

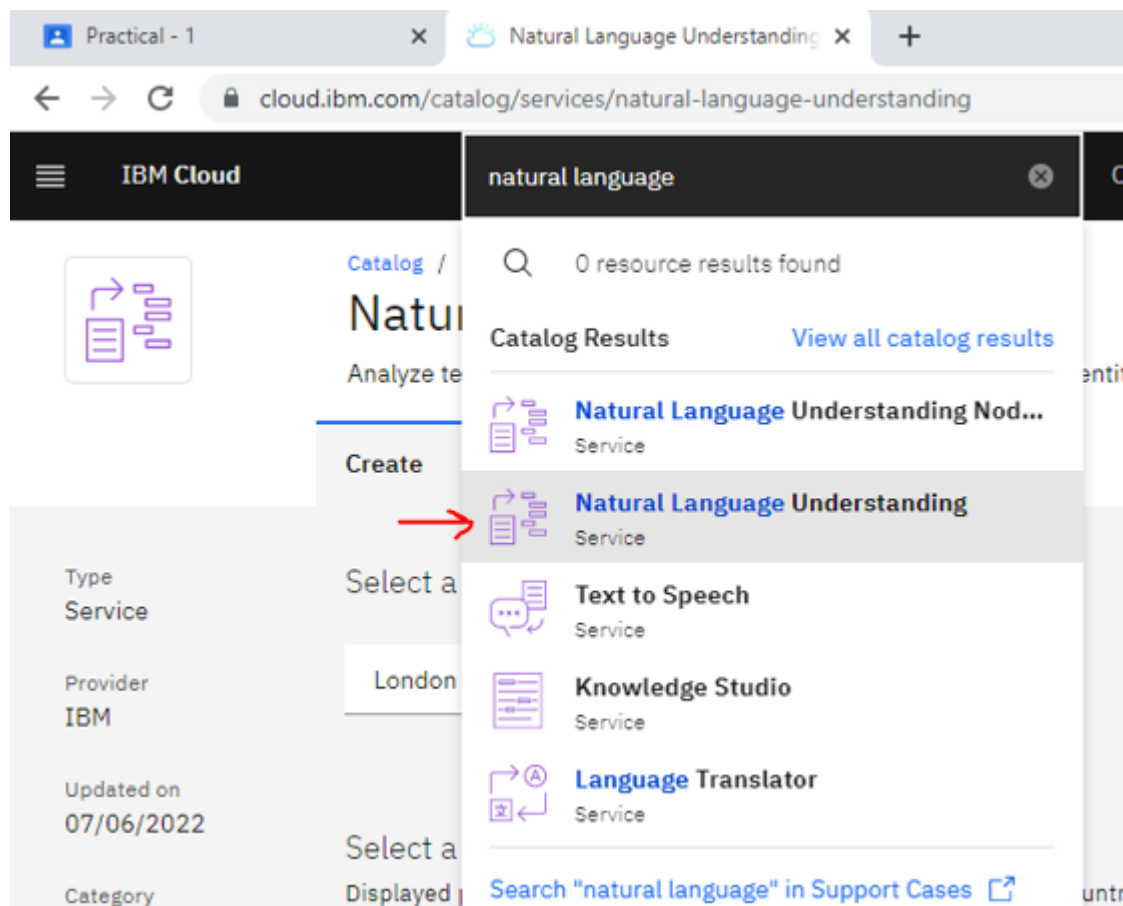
Institute of Computer Technology
B. Tech Computer Science and Engineering
Sub: Cognitive Computing (2CSE70E23)

PRACTICAL 1

Task 1

Watson Natural Language Understanding Watson Natural Language Understanding uses natural language processing to analyse the semantic features of any text. Provide plain text, HTML, or a public URL, and Watson Natural Language Understanding returns results for the features that you specify. We will analyse news article.

Go to IBM Cloud and search for Natural Language Understanding.



Select the Lite mode and Create a new environment.

The screenshot shows the IBM Cloud console for the Natural Language Understanding service. The 'Lite' plan is selected, highlighted with a red arrow. The plan details include 30,000 NLU Items Per Month and a fixed API rate limit. A summary panel on the right provides additional information about the service, including the location (London) and the plan name (Lite).

Go to the Resource list.

The screenshot shows the IBM Cloud console for the Natural Language Understanding-ik service. The 'Resource list' link is highlighted with a red arrow. The page displays the service name, status (Active), and a 'Getting started' section with a tutorial link. The tutorial is titled 'Getting started with Natural Language Understanding' and was last updated on 2022-03-30.

In resource list, we can see the different services available. In Services and software, select Natural Language understanding-ik.

Resource list

Name	Group	Location	Product	Status	Tags
Container Registry (0)					
Satellite (0)					
Cloud Foundry apps (0)					
Cloud Foundry services (0)					
Services and software (3)					
Machine Learning-pc	Default	London	Machine Learning	Active	1
Natural Language Understanding-ik	Default	London	Natural Language Unders...	Active	-
Watson Studio-7j	Default	London	Watson Studio	Active	-
Storage (1)					
Network (0)					

Go to Manage tab and copy the URL and API key. These unique URLs and API keys help us to run the services on a different applications.

Resource list /

Natural Language Understanding-ik

Active Add tags

Manage

- Getting started
- Service credentials
- Plan
- Connections

Start by viewing the tutorial

Getting started tutorial API reference

Credentials

Download Show credentials

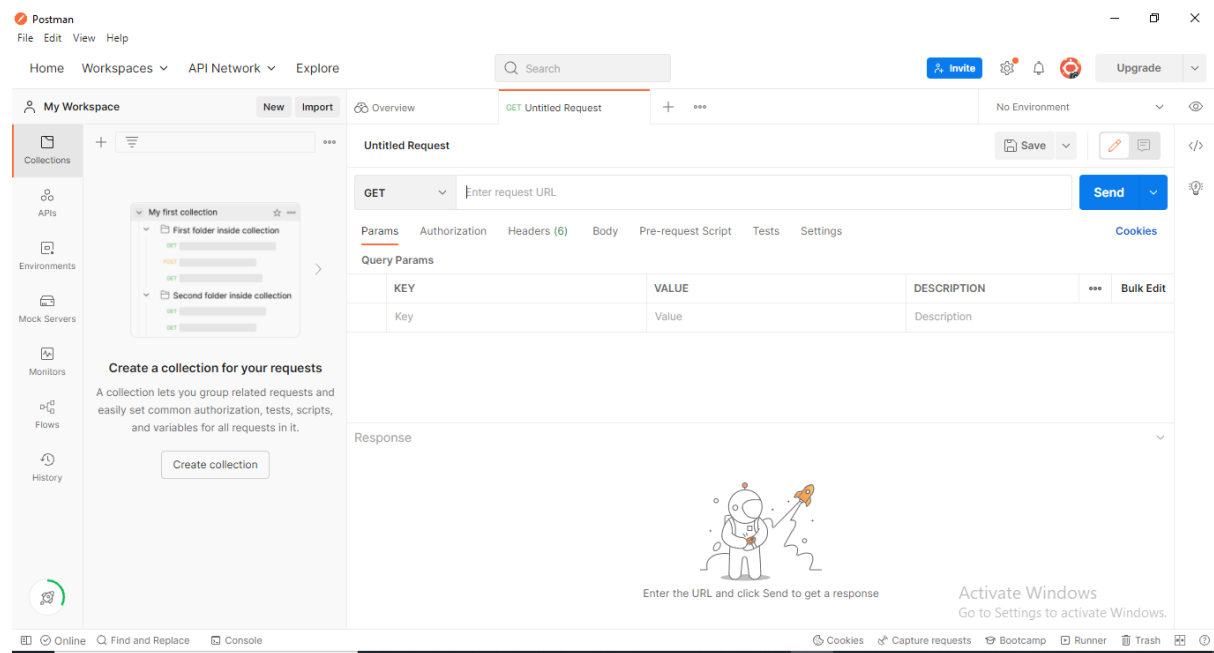
API key:

URL:

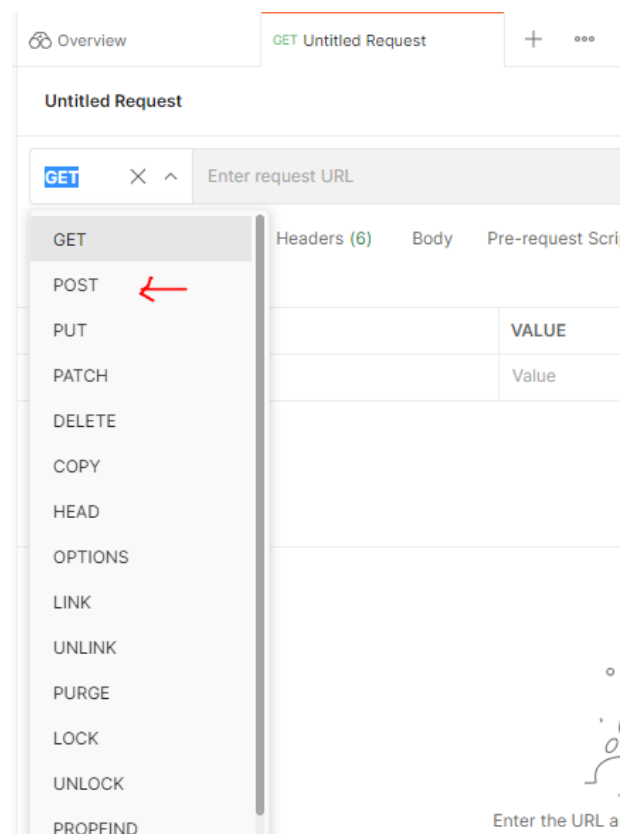
https://api.eu-gb.natural-language-understanding.watson.

View all credentials in the Service credentials tab.

Open the Postman App.



Select the POST mode.



Paste the copied URL as a request URL.

V1: segment version

Analyse: we want to analyse

The screenshot shows the REST client interface. The URL bar contains the URL: `https://api.eu-gb.natural-language-understanding.watson.cloud.ibm.com/instances/4d4ba97b-c2f4-4b11-8e9d-49b7ea73b86b/v1/analyze`. The 'Params' tab is selected, showing a table with columns: KEY, VALUE, DESCRIPTION, and Bulk Edit. The table is currently empty.

KEY	VALUE	DESCRIPTION	Bulk Edit
Key	Value	Description	

In Params tab, enter the version param and add its value.

The screenshot shows the REST client interface with the 'Params' tab selected. The 'version' parameter has been added to the table.

KEY	VALUE	DESCRIPTION	Bulk Edit
<input checked="" type="checkbox"/> version	2019-07-12		
Key	Value	Description	

In Authorization tab, change the Type to 'Basic Auth'.

The screenshot shows the REST client interface with the 'Authorization' tab selected. The 'Type' dropdown menu is open, showing various authentication types. 'Basic Auth' is highlighted with a red arrow.

Type: **Inherit au...**

- Inherit auth from pa...
- No Auth
- API Key
- Bearer Token
- Basic Auth** ←
- Digest Auth
- OAuth 1.0
- OAuth 2.0
- Hawk Authentication
- AWS Signature
- NTLM Authentication...

Username: 'apikey'
Password: received API key

https://api.eu-gb.natural-language-understanding.watson.cloud.ibm.com/instances/4d4ba97b-c2f4-4b11-8e9d-4...

POST https://api.eu-gb.natural-language-understanding.watson.cloud.ibm.com/instances/4d4ba97b-c2f4-4b11-8e9d-49b7...

Params Authorization Headers (8) Body Pre-request Script Tests Settings Cookies

Type Basic Auth

Heads up! These parameters hold sensitive data. To keep this data secure while working in a collaborative environment, we recommend using variables. [Learn more about variables](#)

The authorization header will be automatically generated when you send the request. [Learn more about authorization](#)

Username apikey

Password

Response

In Header, define what kind of input we want to give. Enter application/json as the Content-Type.

https://api.eu-gb.natural-language-understanding.watson.cloud.ibm.com/instances/4d4ba97b-c2f4-4b11-8e9d-4...

POST https://api.eu-gb.natural-language-understanding.watson.cloud.ibm.com/instances/4d4ba97b-c2f4-4b11-8e9d-49b7...

Params Authorization Headers (9) Body Pre-request Script Tests Settings Cookies

Headers 8 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
<input checked="" type="checkbox"/>	Content-Type	application/json				
	Key	Value	Description			

In Body, select 'raw' and JSON and write the following code and click on Send.

https://api.eu-gb.natural-language-understanding.watson.cloud.ibm.com/instances/4d4ba97b-c2f4-4b11-8e9d-4...

POST https://api.eu-gb.natural-language-understanding.watson.cloud.ibm.com/instances/4d4ba97b-c2f4-4b11-8e9d-49b7...

Params Authorization Headers (10) Body Pre-request Script Tests Settings Cookies Beautify

none form-data x-www-form-urlencoded raw binary GraphQL JSON

```

1 {
2   "url": "https://towardsdatascience.com/where-are-the-robot-journalists-b213e475ca64",
3   "features": {
4     "sentiment": {},
5     "categories": {},
6     "concepts": {},
7     "entities": {},
8     "keywords": {}
9   }
10 }

```

You will now get the following response:

Overview POST https://api.eu-gb.nat... No Environment

https://api.eu-gb.natural-language-understanding.watson.cloud.ibm.com/instances/4d4ba97b-c2f4-4b11-8e9d-4... Save

POST https://api.eu-gb.natural-language-understanding.watson.cloud.ibm.com/instances/4d4ba97b-c2f4-4b11-8e9d-49b7... Send

Params Authorization Headers (10) Body Pre-request Script Tests Settings Cookies

Body Cookies Headers (18) Test Results Status: 200 OK Time: 4.85 s Size: 8.05 KB Save Response

Pretty Raw Preview Visualize JSON

```

1 {
2   "usage": {
3     "text_units": 1,
4     "text_characters": 7396,
5     "features": 5
6   },
7   "sentiment": {
8     "document": {
9       "score": 0.558109,
10      "label": "positive"
11    }
12  },
13  "retrieved_url": "https://towardsdatascience.com/where-are-the-robojournalists-b213e475ca64",
14  "language": "en",
15  "keywords": [
16    {
17      "text": "news reports",
18      "relevance": 0.667781,
19      "count": 1

```

Activate Windows
Go to Settings to activate Windows

Save response as a file.

C:\Users\admin\Desktop\cgc 1 response - Notepad++

File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?

cgc 1 response

```

1 {
2   "usage": {
3     "text_units": 1,
4     "text_characters": 7396,
5     "features": 5
6   },
7   "sentiment": {
8     "document": {
9       "score": 0.558109,
10      "label": "positive"
11    }
12  },
13  "retrieved_url": "https://towardsdatascience.com/where-are-the-robojournalists-b213e475ca64",
14  "language": "en",
15  "keywords": [
16    {
17      "text": "news reports",
18      "relevance": 0.667781,
19      "count": 1
20    },
21    {
22      "text": "human journalists",
23      "relevance": 0.63146,
24      "count": 6
25    },
26    {
27      "text": "example of such system",
28      "relevance": 0.599632,
29      "count": 1
30    },
31    {
32      "text": "current template",
33      "relevance": 0.591622,
34      "count": 1

```

Output:

```
{
  "usage": {
    "text_units": 1,
    "text_characters": 7396,
    "features": 5
  },
  "sentiment": {
    "document": {
      "score": 0.558109,
      "label": "positive"
    }
  },
  "retrieved_url": "https://towardsdatascience.com/where-are-the-robojournalists-b213e475ca64",
  "language": "en",
  "keywords": [
    {
      "text": "news reports",
      "relevance": 0.667781,
      "count": 1
    },
    {
      "text": "human journalists",
      "relevance": 0.63146,
      "count": 6
    },
    {
      "text": "example of such system",
      "relevance": 0.599632,
      "count": 1
    },
    {
      "text": "current template",
      "relevance": 0.591622,
      "count": 1
    },
    {
      "text": "news stories",
      "relevance": 0.586189,
      "count": 1
    },
    {
      "text": "following heuristics",
      "relevance": 0.575824,
      "count": 1
    },
    {
      "text": "traditional use cases",
      "relevance": 0.565984,
      "count": 1
    }
  ]
}
```



```
    },
    {
      "text": "earlier article",
      "relevance": 0.565685,
      "count": 1
    },
    {
      "text": "news report",
      "relevance": 0.560991,
      "count": 1
    },
    {
      "text": "following benefits",
      "relevance": 0.557891,
      "count": 1
    },
    {
      "text": "human language",
      "relevance": 0.55647,
      "count": 1
    },
    {
      "text": "idea of news automation",
      "relevance": 0.556223,
      "count": 1
    },
    {
      "text": "clear benefits",
      "relevance": 0.547558,
      "count": 2
    },
    {
      "text": "human insight",
      "relevance": 0.547385,
      "count": 1
    },
    {
      "text": "potential benefits",
      "relevance": 0.544927,
      "count": 1
    },
    {
      "text": "usage of robojournalism",
      "relevance": 0.543357,
      "count": 1
    },
    {
      "text": "specific rules",
      "relevance": 0.539751,
      "count": 1
    },
  ],
```

```
{
  "text": "automated journalism systems",
  "relevance": 0.539667,
  "count": 1
},
{
  "text": "required technology",
  "relevance": 0.538729,
  "count": 1
},
{
  "text": "meta-analysis",
  "relevance": 0.536674,
  "count": 2
},
{
  "text": "number of media organisations",
  "relevance": 0.535758,
  "count": 1
},
{
  "text": "weather forecast reporting",
  "relevance": 0.530217,
  "count": 1
},
{
  "text": "domain experts",
  "relevance": 0.530093,
  "count": 1
},
{
  "text": "human journalist",
  "relevance": 0.527871,
  "count": 1
},
{
  "text": "Use of template",
  "relevance": 0.527492,
  "count": 1
},
{
  "text": "major progress",
  "relevance": 0.524853,
  "count": 1
},
{
  "text": "news generation system",
  "relevance": 0.523722,
  "count": 1
},
{
```

```
    "text": "particular topic",
    "relevance": 0.522184,
    "count": 1
  },
  {
    "text": "earliest articles",
    "relevance": 0.521806,
    "count": 1
  },
  {
    "text": "English language",
    "relevance": 0.52177,
    "count": 2
  },
  {
    "text": "higher ratings",
    "relevance": 0.521633,
    "count": 1
  },
  {
    "text": "industry standard",
    "relevance": 0.520023,
    "count": 1
  },
  {
    "text": "major news publications",
    "relevance": 0.519352,
    "count": 1
  },
  {
    "text": "scientific journals",
    "relevance": 0.519216,
    "count": 2
  },
  {
    "text": "Graefe",
    "relevance": 0.518191,
    "count": 10
  },
  {
    "text": "software providers",
    "relevance": 0.516833,
    "count": 1
  },
  {
    "text": "media houses",
    "relevance": 0.516197,
    "count": 1
  },
  {
    "text": "downsides of template",
```

```
    "relevance": 0.51514,  
    "count": 1  
  },  
  {  
    "text": "European media representatives",  
    "relevance": 0.51395,  
    "count": 1  
  },  
  {  
    "text": "addition",  
    "relevance": 0.513743,  
    "count": 1  
  },  
  {  
    "text": "reports",  
    "relevance": 0.513363,  
    "count": 1  
  },  
  {  
    "text": "journalism",  
    "relevance": 0.511138,  
    "count": 4  
  },  
  {  
    "text": "template",  
    "relevance": 0.511088,  
    "count": 2  
  },  
  {  
    "text": "fact",  
    "relevance": 0.510971,  
    "count": 2  
  },  
  {  
    "text": "MAIN-model",  
    "relevance": 0.510684,  
    "count": 1  
  },  
  {  
    "text": "following limitations",  
    "relevance": 0.510613,  
    "count": 1  
  },  
  {  
    "text": "readers",  
    "relevance": 0.510366,  
    "count": 7  
  },  
  {  
    "text": "field",  
    "relevance": 0.509986,
```

```
        "count": 2
    },
    {
        "text": "requirements",
        "relevance": 0.509886,
        "count": 3
    },
    {
        "text": "complex system",
        "relevance": 0.509659,
        "count": 1
    }
],
"entities": [
    {
        "type": "Person",
        "text": "Graefe",
        "relevance": 0.981692,
        "count": 10,
        "confidence": 1
    },
    {
        "type": "Person",
        "text": "Bohlken",
        "relevance": 0.635757,
        "count": 6,
        "confidence": 1.0
    },
    {
        "type": "Person",
        "text": "Leppänen et al.",
        "relevance": 0.19921,
        "count": 1,
        "confidence": 0.175199
    },
    {
        "type": "Person",
        "text": "Glahn",
        "relevance": 0.193151,
        "count": 1,
        "confidence": 0.794586
    },
    {
        "type": "Person",
        "text": "Dörr",
        "relevance": 0.155009,
        "count": 1,
        "confidence": 0.927023
    },
    {
        "type": "PrintMedia",
```

```

        "text": "LA Times",
        "relevance": 0.1322,
        "disambiguation": {
            "subtype": [
                "Organization",
                "Company",
                "VentureFundedCompany"
            ],
            "name": "Los_Angeles_Times",
            "dbpedia_resource": "http://dbpedia.org/resource/Los_Angeles_Times"
        },
        "count": 1,
        "confidence": 0.595552
    },
    {
        "type": "Person",
        "text": "Sundar",
        "relevance": 0.083846,
        "count": 1,
        "confidence": 0.929154
    },
    {
        "type": "Organization",
        "text": "American and European media representatives",
        "relevance": 0.071768,
        "count": 1,
        "confidence": 0.189907
    },
    {
        "type": "Company",
        "text": "Microsoft",
        "relevance": 0.011365,
        "disambiguation": {
            "subtype": [
                "Organization",
                "OperatingSystemDeveloper",
                "ProcessorManufacturer",
                "SoftwareDeveloper",
                "VentureFundedCompany",
                "VideoGameDeveloper",
                "VideoGamePublisher",
                "ProgrammingLanguageDesigner"
            ],
            "name": "Microsoft",
            "dbpedia_resource": "http://dbpedia.org/resource/Microsoft"
        },
        "count": 1,
        "confidence": 0.998477
    }
],
"concepts": [

```

```
{
  "text": "NEWS",
  "relevance": 0.948696,
  "dbpedia_resource": "http://dbpedia.org/resource/NEWS"
},
{
  "text": "Journalism",
  "relevance": 0.713112,
  "dbpedia_resource": "http://dbpedia.org/resource/Journalism"
}
],
"categories": [
  {
    "score": 0.87919,
    "label": "/education/homework and study tips"
  },
  {
    "score": 0.857201,
    "label": "/news/national news"
  },
  {
    "score": 0.841423,
    "label": "/business and industrial/business news"
  }
]
}
```

To display all the emotions or just the particular features:

Overview POST https://api.eu-gb.nat... POST https://api.eu-gb.lang... + ... No Environment

<https://api.eu-gb.natural-language-understanding.watson.cloud.ibm.com/instances/4d4ba97b-c2f4-4b11-8e9d-4...> Save ✎ 💬

POST ▼ <https://api.eu-gb.natural-language-understanding.watson.cloud.ibm.com/instances/4d4ba97b-c2f4-4b11-8e9d-49b7...> Send ▼

Params ● Authorization ● Headers (10) **Body** ● Pre-request Script Tests Settings Cookies

● none ● form-data ● x-www-form-urlencoded ● raw ● binary ● GraphQL **JSON** ▼ Beautify

```

1  {"text": "Disheartened protesters told Reuters they see the 'same values, corruption and oppression in Ranil as seen
   in Gotabaya Rajapaksa'. We will continue the protest until Ranil goes home. It might take us a week, a month,
   two months, or 98 days. But we know people in Sri Lanka are not going to stand for it. We will get back on the
   streets and continue, one person said.",
2  "features": {
3  "entities": {"emotion": true, "sentiment": true, "limit": 2},
4  "keywords": {"emotion": true, "sentiment": true, "limit": 2}
5  }
6  }

```

Body Cookies Headers (18) Test Results Status: 200 OK Time: 971 ms Size: 2.49 KB Save Response ▼

Pretty Raw Preview Visualize **JSON** ▼ 🔍

```

14  },
15  "relevance": 0.718233,
16  "emotion": {
17    "sadness": 0.152225,
18    "joy": 0.687522,
19    "fear": 0.014072,
20    "disgust": 0.03234,
21    "anger": 0.049436
22  },
23  "count": 1

```

Activate Windows
Go to Settings to activate Windows.

To display all the tone classifications:

<https://api.eu-gb.natural-language-understanding.watson.cloud.ibm.com/instances/4d4ba97b-c2f4-4b11-8e9d-4...> Save ✎ 💬

POST ▼ <https://api.eu-gb.natural-language-understanding.watson.cloud.ibm.com/instances/4d4ba97b-c2f4-4b11-8e9d-49b7...> Send ▼

Params ● Authorization ● Headers (10) **Body** ● Pre-request Script Tests Settings Cookies

● none ● form-data ● x-www-form-urlencoded ● raw ● binary ● GraphQL **JSON** ▼ Beautify

```

1  {"language": "en",
2  "text": "A six-time PM, Ranil Wickremesinghe beat out dissident Dulas Alahapperuma and leftist Janatha Vimukthi
   Peramuna (JVP) leader Anura Kumara Disanayake in the presidential election to succeed Rajapaksa. He secured 134
   votes in the 225-member House.",
3  "features": {
4  "classifications": {"model": "tone-classifications-en-v1"}}}

```

Body Cookies Headers (18) Test Results Status: 200 OK Time: 1053 ms Size: 1.35 KB Save Response ▼

Pretty Raw Preview Visualize **JSON** ▼ 🔍

```

10  "confidence": 0.520396,
11  "class_name": "frustrated"
12  },
13  {
14    "confidence": 0.157236,
15    "class_name": "polite"
16  },
17  {
18    "confidence": 0.108976,
19    "class_name": "sad"
20  },
21  }

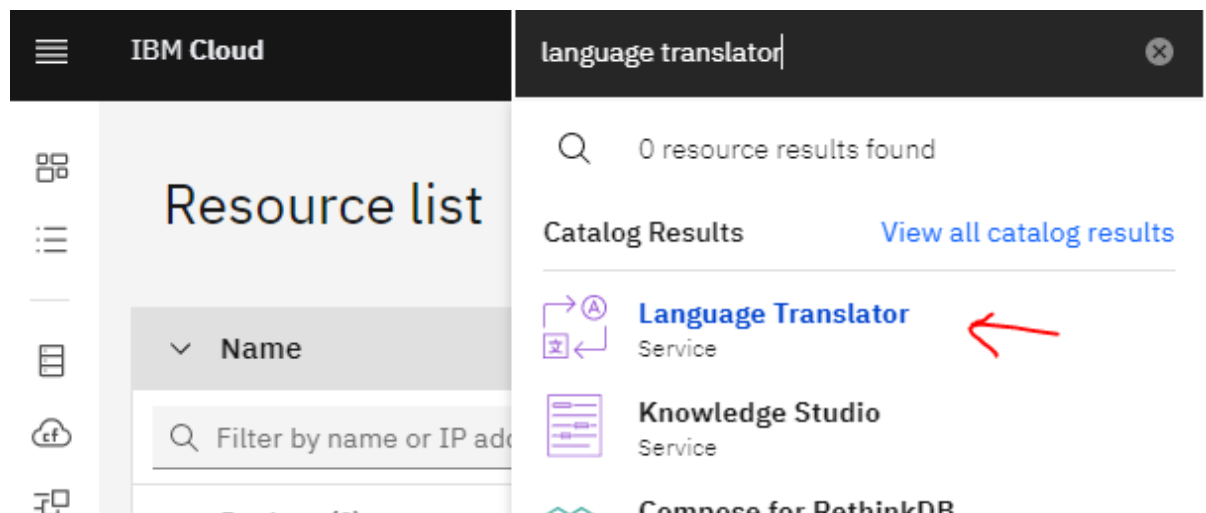
```

Activate Windows
Go to Settings to activate Windows.

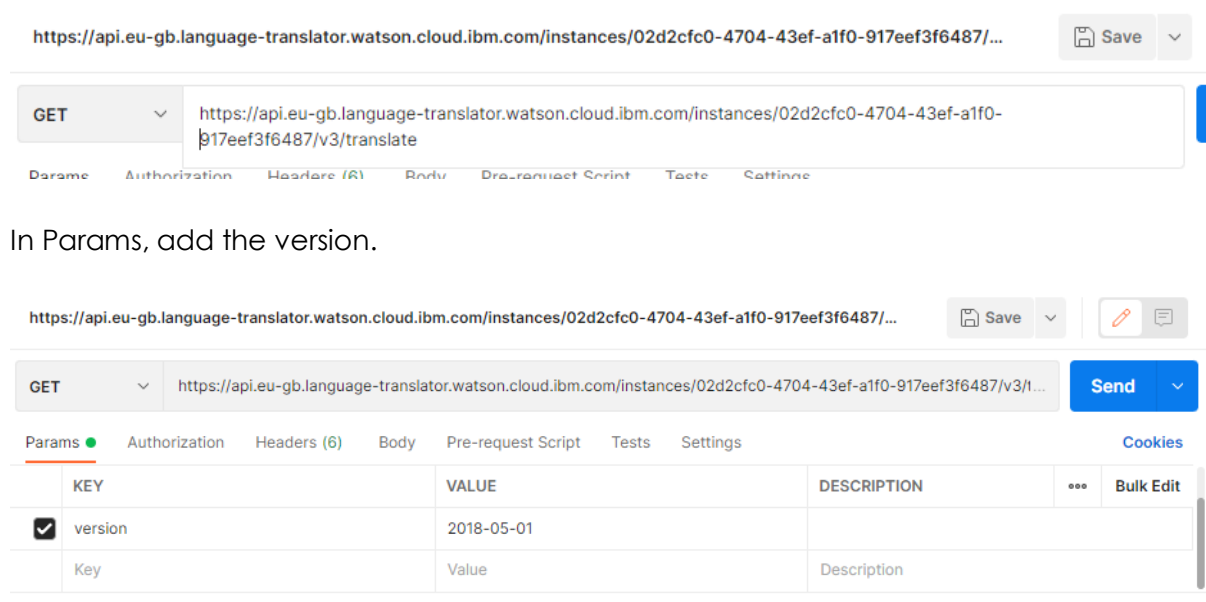
Task 2

Watson Language Translator Watson Language Translator translates text from one language to another. The service offers multiple IBM-provided translation models that you can customize based on your unique terminology and language. Use Watson Language Translator to take news from across the globe and present it in your language, communicate with your customers in their own language, and more.

In IBM Cloud, search for Language Translator.



Copy URL and API key. Open Postman App. Add a new tab. Turn the mode to POST and paste the URL with /v3/translate



In Authorization, turn the type to Basic Auth and enter the username and password.

https://api.eu-gb.language-translator.watson.cloud.ibm.com/instances/02d2cfc0-4704-43ef-a1f0-917eef3f6487/... Save

GET https://api.eu-gb.language-translator.watson.cloud.ibm.com/instances/02d2cfc0-4704-43ef-a1f0-917eef3f6487/v3/1... Send

Params Authorization Headers (7) Body Pre-request Script Tests Settings

Type Basic Auth Username apikey

The authorization header will be automatically generated when you send the request.
[Learn more about authorization](#)

Password Show Password

Nothing in Headers.

In Body, select 'raw' and JSON and type the code and click on Send.

Link for language codes:

<https://cloud.ibm.com/docs/language-translator?topic=language-translator-identifiable-languages>

Overview x POST https://api.eu-gb.nat... POST https://api.eu-gb.lang... + ... No Environment

https://api.eu-gb.language-translator.watson.cloud.ibm.com/instances/02d2cfc0-4704-43ef-a1f0-917eef3f6487/... Save

POST https://api.eu-gb.language-translator.watson.cloud.ibm.com/instances/02d2cfc0-4704-43ef-a1f0-917eef3f6487/v3/1... Send

Params Authorization Headers (9) Body Pre-request Script Tests Settings Cookies Beautify

none form-data x-www-form-urlencoded raw binary GraphQL JSON

```

1 { "text": ["What is your name?"] },
2   "model_id": "en-es"

```

Body Cookies Headers (17) Test Results Status: 200 OK Time: 3.02 s Size: 793 B Save Response

Pretty Raw Preview Visualize JSON

```

1 {
2   "translations": [
3     {
4       "translation": "¿Cuál es tu nombre?"
5     }
6   ],
7   "word_count": 5,
8   "character_count": 18
9 }

```

Try the same with different languages.

The image shows two screenshots of the Postman application, demonstrating API calls to the IBM Watson Language Translator service.

Top Screenshot:

- Request:** POST `https://api.eu-gb.language-translator.watson.cloud.ibm.com/instances/02d2cfc0-4704-43ef-a1f0-917eef3f6487/v3/1...`
- Body (JSON):**

```
{  "text": ["What is your name?"],  "model_id": "en-hi"}
```
- Response:** Status: 200 OK, Time: 1594 ms, Size: 814 B.
Body (JSON):

```
{  "translations": [    {      "translation": "आपका नाम क्या है?"    }  ],  "word_count": 5,  "character_count": 18}
```

Bottom Screenshot:

- Request:** POST `https://api.eu-gb.language-translator.watson.cloud.ibm.com/instances/02d2cfc0-4704-43ef-a1f0-917eef3f6487/v3/1...`
- Body (JSON):**

```
{  "text": ["What is your name?"],  "model_id": "en-gu"}
```
- Response:** Status: 200 OK, Time: 19.42 s, Size: 816 B.
Body (JSON):

```
{  "translations": [    {      "translation": "તમારો નામ શું છે?"    }  ],  "word_count": 6,  "character_count": 18}
```

Overview | POST https://api.eu-gb.nat... | POST https://api.eu-gb.lang... | + ... | No Environment

https://api.eu-gb.language-translator.watson.cloud.ibm.com/instances/02d2cfc0-4704-43ef-a1f0-917eef3f6487/...

POST | https://api.eu-gb.language-translator.watson.cloud.ibm.com/instances/02d2cfc0-4704-43ef-a1f0-917eef3f6487/v3/... | Send

Params | Authorization | Headers (9) | Body | Pre-request Script | Tests | Settings | Cookies | Beautify

none | form-data | x-www-form-urlencoded | raw | binary | GraphQL | JSON

```
available, and the topic is repetitive in nature. Some traditional use cases are sports, financial and weather reporting."],
2  "model_id": "en-hi"]}
```

Body | Cookies | Headers (17) | Test Results | Status: 200 OK | Time: 1318 ms | Size: 2.35 KB | Save Response

Pretty | Raw | Preview | Visualize | JSON

```
2  "translations": [
3    {
4      "translation": "रोबोडाकी, या स्वचालित पत्रकारिता में, कुछ डेटा कुछ मानव भाषा में लिखे समाचार रिपोर्टों में तब्दील हो जाता है. यह प्राकृतिक भाषा पीढ़ी (एनएलजी) तकनीकों के साथ हासिल किया जाता है। ग्रेफ (1, पीएच 9) के अनुसार, रोबोडपत्रकारिता के लिए प्रेरणा इस प्रकार है: \"... ना केवल एल्गोरिदम एक विशेष विषय के लिए हजारों समाचार कहानियों का निर्माण कर सकता है, वे भी इसे अधिक तेजी से, सस्ते और संभावित रूप से किसी भी मानव पत्रकार की तुलना में कम त्रुटियों के साथ.\" एक ही लेख के अनुसार, रोबोडाइन सबसे अच्छी तरह से फिट है, जब वहाँ संरचित डेटा उपलब्ध है, और विषय को प्रकृति में दोहराता है. कुछ पारंपरिक उपयोग के मामले खेल, वित्तीय और मौसम रिपोर्टिंग कर रहे हैं.\"
5    },
6  ],
7  "word_count": 123,
8  "character_count": 662
```

Save the response as a file.

cgic 1 response 3 - Notepad

File Edit Format View Help

```
{
  "translations": [ {
    "translation": "रोबोडाकी, या स्वचालित पत्रकारिता में, कुछ डेटा कुछ मानव भाषा में लिखे समाचार रिपोर्टों में तब्दील हो जाता है. यह प्राकृतिक भाषा पीढ़ी (एनएलजी) तकनीकों के साथ हासिल किया जाता है। ग्रेफ (1, पीएच 9) के अनुसार, रोबोडपत्रकारिता के लिए प्रेरणा इस प्रकार है: \"... ना केवल एल्गोरिदम एक विशेष विषय के लिए हजारों समाचार कहानियों का निर्माण कर सकता है, वे भी इसे अधिक तेजी से, सस्ते और संभावित रूप से किसी भी मानव पत्रकार की तुलना में कम त्रुटियों के साथ.\" एक ही लेख के अनुसार, रोबोडाइन सबसे अच्छी तरह से फिट है, जब वहाँ संरचित डेटा उपलब्ध है, और विषय को प्रकृति में दोहराता है. कुछ पारंपरिक उपयोग के मामले खेल, वित्तीय और मौसम रिपोर्टिंग कर रहे हैं.\"
  } ],
  "word_count": 123,
  "character_count": 662
}
```

Output:

```
{
  "translations": [ {
    "translation": "रोबोडाकी, या स्वचालित पत्रकारिता में, कुछ डेटा कुछ मानव भाषा में लिखे समाचार रिपोर्टों में तब्दील हो जाता है. यह प्राकृतिक भाषा पीढ़ी (एनएलजी) तकनीकों के साथ हासिल किया जाता है। ग्रेफ (1, पीएच 9) के अनुसार, रोबोडपत्रकारिता के लिए प्रेरणा इस प्रकार है: \"... ना केवल एल्गोरिदम एक विशेष विषय के लिए हजारों समाचार कहानियों का निर्माण कर सकता है, वे भी इसे अधिक तेजी से, सस्ते और संभावित रूप से किसी भी मानव पत्रकार की तुलना में कम त्रुटियों के साथ.\" एक ही लेख के अनुसार, रोबोडाइन सबसे अच्छी तरह से फिट है, जब वहाँ संरचित डेटा उपलब्ध है, और विषय को प्रकृति में दोहराता है. कुछ पारंपरिक उपयोग के मामले खेल, वित्तीय और मौसम रिपोर्टिंग कर रहे हैं.\"
  } ],
  "word_count": 123,
  "character_count": 662
}
```