

Language

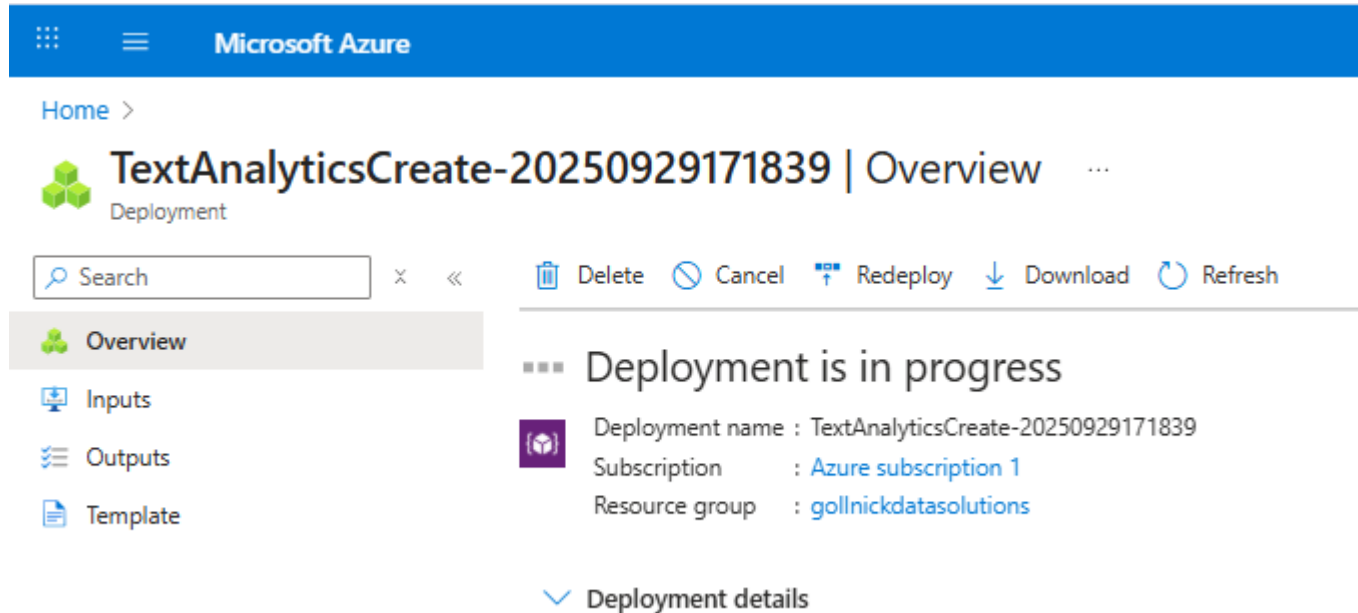


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Natural Language Understanding

Natural Language Understanding


Create Language Service



The screenshot displays the Microsoft Azure portal interface. At the top, a blue header bar contains the Microsoft Azure logo and navigation icons. Below the header, the breadcrumb "Home >" is visible. The main content area shows the deployment "TextAnalyticsCreate-20250929171839" in an "Overview" state. A search bar and a set of action buttons (Delete, Cancel, Redeploy, Download, Refresh) are located above the deployment details. On the left, a sidebar lists navigation options: Overview (selected), Inputs, Outputs, and Template. The deployment details section indicates that the deployment is in progress, showing the deployment name, subscription ("Azure subscription 1"), and resource group ("gollnickdatasolutions"). A "Deployment details" link is also present.

Microsoft Azure


Home >


 **TextAnalyticsCreate-20250929171839** | Overview ...


Deployment


Search

Delete Cancel Redeploy Download Refresh

 Overview

 Inputs

 Outputs

 Template

Deployment is in progress

Deployment name : TextAnalyticsCreate-20250929171839

Subscription : [Azure subscription 1](#)

Resource group : [gollnickdatasolutions](#)

Deployment details

Natural Language Understanding

Azure AI – Language Studio

Select an Azure resource ×

To access Language studio, you need an Azure resource. You can use an existing resource or create a new one. You can change the resource you use at any time. [Learn more about resources in Azure.](#)

Azure directory *

Gollnick Data Solutions GmbH

Note: Switching directory will cause the page to refresh.

Azure subscription *

Select an existing Azure subscription or [create a free account](#) and then refresh

Azure subscription 1

Resource type *

Language

Language or Azure Cognitive Services resources can be used for any capability except for translation, which requires a Translator resource

Resource name *

Select an existing resource or create a new one

language20250929

Pricing tier: Standard (S)

Managed identity: Enabled

[Create a new Language resource](#)

Done

Cancel

Source: <https://language.cognitive.azure.com/>



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Natural Language Understanding

Create Language Project

Create a project

Enter basic information

Review and finish

Review and finish

Review the configurations you set for your project in the previous steps.

Azure resource

language20250929

Project name

bankingbot

Project type

Conversation

Description

N/A

Language

English (US)

Multiple languages

Disabled

Back

Create

Cancel

Schema definition

Add intents and entities to your schema. Intents are tasks or actions the user wants to perform. Entities are terms relevant to t

Intents Entities

+ Add Delete

Intents ↑	Labeled utterances	Entities used with this intent
Check Account Balance	0	
None	0	
Transfer Money	0	
View Recent Transaction	0	

Schema definition

Add intents and entities to your schema. Intents are task

Intents Entities

+ Add Edit entity components Delete

Entities ↑
Account
Amount
Date

Source: <https://language.cognitive.azure.com/>



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Natural Language Understanding

Set up intents

<input type="radio"/>	Intent ▾	Utterance ▾
	<input type="text" value="View Recent Transaction ▾"/>	<input type="text" value="Write your example utterance and press enter"/>
<input type="radio"/>	View Recent Transac...	List my recent bank activities.
<input type="radio"/>	View Recent Transac...	I'd like to check my transaction history.
<input type="radio"/>	View Recent Transac...	What are my latest purchases?
<input type="radio"/>	View Recent Transac...	Can I see my last 5 transactions?

Show me transactions on 26.09.
Date

Tagging

Source: <https://language.cognitive.azure.com/>



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Natural Language Understanding

Start training

<<

Language Studio > Conversational Language Understanding projects > bankingbot - Training jobs

>

Language Studio

Projects

bankingbot

Schema definition

Data labeling

Training jobs

Model performance (Preview)

Deploying a model

Testing deployments

Project settings

Start a training job

Select Model

You can train a new model or overwrite an existing one. Training a new model is best at the beginning or for comparing between model performances. Overwriting a model will replace the old model with the new data.

You are currently using the latest 2022-09-01 training configuration version. [Click here to change.](#)

☒ Train a new model

☐ Overwrite an existing model

BankBot

Training mode

☒ Standard training (free)

☐ Advanced training

Faster training times for quicker iterations. Only available in English. Free of charge.

Trains using fine-tuned neural network transformer models. Can train multilingual projects. [View pricing.](#)

Data splitting

We use separate datasets to train your model and test its accuracy. [Learn more about data splitting.](#)

☒ Automatically split the testing set from training data

☐ Use a manual split of training and testing data

We'll select stratified samples from all training data according to the percentages that you provide here. Any data already assigned to the testing set will be ignored completely.

80

% for training

20

% for testing

We'll use the training and testing sets that you've assigned in [Data Labeling](#) to create your custom model and measure its performance.

Your current split of data

100% training 0% testing

[View distribution of data](#)

Train

Cancel

Source: <https://language.cognitive.azure.com/>



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Natural Language Understanding

Model Performance

BankBot




[Overview](#) [Model Performance](#) [Test set details](#) [Dataset distribution](#) [Confusion matrix](#)

Model Type

Intents

Status:  Trained successfully

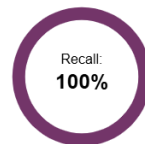
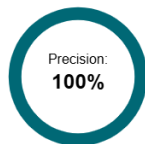


F1 score:  100%
Precision:  100%
Recall:  100%

Finished training on: 9/29/2025, 5:40:01 PM
Total training time: 0 hour(s), 1 minute(s), 5 second(s)

Training data splitting type: Percentage
Number of training utterances: 12 (80%)
Number of testing utterances: 3 (20%)

[Learn more about how to improve your model](#)



Guidance

To improve your model's performance, review these issues and follow any recommendations.



Not enough intents labels in training set

We recommend a minimum of 15 utterances per intent in your training data.

3 intents with low data.

[View Details](#)



Missing intents in test set.

When the testing data lacks labeled instances for an intents, the model's test performance may become less comprehensive due to untested scenarios.

1 missing intents.

[View Details](#)

Source: <https://language.cognitive.azure.com/>



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Natural Language Understanding

Model Deployment

Add deployment



Create or select an existing deployment name

You can create a new deployment name or overwrite an existing deployment name to add a trained model to them

☒ Create a new deployment name

Production-Bot

☐ Overwrite an existing deployment name

By selecting an existing deployment name, you will override any deployed model to this deployment name

Assign trained model to your deployment name

Add a trained model to your selected deployment name

Model

BankBot



Deployment regions

Select the regions to deploy in based on the available assigned resources.

Regions

Select all, East US - language20250929



Deploy

Cancel



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Natural Language Understanding

Test Deployment

Testing deployments

Test a deployment by providing a sample utterance to find out what intent and entities get recognized. These are the sa



Run the test

Deployment name

Production-Bot



Enter your own text, or upload a text document

Can I check how much money i have in my account right now?

Result JSON

Intent

Top intent

Check Account Balance
Confidence: 92.66%

Entities

No entities predicted

Original text

Can I check how much money i have in my account right now?



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Custom Text Classification

Custom Text Classification

Download Training Data



articles.zip

5.8 KB • Done

<http://aka.ms/classification-articles>

Create new ▾

Conversational language understanding

Build natural language into apps, bots, and IoT devices.

Orchestration workflow

Connect and orchestrate CLU, Custom question answering & LUIS project...

Custom question answering

Customize the list of questions and answers extracted from your content ...

Custom text classification

Train a classification model to classify text using your own data.

Custom named entity recognition

Train an extraction model to identify your domain categories using your o...



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Custom Text Classification


Add Role to

✓ Storage Account Contributor (1)

☐  bertgollnick-7160
f06b7b96-9e88-4332-bc8a-798ed59a284d

Managed identity

Storage Account Contributor

 This resource





None



Custom Text Classification

Blob Access











Home > Storage center | Storage accounts (Blobs) >





 **stbertgollni441857209840**   ...  Why can't this storage acco

Storage account

 Search

Overview

-  Activity log
-  Tags
-  Diagnose and solve problems
-  Access Control (IAM)
-  Data migration
-  Events
-  Storage browser
-  Storage Mover
-  Partner solutions
-  Resource visualizer
- > Data storage
- > Security + networking

 Upload  Open in Explorer  Delete  Move

Essentials

Resource group ([move](#)) : [rg-BertGollnickai](#)

Location : eastus

Subscription ([move](#)) : [Azure subscription 1](#)

Subscription ID : 9b8688c3-4700-497

Disk state : Available

Tags ([edit](#)) : [Add tags](#)

Properties Monitoring Capabilities (7) Recom

Blob service

Hierarchical namespace [Disabled](#)

Default access tier [Hot](#)

Blob anonymous access [Enabled](#)

Custom Text Classification

Upload Articles

Home > Storage center | Storage accounts (Blobs) >

stbertgollni441857209840 [Why can't this storage account be accessed](#) [Audit disaster recovery readiness for this storage account](#) [Perform a security check on this storage account](#)

Storage account

Search

Upload Open in Explorer Delete Move Refresh Open in mobile CLI / PS Feedback

Overview

Activity log

Tags

Diagnose and solve problems

Access Control (IAM)

Data migration

Events

Storage browser

Storage Mover

Partner solutions

Resource visualizer

Data storage

Security + networking

Data management

Settings

Configuration

Data Lake Gen2 workspace

Essentials

Resource group (move) : rg-BertGollnickai

Location : eastus

Subscription (move) : Azure subscription 1

Subscription ID : 9b8688c3-4700-4975-8bcf-8ad3a2248379

Disk state : Available

Tags (edit) : Add tags

Properties Monitoring Capabilities (7) Recommendations (1) Tutorials Tools + SDKs

Blob service

Hierarchical namespace : Disabled

Default access tier : Hot

Blob anonymous access : Enabled

Blob soft delete : Disabled

Container soft delete : Disabled

Versioning : Disabled

Change feed : Disabled

Performance : Standard

Replication : Locally-redundant

Account kind : StorageV2 (general)

Provisioning state : Succeeded

Created : 9/19/2025, 3:34:05

Security

Require secure transfer for REST API operations : Enabled

Storage account key access : Enabled

Minimum TLS version : Version 1.2

Infrastructure encryption : Disabled

Networking

Public network access : Enabled

Upload blob

New container

Name : articles

Anonymous access level ⓘ : Container (anonymous read access for containers and blobs)

ⓘ All container and blob data can be read by anonymous request. Clients can enumerate blobs within the container by anonymous request, but cannot enumerate containers within the storage account.

Ok Cancel

☐ Overwrite if files already exist

Advanced

Upload

Give feedback

Custom Text Classification

Create new Project

Create a project

×

● Connect storage

● Select project type

○ Enter basic information


○ Choose container

○ Review and finish


Select project type

Select the type of custom text classification project that you would like to create. This project type cannot be changed later. [Learn more about classification types](#)

☒ Single label classification - each file will have only one label
For example, file 1 is classified as A and file 2 is classified as B




☐ Multi label classification - each file can have one or many labels
For example, file 1 is classified as A, B, and C and file 2 is classified as B and C



Back

Next

Cancel

























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Custom Named Entity Recognition

Custom NER

Download Data

<http://aka.ms/entity-extraction-ads>

NAME	STATUS
 Ad 1.txt	
 Ad 2.txt	
 Ad 3.txt	
 Ad 4.txt	
 Ad 5.txt	
 Ad 6.txt	
 Ad 7.txt	
 Ad 8.txt	
 Ad 9.txt	
 Ad 10.txt	
 Ad 11.txt	
 Ad 12.txt	



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Custom NER

Storage Account

[Home](#) > [Storage center](#) | [Storage accounts \(Blobs\)](#) >

Create a storage account ...

Basics

[Advanced](#)

[Networking](#)

[Data protection](#)

[Encryption](#)

[Tags](#)

[Review + create](#)

Azure Storage is a Microsoft-managed service providing cloud storage that is highly available, secure, durable, scalable, and redundant. Azure Storage includes Azure Blobs (objects), Azure Data Lake Storage Gen2, Azure Files, Azure Queues, and Azure Tables. The cost of your storage account depends on the usage and the options you choose below. [Learn more about Azure storage accounts](#) ⓘ

Project details

Select the subscription in which to create the new storage account. Choose a new or existing resource group to organize and manage your storage account together with other resources.

Subscription *

Resource group *

[Create new](#)

Instance details

Storage account name * ⓘ

Region * ⓘ

[Deploy to an Azure Extended Zone](#)

Preferred storage type

ⓘ This helps us provide relevant guidance. It doesn't restrict your storage to this resource type. [Learn more](#)

Performance * ⓘ ☒ **Standard:** Recommended for most scenarios (general-purpose v2 account)

☐ **Premium:** Recommended for scenarios that require low latency.

Redundancy * ⓘ

Allow Blob anonymous access ⓘ

☐ Disabled ☒ Enabled

Add role assignment ...

[Role](#)

[Members](#)

[Conditions](#)

[Review + assign](#)

Selected role

Storage Blob Data Contributor

Assign access to

☒ User, group, or service principal

☐ Managed identity

Members

[+ Select members](#)

Name	Object ID	Type
Bert Gollnick	6de7d387-c382-4532-ab91-0703bbfec2...	User

Description

Optional

Custom NER

Storage Account

New container

Name *

classifyads

Anonymous access level ⓘ

Container (anonymous read access for containers and blobs) ▾



All container and blob data can be read by anonymous request. Clients can enumerate blobs within the container by anonymous request, but cannot enumerate containers within the storage account.

▾ Advanced

+ Add Directory ↑ Upload

classifyads

Authentication method: Access key

▾ Add filter

🔍 Search blobs by prefix (case-se

Showing all 12 items

☐

Name

☐

Ad 1.txt

☐

Ad 10.txt

☐

Ad 11.txt

☐

Ad 12.txt

☐

Ad 2.txt

☐

Ad 3.txt

☐

Ad 4.txt

☐

Ad 5.txt

☐

Ad 6.txt

☐

Ad 7.txt

☐

Ad 8.txt

☐

Ad 9.txt



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Custom NER

New Project – Data Labeling

Filter

Search for a file...

Ad 1.txt

Ad 10.txt

Ad 11.txt

Ad 12.txt

Ad 2.txt

Ad 3.txt

Ad 4.txt

Ad 5.txt

Ad 6.txt

Ad 7.txt

Ad 8.txt

Ad 9.txt

Data labeling ✓ Saved

Select a document to annotate its text with entity labels or [use Azure Machine Learning to label](#). After labeling the documents and adding them to the project, you'll be ready to create a model with this data in [Training jobs](#).

Single document view Document name: Ad 1.txt

1 face cord of firewood for sale
ItemForSale

Dry, seasoned hardwood ready to burn! Pickup only, located in the foothills of Denver, CO. Asking
Loca...

\$90
P...

Custom NER

Training

[Language Studio](#) > [Custom Named Entity Recognition](#) > nerclass - Training jobs

Training jobs

After labeling your data, start a training job to create a model that recognizes named entities. Select the trained model from a successful job 1

[+ Start a training job](#) [X Cancel](#)

Training job id ▾	Status ▾	Output model ▾
<input type="radio"/> 4847006f-4941-4f41-95e9-7d334ba7b11...	Job in queue. Starting soon ...	ner



Custom NER

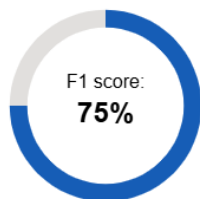
Model Performance

ner

① Entities that are neither labeled nor predicted in the test set will not be part of the displayed results. [Learn more about data splitting.](#)

Overview Entity type performance Test set details Dataset distribution Confusion matrix

Status:  Trained successfully

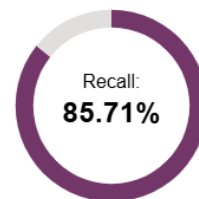
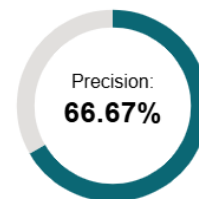


F1 score: ① 75%
Precision: ① 66.67%
Recall: ① 85.71%

Finished training on: 9/29/2025, 7:20:22 PM
Total training time: 0 hour(s), 16 minute(s), 7 second(s)

Training data splitting type: Percentage
Number of training documents: 10 (83.33%)
Number of testing documents: 2 (16.67%)

[Learn more about how to improve your model](#)



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Custom NER

Model Testing

Enter your own text, or upload a text document

Bluetooth earbuds, \$100. These work okay, but sometimes disconnect from the phone. I'm sure someone more technical than me could figure it out.

Located in Sacramento, CA



Drag and drop .txt file(s) here
or

[Browse for a file](#)

Result JSON

ItemForSale

Entity value: Bluetooth
earbuds
Confidence: 93.00%

Price

Entity value: \$100
Confidence: 99.00%

Location

Entity value: Sacramento, CA
Confidence: 82.00%



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Translation

Translation

Create Translator



[Home](#) > [AI Foundry](#) | [Translator](#) >

Create Translator ...

[Basics](#) [Network](#) [Identity](#) [Tags](#) [Review + create](#)

Easily integrate real-time text translation capabilities into your application's websites, tools, or any solution requiring multi-language support such as website localization, e-commerce, customer support, messaging applications, internal communication, and more.

Project Details

Subscription * ⓘ

Resource group * ⓘ

[Create new](#)

Instance Details

i Please choose the Global region unless your business or application requires a specific region. Applications that do not offer a region selection use the Global region.

Region * ⓘ

Name * ⓘ

Pricing tier * ⓘ

[View full pricing details](#)

Translation

Create Translator

Home > TextTranslationCreate-20250930081422 | Overview > mytranslator20250930

mytranslator20250930 | Keys and Endpoint ☆ ...

Translator

Search

◦ <<

Regenerate Key1

Regenerate Key2

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Resource visualizer

Resource Management

Keys and Endpoint

Encryption

Pricing tier

Networking

Identity

Cost analysis

Properties

> Security

> Monitoring

> Automation

> Help

These keys are used to access your Azure AI Foundry API. Do not share your keys. Store them securely-- for example, using Azure Key Vault. We also recommend regenerating these keys regularly. Only one key is necessary to make an API call. When regenerating the first key, you can use the second key for continued access to the service.

Show Keys

KEY 1

.....



KEY 2

.....



Location/Region ⓘ

eastus



Web API

Virtual Network

Containers

Use the below endpoints while using the Web API. To force the request to be handled by a specific geography, [see here](#).

Text Translation

<https://api.cognitive.microsofttranslator.com/>



Document Translation

<https://mytranslator20250930.cognitiveservices.azure.com/>







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Translation

Test Translator

[Home](#) > [TextTranslationCreate-20250930081422](#) | [Overview](#) >

 **mytranslator20250930**    [Best practices for managing AI resources](#) [How to use this Azure AI services with Python](#) [Show platform metrics for this AI resource](#)

 Delete

Overview

- Activity log
- Access control (IAM)
- Tags
- Diagnose and solve problems
- Resource visualizer
- Resource Management
 - Keys and Endpoint
 - Encryption
 - Pricing tier
 - Networking
 - Identity
 - Cost analysis
 - Properties
- Security
- Monitoring
- Automation
- Help

Essentials

Resource group ([move](#)) : [gollnickdatasolutions](#)

Status : Active

Location : East US

Subscription ([move](#)) : [Azure subscription 1](#)

Subscription ID : 9b8688c3-4700-4975-8bcf-8ad3a2248379

Tags ([edit](#)) : [Add tags](#)

API Kind : TextTranslation


Pricing tier : Free


Endpoints : [Click here to view endpoints](#)

Manage keys : [Click here to manage keys](#)

[Try it](#) [Sample code](#) [Monitoring](#)

Translate text to another language [Learn more about Translator](#)

 This demo runs against your resource and will incur usage against your account

 Translation failed. Please try again later.

From

Auto detect
Hallo mein freund

To

Spanish
Hola mi amigo

View request

```
{
  "text": "Hallo mein freund"
}
```

View response

```
{
  "detectedLanguage": {
    "language": "de",
    "score": "0.99"
  },
  "translations": [
    {
      "text": "Hola mi amigo",
      "to": "es"
    }
  ]
}
```



[gollnickdata.de](#)

Translation

Test Translators in Python

Develop scripts for

- Text translation: `sample_translate.py`
- Language Detection and translation: `text-translation.py`



Speech Recognition

Speech Recognition

Create speech service

[Home](#) > [AI Foundry | Speech service](#) >

Create Speech Services ...

[Basics](#) [Network](#) [Identity](#) [Tags](#) [Review + create](#)

Transcribe audible speech into readable, searchable text. Add real-time speech translations to your apps and services. Convert text to audio nearly in real time. Quickly build speech-enabled apps and services using the programming languages you already work with. Customize speech systems to optimize quality for specific scenarios.

[Learn more](#)

Project Details

Subscription *	<input type="text" value="Azure subscription 1"/>
Resource group *	<input type="text" value="gollnickdatasolutions"/>

[Create new](#)

Instance Details

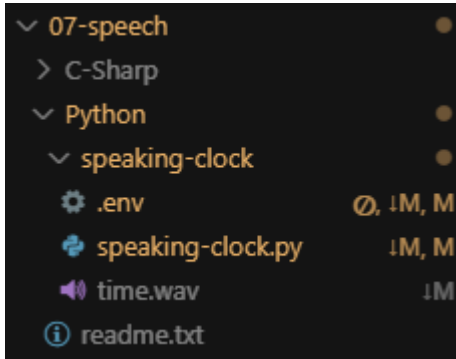
Region	<input type="text" value="East US"/>
Name *	<input type="text" value="myspeechservice20250930"/>
Pricing tier *	<input type="text" value="Free F0"/>

[View full pricing details](#)

Speech Recognition

Synthesize text and transcribe audio

Work through scripts for synthesizing text and transcribing audio



Speech Recognition

Synthesize text and transcribe audio

