

Infosys Responsible AI Toolkit Upload Doc API usage Instructions

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About Upload Doc

The proliferation of large media files, particularly videos, offers numerous opportunities for communication and content sharing, but it also introduces significant challenges regarding privacy and safety. It is reshaping our digital landscape and driving the need for advanced content moderation tools. It is necessary for a system handling such media to automatically process and secure user data. Essentially, it means that the system should be able to anonymize personal information and mask inappropriate content in a way that protects individuals. Hence, this capability is crucial for building user trust, ensuring regulatory compliance, and maintaining a safe digital ecosystem.

Once this API swagger page is populated, click on 'try it out' to use the required endpoints. Details of endpoints associated with the Document Upload and Processing service are outlined below.

Dependencies

The Upload Doc APIs depend on the Responsible AI File Storage, Responsible AI Privacy, and Responsible AI Safety repositories. Please follow the setup instructions in the README files of all dependent repositories to configure them. Ensure that all dependent services are up and running before interacting with the Upload Doc APIs.

Privacy Repository (responsible-ai-privacy)

The Privacy tenet of Infosys Responsible AI toolkit facilitates redacting the PII and any sensitive data in an organization by detecting the privacy entities and giving options to analyze, anonymize and encrypt using models like Tesseract, Easy OCR and Computer Vision. We analyze privacy in images, videos, and text by reading through the above document types, processing & applying the redacting techniques.

3.1: /rai/v1/video/anonymize

Using this API, detect and anonymize PII entities in video frames by drawing the bounding boxes. Provided below are the details of payloads.

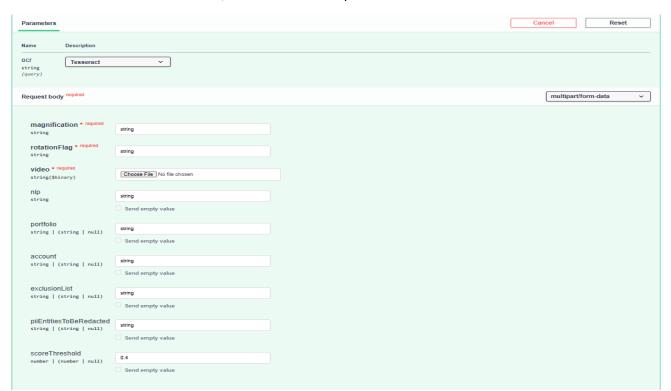
• **OCR:** OCR engine for text extraction. Options: 'Tesseract', 'EasyOcr', 'ComputerVision'. Default: 'Tesseract'. Query parameter with Enum validation.

Payload:

- Magnification: String value to enable/disable image magnification for better
 OCR accuracy. Options: 'True', 'False'. Mandatory Form field.
- o **rotationFlag:** String value to enable/disable image rotation for better text detection. Options: 'True', 'False'. Mandatory Form field.
- o **Video:** Video file to be anonymized. Mandatory UploadFile parameter.
- NLP: NLP model to use for PII detection. Options: "basic", "good", "roberta",
 "ranha". Optional Form field with default None.

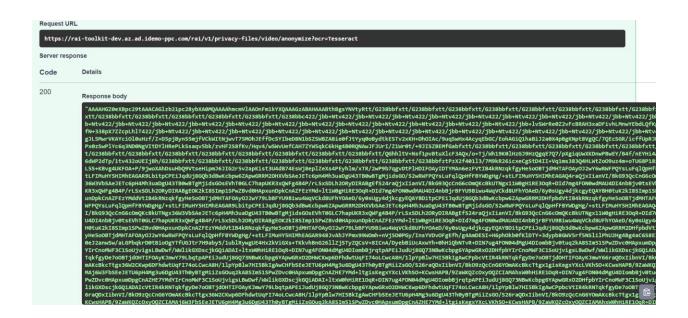
- **Portfolio:** Portfolio name for account validation and tracking. Optional Form field with default None.
- **Account :** Account name for validation and billing purposes. Optional Form field with default None.
- **exclusionList**: Comma-separated list of PII entity types to exclude from anonymization (e.g., "PERSON,EMAIL"). Optional Form field with default None.
- **piiEntitiesToBeRedacted :** Comma-separated list of specific PII entity types to redact (e.g., "PHONE_NUMBER,SSN"). Optional Form field with default None.
- **scoreThreshold**: Confidence threshold for PII detection (float between 0.0-1.0). Higher values mean stricter detection. Optional Form field with default 0.4.
- **Account :** Account name for validation and billing purposes. Optional Form field with default None.

Once all fields are filled in, click "execute" to proceed.



Response:

The screenshot below demonstrates the system's PII redaction process. It leverages the Presidio library to detect sensitive data (such as names, emails, and phone numbers), after which the Anonymization Engine automatically applies a blur/mask to the identified regions. This ensures the final output is fully compliant with privacy policies.



Safety Repository (responsible-ai-safety)

Al models can sometimes generate harmful content, such as profanity, toxic language, explicit images, or sexually suggestive text. To ensure safe and responsible AI, it's crucial to implement measures that filter and prevent the generation of such content. This involves using advanced techniques to detect and mitigate harmful outputs, protecting users from exposure to inappropriate material, and maintaining a positive and inclusive online environment.

4.1: /api/v1/safety/profanity/videosafety:

Processes uploaded video files to detect NSFW content and returns comprehensive safety analysis results.

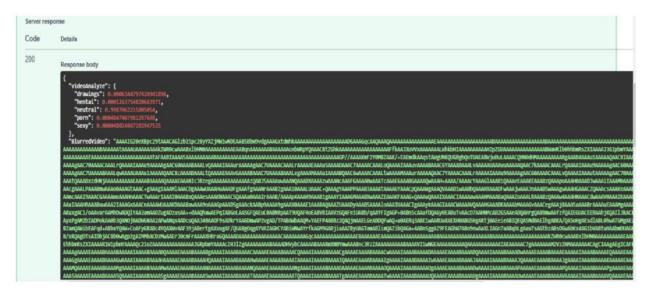
Payload:

• video: Video file upload (required) - The video file to be analyzed for NSFW content.

Returns analysis results indicating NSFW content detection in the uploaded video.

Response:

Analyzes a video for content types (e.g., hentai, porn, sexy, neutral, drawings) and returns a classification score along with the base64-encoded video data.



4.2: /api/v1/safety/profanity/nudvideosafety:

Processes uploaded video files to detect nudity content and returns safety analysis results.



Payload:

• video: Video file upload (required) - The video file to be analyzed for NSFW content.

Returns analysis results indicating nudity detection in the uploaded video.

Response:

Returns the video with the part to be blurred in base-64 encoded format.



File Storage Repository (responsible-ai-file-storage)

The File Storage repository provides a unified interface for managing file operations across multiple cloud storage platforms. It abstracts the complexity of different storage providers and offers consistent APIs for uploading, retrieving, and managing files. This repository supports Azure Blob Storage, Google Cloud Platform (GCP) Storage, Amazon Web Services (AWS) S3 as storage backends.

5.1: api/v1/azureBlob/addFile:

Uploads a processed file to a specified Azure Blob Storage container and returns the blob reference details.

5.2: api/v1/azureBlob/getBlob:

Downloads a file from Azure Blob Storage using the blob name and container name parameters.

5.3: api/v1/gcs/addFile:

Uploads a processed file to a specified GCP Storage bucket and returns the object reference details.

5.4: api/v1/gcs/getObject:

Downloads a file from GCP Storage using the object name and bucket name.

5.5: api/v1/s3/uploadFile:

Uploads a processed file to a specified AWS S3 bucket and returns the object key reference details.

5.6: api/v1/s3/getObject:

Downloads a file from AWS S3 Storage using the object key and bucket name parameters.

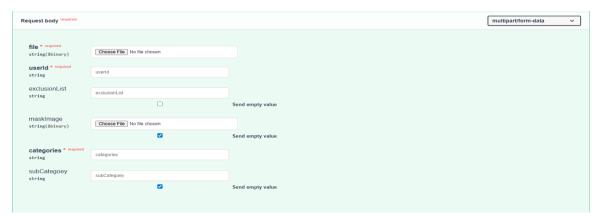
Features & API End Points:

Upload Doc APIs

We have four APIs available in the Upload Doc repository, each serving a different purpose as detailed below:

6.1: /docProcess/uploadFile - Uploads a file (currently supports video, Excel, and PowerPoint) for processing and storage. It can perform various operations like PII anonymization, face anonymization, and content masking based on the provided subcategories.

Payload



- **File**: The file to be uploaded (e.g., .mp4). This is a mandatory field.
- userId: A unique identifier for the user uploading the file. This is a mandatory field.
- exclusionList: A list of items to exclude during processing (e.g., for PIIAnonymize).
- **maskImage**: An image file required only when CustomMask is specified in subCategory for videos.
- Categories: The category for the document (e.g., "videos", "documents"). This is a mandatory field.
- subcategory: A comma-separated string specifying the processing steps to be applied.

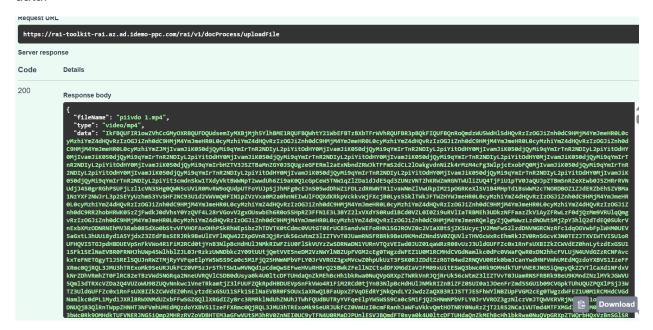
For videos :-

(video/mp4): PIIAnonymize, FaceAnonymize, SafetyMasking, NudityMasking, Custo mMask.

Returns A JSON object containing the fileName, type, and the base64-encoded content of the processed file.

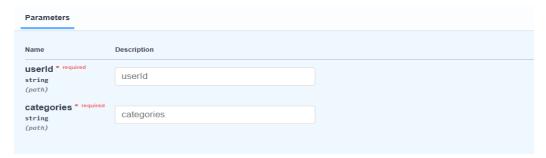
Response:

Analyzes a video based on the sub category given and returns e base64-encoded video data.



6.2: /docProcess/getFiles/{userId}/{categories} - Retrieves a list of file metadata for a specific user and category.

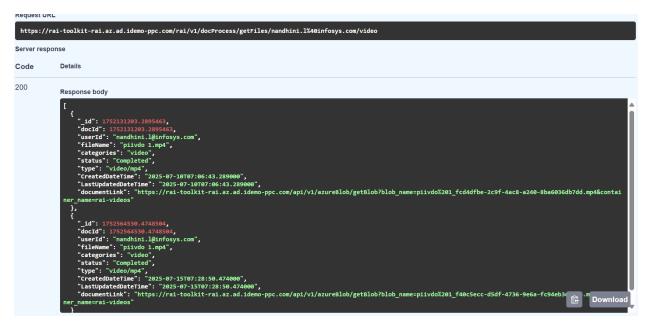
Payload



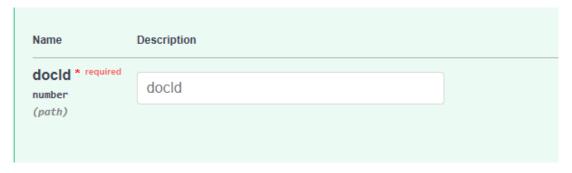
- userID: The ID of the user whose files you want to retrieve.
- categories: The category of files to retrieve (e.g., "video").

Response:

A JSON list of documents, where each document contains metadata about a file, such as fileName, documentLink, and status.



6.3: /docProcess/getFileContent/{docId} - Retrieves the content of a previously processed file.



• **docld**: The unique ID of the document whose content is to be retrieved. This ID is obtained from the getFiles endpoint.

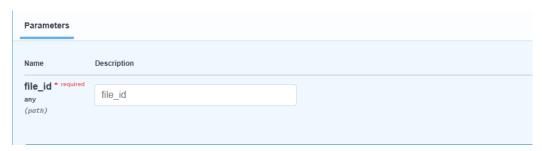
Reponse:

A JSON list containing the file data, where the file content is base64-encoded.



6.4: /docProcess/download/{file_id} - Downloads the raw file directly from the storage system (if storage_option=mongodb).

Payload



• **file_id**: The unique identifier of the file in the storage system (MongoDB Object Id). This ID is part of the metadata returned by the <u>getFiles</u> endpoint.retrieve.

Respone:

Returns the file as a streaming response, which will trigger a download in the browser or can be consumed by a client.



• Endpoints Usage Flow

Endpoint	Description
/docProcess/uploadFile	Uploads and processes files (videos, Excel, PowerPoint)
	with configurable anonymization, masking, and safety
	features before storing them.
/docProcess/getFiles/{userId}/{categories}	Retrieves a list of all processed files and their metadata
	for a specific user and category.
/docProcess/getFileContent/{docId}	Fetches the actual content of a previously processed file
	using its document ID.
/docProcess/download/{file_id}	Downloads the raw processed file directly from the
	storage system as a streaming response.