

# **Amazon Machine Learning Services**

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# Amazon Recognition

- Go to management Console
- Choose Machine Learning service
- Click Amazon Recognition

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- Amazon Forecast
- Amazon SageMaker
- Amazon Lex
- Cognito
- IAM

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Click Try demo

Amazon Rekognition

Deep learning-based visual analysis service  
Search, verify, and organize millions of images and videos

Try Demo

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FEATURED SERVICE

Amazon Rekognition Custom Labels [Learn More](#)

Quickly build custom machine learning models to detect objects and scenes unique to your business.

Leverage proven image and video analysis

You don't need computer vision or deep learning expertise to take advantage of Rekognition's high

Detect objects unique to your business

Use Amazon Rekognition Custom Labels to quickly build your own custom ML model to detect objects

Integrated with AWS Services

Amazon Rekognition is designed to work seamlessly with other AWS services. Rekognition integrates directly with Amazon S3 and AWS

Custom Labels

Use Custom Labels

Demos

Label detection

Image moderation

Facial analysis

Celebrity recognition

Face comparison

Text in image

PPE detection

Video Demos

Video analysis

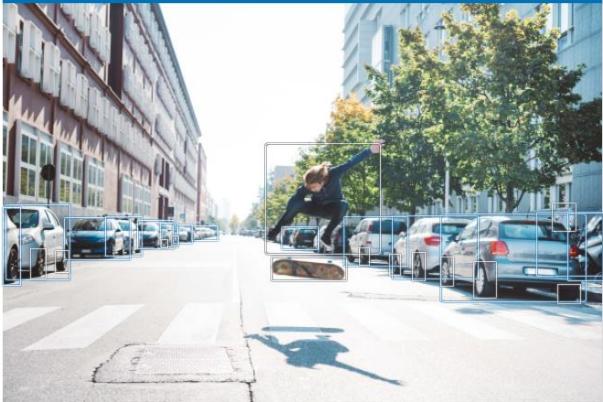
Metrics

Metrics

Feedback

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## Upload photo or link.



The screenshot shows the Amazon Rekognition Custom Labels interface. On the left, a sidebar lists various services like Custom Labels, Demos, Video Demos, Metrics, and Additional Resources. The main area displays a photograph of a person performing a handstand on a city street. Several bounding boxes are drawn around objects in the scene, including cars, a person, and a shadow. Below the image are buttons for "Choose a sample image" and "Use your own image". To the right, a search bar says "Search all labels" and a results table shows the following items:

Label	Percentage
Car	98.8 %
Automobile	98.8 %
Vehicle	98.8 %
Transportation	98.8 %
Person	98.3 %
Human	98.3 %

Below the results are sections for "Request" and "Response".

The results are shown on right side of the page.



The screenshot shows the Amazon Rekognition Custom Labels interface. The sidebar and layout are identical to the previous screenshot. The main image is a cartoon illustration of a pond ecosystem with a duck, several ducklings, a frog, a blue butterfly, and various aquatic plants and fish. Below the image are buttons for "Choose a sample image" and "Use your own image". To the right, a search bar says "Search all labels" and a results table shows the following items:

Label	Percentage
Vegetation	95.2 %
Plant	95.2 %
Land	88.4 %
Outdoors	88.4 %
Nature	88.4 %
Green	87.5 %

Below the results are sections for "Request" and "Response".

# Click Face Analysis



The screenshot shows the Amazon Rekognition Facial analysis service. On the left, a sidebar lists various features: Custom Labels, Demos (with Facial analysis selected), Video Demos, Metrics, and Additional Resources. The main area displays a photo of a woman driving a yellow car, with a blue bounding box highlighting her face. Below the image are options to "Choose a sample image" or "Use your own image" (with an "Upload" button and a "Go" button). To the right, the "Results" section shows the following analysis:

Attribute	Value	Confidence (%)
looks like a face	99.9 %	
appears to be female	99.9 %	
age range	25 - 35 years old	
not smiling	61.1 %	
appears to be happy	70 %	
wearing glasses	99.8 %	

Below the results are sections for "Request" and "Response". At the bottom, there are links for "Feedback", "Leave us feedback", and copyright information.

- Click upload or Use image URL



This screenshot is identical to the one above, showing the same interface for facial analysis. The "Upload" and "Go" buttons in the "Use your own image" section are highlighted with red boxes, indicating the steps to process the uploaded image.

Screenshot of the Amazon Rekognition console showing a child in a green hooded cloth with a bounding box around their face. The results panel shows the following analysis:

Attribute	Score
looks like a face	99.9 %
appears to be male	80.9 %
age range	0 - 5 years old
not smiling	99.2 %
appears to be calm	94 %
not wearing glasses	99.1 %

## Go to Face comparison

Screenshot of the Amazon Rekognition console under the "Facial analysis" section. The "Face comparison" option in the sidebar is highlighted with a red box. The results panel shows the following analysis for a woman driving a car:

Attribute	Score
looks like a face	99.9 %
appears to be female	99.9 %
age range	25 - 35 years old
not smiling	61.1 %
appears to be happy	70 %
wearing glasses	99.8 %

Face comparison

Compare faces to see how closely they match based on a similarity percentage. Learn more [\[Alt+S\]](#)

**Reference face**

**Comparison faces**

**Results**

Similarity

99.6 %

**Request**

**Response**

Upload two photo for both reference face and comparison.

Face comparison

Compare faces to see how closely they match based on a similarity percentage. Learn more [\[Alt+S\]](#)

**Reference face**

**Comparison faces**

**Results**

Similarity

99.6 %

**Request**

**Response**

Text in Images

## Click Text in image.

The screenshot shows the AWS Rekognition Face Comparison demo. On the left sidebar, under 'Demos', 'Text in image' is highlighted with a red box. The main content area is titled 'Face comparison' and shows a 'Reference face' (a photo of Lionel Messi) and 'Comparison faces' (a photo of a Paris Saint-Germain team group). Below these are two 'Choose a sample image' buttons. To the right, a 'Results' section displays two pairs of faces with similarity percentages: 99.6% (with a '=' symbol) and two other pairs with 'not equal' symbols. The URL in the address bar is <https://us-east-1.console.aws.amazon.com/rekognition/home?region=us-east-1#/text-detection>.

- A page will appear. Upload photo that contain text.
- Upload photo or image URL.

The screenshot shows the AWS Rekognition Text in image demo. The left sidebar lists various services like Custom Labels, Demos, Metrics, and Additional Resources. Under 'Text in image', there's a 'Choose a sample image' button and options to 'Upload' or 'Use image URL'. The main area shows a photo of a coffee mug with a smiley face and text overlays ('IT'S MONDAY but keep Smiling'). Below it are buttons for 'Upload' and 'Use image URL'. To the right, a 'Results' section shows detected text: 'IT'S', 'MONDAY', 'but keep', and 'Smiling'. There are also 'Request' and 'Response' sections. The URL in the address bar is <https://us-east-1.console.aws.amazon.com/rekognition/home?region=us-east-1#/text-detection>.

Amazon recognition has extract text from given image.



The screenshot shows the 'Text in image' demo page of the Amazon Rekognition service. On the left, a sidebar lists various features like Custom Labels, Demos (Label detection, Image moderation, Facial analysis, Celebrity recognition, Face comparison, Text in image, PPE detection), Video Demos (Video analysis), Metrics, and Additional Resources. The 'Text in image' demo is selected. The main area displays a photograph of a street corner with a traffic light showing a green arrow, a 'Walbridge Pl' street sign, and a 'Park Rd' street sign. Below the image are two buttons: 'Choose a sample image' and 'Use your own image'. The results section on the right shows extracted text: 'Walbridge | Pl | Nw |', '3200 |', 'Rd |', 'Park |', 'Nw |', and '1900 |'. The request section shows a JSON object: { "Image": { "Bytes": "..."} }. At the bottom, there's a footer with links to Privacy, Terms, and Cookie preferences.

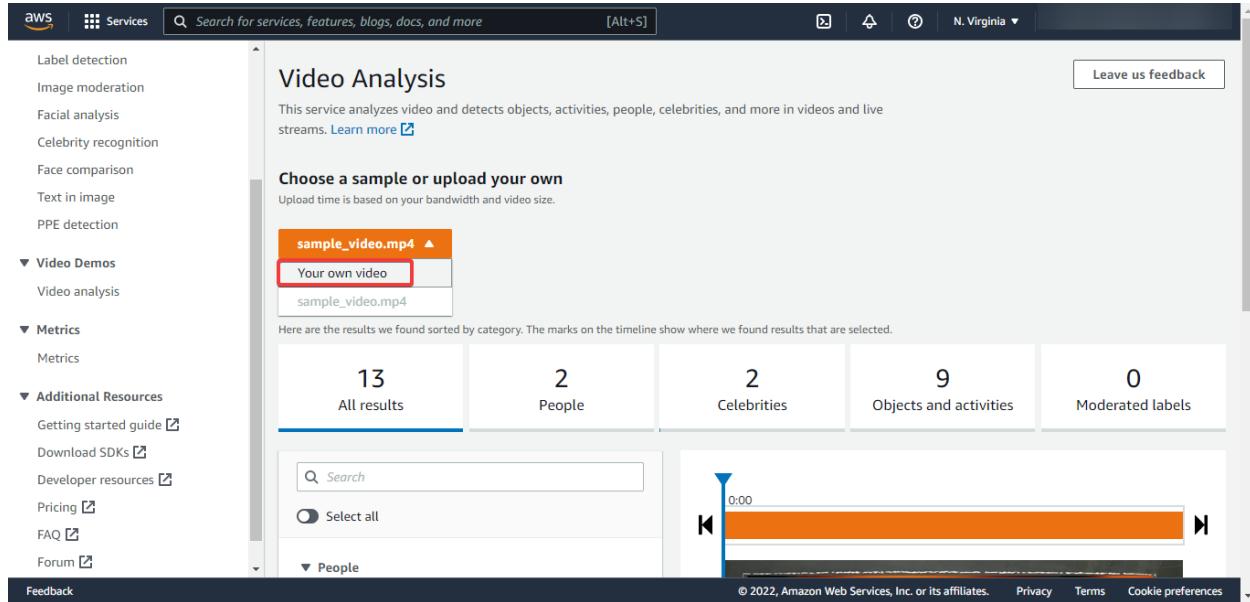
## Video Analysis

Go to **Video Analysis**



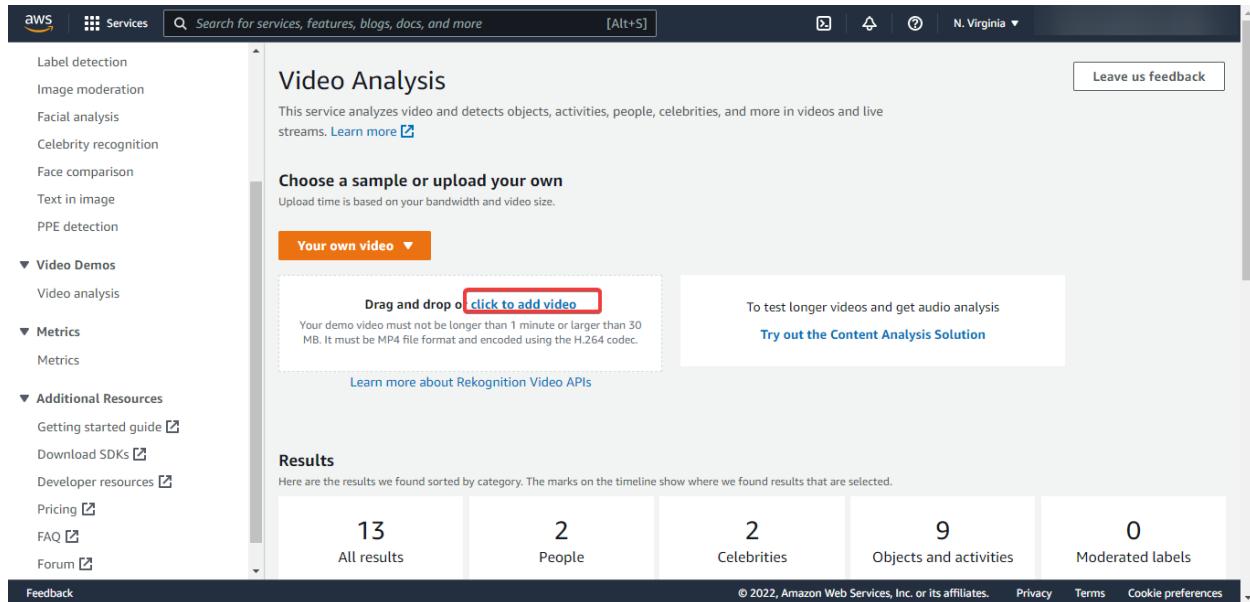
This screenshot is identical to the one above, but the 'Video Demos' section in the sidebar is expanded, and the 'Video analysis' option is highlighted with a red rectangle. All other elements, including the image, results, request JSON, and footer, remain the same.

## Click on Your Own video



The screenshot shows the AWS Rekognition Video Analysis service interface. On the left, there's a sidebar with various options like Label detection, Image moderation, Facial analysis, and Video Demos. The main area is titled "Video Analysis" and contains a section for "Choose a sample or upload your own". A dropdown menu is open, showing "sample\_video.mp4" at the top, followed by "Your own video" which is highlighted with a red box. Below this, there's a file list with "sample\_video.mp4". A message says "Here are the results we found sorted by category. The marks on the timeline show where we found results that are selected." Below this, there are five categories with counts: All results (13), People (2), Celebrities (2), Objects and activities (9), and Moderated labels (0). At the bottom right, there's a video player timeline from 0:00 to 1:00.

## Click to add video and upload your video



This screenshot is similar to the previous one but shows a different interaction. The "Your own video" button in the "Choose a sample or upload your own" section is highlighted with a red box. Below it, a dashed box highlights the "Drag and drop or click to add video" instruction. To the right, there's a callout box with the text "To test longer videos and get audio analysis" and a link "Try out the Content Analysis Solution". The rest of the interface, including the sidebar and results summary, is identical to the first screenshot.

## Before that create a bucket on s3

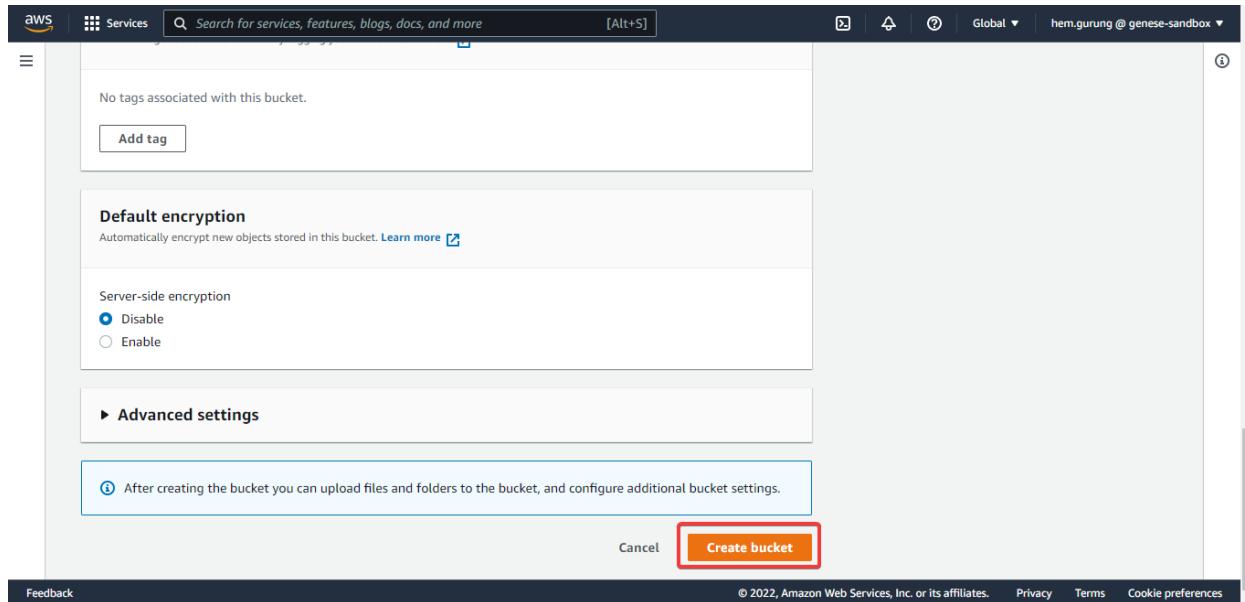
The screenshot shows the AWS S3 Buckets page. On the left, there's a sidebar with 'Buckets', 'Access Points', 'Object Lambda Access Points', 'Multi-Region Access Points', 'Batch Operations', 'Access analyzer for S3', 'Block Public Access settings for this account', 'Storage Lens' (with 'Dashboards' and 'AWS Organizations settings'), and a 'Feature spotlight'. The main area has a search bar and a note about sorting. Below is a table titled 'Buckets (189)'. The 'Create bucket' button is highlighted with a red box. The table columns are Name, AWS Region, Access, and Creation date. Two buckets are listed: '01sksbucket' (US East (N. Virginia) us-east-1, Bucket and objects not public, April 8, 2022, 15:44:00 (UTC+05:45)) and 'ae-s3bucket-aknijixe6b1w' (US East (Ohio) us-east-2, Insufficient permissions, February 14, 2022, 11:24:21 (UTC+05:45)).

## Create a bucket name

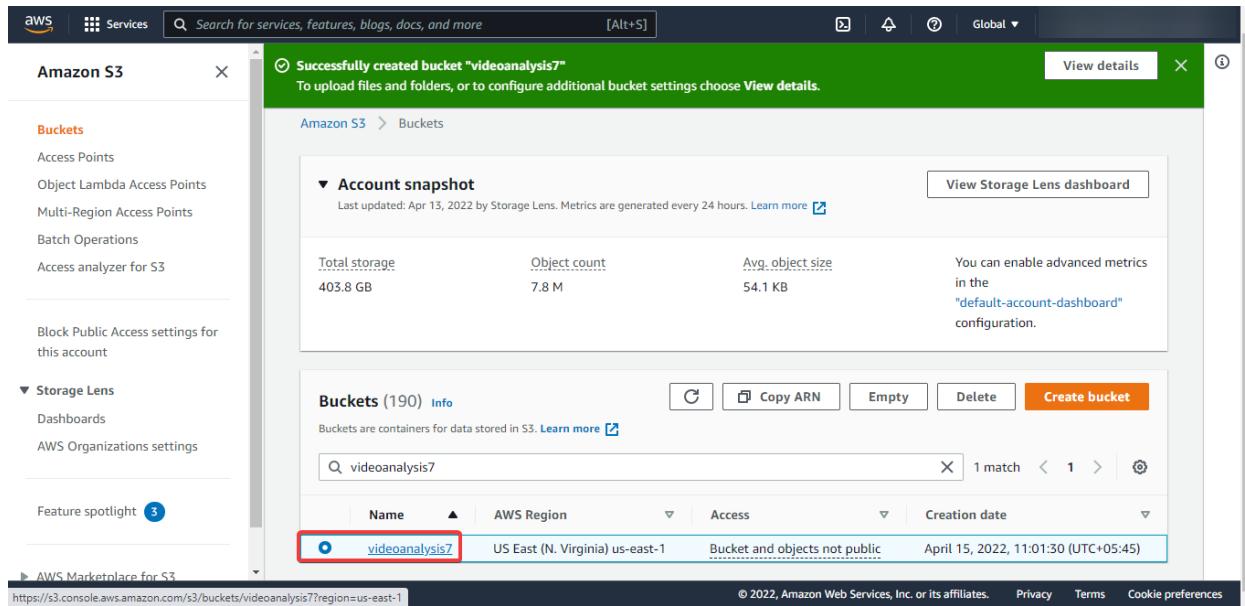
The screenshot shows the 'Create bucket' configuration page. It has two sections: 'General configuration' and 'Object Ownership'. In 'General configuration', the 'Bucket name' field contains 'videoanalysis7' (highlighted with a red box). Below it is a note about naming rules. The 'AWS Region' dropdown is set to 'US East (N. Virginia) us-east-1'. There's a 'Choose bucket' button for copying settings from another bucket. In 'Object Ownership', the 'ACLs disabled (recommended)' option is selected. The bottom of the page includes a 'Feedback' link and standard footer links.

Keep default options.

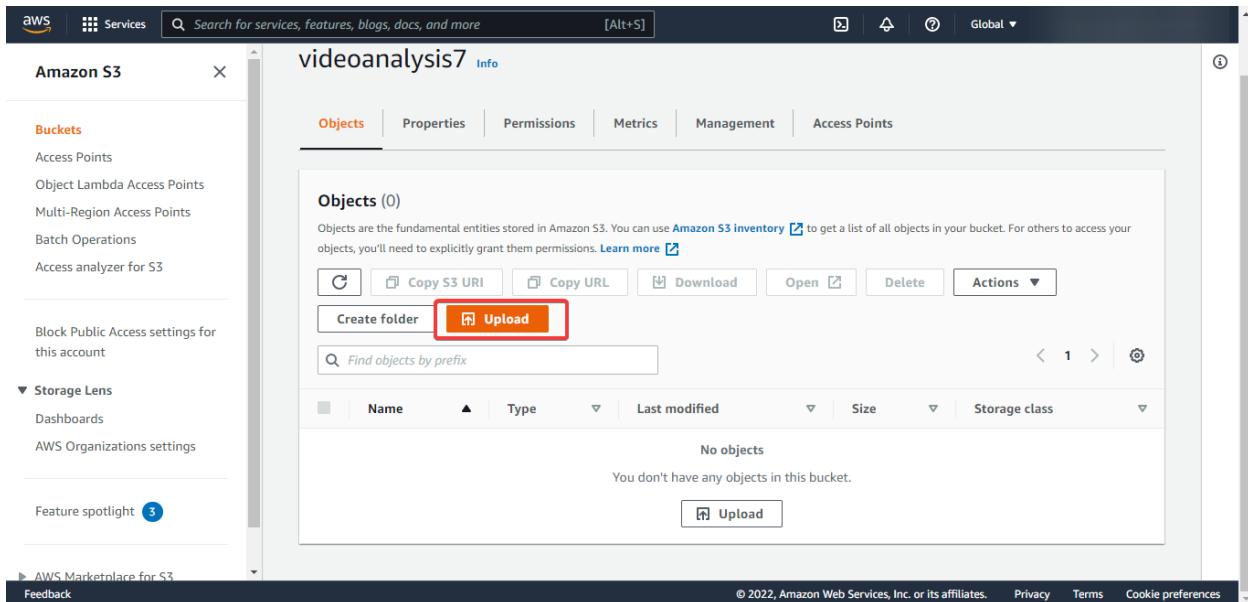
Click **Create bucket**.



- Bucket has been successfully created.
- Click on your created bucket name.

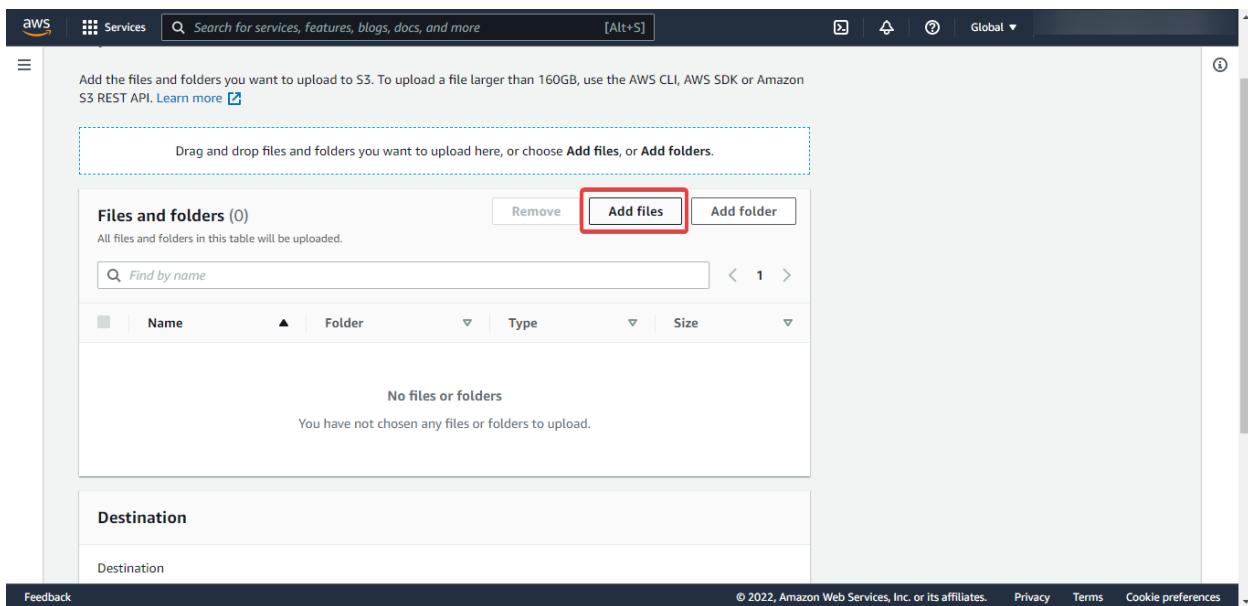


## Click Upload.



The screenshot shows the AWS S3 console interface. On the left, there's a sidebar with 'Buckets' (Access Points, Object Lambda Access Points, Multi-Region Access Points, Batch Operations, Access analyzer for S3), 'Storage Lens' (Dashboards, AWS Organizations settings), and a 'Feature spotlight' section. The main area is titled 'videoanalysis7' and shows the 'Objects' tab selected. It displays a message: 'Objects are the fundamental entities stored in Amazon S3. You can use [Amazon S3 inventory](#) to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. [Learn more](#)'. Below this are buttons for 'Create folder' and 'Upload' (which is highlighted with a red box). A search bar says 'Find objects by prefix'. A table header includes 'Name', 'Type', 'Last modified', 'Size', and 'Storage class'. The message 'No objects' is displayed, followed by 'You don't have any objects in this bucket.' and another 'Upload' button. At the bottom, there's a feedback link and copyright information: '© 2022, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences'.

Click **Add files**. Here we will upload video file.



This screenshot shows the 'Upload' interface within the AWS S3 console. It features a large central area with a dashed blue border for dragging and dropping files. Above this area, a note says: 'Add the files and folders you want to upload to S3. To upload a file larger than 160GB, use the AWS CLI, AWS SDK or Amazon S3 REST API. [Learn more](#)'. Below the drag-and-drop area is a table titled 'Files and folders (0)' with columns for 'Name', 'Folder', 'Type', and 'Size'. A 'Remove' button is at the top right of the table, and 'Add files' and 'Add folder' buttons are below it (the 'Add files' button is highlighted with a red box). A search bar says 'Find by name'. The message 'No files or folders' is shown, followed by 'You have not chosen any files or folders to upload.'. At the bottom, there's a 'Destination' section and a 'Feedback' link. The footer includes '© 2022, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences'.

- Tick file and click on **Upload**

The screenshot shows the AWS Lambda console interface. At the top, there's a search bar and a global navigation bar. Below that, a table lists files being uploaded, with one item selected and highlighted by a red box. The table columns are Name, Folder, Type, and Size. The selected file is 'crosswalk\_-.3630 (Original).mp4' with a size of 5.2 MB. Below the table, there's a 'Destination' section showing the target bucket 's3://videoanalysis7'. Underneath it, 'Destination details' and 'Permissions' sections are visible. On the right side, there are 'Cancel' and 'Upload' buttons, with the 'Upload' button highlighted by a red box. The bottom of the screen includes a feedback link and standard AWS footer links.

Finally , files has been uploaded in bucket.

The screenshot shows the AWS Lambda console after a successful upload. A green banner at the top indicates 'Upload succeeded' with a link to 'View details below.' Below this, a 'Summary' section provides an overview of the upload results. It shows 'Destination' as 's3://videoanalysis7', 'Succeeded' with '1 file, 5.2 MB (100.00%)', and 'Failed' with '0 files, 0 B (0%)'. There are two tabs at the bottom: 'Files and folders' (which is active) and 'Configuration'. The 'Files and folders' tab displays a table of uploaded files. The first file, 'crosswalk\_-.3630 (Original).mp4', is highlighted by a red box. The table columns include Name, Folder, Type, Size, Status, and Error. The status for the highlighted file is 'Succeeded'. The bottom of the screen includes a feedback link and standard AWS footer links.

Once you uploaded video, it finds the results. Here, 35 results have been found and still searching for people.

The screenshot shows the AWS Video Analysis service interface. On the left, there's a sidebar with various analysis options like Label detection, Image moderation, Facial analysis, and Video Demos. The main area is titled "Video Analysis" and displays results for a sample video. It shows 35 All results, 0 People, 33 Celebrities, 0 Objects and activities, and 0 Moderated labels. A timeline at the bottom indicates a duration of 0:14.

## Amazon Comprehend

- Go to **AWS Console**
- Choose **Machine Learning** service
- Go to **Amazon Comprehend**

The screenshot shows the AWS Machine Learning service console. The sidebar on the left has a section for "Machine Learning" which is highlighted with a red box. The main content area lists several services: Amazon Augmented AI, Amazon CodeGuru, Amazon Comprehend (which is also highlighted with a red box), Amazon Comprehend Medical, AWS DeepComposer, and AWS DeepLens.

- Click Launch Amazon Comprehend

Machine learning

# Amazon Comprehend

## Natural Language Processing and Text Analytics

Amazon Comprehend is a natural language processing (NLP) service that uses machine learning to find insights and relationships in text.

**Start analyzing text**

Jump in and try our APIs for Amazon Comprehend.

**Launch Amazon Comprehend**

**Pricing (US)**

With Amazon Comprehend, you pay only for what you use. You are charged based on the amount of text processed on a monthly basis, and there are no minimum fees and no upfront commitments.

[Learn more](#)

Let's copy and paste BBC News <https://www.bbc.com/news/world-europe-61112629>

## Click Analyze

Real-time analysis

Analysis jobs

Customization

Custom classification

Custom entity recognition

Endpoints

**Input text**

Supported languages [\[?\]](#)

**Analysis type**

Built-in  
View real-time insights based on AWS built-in models.

Custom  
View real-time insights based on custom models from an endpoint you've created.

**Input text**

Russia said a fire on board caused ammunition to explode and that the crew had been evacuated. The warship was being towed to port when "stormy seas" caused it to sink, according to a Russian Defence Ministry message.

But Ukraine said it was responsible for the attack, claiming it targeted the cruiser with recently-introduced Ukrainian made missiles.

Whatever the cause, it is bad news for Moscow. It is the flagship of Russia's Black Sea fleet, and, as such, a symbol of Russia's military power.

705 of 5000 characters used.

**Clear text** **Analyze**

**Insights** [Info](#)

Screenshot of the AWS Amazon Comprehend Insights interface showing Key Phrases results.

The "Key phrases" tab is selected. A red box highlights the "Key phrases" section in the results table.

Key phrases	Confidence
Day 50	0.99+
the Russian invasion	0.99+
Ukraine	0.99+
Moscow	0.99+

Screenshot of the AWS Amazon Comprehend Insights interface showing Language results.

The "Language" tab is selected. A red box highlights the "Language" section in the results table.

Language	Confidence
English, en	0.99 confidence

S Services Search for services, features, blogs, docs, and more [Alt+S] N. Virginia ▾

Amazon Comprehend X

Real-time analysis Analysis jobs

Customization Custom classification Custom entity recognition Endpoints

Entities Key phrases Language **PII** Sentiment Syntax

Personally identifiable information (PII) analysis mode

Offsets Identify the location of PII in your text documents.

Labels Label text documents with PII.

Analyzed text

Day 50 of the Russian invasion of Ukraine was marked by Moscow's flagship Black Sea missile cruiser sinking.

Throughout the day there were conflicting reports on how the 12,000-tonne vessel was damaged.

Russia said a fire on board caused ammunition to explode and that the crew had been evacuated. The warship was being towed to port when "stormy seas" caused it to sink, according to a Russian Defence Ministry message.

But Ukraine said it was responsible for the attack, claiming it targeted the cruiser with recently-introduced Ukrainian made missiles.

Whatever the cause, it is bad news for Moscow. It is the flagship of Russia's Black Sea fleet, and, as such, a symbol of Russia's military power.

▼ Results

Entity	Type	Confidence
Ukraine	Address	0.99+
Moscow	Address	0.99+

Application integration

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The screenshot shows the AWS Amazon Comprehend service interface. On the left, a sidebar lists 'Real-time analysis' and 'Customization' options. The main area is titled 'Analyzed text' and contains several paragraphs of text about a Russian missile cruiser sinking. Below this, a 'Results' section is expanded, showing a table of entities identified. The table has columns for Entity, Type, and Confidence. Two rows are listed: 'Ukraine' (Address, 0.99+) and 'Moscow' (Address, 0.99+). The entire table is highlighted with a red box. At the bottom of the page, there are links for 'Feedback', '© 2022, Amazon Web Services, Inc. or its affiliates.', 'Privacy', 'Terms', and 'Cookie preferences'.

S Services Search for services, features, blogs, docs, and more [Alt+S] N. Virginia ▾

Amazon Comprehend X

Real-time analysis Analysis jobs

Customization Custom classification Custom entity recognition Endpoints

Entities Key phrases Language **Sentiment** Syntax

Analyzed text

Day 50 of the Russian invasion of Ukraine was marked by Moscow's flagship Black Sea missile cruiser sinking.

Throughout the day there were conflicting reports on how the 12,000-tonne vessel was damaged.

Russia said a fire on board caused ammunition to explode and that the crew had been evacuated. The warship was being towed to port when "stormy seas" caused it to sink, according to a Russian Defence Ministry message.

But Ukraine said it was responsible for the attack, claiming it targeted the cruiser with recently-introduced Ukrainian made missiles.

Whatever the cause, it is bad news for Moscow. It is the flagship of Russia's Black Sea fleet, and, as such, a symbol of Russia's military power.

▼ Results

Sentiment			
Neutral 0.37 confidence	Positive 0.00 confidence	Negative 0.62 confidence	Mixed 0.00 confidence

Application integration

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This screenshot shows the same AWS Amazon Comprehend interface as the previous one, but with the 'Sentiment' tab selected in the navigation bar. The 'Results' section is expanded, displaying a table with four sentiment categories: Neutral, Positive, Negative, and Mixed. Each category is associated with a confidence score. The table is highlighted with a red box. The rest of the interface, including the analyzed text and other tabs, appears identical to the first screenshot.

The screenshot shows the AWS Amazon Comprehend Syntax service interface. On the left, there's a sidebar with options like Real-time analysis, Analysis jobs, Customization, Custom classification, Custom entity recognition, and Endpoints. The main area has tabs for Entities, Key phrases, Language, PII, Sentiment, and Syntax. Under Analyzed text, there's a snippet of Russian invasion news. Below it, under Results, is a table:

Word	Part of speech	Confidence
Day	Noun	0.94
50	Numeral	0.99+
of	Adposition	0.99+
the	Determiner	0.99+
Russian	Adjective	0.99+
invasion	Noun	0.99+

A red box highlights the first five rows of the table.

## Make a bucket text file in S3.

- Go to AWS console
- Choose S3.

The screenshot shows the AWS S3 service interface. On the left, there's a sidebar with options like Buckets, Objects, Multi-region, Batch, Access logs, Block public access, Storage, AWS Lambda, Features, AWS Marketplace for S3, and AWS User Computing. The main area has a 'Recently visited' section with a card for S3:

**S3**  
Scalable Storage in the Cloud

Other cards include:

- Amazon Comprehend
- Amazon Forecast
- Amazon SageMaker
- EC2
- Amazon Rekognition
- Console Home

A red box highlights the S3 card.

- Click Create Bucket

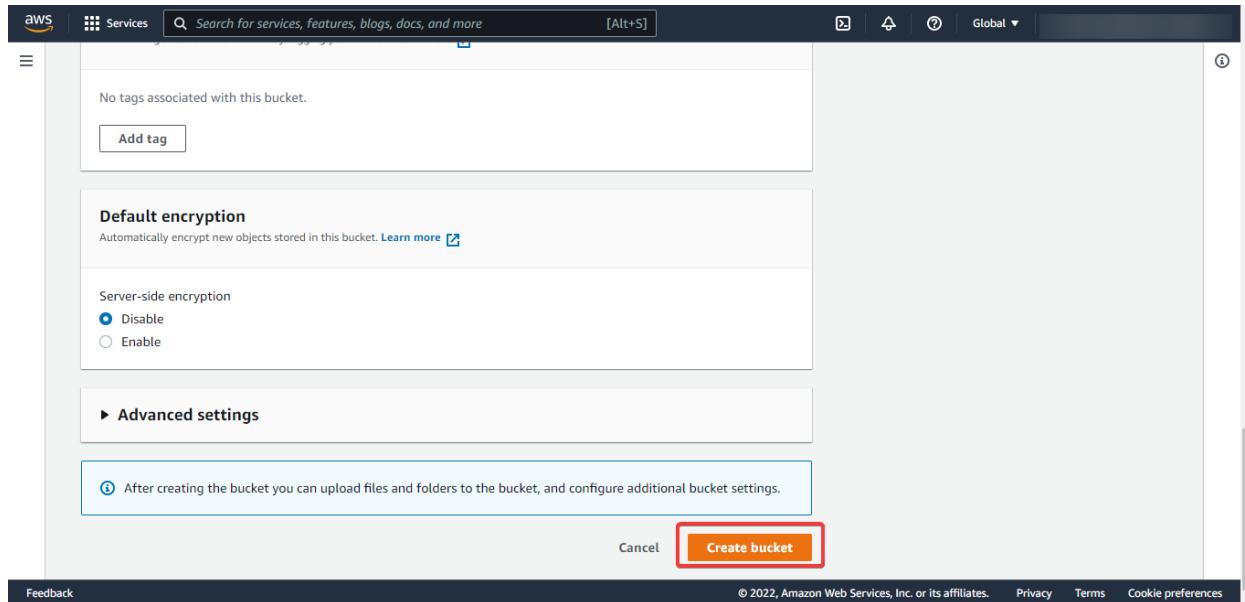
The screenshot shows the AWS S3 service page. On the left, there's a sidebar with links like 'Buckets', 'Access Points', 'Object Lambda Access Points', 'Multi-Region Access Points', 'Batch Operations', 'Access analyzer for S3', 'Block Public Access settings for this account', 'Storage Lens', 'Dashboards', 'AWS Organizations settings', 'Feature spotlight', and 'AWS Marketplace for S3'. The main area displays a table of buckets with columns for Name, AWS Region, Access, and Creation date. A message at the top right says: 'in the "default-account-dashboard" configuration.' A 'Create bucket' button is highlighted with a red box. At the bottom, there's a footer with links for 'Feedback', '© 2022, Amazon Web Services, Inc. or its affiliates.', 'Privacy', 'Terms', and 'Cookie preferences'.

## Create a Bucket Name.

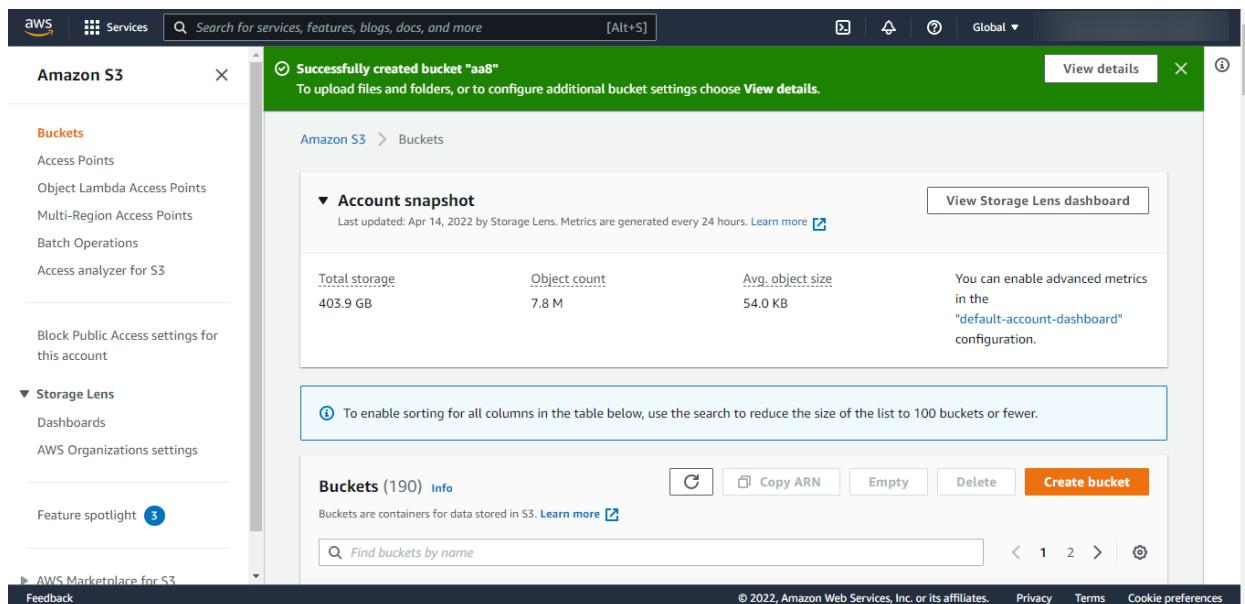
The screenshot shows the 'Create bucket' wizard. The first step, 'General configuration', is displayed. It includes fields for 'Bucket name' (containing 'aa8', which is highlighted with a red box), 'AWS Region' (set to 'US East (N. Virginia) us-east-1'), and a section for 'Copy settings from existing bucket - optional' with a 'Choose bucket' button. Below this is the 'Object Ownership' section, which has two options: 'ACLs disabled (recommended)' (selected, indicated by a blue border) and 'ACLs enabled'. At the bottom, there's a 'Feedback' link and a footer with '© 2022, Amazon Web Services, Inc. or its affiliates.', 'Privacy', 'Terms', and 'Cookie preferences'.

Keep default option

Click **Create bucket**.



Finally, bucket is created



Click your bucket.

The screenshot shows the AWS S3 console. A green banner at the top indicates that a bucket named "aa8" has been successfully created. Below the banner, the "Account snapshot" section provides an overview of storage usage: Total storage is 403.9 GB, Object count is 7.8 M, and Avg. object size is 54.0 KB. It also mentions that advanced metrics can be enabled. The main area displays a list of buckets, with "aa8" selected and highlighted with a red box. The bucket details show it was created on April 15, 2022, at 18:26:05 (UTC+05:45) in the US East (N. Virginia) region (us-east-1). The bucket is set to "Bucket and objects not public".

## Click Upload

The screenshot shows the AWS S3 console for the "aa8" bucket. The "Objects" tab is selected. At the top, there is a toolbar with buttons for Copy S3 URI, Copy URL, Download, Open, Delete, and Actions. The "Upload" button is highlighted with a red box. Below the toolbar is a search bar labeled "Find objects by prefix". The main area displays a table header for objects, including columns for Name, Type, Last modified, Size, and Storage class. A message states "No objects" and "You don't have any objects in this bucket." At the bottom, there is another "Upload" button.

Click Add files.

The screenshot shows the AWS S3 'Upload' interface. At the top, there's a navigation bar with the AWS logo, 'Services' dropdown, search bar ('Search for services, features, blogs, docs, and more'), and global settings ('[Alt+S]', 'Global'). Below the navigation is a breadcrumb trail: 'Amazon S3 > Buckets > aa8 > Upload'. The main area is titled 'Upload' with an 'Info' link. A note says: 'Add the files and folders you want to upload to S3. To upload a file larger than 160GB, use the AWS CLI, AWS SDK or Amazon S3 REST API. Learn more' with a link icon. Below this is a dashed blue box containing the text 'Drag and drop files and folders you want to upload here, or choose Add files, or Add folders.' To the right of the box are three buttons: 'Remove', 'Add files' (which is highlighted with a red box), and 'Add folder'. Below this is a table header for 'Files and folders (0)' with columns: Name, Folder, Type, and Size. A search bar 'Find by name' is above the table. The table body displays 'No files or folders' and the message 'You have not chosen any files or folders to upload.' At the bottom of the page are links for 'Feedback', '© 2022, Amazon Web Services, Inc. or its affiliates.', 'Privacy', 'Terms', and 'Cookie preferences'.

Once file uploaded, tick the file and click Upload.

The screenshot shows the AWS S3 'Upload' interface after a file has been selected. The 'Files and folders (1 Total, 1.3 KB)' section shows a single entry: 'AI.txt' with a checked checkbox, which is highlighted with a red box. Below this is a 'Destination' section with 'Destination' set to 's3://aa8'. Under 'Destination details', it says 'Bucket settings that impact new objects stored in the specified destination.' Further down are sections for 'Permissions' (with a note about public access) and 'Properties' (with a note about storage class). At the bottom right are 'Cancel' and 'Upload' buttons, with 'Upload' being highlighted with a red box. The footer includes 'Feedback', '© 2022, Amazon Web Services, Inc. or its affiliates.', 'Privacy', 'Terms', and 'Cookie preferences'.

- Finally, it is succeeded.

**Upload succeeded**

**Summary**

Destination	Succeeded	Failed
s3://aa8	1 file, 1.3 KB (100.00%)	0 files, 0 B (0%)

**Files and folders (1 Total, 1.3 KB)**

Name	Folder	Type	Size	Status	Error
AI.txt	-	text/plain	1.3 KB	<span style="color: green;">Succeeded</span>	-

- Go to Amazon Comprehend
- Click Analysis jobs.

**Amazon Comprehend**

Machine learning

**Amazon Comprehend**  
Natural Language Processing and Text Analytics

Amazon Comprehend is a natural language processing (NLP) service that uses machine learning to find insights and relationships in text.

**How it works**

**Pricing (US)**

With Amazon Comprehend, you pay only for what you use. You are charged based on the amount of text processed on a monthly basis, and there are no minimum fees and no upfront commitments.

- Create job.

The screenshot shows the Amazon Comprehend Analysis jobs interface. On the left, a sidebar includes 'Real-time analysis' and 'Analysis jobs' (which is selected). Below that is a 'Customization' section with 'Custom classification', 'Custom entity recognition', and 'Endpoints'. The main content area displays a table titled 'Analysis jobs (6)' with columns for 'Name', 'Analysis type', 'Start', and 'End'. Two rows are visible: 'testjob-9' (Entities, 9/15/2020, 12:40:57 PM) and 'job3-keyphrase-copy' (Key phrases, 9/10/2020, 12:43:54 PM). A red box highlights the 'Create job' button at the top right of the table. The URL in the address bar is https://us-east-1.console.aws.amazon.com/comprehend/home?region=us-east-1#create-analysis-job.

- Name file
- Choose Analysis type. Here We choose Sentiment
- Choose that language that s3 bucket text belongs
- Input data source as My documents.

The screenshot shows the 'Create analysis job' configuration page. It has several sections: 'Job settings' (Name: 'a6', Analysis type: 'Sentiment', Language: 'English'), 'Input data' (with a 'Feedback' link), and a footer with copyright information and links for 'Privacy', 'Terms', and 'Cookie preferences'.

- Choose S3 location where input txt lies.
- Choose input format.

- Select the s3 location where you want to keep output data.

**Input data** [Info](#)

Data source  
 My documents  
 Example documents  
Example documents are available only in English

S3 location  
Paste the URL of an input data file in S3, or select a bucket or folder location in S3.  
 [Browse S3](#)

Input format - optional [Info](#)

**Output data** [Info](#)

S3 location  
Paste the URL of a bucket or folder location in S3, or select a bucket or folder location in S3.  
 [Browse S3](#)

Encryption [Info](#)

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Choose existing IAM role or create an IAM role.

- We Use an existing IAM role
- Select default Role name

**Access permissions** [Info](#)

IAM role  
 Use an existing IAM role  
 Create an IAM role

Role name  
A role that grants access to the S3 input and output locations.

► **VPC settings - optional**  
Use a VPC to restrict the data that can be uploaded to, or downloaded from, an S3 bucket that you use with Amazon Comprehend.

► **Tags - optional** [Info](#)  
A tag is a label that you can add to a resource as metadata to help you organize, search, or filter your data. Each tag consists of a key and an optional value.

[Cancel](#) [Create job](#)

[Feedback](#) © 2022, Amazon Web Services, Inc. or its affiliates. [Privacy](#) [Terms](#) [Cookie preferences](#)

- Select and click analysis job you recently created

The screenshot shows the Amazon Comprehend Analysis jobs page. On the left, there's a navigation sidebar with options like Real-time analysis, Analysis jobs (which is selected and highlighted in orange), Customization, and Endpoints. The main content area has a header "Analysis jobs" with a "Info" link. Below the header, it says "Analyze documents stored in Amazon S3 to find entities, events, phrases, primary language, sentiment, targeted sentiment or personally identifiable information (PII)." A table titled "Analysis jobs (11)" lists several jobs. The first job, "a6", is highlighted with a red box around its name column. The table columns include Name, Analysis type, Start, and End. Other visible rows show "a4" and "a5". At the bottom right of the table, there are links for "Feedback", "© 2022, Amazon Web Services, Inc. or its affiliates.", "Privacy", "Terms", and "Cookie preferences".

You will see status in progress mode. It takes sometime please wait a moment.

The screenshot shows the "Job details" page for analysis job "a6". The left sidebar is identical to the previous screenshot. The main content area shows "Job details" for job "a6". The "Status" field is highlighted with a red box and displays "In progress". Other details shown include Name (a6), ID (6640e1541e6410142e353e63d27bdbdf), Language (English), Job encryption (-), ARN (arn:aws:comprehend:us-east-1:031342435657:sentiment-detection-job/6640e1541e6410142e353e63d27bdbdf), Input data location (s3://aa8/AI.txt), Analysis type (Sentiment), Start (4/19/2022, 11:13:34 AM), and End (-). At the bottom, there's an "Output" section and a footer with "Feedback", "© 2022, Amazon Web Services, Inc. or its affiliates.", "Privacy", "Terms", and "Cookie preferences".

- Finally job has been completed.

The screenshot shows the AWS Amazon Comprehend Analysis jobs page. On the left, there's a sidebar with options like Real-time analysis, Analysis jobs (which is selected and highlighted in orange), and Customization. The main area shows a job named 'a6'. A red box highlights the 'Status' field, which displays 'Completed' with a green checkmark. Other details shown include ARN, Input data location (s3://aa8/AI.txt), Analysis type (Sentiment), ID (6640e1541e6410142e353e63d27bdbdf), Language (English), Start time (4/19/2022, 11:13:34 AM), End time (4/19/2022, 11:21:43 AM), and Job encryption (-). Below the job details, there's an 'Output' section.

Below the same page You will see Output link

This screenshot is from the same page as the previous one, showing the 'Output' section. A red box highlights the 'Output data location' field, which contains the value 's3://aa8/031342435657-SENTIMENT-6640e1541e6410142e353e63d27bdbdf/output/output.tar.gz'. The rest of the page content is identical to the first screenshot, including the job details and the 'Output' section below.

- Click Download.

The screenshot shows the AWS S3 console interface. On the left, there's a sidebar with various navigation options like Buckets, Access Points, Object Lambda Access Points, Multi-Region Access Points, Batch Operations, and Access analyzer for S3. Below that is a section for Block Public Access settings. Under Storage Lens, there are Dashboards and AWS Organizations settings. A Feature spotlight section is also present. At the bottom of the sidebar, there are links for AWS Marketplace for S3 and Feedback.

The main area shows a breadcrumb path: Amazon S3 > Buckets > aa8 > 031342435657-SENTIMENT-6640e1541e6410142e353e63d27bdbdf/ > output/ > output.tar.gz. The file name 'output.tar.gz' is highlighted in blue. Below the file name are three tabs: Properties (selected), Permissions, and Versions. The 'Properties' tab displays the following details:

Object overview	
Owner	s3://aa8/031342435657-SENTIMENT-6640e1541e6410142e353e63d27bdbdf/output/output.tar.gz
AWS Region	US East (N. Virginia) us-east-1
Last modified	April 19, 2022, 11:20:14 (UTC+05:45)
Size	420.0 B
Type	gz
S3 URI	<a href="https://aa8-e7.amazonaws.com/031342435657-SENTIMENT-6640e1541e6410142e353e63d27bdbdf/output/output.tar.gz">https://aa8-e7.amazonaws.com/031342435657-SENTIMENT-6640e1541e6410142e353e63d27bdbdf/output/output.tar.gz</a>
Amazon Resource Name (ARN)	arn:aws:s3:::aa8/031342435657-SENTIMENT-6640e1541e6410142e353e63d27bdbdf/output/output.tar.gz
Entity tag (Etag)	369887bf3cb62a5aafc1ec4bdb7e0c4c
Object URL	<a href="https://aa8-e7.amazonaws.com/031342435657-SENTIMENT-6640e1541e6410142e353e63d27bdbdf/output/output.tar.gz">https://aa8-e7.amazonaws.com/031342435657-SENTIMENT-6640e1541e6410142e353e63d27bdbdf/output/output.tar.gz</a>

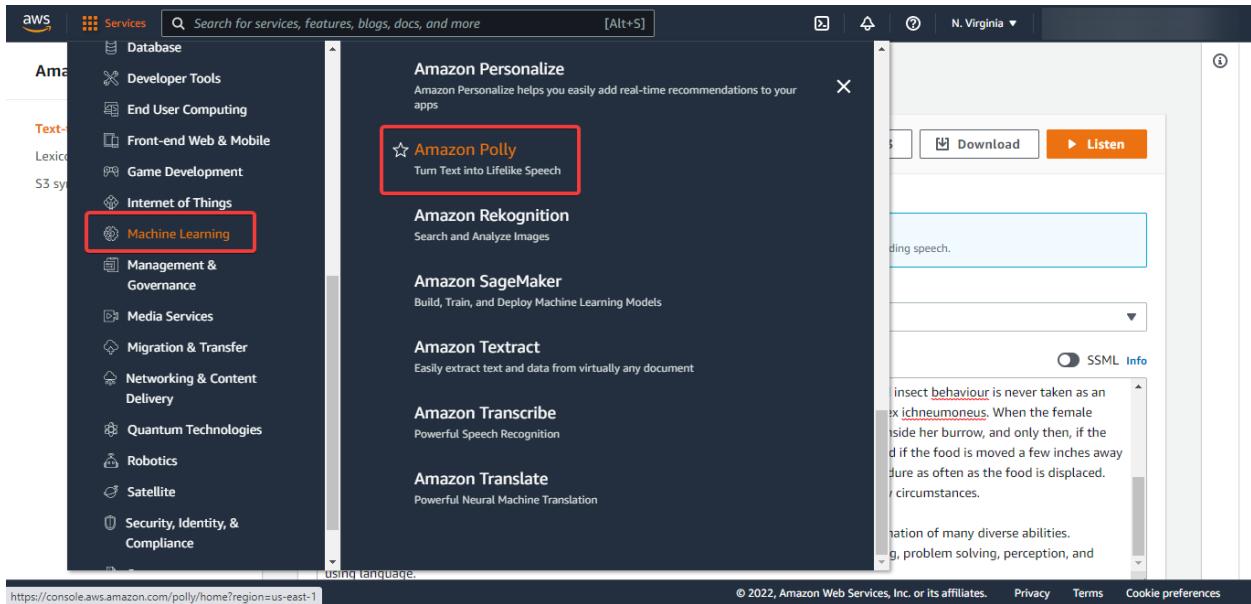
At the bottom right of the main area, there are links for © 2022, Amazon Web Services, Inc. or its affiliates., Privacy, Terms, and Cookie preferences.

- Once you opened the file you will get your result as below.

```
output - Notepad
File Edit Format View Help
[{"file": "AI.txt", "Line": 0, "Sentiment": "NEUTRAL", "SentimentScore": {"Mixed": 0.00016943701484706253, "Negative": 0.00010247534373775125, "Neutral": 0.9438149333000183, "Positive": 0.055913157761096954}}, {"file": "AI.txt", "Line": 2, "Sentiment": "NEUTRAL", "SentimentScore": {"Mixed": 0.0002384364779572934, "Negative": 0.0002330799907213077, "Neutral": 0.5145463943481445, "Positive": 0.48498204350471497}}, {"file": "AI.txt", "Line": 4, "Sentiment": "NEUTRAL", "SentimentScore": {"Mixed": 0.3405534029006958, "Negative": 0.09025301784276962, "Neutral": 0.5459620356559753, "Positive": 0.023231538012623787}}, {"file": "AI.txt", "Line": 1, "Sentiment": "NEUTRAL", "SentimentScore": {"Mixed": 0.0149968471378088, "Negative": 0.008875556290149689, "Neutral": 0.9628998501777649, "Positive": 0.014027769677340984}}, {"file": "AI.txt", "Line": 3, "Sentiment": "NEUTRAL", "SentimentScore": {"Mixed": 0.0149968471378088, "Negative": 0.008875556290149689, "Neutral": 0.9628998501777649, "Positive": 0.014027769677340984}}
```

# Amazon Polly

- Go to AWS console
- Go to Machine Learning
- Choose and Click Amazon Polly.



Amazon Polly Page will appear. Follow the following step.

1. Select desire Engine you want **neural** or **standard**
2. Choose **language** you prefer
3. Choose **Male** or **Female** voice
4. Input language in **text**.
5. **Listen** the text into speech format.
6. Click **download**.

Amazon Polly

**Text-to-Speech**

Lexicons  
S3 synthesis tasks

**Text-to-Speech**

**Engine** [Info](#) **1**

Neural  
Produces the most natural and human-like speech possible.

Standard  
Produces natural-sounding speech.

**Language** [Info](#) **2**

English, US

**Voice** [Info](#) **3**

Joanna, Female

**Input text** [Info](#) **4**

artificial intelligence (AI), the ability of a digital computer or computer-controlled robot to perform tasks commonly associated with intelligent beings. The term is frequently applied to the project of developing systems endowed with the intellectual processes characteristic of humans, such as the ability to reason, discover meaning, generalize, or learn from past experience. Since the development of the digital computer in the 1940s, it has been demonstrated that computers can be programmed to carry out very complex tasks—as, for example, discovering proofs for mathematical theorems or playing chess—with great proficiency. Still, despite continuing advances in computer processing speed and memory capacity, there are as yet no programs that can match human flexibility over wider domains or in tasks requiring much everyday knowledge. On the other hand, some programs have attained the performance levels of human experts and professionals in performing certain specific tasks, so that artificial intelligence in this limited sense is found in applications as diverse as medical diagnosis, computer search engines, and voice or handwriting recognition.

2269 characters used

[Restore default text](#) [Clear text](#)

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## Amazon Textract

Customer Enablement  
Database  
Developer Tools  
End User Computing  
Front-end Web & Mobile  
Game Development  
Internet of Things  
**Machine Learning**

Amazon Personalize  
Amazon Polly  
Amazon Rekognition  
Amazon SageMaker  
**Amazon Textract**  
Amazon Transcribe  
Amazon Translate

Easily extract text and data from virtually any document

Get started? Jump in and try our demo of the new [Amazon Textract](#).

Amazon Textract, you pay only for what you use. There are no minimum fees and no long-term commitments.

<https://console.aws.amazon.com/textract/home?region=us-east-1>

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- Go to **AWS console**
- Go to **Machine Learning** service
- Click **Amazon Textract**
- Try **Amazon Textract**

The screenshot shows the Amazon Textract service page in the AWS Management Console. The left sidebar contains links for Demos (Analyze document, Analyze ID), Additional resources (Getting started guide, Download the SDK, Developer resources, Pricing, FAQ, Forums), and a search bar. The main content area features a large heading "Amazon Textract" with the subtext "Automatically extract handwriting, text or data from any document using machine learning". Below this is a brief description of the service and a "Try Amazon Textract" button. A "Pricing" section is also visible.

- Choose **Uploaded Doc** format
- Choose File from pc
- Amazon Textract will extract text from Raw Text, forms, tables and Human Review
- Once completed, **Download results**.

This screenshot shows the "Sample document" feature of the Amazon Textract service. It includes a "Select Document" section with an "Uploaded Doc" dropdown menu (marked 1) and a "Choose File" button (marked 2). A preview of an "INVOICE" document is shown. To the right, there are tabs for "Analyze Document" (marked 3), "Analyze Expense" (marked 4), "Forms" (marked 5), "Tables" (marked 6), and "Human review" (marked 7). A "Download results" button is also present. The interface includes a search bar and various document metadata fields.