

CHAT BOT

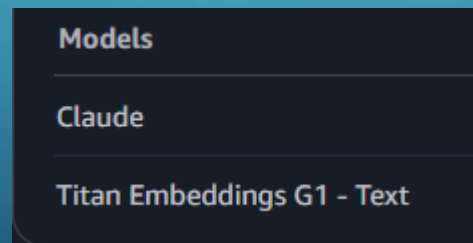
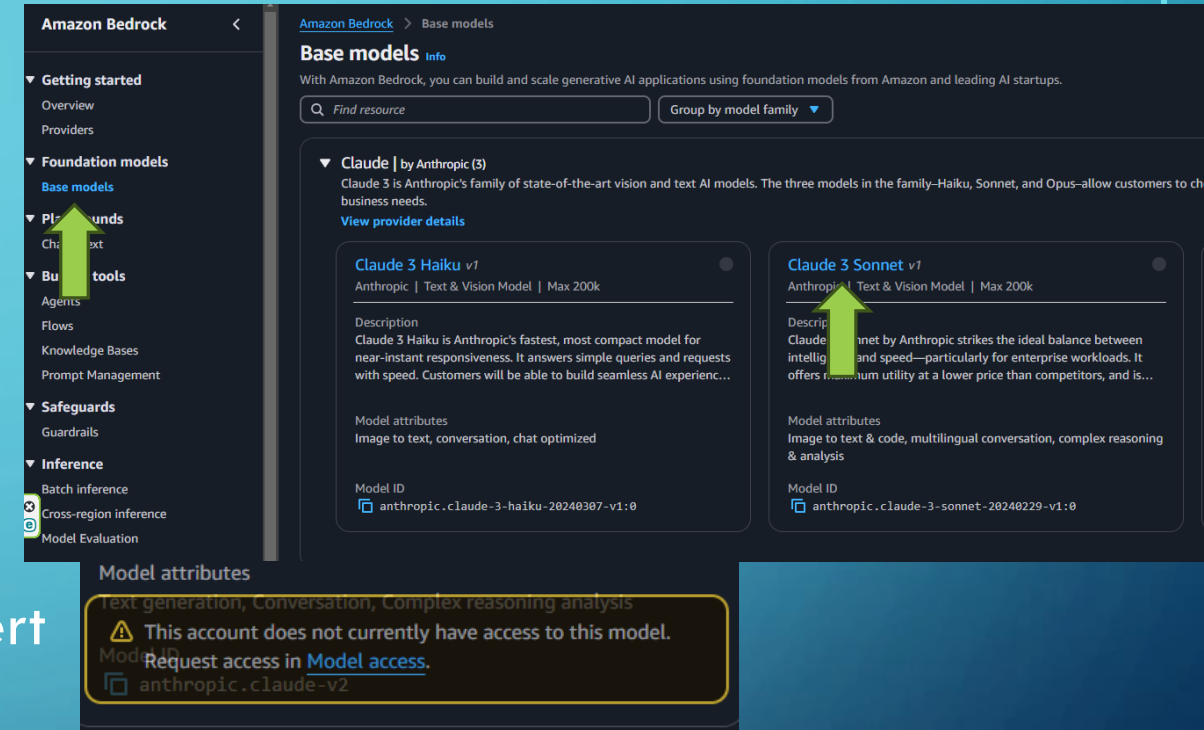


AMAZON LEX
AMAZON BEDROCK
AMAZON S3



AMAZON BEDROCK

- First, we need to enable Amazon Bedrock
- Under Foundation models > Base models
- Pick Claude 3 Sonnet
- When we will try to copy, we will get an alert
- Click Model access
- Pick **Enable specific models**
- The 2 models we need
- Wait few minutes to approval

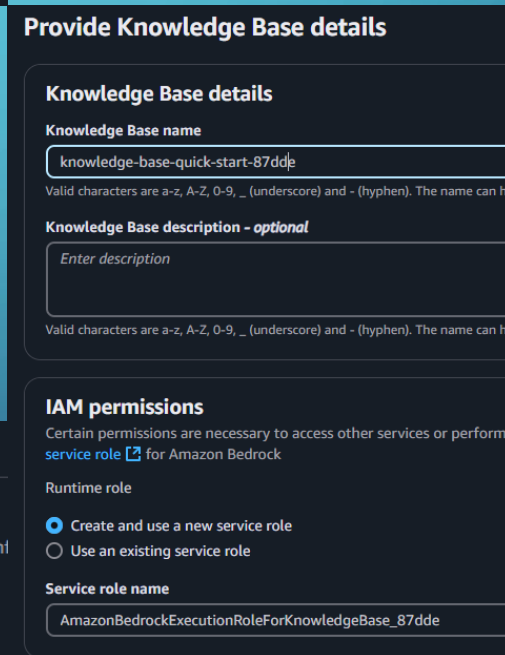
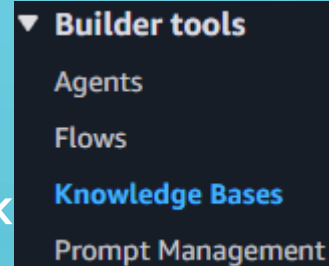


INSERT INFO FILES INTO S3 BUCKET

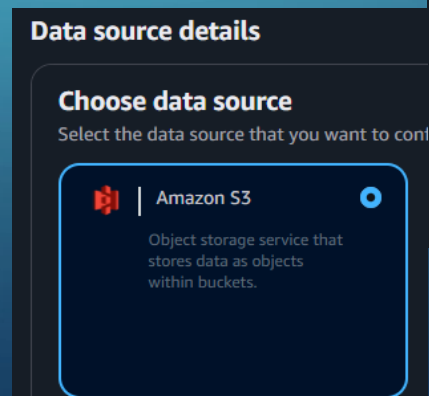
- Create a **S3 Bucket**
- Defaults build, nothing special
- Upload your files of information

CREATE A KNOWLEDGE BASE

- Return to [Amazon Bedrock](#) and pick
- Click [Create](#)
- Name it if you want
- [Create and use a new service role](#)
- Data source- [Amazon S3](#)
- Next

A screenshot of the 'Provide Knowledge Base details' form in the Amazon Bedrock console. The form is dark-themed and contains the following sections:

- Knowledge Base details**: Includes a 'Knowledge Base name' field with the value 'knowledge-base-quick-start-87dde' and a 'Knowledge Base description - optional' field with the placeholder 'Enter description'.
- IAM permissions**: Includes a note about permissions, a 'Runtime role' section with two radio buttons (the first, 'Create and use a new service role', is selected), and a 'Service role name' field with the value 'AmazonBedrockExecutionRoleForKnowledgeBase_87dde'.

A screenshot of the 'Data source details' form in the Amazon Bedrock console. The form is dark-themed and contains the following sections:

- Choose data source**: A heading followed by the instruction 'Select the data source that you want to connect to'.
- Amazon S3**: A selection card with the Amazon S3 logo, the text 'Amazon S3', and a description: 'Object storage service that stores data as objects within buckets.'.

- Pick the **S3 Bucket** with the files
- Everything else is default
- Next

- Pick **Titan Embeddings G1**
- And **Quick Create a new vector store**
- Next
- Review the configuration &
- **Create knowledge base**

Configure data source

Configure for the chosen data source

Amazon S3
Provide details to connect Amazon Bedrock to your S3 data source.

▼ **Data source: knowledge-base-quick-start-qj8q0-data-source** Delete

Data source name
knowledge-base-quick-start-qj8q0-data-source
Valid characters are a-z, A-Z, 0-9, _ (underscore) and - (hyphen). The name can have up to 100 characters.

Data source location
☒ This AWS account
☐ Other AWS account

S3 URI
To increase the accuracy and relevance of your responses, add a .metadata.json file containing metadata for your data source to your S3 bucket. [Info](#)

S3 URI
 × View Browse S3

☐ Add customer-managed KMS key for S3 data - optional
If you encrypted your S3 data, provide the KMS key here so that Bedrock can decrypt it.

Parsing strategy
Select a parsing option to configure how your data is processed. You can't modify this option after the knowledge base is created.
☒ Amazon Bedrock default parser
 Select this option to only process text from your data. This parser doesn't incur charges.
☐ Foundation models as a parser
 Select this option to process visually rich documents or images. With this option, you can use the default parser prompt or customize it for your use case. [Pricing details](#)

Chunking strategy
Chunking breaks down the text into smaller segments before embedding. The chunking strategy can't be modified after you create the data source.
 ▼
Automatically splits text into chunks of about 300 tokens in size, by default. If a document is less than or already 300 tokens, it's not split any further.

Select embeddings model and configure vector store

Choose an embeddings model to convert the data that you will provide in the next step, and provide details for a vector data store in which Bedrock can store, manage, and update your embeddings. The embeddings model and vector store cannot be changed after creation of Knowledge Base.

Embeddings model
Select an embeddings model to convert your data into an embedding. Pricing depends on the model. [Learn more](#)

Titan Text Embeddings v2 By Amazon	Titan Embeddings G1 - Text v1.2 By Amazon
Embed English v3 By Cohere	Embed Multilingual v3 By Cohere

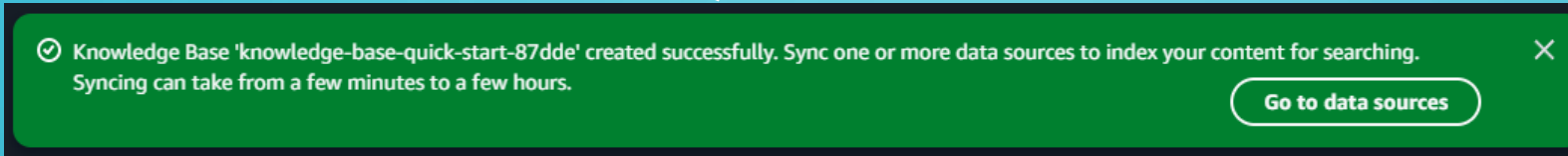
► **Additional configurations**

Vector database
Create a new vector store or choose an existing store so that Amazon Bedrock can store, update, and manage embeddings. [Learn more](#)

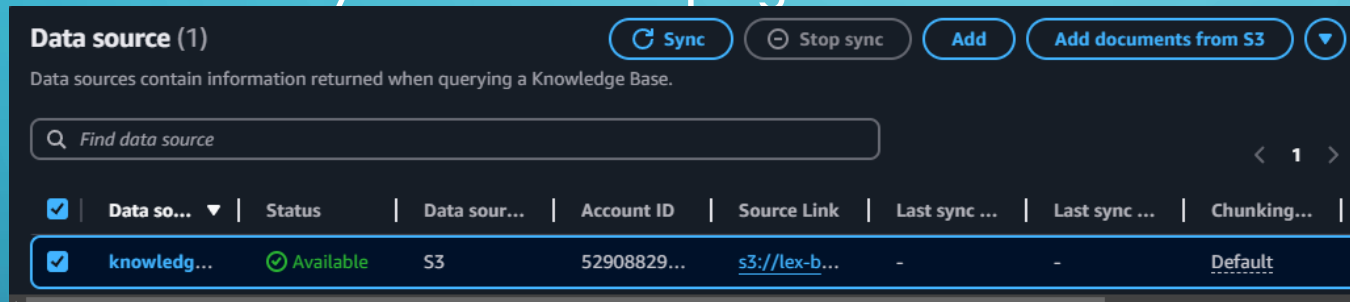
Vector store creation method

<input checked="" type="radio"/> Quick create a new vector store - Recommended We will create an Amazon OpenSearch Serverless vector store on your behalf. This cost-efficient option is intended only for development and can't be migrated to production workload later. Learn more	<input type="radio"/> Choose a vector store you have created Select Amazon OpenSearch Serverless, Amazon Aurora, Pinecone, Amazon Aurora, MongoDB Atlas or Redis Enterprise Cloud and provide field mappings.
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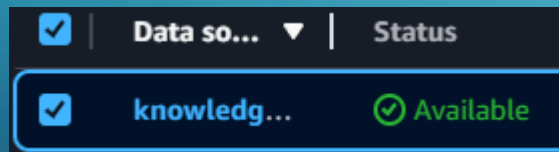
- After we wait few minutes, the Data source will be created



- The message above will show up and we will Go to data sources
- It will take you down the page



- Pick the data source and click Sync



AMAZON LEX

- Go into Amazon Lex and **create a bot**
- We going to pick the Traditional bot so we can do some work
- **Create a blank bot**
- Name it
- **Create a role with basic Amazon Lex permissions**
- **COPPA- No**
- Idle session timeout- default 5 min
- Pick a language to the bot and a voice

Configure bot settings

Creation method

Traditional

Generative AI

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

Add language to bot Info

▼ Language: English (US)

Select language

English (US)

Description - *optional*

A helpful assistant for your travel to Mars



Maximum 200 characters.

Voice interaction

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

Joanna

Voice sample

Hello, my name is Joanna. 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

- After we click Done, we are in the intent mode for the Chat Bot
- Name the first intent as a welcome intent
- Enter some sample utterances- conversation starts from the user side
- Add the bot response

▼ Intent details Info

Intent name

WelcomIntent

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

Sample utterances (6) Info [What's this?](#) [Generate utterances](#)

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.

❗ 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. [Learn more](#)

Filter Sort by added (ascending)

Preview Plain text

Hi

Hello

Sup

Greetings

How are you

Help

I want to book a flight

Maximum 500 characters. Add utterance

- Click on Advance option and change the set value from End conversation to Wait for users input

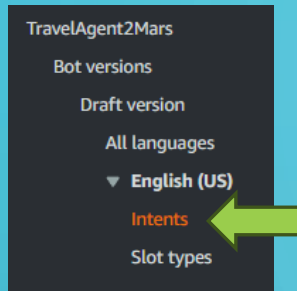
Wait for users input

End conversation

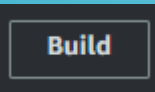
Wait for users input

- Click Save

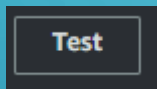
- Go to



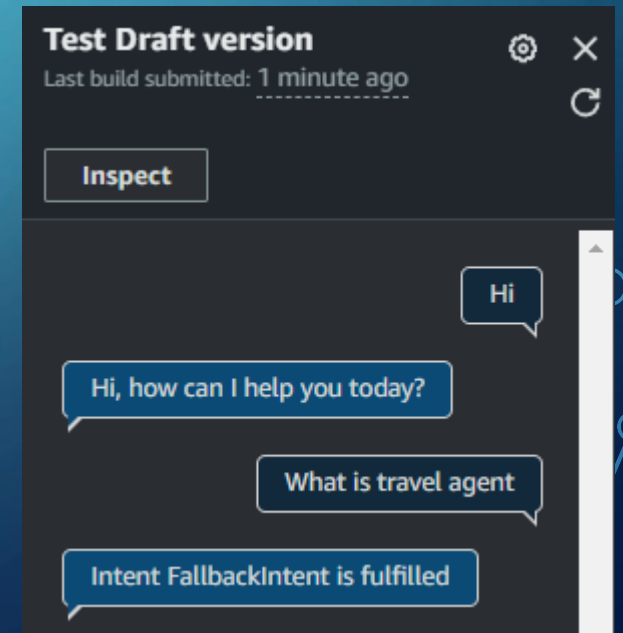
- And Click



- Then



- We can see the bot is working with the intent we gave him
- Also, he won't recoinage intent we don't gave him
- Let's add a build in intent



- Add intent > Use built-in intent

- Give it a name

- Add

- Pick the model

- Pick Knowledge base for Amazon Bedrock

- Add the id for knowledge base

- Everything else can be default

- Save intent

- Click again

Build

then

Test

SHOWCASE

- Keep in mind, but still don't have all the answers

Hi

Hi, how can I help you today?

What items can I expense?

According to the company travel policies for Mars missions, oxygen tanks are reimbursable expenses, but optional lava-proof boots are not.

Can I bring my pets?

No, you cannot bring pet dinosaurs like velociraptors to Mars. Martian sandworms hate competition from other creatures. However, the passage does not mention restrictions on bringing other types of pets.

What are the visa requirement

To obtain a Martian Visitor's Visa (MVV), you need: 1. A valid Earth passport with an expiry date extending beyond your return to Earth. 2. Proof of galactic citizenship, such as a signed declaration that you hail from Earth or a certified terrestrial colony. 3. Pass a Martian language proficiency test for basic phrases. 4. Alien abduction insurance for peace of mind, though Martian abductions are rare. Pro Tip: Expedite visa processing by bribing the Martian consulate with Earth chocolate, as they are suckers for cocoa.

What is the day plan?

Here is a suggested sample itinerary for a day on Mars: 7:00 AM: Watch the double sunrise over Olympus Mons 8:30 AM: Breakfast with dehydrated space oats and Martian soil 10:00 AM: Guided tour of the Valles Marineris Canyon 12:00 PM: Lunch break (pack extra oxygen as Mars cafes may forget breathable air zones) 2:00 PM: Crater hopping and taking selfies at the famous Face on Mars 6:00 PM: Zero-gravity dance party at the Martian Base Lodge (wear anti-gravity boots)