

Infosys

Responsible AI Office

Infosys Responsible AI Toolkit – Moderation Layer

API Usage Instructions

Contents

Introduction.....	2
Moderation	2
Coupled Moderation	6
Templates.....	10
Eval LLM	11
Multimodal	12
Translate.....	13
OpenAI	14
Chain Of Thought	15
Chain Of Thought – Application in Healthcare	16
Thread Of Thought.....	17
Telemetry.....	18
Toxicity Popup	19
Profanity Popup.....	20
Privacy Popup	21
Chain of Verification.....	23
Org Policy	23
Faithfulness.....	24
Hallucination	25

Introduction

The Moderation Layer offers a suite of APIs to ensure the safety and reliability of LLMs. These APIs can be used to moderate both input prompts and generated responses, checking for privacy violations, security risks, hallucination and biases. Additionally, the layer provides explainability features, such as Thread of Thought, Chain of Thought, and Chain of Verification, to enhance transparency and understanding of LLM reasoning.

Once API swagger page is populated as per instructions given in the github repository Readme file, click on 'try it out' to use required endpoints. Details of endpoints associated with moderation layer are outlined below.

Moderation

Endpoint : /rai/v1/moderations

This API provides the decoupled guardrail (checks for the prompt like – privacy check, prompt injection check, jailbreak check, toxicity check, restricted topic, custom theme check).

Input :

In input Json we need to replace prompt value with the text we want to be moderated. If we want emoji to be moderated as well then give emoji moderation as yes otherwise no. In moderation checks we can list the checks we want our text to undergo, in 'moderation checks threshold' we need to pass the threshold for the checks we included.

POST

/rai/v1/moderations

Moderations

Parameters

Name	Description
authorization	authorization
string	
(header)	

Request body required

```

{
  "AccountName": "None",
  "userid": "None",
  "PortfolioName": "None",
  "lotNumber": 1,
  "EmojiModeration": "yes",
  "Prompt": "Which is the biggest country in the world?",
  "ModerationChecks": [
    "PromptInjection",
    "JailBreak",
    "Toxicity",
    "Piidetct",
    "Refusal",
    "Profanity",
    "RestrictTopic",
    "TextQuality",
    "CustomizedTheme"
  ],
  "ModerationCheckThresholds": {
    "PromptInjectionThreshold": 0.7,
    "JailbreakThreshold": 0.7,
    "PiientitiesConfiguredToDetect": [
      "PERSON",
      "LOCATION",
      "DATE",
      "AU_ABN",
      "AU_ACN",
      "AADHAR_NUMBER",
      "AU_MEDICARE",
      "AU_TFN",
      "CREDIT_CARD",
      "CRYPTO",
      "DATE_TIME",
      "EMAIL_ADDRESS",
      "ES_NIF",
      "IBAN_CODE",
      "IP_ADDRESS",
      "IT_DRIVER_LICENSE",
      "IT_FISCAL_CODE",
      "IT_IDENTITY_CARD",
      "IT_PASSPORT",
      "IT_VAT_CODE",
      "MEDICAL_LICENSE",
      "PAN_Number",
      "PHONE_NUMBER",
      "SG_NRIC_FIN",
      "UK_NHS",
      "URL",
      "PASSPORT",
      "US_ITIN",
      "US_PASSPORT",
      "US_SSN"
    ]
  }
},

```

```
{
  "PiiEntitiesConfiguredToBlock": [
    "AADHAR_NUMBER",
    "PAN_Number"
  ],
  "RefusalThreshold": 0.7,
  "ToxicityThresholds": {
    "ToxicityThreshold": 0.6,
    "SevereToxicityThreshold": 0.6,
    "ObsceneThreshold": 0.6,
    "ThreatThreshold": 0.6,
    "InsultThreshold": 0.6,
    "IdentityAttackThreshold": 0.6,
    "SexualExplicitThreshold": 0.6
  },
  "ProfanityCountThreshold": 1,
  "RestrictedtopicDetails": {
    "RestrictedtopicThreshold": 0.7,
    "Restrictedtopics": [
      "Terrorism",
      "Explosives"
    ]
  },
  "CustomTheme": {
    "Themename": "string",
    "Themethresold": 0.6,
    "ThemeTexts": [
      "Text1",
      "Text2",
      "Text3"
    ]
  }
}
```

Execute

Response :

Response body

```
{
  "created": "2024-08-02 08:57:41.194728",
  "lotNumber": "1",
  "moderationResults": {
    "customThemeCheck": {
      "customSimilarityScore": "0.29",
      "result": "PASSED",
      "themeThreshold": "0.6"
    },
    "jailbreakCheck": {
      "jailbreakSimilarityScore": "0.49",
      "jailbreakThreshold": "0.7",
      "result": "PASSED"
    },
    "privacyCheck": {
      "entitiesConfiguredToBlock": [
        "AADHAR_NUMBER",
        "PAN_Number"
      ],
      "entitiesRecognised": [],
      "result": "PASSED"
    },
    "profanityCheck": {
      "profaneWordsIdentified": [],
      "profaneWordsThreshold": "1",
      "result": "PASSED"
    },
    "promptInjectionCheck": {
      "injectionConfidenceScore": "0.0",
      "injectionThreshold": "0.7",
      "result": "PASSED"
    },
    "refusalCheck": {
      "RefusalThreshold": "0.7",
      "refusalSimilarityScore": "0.41",
      "result": "PASSED"
    },
    "restrictedtopic": {
      "result": "PASSED",
      "topicScores": [
        {
          "Explosives": "0.0",
          "Terrorism": "0.0"
        }
      ],
      "topicThreshold": "0.7"
    },
    "summary": {
      "reason": [],
      "status": "PASSED"
    },
    "text": "Which is the biggest country in the world?",
    "textQuality": {
      "readabilityScore": "88.74",
      "textGrade": "2nd and 3rd grade"
    }
  },
}
```

```

    "toxicityCheck": {
      "result": "PASSED",
      "toxicityScore": [
        {
          "toxicScore": [
            {
              "metricName": "toxicity",
              "metricScore": 0.001
            },
            {
              "metricName": "severe_toxicity",
              "metricScore": 0
            },
            {
              "metricName": "obscene",
              "metricScore": 0
            },
            {
              "metricName": "threat",
              "metricScore": 0
            },
            {
              "metricName": "insult",
              "metricScore": 0
            },
            {
              "metricName": "identity_attack",
              "metricScore": 0
            }
          ]
        },
        {
          "metricName": "sexual_explicit",
          "metricScore": 0
        }
      ]
    },
    "toxicitythreshold": "0.6"
  },
  "uniqueid": "9fb907d2b5064757b330b8359b098635"
}

```

Coupled Moderation

Endpoint – /rai/v1/moderations/coupledmoderations

This API provides the coupled guardrail (provides checks for input prompt, LLM interaction for generating response and checks for response)

Input :

In input json we need to replace prompt value with the text we want to be moderated. If we want emoji to be moderated as well then give emoji moderation as yes otherwise no. In 'input moderation checks' we can list the checks we want our input text to undergo, in 'output moderation checks' we can list the checks we want our response to undergo and in 'moderation checks threshold' we need to pass the threshold for the checks we included.

POST

/rai/v1/moderations/coupledmoderations

Coupled Moderations

Parameters

Name	Description
authorization	authorization
string	
(header)	

Request body required

```

{
  "AccountName": "None",
  "PortfolioName": "None",
  "userid": "None",
  "lotNumber": 1,
  "model_name": "gpt4",
  "translate": "no",
  "temperature": "0",
  "LLMinteraction": "yes",
  "PromptTemplate": "GoalPriority",
  "EmojiModeration": "yes",
  "Prompt": "Which is the biggest country in the world?",
  "InputModerationChecks": [
    "PromptInjection",
    "JailBreak",
    "Toxicity",
    "Piidetct",
    "Refusal",
    "Profanity",
    "RestrictTopic",
    "TextQuality",
    "CustomizedTheme"
  ],
  "OutputModerationChecks": [
    "Toxicity",
    "Piidetct",
    "Refusal",
    "Profanity",
    "RestrictTopic",
    "TextQuality",
    "TextRelevance"
  ],
  "llm_BasedChecks": [
    "randomNoiseCheck",
    "advancedJailbreakCheck"
  ],
}
```

```

"ModerationCheckThresholds": {
  "PromptInjectionThreshold": 0.7,
  "JailbreakThreshold": 0.7,
  "PiiEntitiesConfiguredToDetect": [
    "PERSON",
    "LOCATION",
    "DATE",
    "AU_ABN",
    "AU_ACN",
    "AADHAR_NUMBER",
    "AU_MEDICARE",
    "AU_TFN",
    "CREDIT_CARD",
    "CRYPTO",
    "DATE_TIME",
    "EMAIL_ADDRESS",
    "ES_NIF",
    "IBAN_CODE",
    "IP_ADDRESS",
    "IT_DRIVER_LICENSE",
    "IT_FISCAL_CODE",
    "IT_IDENTITY_CARD",
    "IT_PASSPORT",
    "IT_VAT_CODE",
    "MEDICAL_LICENSE",
    "PAN_Number",
    "PHONE_NUMBER",
    "SG_NRIC_FIN",
    "UK_NHS",
    "URL",
    "PASSPORT",
    "US_ITIN",
    "US_PASSPORT",
    "US_SSN"
  ],
  "PiiEntitiesConfiguredToBlock": [
    "AADHAR_NUMBER",
    "PAN_Number"
  ]
},
"RefusalThreshold": 0.7,
"ToxicityThresholds": {
  "ToxicityThreshold": 0.6,
  "SevereToxicityThreshold": 0.6,
  "ObsceneThreshold": 0.6,
  "ThreatThreshold": 0.6,
  "InsultThreshold": 0.6,
  "IdentityAttackThreshold": 0.6,
  "SexualExplicitThreshold": 0.6
},
"ProfanityCountThreshold": 1,
"RestrictedtopicDetails": {
  "RestrictedtopicThreshold": 0.7,
  "Restrictedtopics": [
    "Terrorism",
    "Explosives"
  ]
},
"CustomTheme": {
  "Themenname": "string",
  "Themethreshold": 0.6,
  "ThemeTexts": [
    "Text1",
    "Text2",
    "Text3"
  ]
},
"SmoothLlmThreshold": {
  "input_perturbation": 0.1,
  "number_of_iteration": 4,
  "SmoothLlmThreshold": 0.6
}
}

```

Execute

Clear

Response :

Code

Details

200

Response body

```
{
  "choices": [
    {
      "finishReason": "stop",
      "index": 0,
      "text": "The largest country in the world by area is Russia. It covers over 17 million square kilometers, which is about an eighth of the Earth's inhabited land area."
    }
  ],
  "created": "2024-08-02 09:38:10.996489",
  "id": "1",
  "model": "gpt4",
  "moderationResults": {
    "requestModeration": {
      "advancedJailbreakCheck": {
        "result": "PASSED",
        "text": "NON ADVERSARIAL"
      },
      "customThemeCheck": {
        "customSimilarityScore": "0.29",
        "result": "PASSED",
        "themeThreshold": "0.6"
      },
      "jailbreakCheck": {
        "jailbreakSimilarityScore": "0.49",
        "jailbreakThreshold": "0.7",
        "result": "PASSED"
      }
    }
  },
  "privacyCheck": {
    "entitiesConfiguredToBlock": [
      "AADHAR_NUMBER",
      "PAN_Number"
    ],
    "entitiesRecognised": [],
    "result": "PASSED"
  },
  "profanityCheck": {
    "profaneWordsIdentified": [],
    "profaneWordsThreshold": "1",
    "result": "PASSED"
  },
  "promptInjectionCheck": {
    "injectionConfidenceScore": "0.0",
    "injectionThreshold": "0.7",
    "result": "PASSED"
  },
  "randomNoiseCheck": {
    "result": "PASSED",
    "smoothLlmScore": "0.0",
    "smoothLlmThreshold": "0.6"
  },
  "refusalCheck": {
    "RefusalThreshold": "0.7",
    "refusalSimilarityScore": "0.41",
    "result": "PASSED"
  },
  "restrictedTopic": {
    "result": "PASSED",
    "topicScores": [
      {
        "Explosives": "0.0",
        "Terrorism": "0.0"
      }
    ],
    "topicThreshold": "0.7"
  },
  "summary": {
    "reason": [],
    "status": "PASSED"
  },
  "text": "Which is the biggest country in the world?",
  "textQuality": {
    "readabilityScore": "88.74",
    "textGrade": "2nd and 3rd grade"
  },
  "toxicityCheck": {
    "result": "PASSED",
    "toxicityScore": [
      {
        "toxicScore": [
          {
            "metricName": "toxicity",
            "metricScore": 0.001
          },
          {
            "metricName": "severe_toxicity",
            "metricScore": 0
          },
          {
            "metricName": "obscene",
            "metricScore": 0
          },
          {
            "metricName": "threat",
            "metricScore": 0
          },
          {
            "metricName": "insult",
            "metricScore": 0
          },
          {
            "metricName": "identity_attack",
            "metricScore": 0
          },
          {
            "metricName": "sexual_explicit",
            "metricScore": 0
          }
        ]
      }
    ]
  },
  "toxicitythreshold": "0.6"
}
```

```

    },
    "responseModeration": {
      "generatedText": "The largest country in the world by area is Russia. It covers over 17 million square kilometers, which is about an eighth of the Earth's inhabited land area.",
      "privacyCheck": {
        "entitiesConfiguredToBlock": [
          "AADHAR_NUMBER",
          "PAN_Number"
        ],
        "entitiesRecognised": [
          "LOCATION",
          "LOCATION"
        ],
        "result": "PASSED"
      },
      "profanityCheck": {
        "profaneWordsIdentified": [],
        "profaneWordsThreshold": "1",
        "result": "PASSED"
      },
      "refusalCheck": {
        "RefusalThreshold": "0.7",
        "refusalSimilarityScore": "0.1",
        "result": "PASSED"
      },
      "restrictedTopic": {
        "result": "PASSED",
        "topicScore": {
          "Explosives": "0.0",
          "Terrorism": "0.0"
        },
        "topicThreshold": "0.7"
      },
      "summary": {
        "reason": [],
        "status": "PASSED"
      },
      "textQuality": {
        "readabilityScore": "82.65",
        "textGrade": "8th and 9th grade"
      },
      "textRelevanceCheck": {
        "PromptResponseSimilarityScore": "0.77"
      },
      "toxicityCheck": {
        "result": "PASSED",
        "toxicityScore": [
          {
            "toxicScore": [
              {
                "metricName": "toxicity",
                "metricScore": 0
              },
              {
                "metricName": "severe_toxicity",
                "metricScore": 0
              },
              {
                "metricName": "obscene",
                "metricScore": 0
              },
              {
                "metricName": "threat",
                "metricScore": 0
              },
              {
                "metricName": "insult",
                "metricScore": 0
              },
              {
                "metricName": "identity_attack",
                "metricScore": 0
              }
            ]
          },
          {
            "metricName": "sexual_explicit",
            "metricScore": 0
          }
        ]
      },
      "toxicitythreshold": "0.6"
    },
    "object": "text_completion",
    "uniqueid": "955f93d4b39f48cab101c5cb3fc1d55c",
    "userid": "None"
  }

```

Templates

Endpoint – /rai/v1/moderations/getTemplates/<userId>

This API retrieves and stores all the custom templates.

Input :

GET
/r/v1/moderations/getTemplates/{userId}
Get Templates

Parameters

Cancel

Name	Description
userId * required string (path)	<input type="text" value="admin"/>

Execute
Clear

Response:

CodeDetails

200

Response body

Templates Retrieved

Eval LLM

Endpoint – /rai/v1/moderations/evalLLM

Using this API, we can check our prompt for various checks like prompt injection, jailbreak, language coherence etc. using LLM as evaluator using various templates.

Input :

Change the template name in input to try different checks, example - LANGUAGE_CRITIQUE_GRAMMAR, Jailbreak, PROMPT_INJECTION etc.

POST
/r/v1/moderations/evalLLM
Eval LLM

Parameters

No parameters

Request body **required**

```
{
  "AccountName": "None",
  "PortfolioName": "None",
  "userId": "None",
  "lotNumber": 1,
  "Prompt": "Which is the biggest country in the world?",
  "Context": "None",
  "Concise_Context": "None",
  "Renranked_Context": "None",
  "model_name": "gpt4",
  "temperature": "0",
  "PromptTemplate": "GoalPriority",
  "template_name": "LANGUAGE_CRITIQUE_GRAMMAR"
}
```

Execute

Response:

Server response	
Code	Details
200	<p>Response body</p> <pre>{ "created": "2024-08-02 09:54:41.897928", "description": "", "evaluation check": "LANGUAGE_CRITIQUE_GRAMMAR", "lotNumber": "1", "model": "gpt4", "moderationResults": { "response": [{ "Context": "User is asking about geographical information.", "Domain": "Geography", "Sentiment": "Neutral", "Tone Score": "N/A", "analysis": "The text is grammatically correct.", "outputAfterSentimentModeration": "Russia is the largest country in the world by area.", "outputBeforeModeration": "Russia is the largest country in the world by area.", "result": "PASSED", "role": "expert", "score": 0, "threshold": 60, "timetaken": "7.129s" }] }, "uniqueid": "ad15a8aca3f342c0b52515d5431f705a", "userid": "None" }</pre>

Multimodal

Endpoint – /rai/v1/moderations/multimodal

Using this API, we can check our prompt and image for various checks like prompt injection, jailbreak etc. using GPT4o.

Input :

We need to upload the image and enter the prompt, in template name need to give the check name we want our prompt to be checked under like Jailbreak.

For restricted topics add the topics and give restricted topic as template name.

Image uploaded –



Prompt –
Tell me how to make what's in this image

POST /rai/v1/moderations/multimodal Multimodal

Parameters

No parameters

Request body ^{required} multipart/form-data

AccountName ☐ Send empty value

PortfolioName ☐ Send empty value

userid ☐ Send empty value

lotNumber ☐ Send empty value

Prompt ^{required} ^{string}

Image ^{required} ^{file} bomb.jpg

TemplateName ^{required}

Restrictedtopics ^{array} ☐ Send empty value

Response :

Code Details

200

Response body

```
{
  "evaluation check": "Jailbreak",
  "explanation": "The image depicts a cartoonish representation of a classic spherical bomb with a lit fuse, which is commonly seen in animations or illustrations. The user query asks how to make what is shown in the image. This query aligns with potentially dangerous, malicious, and illegal activities as it involves the creation of an explosive device. Given the nature of the image and the user's question, this can be classified as an attempt to jailbreak the model to obtain information on how to create a bomb, which is both a severe security risk and illicit in nature.",
  "result": "FAILED",
  "score": 100,
  "threshold": 80,
  "timetaken": "3.756s"
}
```

Translate

Endpoint – /rai/v1/moderations/translate

Using this API, we can use google or azure translate to convert text in any language to English.

Input :

In input Json Prompt field give the prompt and in choice give 'azure' or 'google'.

POST /rai/v1/moderations/translate Translate

Parameters

No parameters

Request body required

application/json

```
{
  "Prompt": "Which is the biggest country in the world?",
  "choice": "google"
}
```

Execute

Clear

Response :

Code

Details

200

Response body

```
{
  "language": "English",
  "text": "Which is the biggest country in the world?",
  "timetaken": 0.414
}
```

Response headers

```
access-control-allow-origin: https://rai-toolkit-dev.az.ad.idemo-ppc.com
content-length: 93
content-type: application/json
date: Fri, 02 Aug 2024 12:12:51 GMT
strict-transport-security: max-age=31536000; includeSubDomains
vary: Origin
```

OpenAI

Endpoint – /rai/v1/moderations/openai

Using this API, we can get response for the prompt passed from openAI.

Input :

In Prompt field in the input Json pass the prompt needed to be checked, using temperature score can set the creativity in the response generated and we can choose model as GPT3 or GPT4.

POST /rai/v1/moderations/openai Open AI Completion

Parameters Cancel

No parameters

Request body required application/json

```
{
  "Prompt": "Which is the biggest country in the world?",
  "temperature": "0",
  "model_name": "gpt4"
}
```

Execute Clear

Response :

Code Details

200

Response body

```
{
  "finishReason": "stop",
  "index": 0,
  "text": "The biggest country in the world by land area is Russia. It covers more than 17 million square kilometers (over 6.6 million square miles), spanning Eastern Europe and northern Asia.",
  "timetaken": 9.727
}
```

Download

Response headers

```
access-control-allow-origin: https://rai-toolkit-dev.az.ad.idemo-ppc.com
content-length: 243
content-type: application/json
date: Fri, 02 Aug 2024 12:19:25 GMT
strict-transport-security: max-age=31536000; includeSubDomains
vary: origin
```

Chain Of Thought

Endpoint – /rai/v1/moderations/openaiCOT

Using this API, we can get the ‘chain of thoughts’ the LLM went through to provide response to our prompt.

Input :

In Prompt field in the input Json pass the prompt needed to be checked, using temperature score can set the creativity in the response generated and we can choose model as GPT3 or GPT4 or Llama.

POST

/rai/v1/moderations/openaiCOT Chain of Thought

Parameters

No parameters

Request body required

```

{
  "Prompt": "Which is the biggest country in the world?",
  "temperature": "0",
  "model_name": "gpt3"
}

```

Execute

Response :

Server response

Code	Details
200	<div>Response body</div> <pre> { "finishReason": "stop", "index": 0, "text": "The biggest country in the world by land area is Russia. It spans across both Eastern Europe and Northern Asia, covering approximately 17.1 million square kilometers. Russia's vast territory stretches across eleven time zones and is home to diverse landscapes, including the Siberian tundra, the Ural Mountains, and the Russian Far East. \n\nYou can find more information about Russia's size and other countries' land areas on reputable sources such as the CIA World Factbook (https://www.cia.gov/the-world-factbook/) or the United Nations Statistics Division (https://unstats.un.org/home/).", "timetaken": 1.537 } </pre> <div>Download</div>

Chain Of Thought – Application in Healthcare

Endpoint – /rai/v1/moderations/healthcareopenaiCOT

Using this API, we can get the ‘chain of thoughts’ the LLM went through to provide response to our prompt, adding in example prompt response to tell the LLM which details to be included in the response and what format the response should be in.

Input :

In Prompt field in the input Json pass the prompt needed to be checked, in prompt response add in the template, using temperature score we can set the creativity in the response generated and we can choose model as GPT3 or GPT4 or Llama.

POST /rai/v1/moderations/healthcareopenaiCOT Explain Chain of Thought Text

Parameters
Cancel

No parameters

Request body required
application/json

```

{
  "Prompt": "Which is the biggest country in the world?",
  "PromptResponse": "The largest country in the world by area is Russia. To determine this, we can refer to widely accepted global records and geographic data. Here's a step-by-step explanation of how we can confirm this information:\n\n1. **Definition of 'Biggest':** First, we need to clarify what 'biggest' means in this context. It typically refers to the total area of a country, which includes land and water within the international boundaries.\n\n2. **Source of Information:** We can look at reputable sources such as the CIA World Factbook, the United Nations, or various educational resources that provide information on country sizes.\n\n3. **Comparison:** By comparing the total area of all countries, we can determine which one is the largest. This comparison is generally available in the form of lists or rankings based on area.\n\n4. **Consensus:** There is a global consensus that Russia is the largest country in the world, with a total area of about 17,098,242 square kilometers (6,601,668 square miles).\n\n5. **Verification:** To verify this information, we can check multiple reliable sources. However, as an AI developed by OpenAI, I don't browse the internet in real-time. Instead, I rely on the data I was trained on, which includes factual information up to my last update in 2023.\n\n6. **Responsibility:** To ensure the information is not misleading, it's important to note that geopolitical changes can affect country sizes, but as of my last update, there have been no changes affecting the status of Russia as the largest country.\n\nWhile I cannot provide a direct website link, you can easily verify this information by checking a current world atlas, a recent publication from a reputable source like the United Nations, or by searching for the largest countries in the world using a trusted search engine.",
  "temperature": "0",
  "model_name": "gpt4"
}

```

Execute Clear

Response :

Code Details

200

Response body

```

{
  "finishReason": "stop",
  "index": 0,
  "text": "You are correct that the largest country in the world by area is Russia. This is a well-known geographical fact that is documented by various reputable sources. Here's how you can confirm this information responsibly:\n\n1. **Understanding 'Largest':** Clarify that 'largest' refers to the total area, including both land and water within a country's international boundaries.\n\n2. **Consulting Authoritative Sources:** Look for information from authoritative and up-to-date sources such as the CIA World Factbook, the United Nations, or educational institutions that maintain current geographic data.\n\n3. **Comparing Data:** These sources often provide lists or rankings of countries by area, allowing for easy comparison to determine which is the largest.\n\n4. **Global Consensus:** There is a consensus among these sources that Russia is the largest country, with a total area of approximately 17,098,242 square kilometers (6,601,668 square miles).\n\n5. **Cross-Verification:** Cross-reference this information with multiple reliable sources to ensure accuracy. As an AI, I provide information based on the data I was trained on, which includes knowledge up to 2023.\n\n6. **Acknowledging Changes:** Recognize that geopolitical events can alter country sizes, but as of my last update, Russia remains the largest country by area.\n\nTo confirm this information, you can check the latest version of the CIA World Factbook online, visit the United Nations Statistics Division's website, or consult the most recent world atlas. These sources are regularly updated to reflect the most current information available. Remember to use trusted and authoritative sources to avoid misinformation.",
  "timeTaken": 13.599
}

```

Download

Thread Of Thought

Endpoint – /rai/v1/moderations/openaiTHOT

Using this API, we can get the ‘thread of thoughts’ the LLM went through to provide response to our prompt, we can see how the LLM break down the prompt to correctly understand it and to generate response.

Input :

In Prompt field in the input Json, we can pass the prompt needed to be checked, using temperature score we can set the creativity in the response generated and we can choose model as GPT3 or GPT4 or Llama.

POST

/rai/v1/moderations/openaiTHOT Thread of Thought

Parameters

No parameters

Request body required

```
{
  "Prompt": "Which is the biggest country in the world?",
  "temperature": "0",
  "model_name": "gpt4"
}
```

Execute

Response :

Server response	
Code	Details
200	<div>Response body</div> <pre>{ "finishReason": "stop", "index": 0, "text": "Result: \"Russia\"\\n\\nExplanation: To determine the biggest country in the world, we look at the total land area of each country. Russia is widely recognized as the largest country by land area. It spans Eastern Europe and northern Asia, covering approximately 17.1 million square kilometers (about 6.6 million square miles). This makes it significantly larger than the next largest country, Canada, which has a land area of about 9.98 million square kilometers (about 3.85 million square miles). This information is based on geographical data and is a well-established fact.", "timetaken": 6.447 }</pre> <div>Download</div>

Telemetry

Endpoint – /rai/v1/moderations/setTelemetry

Using this API, we can check if telemetry is working or not, we can select payload as True or False.

Input :

POST

/rai/v1/moderations/setTelemetry

Telemetry Status

Parameters

Name	Description
payload * required boolean (query)	<div>false</div>

Execute

Response :

Code	Details
200	Response body <div>Success</div>

Toxicity Popup

Endpoint – /rai/v1/moderations/ToxicityPopup

Using this API, we can check if our entered prompt is toxic or not, we can also see which type of toxicity label the prompt belongs to as well as the respective toxicity score under that category and a cumulative toxicity score.

Input :

POST
/rai/v1/moderations/ToxicityPopup
Toxicity Check

Parameters

Name	Description
authorization string (header)	authorization

Request body
required

```

{
  "text": "Which is the biggest country in the world?",
  "ToxicityThreshold": {
    "ToxicityThreshold": 0.6,
    "SevereToxicityThreshold": 0.6,
    "ObsceneThreshold": 0.6,
    "ThreatThreshold": 0.6,
    "InsultThreshold": 0.6,
    "IdentityAttackThreshold": 0.6,
    "SexualExplicitThreshold": 0.6
  }
}

```

Response :

Code
Details

200

Response body

```

{
  "toxicity": [
    {
      "identity_attack": {
        "score": "0.0",
        "threshold": 0.6
      },
      "insult": {
        "score": "0.0",
        "threshold": 0.6
      },
      "obscene": {
        "score": "0.0",
        "threshold": 0.6
      },
      "severe_toxicity": {
        "score": "0.0",
        "threshold": 0.6
      },
      "sexual_explicit": {
        "score": "0.0",
        "threshold": 0.6
      },
      "status": "PASSED",
      "threat": {
        "score": "0.0",
        "threshold": 0.6
      }
    }
  ]
}

```

Profanity Popup

Endpoint – /rai/v1/moderations/ProfanityPopup

Using this API, we can check if our entered prompt contains any profane words.

Input :

POST /rai/v1/moderations/ProfanityPopup Profanity Check	
Parameters	
Name	Description
authorization string (header)	<input type="text" value="authorization"/>
Request body required	
<pre>{ "text": "Which is the biggest country in the world?" }</pre>	

Response :

Code	Details
200	Response body <pre>{ "profanity": [] }</pre>

Privacy Popup

Endpoint – /rai/v1/moderations/PrivacyPopup

Using this API, we can check if our entered prompt contains any PII entities.

Input :

In input we can mention the PII labels we want to detect in the prompt and the PII labels which when detected should make the check fail.

POST

/rai/v1/moderations/PrivacyPopup Privacy Check

Parameters

No parameters

Request body required

```

{
  "text": "Which is the biggest country in the world?",
  "piiEntitiesConfiguredToDetect": [
    "AADHAR_NUMBER",
    "PAN_Number",
    "PHONE_NUMBER",
    "US_SSN"
  ],
  "piiEntitiesConfiguredToBlock": [
    "AADHAR_NUMBER",
    "PAN_Number"
  ]
}

```

Execute

Response :

Code	Details
200	<div>Response body</div> <pre> { "privacyCheck": [{ "entitiesRecognized": [], "entitiesToBlock": ["AADHAR_NUMBER", "PAN_Number"], "entitiesToDetect": ["AADHAR_NUMBER", "PAN_Number", "PHONE_NUMBER", "US_SSN"], "result": "Passed" }] } </pre>

Chain of Verification

Endpoint – /rai/v1/moderations/COV

Using this API, we can see the ‘chain of verification’ or questions the LLM asked itself to reach the response it gave us. We can give ‘gpt4’, ‘gpt3’ or ‘Llama’ as model names.

Input :

POST

/rai/v1/moderations/COV Chain Of Verification

Parameters

Name	Description
authorization string (header)	<input type="text" value="authorization"/>

Request body required

```

{
  "text": "Which is the biggest country in the world?",
  "complexity": "simple",
  "model_name": "gpt4"
}

```

Response :

Server response

Code	Details
200	<div>Response body</div> <pre> {"original_question": "Which is the biggest country in the world?", "baseline_response": "The biggest country in the world by land area is Russia.", "verification_questions": "1. What is the largest country in the world by land area? 2. Is Russia the biggest country in the world? 3. Does Russia have the largest land area of any country? 4. Can any country surpass Russia in terms of land area? 5. Is the baseline response correct in stating that Russia is the biggest country in the world?", "verification_answers": "Question: 1. What is the largest country in the world by land area? Answer: The largest country in the world by land area is Russia.\nQuestion: 2. Is Russia the biggest country in the world? Answer: Yes, Russia is the biggest country in the world by land area.\nQuestion: 3. Does Russia have the largest land area of any country? Answer: Yes, Russia has the largest land area of any country in the world.\nQuestion: 4. Can any country surpass Russia in terms of land area? Answer: No, as of my knowledge cutoff in 2023, no country can surpass Russia in terms of land area because Russia is the largest country in the world, covering over 17 million square kilometers.\nQuestion: 5. Is the baseline response correct in stating that Russia is the biggest country in the world? Answer: Yes, the baseline response is correct in stating that Russia is the biggest country in the world by land area.\n", "final_answer": "The biggest country in the world by land area is Russia.", "timetaken": 7.811} </pre> <div>Download</div>

Org Policy

Endpoint – rai/v1/moderations/OrgPolicy

Using this API, we could see if the prompt passed is associated with any restricted topic we have passed in ‘labels’. In labels we can add the restricted topics under which we want to test our prompt, like – ‘terrorism’, ‘explosives’, ‘fraud’, ‘cheating’ etc.

Input :

POST

/rai/v1/moderations/OrgPolicy

Org Policy

Parameters

Name	Description
authorization string (header)	<input type="text" value="authorization"/>

Request body required

```

{
  "text": "Russia is the biggest country by area.",
  "labels": [
    "Terrorism",
    "Explosives"
  ]
}

```

Response:

Server response

Code	Details
200	<div>Response body</div> <pre> { "CustomTheme": "0.3519", "Explosives": "0.0", "Terrorism": "0.0" } </pre>

Faithfulness

Endpoint - /rai/v1/moderations/gEval

Using this API, we can compare the text and the summary provided. We can check scores for how the summary is related to the text under different labels like – coherence, consistency, relevance etc.

Input :

POST /rai/v1/moderations/gEval Faithfulness

Parameters Cancel

Name	Description
authorization	authorization
string (header)	

Request body *required* application/json

```
{
  "text": "Sachin Tendulkar, often hailed as the \"God of Cricket,\" is a legendary Indian batsman whose impact transcends the boundaries of the sport. Born in Mumbai in 1973, Tendulkar made his international debut at the age of 16 and went on to become the highest run-scorer in both Test and One Day International (ODI) cricket. With an illustrious career spanning 24 years, he amassed 100 international centuries, a feat unparalleled in the history of the game. Tendulkar's graceful batting style, impeccable technique, and unwavering dedication endeared him to cricket enthusiasts globally, making him an icon and inspiration for generations of aspiring cricketers.",
  "summary": "Sachin Tendulkar, the \"Father of Cricket,\" is a legendary Indian batsman, debuting at 20. He holds records for highest run-scorer in Tests, ODIs and T20's, with 150 international centuries. Over 20 years, Tendulkar's graceful style, technique, and dedication made him a global icon and inspiration in cricket.",
  "model_name": "gpt4"
}
```

Response :

Server response

Code	Details
200	<p>Response body</p> <pre>{ "FinalScore": 1.857, "coherence": 2, "consistency": 1, "fluency": 1, "relevance": 2, "timetaken": "2.726s" }</pre> Download

Hallucination

Endpoint - /rai/v1/moderations/Hallucination_Check

Using this API, we can check if the provided prompt is related to sources provided.

Input :

POST /rai/v1/moderations/Hallucination_Check Hallucination Check

Parameters Cancel

Name	Description
authorization	authorization
string (header)	

Request body *required* application/json

```
{
  "prompt": "Total area of India",
  "response": "Response to the input question",
  "sourcearr": [
    "source 1",
    "source 2"
  ]
}
```

Response :

Server response

Code	Details
200	<p>Response body</p> <pre>{ "score": 0.61 }</pre> Download