

**PROJECT TITLE**

**RECYCLING WASTE**

**CHAT BOT SERVICE USING**

**AMAZON LEX**

By

**NAGARATHINAM.PL**

**AWS**

**(AMAZON WEB SERVICE) IN**

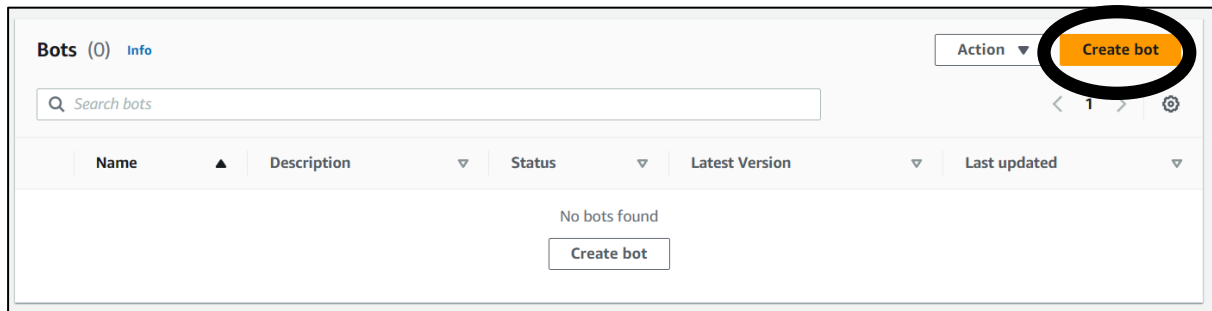
**CLOUD COMPUTING**

# Recycling Waste Chat Bot Service

It is the Chat Bot to help the user to dispose the waste for recycling...

## First Step:

Go to **Amazon Lex** and **Create a Bot**



## Second Step:

Enter a **Name to the Bot** and **Describe the user of the Bot** and give a IAM Permission to the creating Bot

**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.  
  
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.

And give a time to a session of Bot

**Children's Online Privacy Protection Act (COPPA)** [Info](#)

Is use of 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  
   
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

In the Next Page select the **Language** to use in the Chat text and the select the voice which is clear and like by you and click Done.

**▼ Language: English (US)**

Select language

Description - optional  
  
Maximum 200 characters.

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

Voice sample

Intent classification confidence score threshold  
  
Min: 0.00, max: 1.00.

Cancel

Add another language

Done

## Now Bot is Created


Bots (1) [Info](#)

Action ▾

Create bot

Q Search bots

< 1 >



	Name ▲	Description ▾	Status ▾	Latest Version ▾	Last updated ▾
<input type="radio"/>	<a href="#">RecyclingWasteChatbot</a>	It is a chatbot to helps users to dispose their waste to recycle.	Available	-	<a href="#">6 hours ago</a>

## Third Step:

In Created Bot we want create an Intent to make conversation between user and us.

Enter the **name of the Intent** and **describe the Intent** of the BOT

**► Conversation flow** [Info](#)

**▼ Intent details** [Info](#)

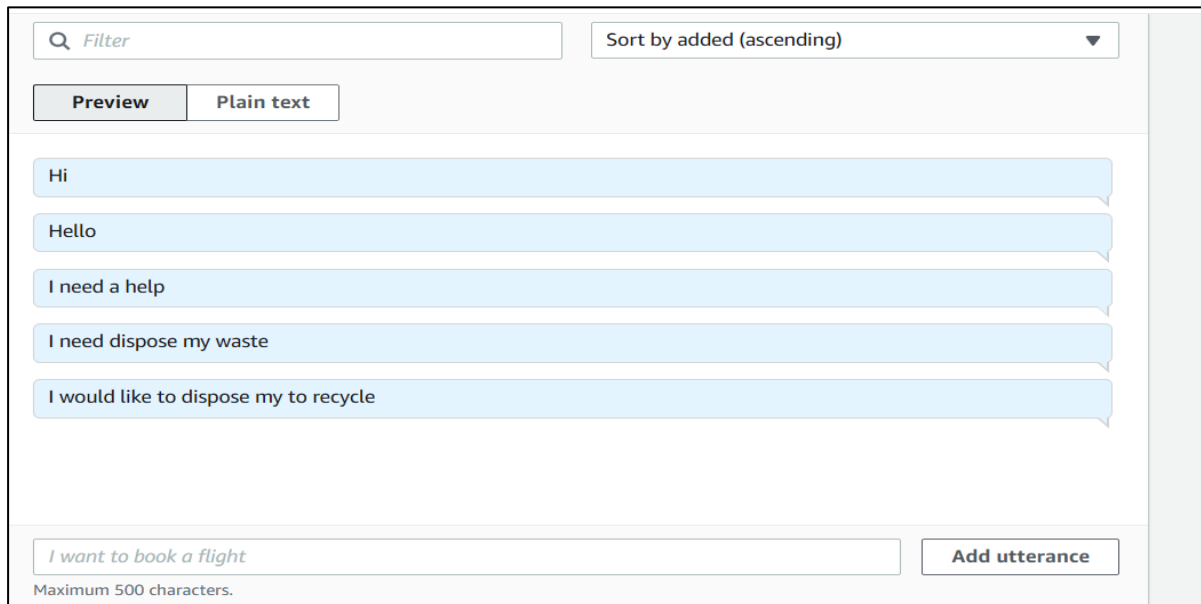
Intent name

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

Intent and utterance generation description

Describe the purpose of your intent. This will also be used when generating utterances for your intent.

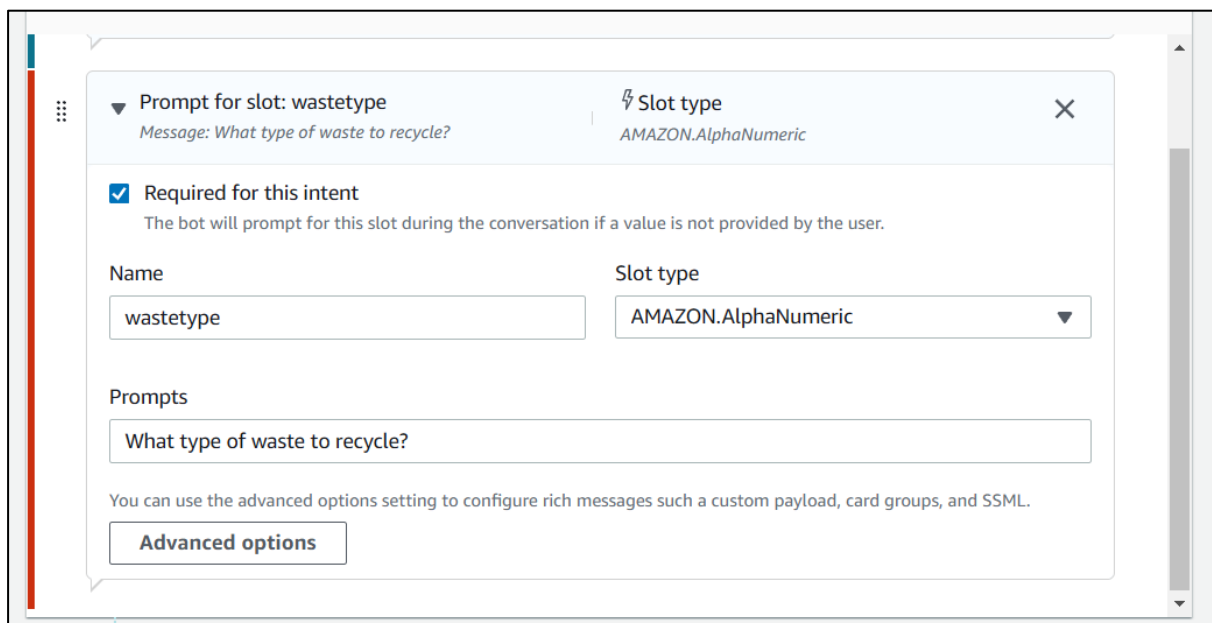
Add an **Utterances** for the chat, which is the users can connect through these text



The screenshot shows the 'Utterances' tab in the Amazon Lex console. At the top, there is a search bar labeled 'Filter' and a dropdown menu set to 'Sort by added (ascending)'. Below these are two tabs: 'Preview' (selected) and 'Plain text'. The main area displays a list of five utterances in light blue speech bubble boxes: 'Hi', 'Hello', 'I need a help', 'I need dispose my waste', and 'I would like to dispose my to recycle'. At the bottom, there is a text input field containing 'I want to book a flight' with a note 'Maximum 500 characters.' and an 'Add utterance' button.

## Fourth Step:

Add a Slot to the Bot, conversation will create in this Slot only



The screenshot shows the configuration page for a slot named 'wastetype'. The title is 'Prompt for slot: wastetype' with a sub-message 'Message: What type of waste to recycle?'. To the right, it shows the 'Slot type' as 'AMAZON.AlphaNumeric'. A checkbox labeled 'Required for this intent' is checked, with a note: 'The bot will prompt for this slot during the conversation if a value is not provided by the user.' Below this, the 'Name' field is set to 'wastetype' and the 'Slot type' dropdown is set to 'AMAZON.AlphaNumeric'. A 'Prompts' field contains the text 'What type of waste to recycle?'. At the bottom, there is a note: 'You can use the advanced options setting to configure rich messages such a custom payload, card groups, and SSML.' and an 'Advanced options' button.

To use Multiple Option mean, go to **Advanced Setting** in the Slot.

▼ Buttons - optional

Button 1 title	Button 1 value
<div>⋮</div> <input type="text" value="Hazardous waste"/> <div>Button title can have up to 50 characters.</div>	<input type="text" value="hazardouswaste"/> X <div>Button value can have up to 50 characters.</div>
Button 2 title	Button 2 value
<div>⋮</div> <input type="text" value="Plastic"/> <div>Button title can have up to 50 characters.</div>	<input type="text" value="plasticwaste"/> X <div>Button value can have up to 50 characters.</div>
Button 3 title	Button 3 value
<div>⋮</div> <input type="text" value="Paper waste"/> <div>Button title can have up to 50 characters.</div>	<input type="text" value="paperwaste"/> X <div>Button value can have up to 50 characters.</div>
Button 4 title	Button 4 value
<div>⋮</div> <input type="text" value="Medical waste"/> <div>Button title can have up to 50 characters.</div>	<input type="text" value="medicalwaste"/> X <div>Button value can have up to 50 characters.</div>

We want give types mean, go to Slot Type in the Bot Console and Click the Add Slot Type → **Add Blank Slot type** and create the type in the page.

Slot types (0) [Info](#)

[Delete](#) [Add slot type ▲](#)

- Add blank slot type
- Use built-in type
- Add grammar slot type
- Add composite slot type

Name	Description	Type	Last edited
No slot types found			
Use the "Add" button to add slot types.			

approximately less then 1ton	<input type="text" value="Tab or ; or enter return for new value"/> <input type="button" value="1ton"/> <input type="button" value="X"/>
approximately more then 1ton - 10tons	<input type="text" value="Tab or ; or enter return for new value"/> <input type="button" value="1-10tons"/> <input type="button" value="X"/>
approximately more then 10tons - 100tons	<input type="text" value="Tab or ; or enter return for new value"/> <input type="button" value="10-100tons"/> <input type="button" value="X"/>

Maximum 140 characters. Valid characters: A-Z, a-z, 0-9, @, #, \$

Now, the slots are Created

<div> <div>▶</div> <div> <div>Prompt for slot: yourname</div> <div>Message: Thank you for choosing this platform to disp...</div> </div> </div>	<div> <div>Slot type</div> <div>AMAZON.FirstName</div> </div>	<input type="button" value="X"/>
<div> <div>▶</div> <div> <div>Prompt for slot: wastetype</div> <div>Message: What type of waste to recycle ?</div> </div> </div>	<div> <div>⚡ Slot type</div> <div>AMAZON.AlphaNumeric</div> </div>	<input type="button" value="X"/>
<div> <div>▶</div> <div> <div>Prompt for slot: estimatethewaste</div> <div>Message: Could you give us an estimate of your waste ...</div> </div> </div>	<div> <div>Slot type</div> <div>estimatethewaste</div> </div>	<input type="button" value="X"/>
<div> <div>▶</div> <div> <div>Prompt for slot: location</div> <div>Message: This service is only in cities, Enter your City n...</div> </div> </div>	<div> <div>⚡ Slot type</div> <div>AMAZON.City</div> </div>	<input type="button" value="X"/>

## Fifth Step:

### Confirm the Users request

**Confirmation** [Info](#) Active

Prompts help to clarify whether the user wants to fulfill the intent or cancel it.

▼ Prompts to confirm the intent	Responses sent when the user declines the intent
<i>Message: OK, we are ready to take a waste, please con...</i>	<i>Message: Okay, your request will not be submitted, Th...</i>

**Confirmation prompt**  
What will the bot say to prompt the user to confirm this intent.

OK, we are ready to take a waste, please confirm Yes/No

**Decline response**  
What will the bot say if the user says NO to the confirmation prompt.

Okay, your request will not be submitted, Thank You for visit our site.

**Advanced options**

Configure confirmation prompts and decline responses.

## Fulfilment

**Fulfillment** [Info](#) Active

Run a lambda function to fulfill the intent and inform users of the status when it's complete.

▼ On successful fulfillment	In case of failure
<i>Message: Your request is sucessfully completed, Withi...</i>	<i>Message: Oops Something want wrong, please try aga...</i>

**On successful fulfillment**

Your request is sucessfully completed, Within 24 hours you get a call or email from waste mangement team.

**In case of failure**

Oops Something want wrong, please try again later.

**Advanced options**

Configure success, failure, and timeout responses.



After all is done, we want close the chat to thanking the users

**Closing response** [Info](#)  
You can define the response when closing the intent.

▼ **Response sent to the user after the intent is fulfilled**  
*Message: It was pleasure talking to you {yourname}*

▼ **Message group** [Info](#)  
You can define a text message group to respond using plain text.

Message  

It was pleasure talking to you {yourname}

► **Variations - optional**

More response options

Add custom payloads, SSML, and card groups.

Click the Save Intent and then Click the **Build button** to run the feed details.

Successfully built language English (US) in bot: RecyclingWasteChatbot

Draft version ▼ English (US) ▼ Successfully built

An intent represents an action that fulfills a user's request. Intents can have arguments called slots that represent variable information.

► **Conversation flow** [Info](#)

▼ **Intent details** [Info](#)

Intent name  

disposewaste

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

Intent and utterance generation description  
Describe the purpose of your intent. This will also be used when generating utterances for your intent.  

Welcoming the Users to Make a World Clean to Recycling the Waste

Maximum 200 characters.

**Test Draft version**  
Last build submitted: Now  




Inspect

Ready for complete testing

Type a message

Now, Ready to test the Chat Bot

**Test Draft version**



Last build submitted: 2 minutes ago

Inspect


Hi


Welcome to Recycling waste Mangement Service, How can I help you!

Thank you for choosing this platform to dispose your waste to recycle, What is your Name?

Rathna

What type of waste do you want to recycle?

 Ready for complete testing

 | *Type a message*

**What type of waste  
would you like to  
dispose?**

**Hazardous waste**

**Plastic**

**Paper waste**

**Medical waste**

**Industrial waste**

paperwaste

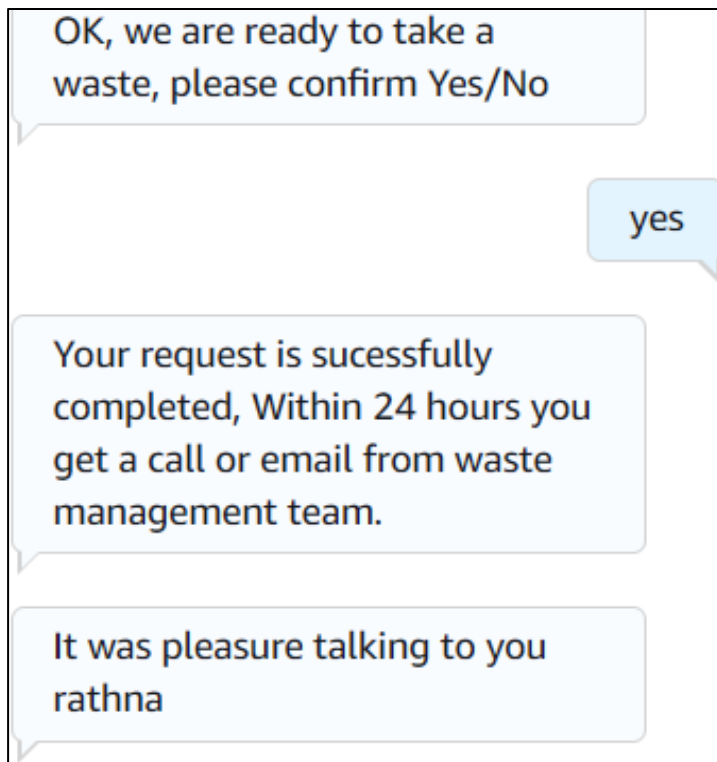
Could you give us an estimate of  
your waste approximately ?

1ton

This service is only in cities,  
Enter your City now.

chennai

If the User response is **Yes** then the below prompt will follow:



If the User response is **No** then the below prompt will follow:

