, ChatGPT, and a new tab. The main area is titled "Amazon Lex" and shows an intent named "Hotelbooking". The "Confirmation" section is active, displaying configuration for confirming the intent. It includes fields for "Prompts to confirm the intent" (Message: Okay [Name], I will book for a {Number} nig...) and "Responses sent when the user declines the intent" (Message: Okay, the bookings has been canceled, let m...). A "Confirmation prompt" field contains the message: Okay [Name], I will book for a {Number} night stay in {Location}, on {Checkindate} and {Checkoutdate} with {Room}. Below this, a "Decline response" field contains the message: Okay, the bookings has been canceled, let me know if you need help with something else. There is also an "Advanced options" section for configuring confirmation prompts and decline responses.

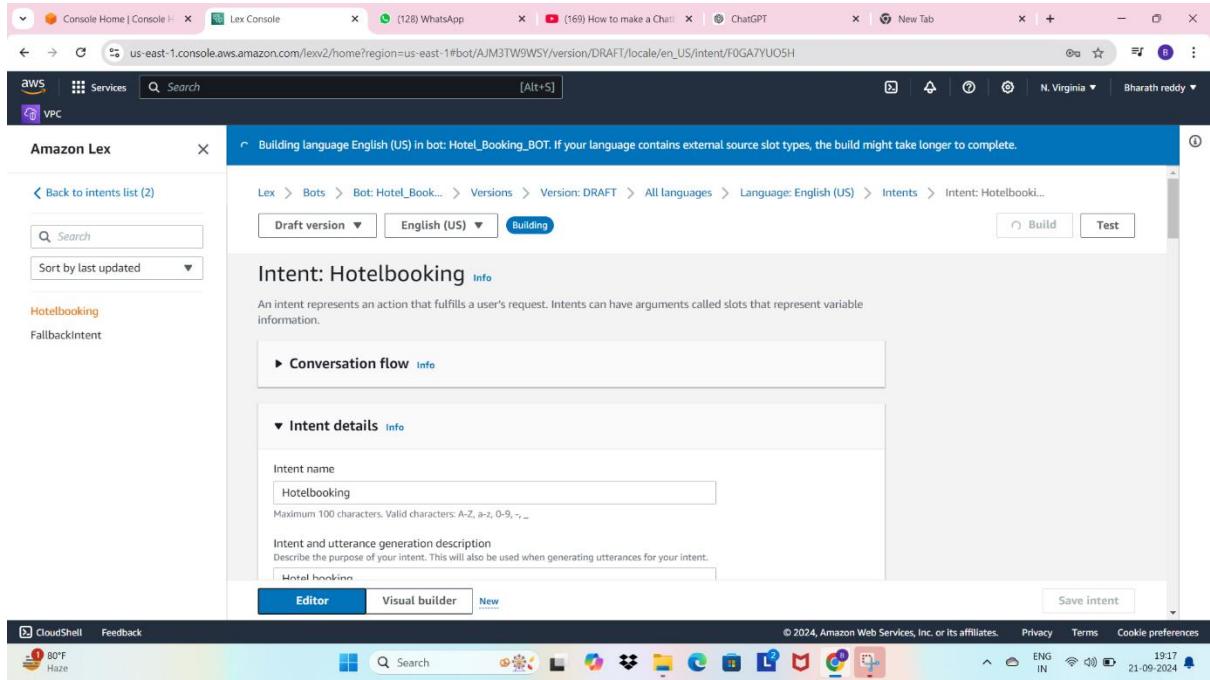
Add fulfillment:

Success response:

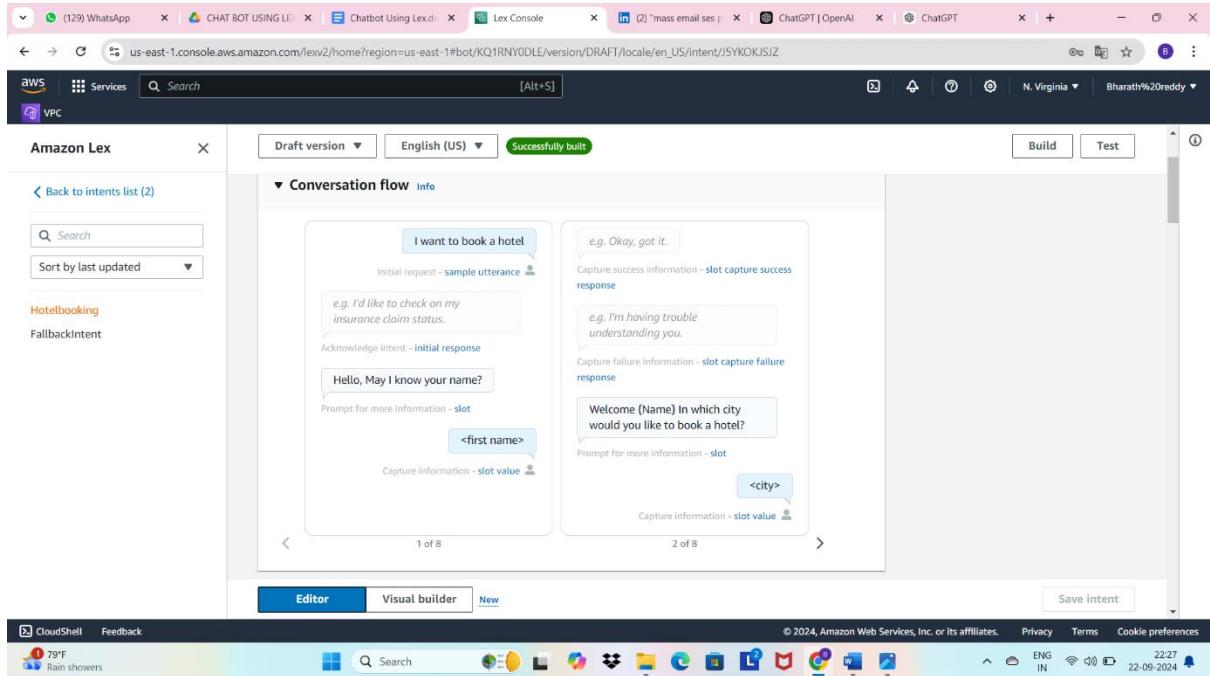
Thank you.

The screenshot shows the Amazon Lex console interface. The top navigation bar includes tabs for Console Home, Lex Console, WhatsApp, How to make a Chat, ChatGPT, New Tab, and a new tab. The main area is titled "Amazon Lex" and shows an intent named "Hotelbooking" (Unsaved). The "Fulfillment" section is active, displaying configuration for running a lambda function to fulfill the intent. It includes fields for "On successful fulfillment" (Message: Your request completed successfully) and "In case of failure" (Message: Something went wrong). An "Advanced options" section is present. The "Closing response" section is also visible. A modal window titled "Fulfillment advanced options" is open, showing sections for "Periodically update the user about fulfillment progress" (Message: -) and "Success response" (Message: Tell the user that fulfillment completed successfully, Message: Thank you.). A "Message group" section is also shown with a message field containing "Thank you.". Variations and optional response options are listed at the bottom. The "Update options" button is visible in the bottom right corner.

Save and Build the intent



Conversation flow:



Screenshot of the Amazon Lex Visual Builder interface showing the conversation flow for a hotel booking intent.

The conversation flow consists of 8 steps:

- "Great! How many number nights do you want to stay?" (Prompt for more information - slot, <number>, Capture Information - slot value)
- "When would you like to check out?" (Prompt for more information - slot, <date>, Capture Information - slot value)
- "On what date would you like to check in?" (Prompt for more information - slot, <date>, Capture Information - slot value)
- "Please specify your preferred room type, such as King, Queen, Deluxe, or Super deluxe." (Prompt for more information - slot, King, Capture Information - slot value)
- "Can you provide an email address for the booking confirmation?" (Prompt for more information - slot, <email address>, Capture Information - slot value)
- "How would you like to pay for the booking (credit card, debit card, cash, mobile payment?)" (Prompt for more information - slot, Credit card, Capture Information - slot value)
- "Can you provide a contact number for the booking?" (Prompt for more information - slot, <phone number>, Capture Information - slot value)
- "Okay (Name), I will book for (Number) night stay in (Location), on (Checkindate) and (Checkoutdate) with (Roomtype), shall I book the reservation." (Confirm intent - confirmation prompt, n.n...Thank you for the booking.)

Buttons at the bottom include Editor, Visual builder, New, Save intent, CloudShell, Feedback, and a toolbar with various icons.

Screenshot of the Amazon Lex Visual Builder interface showing the continuation of the conversation flow for a hotel booking intent.

The conversation flow continues from step 5 to step 8:

- "Can you provide an email address for the booking confirmation?" (Prompt for more information - slot, <email address>, Capture Information - slot value)
- "How would you like to pay for the booking (credit card, debit card, cash, mobile payment?)" (Prompt for more information - slot, Credit card, Capture Information - slot value)
- "Can you provide a contact number for the booking?" (Prompt for more information - slot, <phone number>, Capture Information - slot value)
- "Okay (Name), I will book for (Number) night stay in (Location), on (Checkindate) and (Checkoutdate) with (Roomtype), shall I book the reservation." (Confirm intent - confirmation prompt, n.n...Thank you for the booking.)

Buttons at the bottom include Editor, Visual builder, New, Save intent, CloudShell, Feedback, and a toolbar with various icons.

The screenshot shows the Amazon Lex console interface. At the top, there are several tabs open, including WhatsApp, Chat Bot Using Lex, Chatbot Using Lex.d, Lex Console, mass email ses..., ChatGPT | OpenAI, ChatGPT, and another ChatGPT tab. The main window is titled "Amazon Lex" and shows the "Conversation flow" for the "Hotelbooking" intent. The flow consists of two main sections: "Provide fulfillment status - fulfillment updates" and "Send final response - closing response". Below these are sections for "Fulfillment completed successfully - success response", "e.g. Sorry, something went wrong. We will get back to you.", "Fulfillment failed to complete - failure response", and "e.g. Sorry, we are having issues with the process. We will get back to you.". At the bottom, there are buttons for "Editor", "Visual builder", and "New". A "Save intent" button is located at the bottom right. The status bar at the bottom shows "CloudShell Feedback", weather information (79°F Rain showers), system icons, and the date/time (22-09-2024).

Test the intent

The screenshot shows the Amazon Lex console interface, similar to the previous one but with a green header bar indicating "Successfully built language English (US) in bot: Hotel_Booking_BOT". The main window displays the "Intent: Hotelbooking" details. It includes sections for "Conversation flow", "Intent details" (with fields for Intent name and Intent and utterance generation description), and a "Test Draft version" panel on the right. The "Test Draft version" panel shows a message "Ready for complete testing" and a text input field "Type a message". At the bottom, there are buttons for "Editor", "Visual builder", and "New", along with a "Save intent" button. The status bar at the bottom shows "CloudShell Feedback", weather information (80°F Haze), system icons, and the date/time (21-09-2024).

The screenshot shows the Amazon Lex console interface. At the top, there are several tabs open, including WhatsApp, CHAT BOT USING LE, Chatbot Using Lex.d, Lex Console, and others. The main window title is "Successfully built language English (US) in bot: Hotel_Booking_BOT". The interface includes sections for Intent details (Intent name: Hotelbooking, Intent and utterance generation description: Hotelbooking), Contexts - optional, and a Test Draft version pane. The test pane shows a conversation where a user says "hi" and the bot responds with "Hello, May I know your name? BHRATH". A message bar at the bottom right says "Ready for complete testing". The bottom of the screen shows a Windows taskbar with various icons and system status.

This screenshot is identical to the one above, showing the Amazon Lex console with the "Hotel_Booking_BOT" intent successfully built. The interface, conversation test results, and system status at the bottom are all the same.

Screenshot of the Amazon Lex console showing the successful creation of an intent named "Hotelbooking".

Intent details:

- Intent name:** Hotelbooking
- Intent and utterance generation description:** Hotelbooking
- ID:** J5YKOKJSJZ

Test Draft version: Last build submitted: 1 minute ago

Chat transcript:

- Hyderabad
- "Great! How many number nights do you want to stay?"
- 3
- On what date would you like to check in?

Ready for complete testing

Editor **Visual builder** **New** **Save intent**

Screenshot of the Amazon Lex console showing the successful creation of an intent named "Hotelbooking".

Intent details:

- Intent name:** Hotelbooking
- Intent and utterance generation description:** Hotelbooking
- ID:** J5YKOKJSJZ

Test Draft version: Last build submitted: 2 minutes ago

Chat transcript:

- 23-09-24
- When would you like to check out?
- 26-09-24
- Please specify your preferred room type, such as King, Queen, Deluxe, or Super deluxe.

Ready for complete testing

Editor **Visual builder** **New** **Build** **Test** **Save intent**

