

TravelAI User Guide

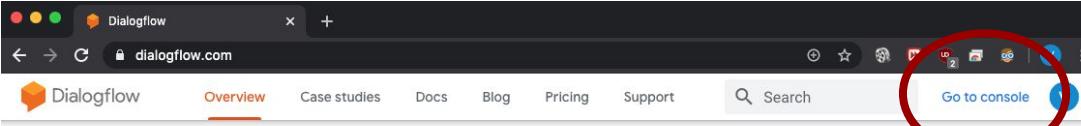
In your terminal, cd to your desired directory to store the TravelAI files, and type in the following command:

- \$ git clone <https://github.com/mecarill/IRS-PM-2020-01-18-IS02PT-GRP09-TravelAI.git>

Setting up Dialogflow

Plus webhook from ngrok

Go to dialogflow.com, click **Go to console**



The screenshot shows the Dialogflow website's homepage. At the top right, there is a red circle highlighting the "Go to console" button. Below the header, there is a large section with the heading "Build natural and rich conversational experiences". To the right of this text is a video thumbnail titled "Intro to Dialogflow" featuring a woman at a computer. Below the main text and video are three columns of text: "Powered by Google's machine learning", "Built on Google infrastructure", and "Optimized for the Google Assistant".

Build natural and rich conversational experiences

Give users new ways to interact with your product by building engaging voice and text-based conversational interfaces, such as voice apps and chatbots, powered by AI. Connect with users on your website, mobile app, the Google Assistant, Amazon Alexa, Facebook Messenger, and other popular platforms and devices.

[Sign up for free](#)

Powered by Google's machine learning

Dialogflow incorporates Google's machine learning expertise and products such as Google Cloud Speech-to-Text.

Built on Google infrastructure

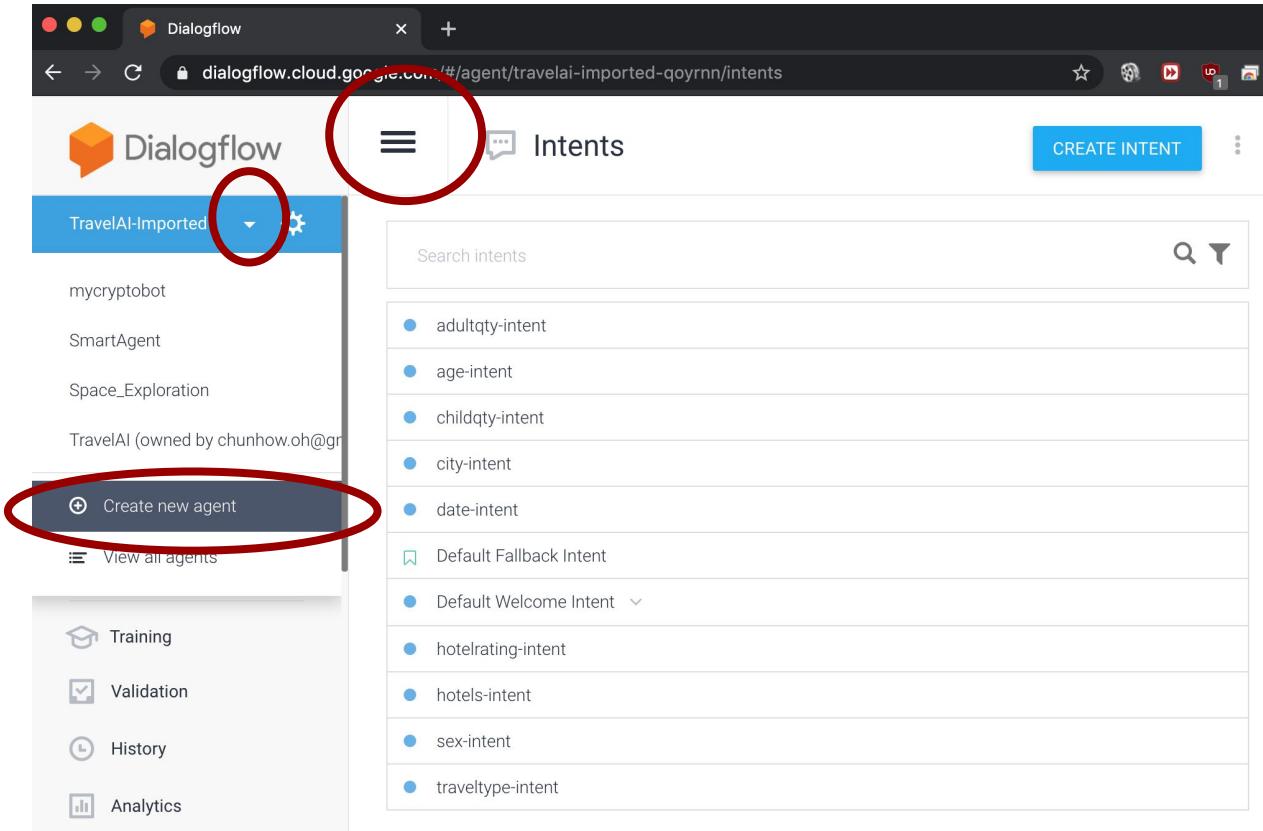
Dialogflow is a Google service that runs on Google Cloud Platform, letting you scale to hundreds of millions of users.

Optimized for the Google Assistant

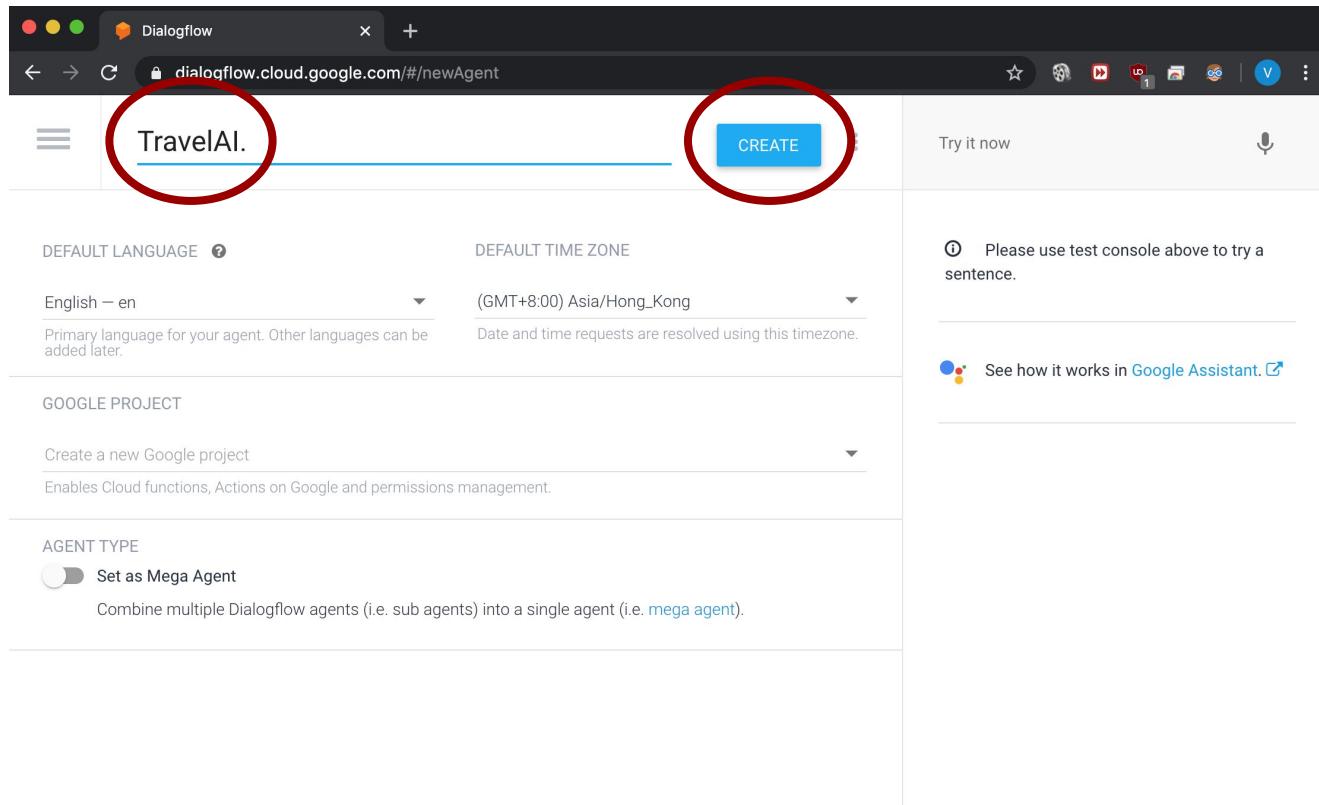
Dialogflow is the most widely used tool to build Actions for more than 400M+ Google Assistant devices.

Dialogflow is a Google service that runs on Google Cloud Platform, letting you scale to hundreds of millions of users.

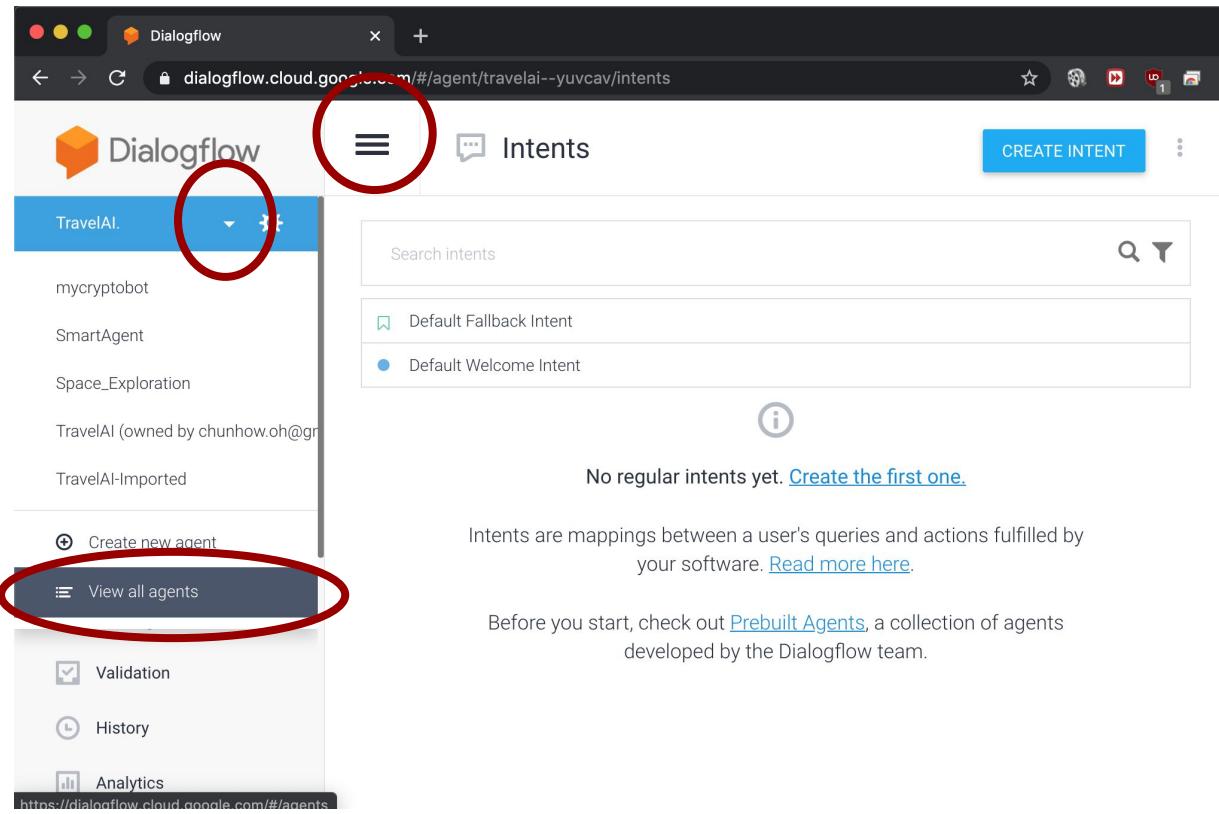
In the top left hand corner, click on the three **horizontal lines** representing the menu, click on the **down arrow**, and click **Create new agent**



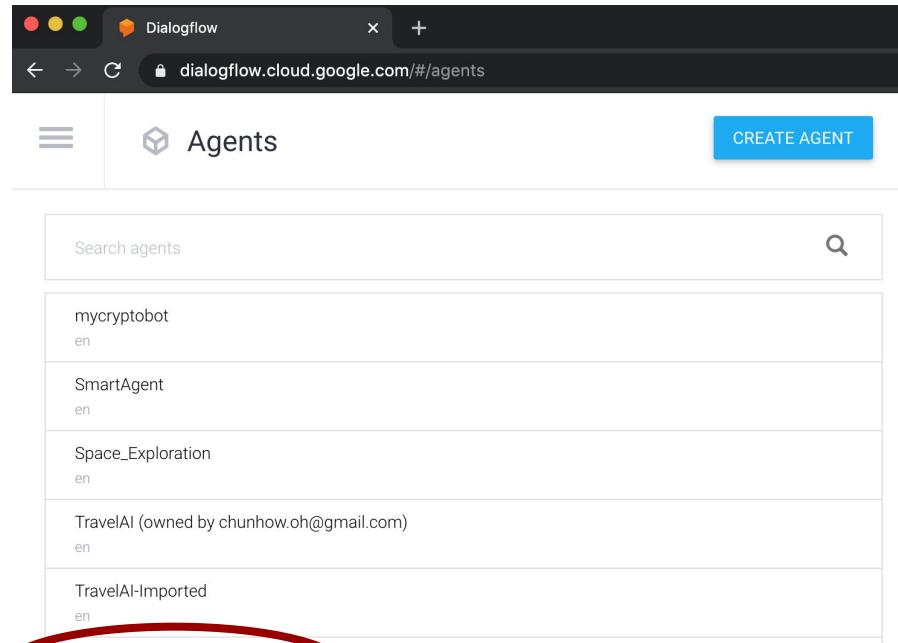
Enter a name for the agent and click **CREATE**



In the top left hand corner, click on the three **horizontal lines** representing the menu, click on the **down arrow**, and click **View all agents**



Click on the newly created agent. In this case, it is TravelAI.



The screenshot shows the Dialogflow interface on a web browser. The title bar says "Dialogflow" and the URL is "dialogflow.cloud.google.com/#/agents". On the left is a sidebar with three horizontal lines. The main area has a header "Agents" with a search bar below it containing "Search agents" and a magnifying glass icon. To the right of the search bar is a blue "CREATE AGENT" button. Below the search bar is a list of agents:

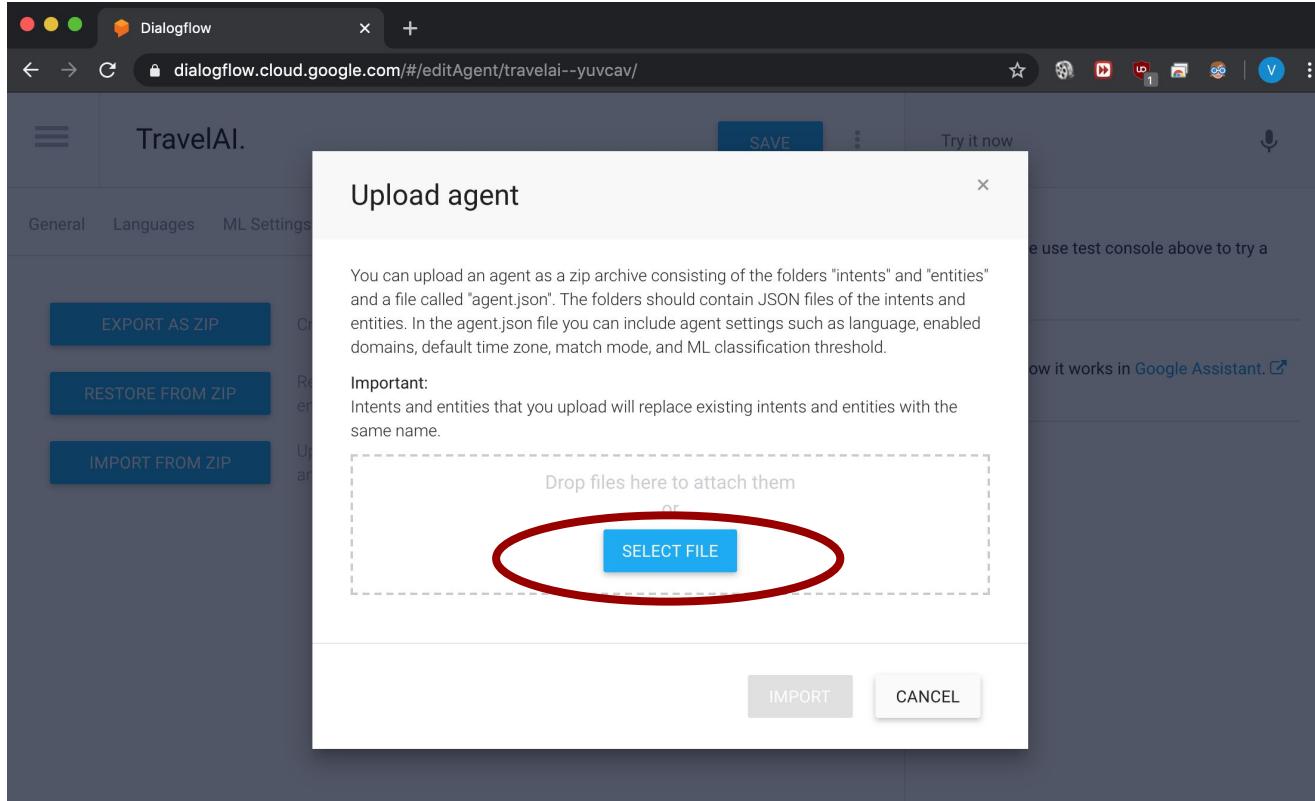
- mycryptobot
- en
- SmartAgent
- en
- Space_Exploration
- en
- TravelAI (owned by chunhow.oh@gmail.com)
- en
- TravelAI-Imported
- en
- TravelAI.
- en

A large red oval highlights the "TravelAI." entry in the list.

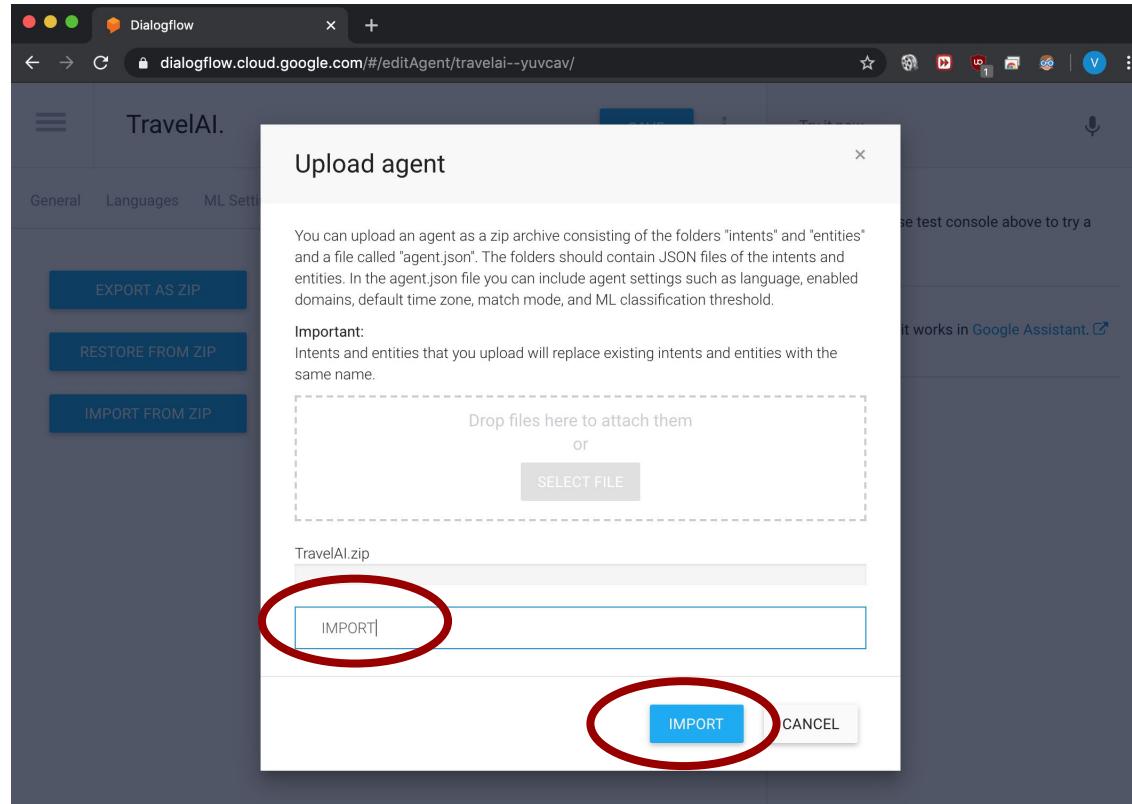
Go to the **Export and Import** tab, click **IMPORT FROM ZIP**

The screenshot shows the Dialogflow agent editor interface. At the top, the title bar reads "Dialogflow" and the URL is "dialogflow.cloud.google.com/#/editAgent/travelai--yuvcav/". Below the title bar, there's a navigation menu with icons for Home, Recent, Create, and Help. The main content area has a sidebar on the left with a menu icon and the text "TravelAI.". The main panel has a "SAVE" button in the top right corner. Below the save button is a "Try it now" button with a microphone icon. The top navigation bar includes tabs for General, Languages, ML Settings, Export and Import (which is currently selected), Environments, Speech, Share, and Advanced. The "Export and Import" tab is highlighted with a blue underline. In the center of the panel, there are three main buttons: "EXPORT AS ZIP", "RESTORE FROM ZIP", and "IMPORT FROM ZIP". The "IMPORT FROM ZIP" button is circled in red. To the right of these buttons, there's descriptive text for each: "Create a backup of the agent" for EXPORT AS ZIP, "Replace the current agent version with a new one. All the intents and entities in the older version will be deleted." for RESTORE FROM ZIP, and "Upload new intents and entities without deleting the current ones. Intents and entities with the same name will be replaced with the newer version." for IMPORT FROM ZIP. On the far right, there's a note: "Please use test console above to try a sentence." followed by a "See how it works in Google Assistant." link.

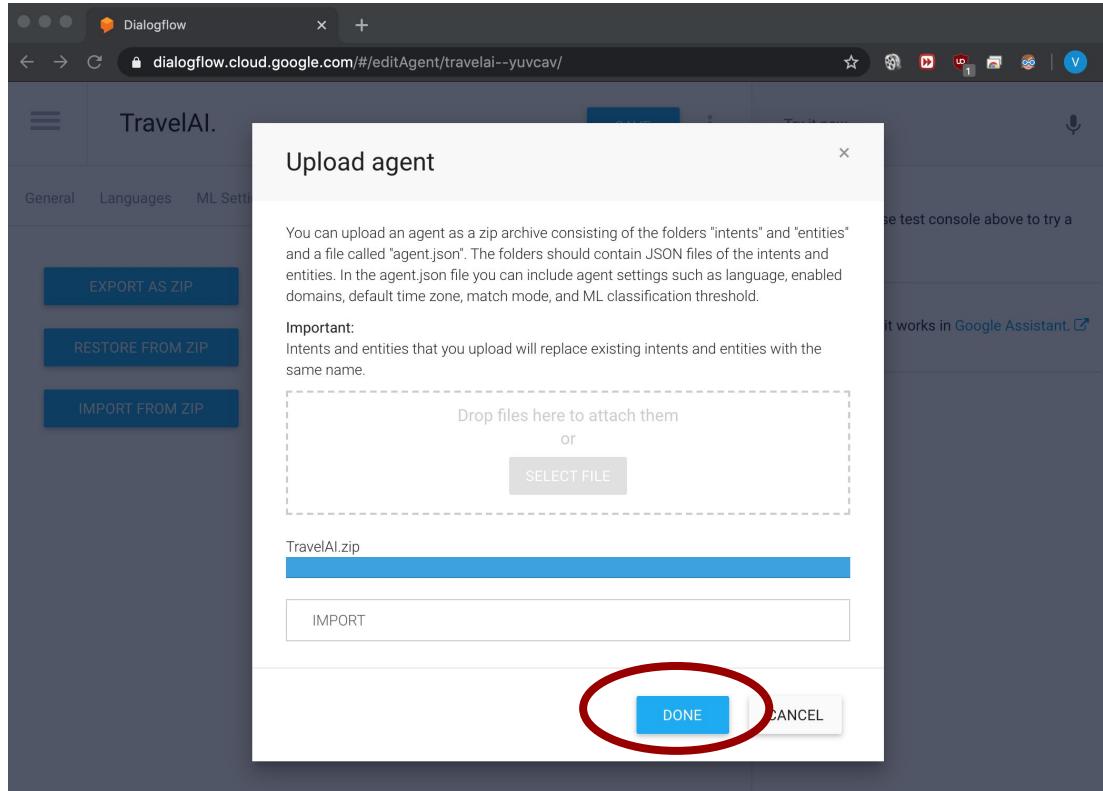
In your local folders, under SystemCode/src, select file **TravelAI.zip**, the zip file that was pulled from Git.



Type “**IMPORT**” and click on the **IMPORT** button



Click **DONE**



Go to the menu (3 lines), and click on **Fulfillment** tab

The screenshot shows the Dialogflow agent edit interface. At the top, there is a browser header with the URL dialogflow.cloud.google.com/#/editAgent/travelai--yuv cav/. Below the header, the main interface has a title bar with the Dialogflow logo and the agent name "TravelAI.". On the left side, there is a vertical navigation menu with the following items:

- TravelAI.
- Intents
- Entities
- Knowledge [beta]
- Fulfillment** (highlighted with a red oval)
- Integrations
- Training
- Validation
- History
- Analytics
- Prebuilt Agents

The main content area is divided into several sections:

- General** tab (selected):
 - DESCRIPTION: "Describe your agent" input field.
 - DEFAULT TIME ZONE: "(GMT+8:00) Asia/Hong_Kong" dropdown.
 - GOOGLE PROJECT section:

| | |
|-----------------|---|
| Project ID | travelai--yuv cav |
| Service Account | dialogflow-naukfl@travelai--yuv cav.iam.gserviceaccount.com |
 - API VERSION: V2 API (radio button selected). A note below says: "Use Cloud API as default for the agent. Your webhook will receive and return V2 format messages."
- Languages**, **ML Settings**, **Export and Import**, **Environments**, **Speech**, **Share**, and **Advanced** tabs.
- A blue **SAVE** button.
- A "Try it now" button.
- On the right, there are two examples:
 - A message icon with the text "Plea sentence." followed by a horizontal line.
 - A "See" button with a blue and yellow circular icon followed by a horizontal line.

Stay on this webpage, we will come back to it **later** to **Enter a URL**

The screenshot shows the Dialogflow Fulfillment settings page. At the top, there's a navigation bar with three dots, the Dialogflow logo, and a search bar containing the URL `dialogflow.cloud.google.com/#/agent/travelai--yuvca/v/fulfillment`. Below the navigation is a sidebar with a menu icon and a lightning bolt icon labeled "Fulfillment". The main content area has a title "Webhook" with an "ENABLED" toggle switch (which is turned on). A descriptive text explains that the web service will receive a POST request from Dialogflow whenever an intent is triggered. It also links to "webhook requirements". Below this, there's a "URL*" field with the placeholder "Enter URL" and a note: "This url will receive a POST request from Dialogflow every time the webhook is triggered by an intent." There are sections for "BASIC AUTH", "HEADERS", and "SMALL TALK". The "HEADERS" section contains two rows with "Enter key" and "Enter value" fields, and a "Add header" button. The "SMALL TALK" section has a "Disable webhook for Smalltalk" link.

Dialogflow

dialogflow.cloud.google.com/#/agent/travelai--yuvca/v/fulfillment

Fulfillment

Webhook

ENABLED

Your web service will receive a POST request from Dialogflow in the form of the response to a user query matched by intents with webhook enabled. Be sure that your web service meets all the [webhook requirements](#) specific to the API version enabled in this agent.

URL*

This url will receive a POST request from Dialogflow every time the webhook is triggered by an intent.

BASIC AUTH

HEADERS

Enter key
Enter value

Enter key
Enter value

[+ Add header](#)

SMALL TALK

Disable webhook for Smalltalk

Download ngrok.exe or ngrok binary to your machine from ngrok.com.

In the terminal

- cd into the folder holding ngrok.exe
- execute command: ngrok.exe http 3000
- copy the https link into the Google's Dialogflow URL holder.
- Add "/webhook" at the end of the URL'
- Press **SAVE**

Webhook

ENABLED

Your web service will receive a POST request from Dialogflow in the form of the response to a user query matched by intents with webhook enabled. Be sure that your web service meets all the [webhook requirements](#) specific to the API version enabled in this agent.

URL*

BASIC AUTH

HEADERS

+ Add header

SMALL TALK

Inline Editor (Powered by Google Cloud Functions)

DISABLED

Build and manage fulfillment directly in Dialogflow via Cloud Functions. [Docs](#)

```
index.js package.json
48/ conv.ask('Hello from the Actions on Google client library!') /
49/ agent.add(conv); // Add Actions on Google library responses to
50/ }
51/ // See https://github.com/dialogflow/fulfillment-actions-library
52/ // for a complete Dialogflow fulfillment library Actions on Goog
53|
54/ Run the proper function handler based on the matched Dialogflow
55at intentMap = new Map();
56intentMap.set('Default Welcome Intent', welcome);
57intentMap.set('Default Fallback Intent', fallback);
58/ intentMap.set('your intent name here', yourFunctionHandler);
59/ intentMap.set('your intent name here', googleAssistantHandler);
60gent.handleRequest(intentMap);
61|
62|
```

SAVE

CS2 — ngrok http 3000 — 90x30

```
...ster/TravelAI-master — bash ...er/TravelAI-master — bash .../CS2 — ngrok http 3000 + (Ctrl+C to quit)
ngrok by @inconschreveable

Session Status          online
Session Expires         6 hours, 19 minutes
Version                 2.3.35
Region                  United States (us)
Web Interface           http://127.0.0.1:4040
Forwarding              http://20c404ca.ngrok.io -> http://localhost:3000
Forwarding              https://20c404ca.ngrok.io -> http://localhost:3000

Connections             ttl     opn      rt1      rt5      p50      p90
                        24       0       0.00     0.00    5.01     5.04
```

Go to the menu (3 lines) and click on **Integrations** tab

The screenshot shows the Dialogflow agent edit interface. At the top, there is a browser header with the URL dialogflow.cloud.google.com/#/editAgent/travelai--yuv cav/. Below the header, the main interface has a title bar with the Dialogflow logo and the agent name "TravelAI.". A blue "SAVE" button is visible on the right. On the left, a sidebar menu lists several tabs: "TravelAI.", "Intents", "Entities", "Knowledge [beta]", "Fulfillment" (which is currently selected and highlighted in grey), and "Integrations". The "Integrations" tab is also circled in red. The main content area is divided into sections: "General" (selected), "Languages", "ML Settings", "Export and Import", "Environments", "Speech", "Share", and "Advanced". The "General" section contains fields for "DESCRIPTION" (with placeholder "Describe your agent") and "DEFAULT TIME ZONE" (set to "(GMT+8:00) Asia/Hong_Kong"). Below this is a "GOOGLE PROJECT" section with "Project ID" set to "travelai--yuv cav" and "Service Account" set to "dialogflow-naukfl@travelai--yuv cav.iam.gserviceaccount.com". At the bottom, there is an "API VERSION" section with "V2 API" selected, and a note: "Use Cloud API as default for the agent. Your webhook will receive and return V2 format messages." A black bar at the very bottom contains the URL <https://dialogflow.cloud.google.com/#/agent/travelai--yuv cav/fulfillment>.

Scroll down and click on the 'web demo' icon.

Dialogflow

SmartAgent en +

Intents +

Entities +

Knowledge [beta]

Fulfillment

Integrations

Training

Validation

History

Analytics

Prebuilt Agents

Small Talk

Docs

Standard Free Upgrade

Support

Account

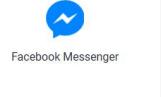
Logout

Integrations

Telephony

GENESYS Genesys Cloud

Text based

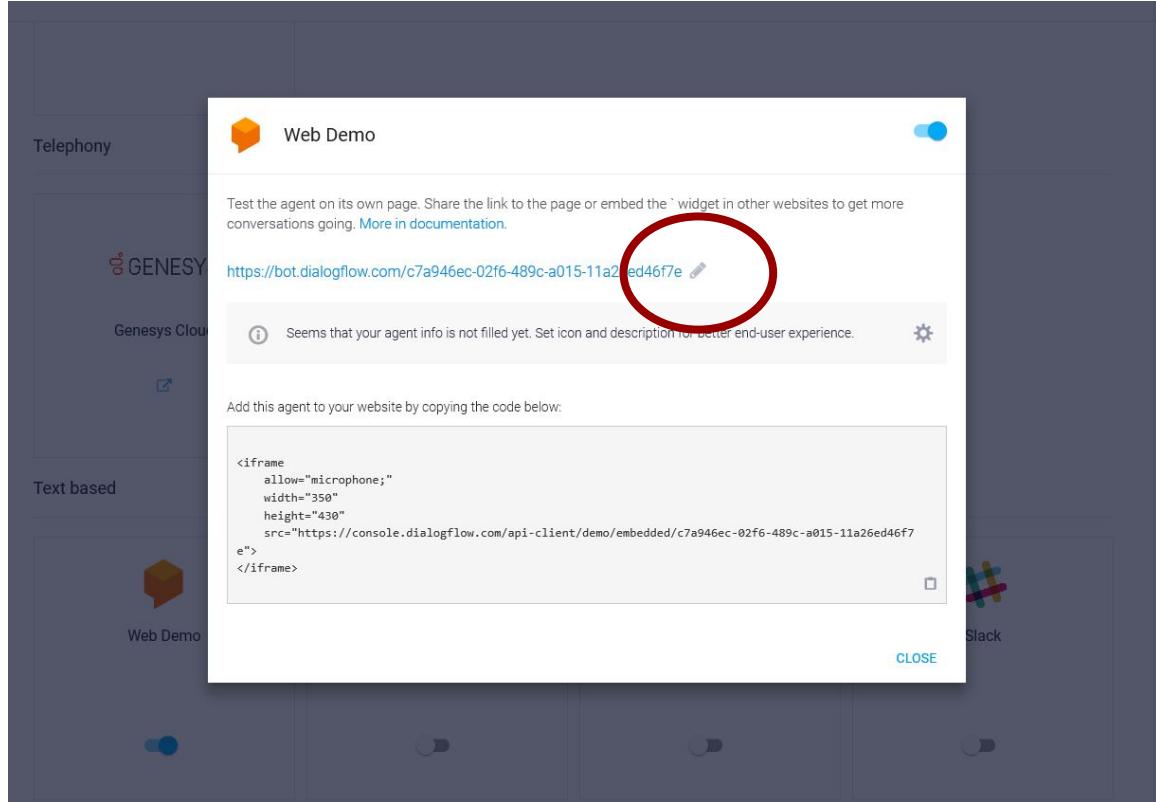
| | | | |
|--|---|--|---|
|  Web Demo |  Dialogflow Messenger <small>BETA</small> |  Facebook Messenger |  Slack |
|  Viber |  Twitter |  Twilio IP |  Twilio (Text messaging) |

Try it now

Please use test sentence.

See how it works

Click on the pencil icon to copy the url shown there into the clipboard



Open the file SystemCode/src/views/home.ejs with any code editor.

Replace the entire url between the “ “ with the url in your clipboard that you have copied from Dialogflow's console.

Save the file.

```
<%- include("partials/header"); -%>

<div id="main" class="container">

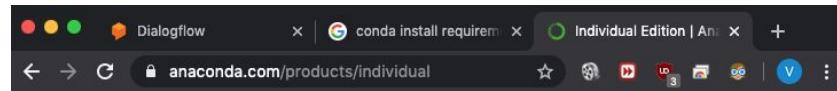
    <div class="row">
        <div class="col-md-6">
            <video id="vid" width="540" height="310" controls autoplay muted loop>
                <source src="/public/videos/TravelAIvideo.mp4" type="video/mp4">
                    Travel AI video. Your browser does not support video.
            </video>
        </div>
        <div style="margin: auto;">
            <form class="result" action="/result" method="post" style="display:inline">
                <button type="submit" name="result" class="btn btn-secondary">Generate Travel Plan</button>
            </form>
            <form class="result" action="/poi" method="post" style="display:inline">
                <button style="margin: 2px;" type="submit" name="poi" class="btn btn-secondary">Recommend Points of Interest</button>
            </form>
            <form class="result" action="/reset" method="post" style="display:inline">
                <button type="submit" name="reset" class="btn btn-secondary">Reset Input</button>
            </form>
        </div>
    </div>
    <div class="col-md-6">
        <iframe id="frame" class="b_frame" allow="microphone;" width="350" height="190" src="https://console.dialogflow.com/api-client/demo/embedded/d336c025-XXXXXXXXXX:8e59a64824f2"></iframe>
    </div>
</div>

<%- include("partials/footer"); -%>
```

Installing dependencies

Requirements.txt, node.js

Download and install ANACONDA from <https://www.anaconda.com/products/individual>
And run the bash script 'bash <filename.sh>'



Individual Edition

Your data science toolkit

With over 20 million users worldwide, the open-source Individual Edition (Distribution) is the easiest way to perform Python/R data science and machine learning on a single machine. Developed for solo practitioners, it is the toolkit that equips you to work with thousands of open-source packages and libraries.

Download

Download and install Node.js from <https://nodejs.org/en/download/>

Or use 'sudo apt install nodejs' on Linux terminal



Downloads

Latest LTS Version: 12.16.3 (includes npm 6.14.4)

Download the Node.js source code or a pre-built installer for your platform, and start developing today.

| LTS Recommended For Most Users | Current Latest Features |
|---|---|
|  Windows Installer <small>node-v12.16.3.msi</small> |  macOS Installer <small>node-v12.16.3.pkg</small> |

| | | |
|--------------------------|----------------------|--------|
| Windows Installer (.msi) | 32-bit | 64-bit |
| Windows Binary (.zip) | 32-bit | 64-bit |
| macOS Installer (.pkg) | 64-bit | |
| macOS Binary (.tar.gz) | 64-bit | |
| Linux Binaries (x64) | 64-bit | |
| Linux Binaries (ARM) | ARMv7 | ARMv8 |
| Source Code | node-v12.16.3.tar.gz | |

Additional Platforms

| | |
|---------------------------|-------------------------------|
| SmartOS Binaries | 64-bit |
| Docker Image | Official Node.js Docker Image |
| Linux on Power LE Systems | 64-bit |
| Linux on System z | 64-bit |
| AIX on Power Systems | 64-bit |

- Signed [SHASUMS](#) for release files ([How to verify](#))
- All download options
- Installing Node.js via package manager
- Previous Releases
- Nightly builds
- Unofficial builds
- Building Node.js from source on supported platforms

On Windows, you may be required to install Microsoft Visual C++ 14.0. Get Build Tools for Visual Studio 2019 from <https://visualstudio.microsoft.com/downloads/> and install Windows 10 SDK and MSVC v140 - VS 2015 C++ build tools (v14.00)

Build Tools for Visual Studio 2019

These Build Tools allow you to build Visual Studio projects from a command-line interface. Supported projects include: ASP.NET, Azure, C++ desktop, ClickOnce, containers, .NET Core, .NET Desktop, Node.js, Office and SharePoint, Python, TypeScript, Unit Tests, UWP, WCF, and Xamarin.

Download ↴



In your terminal, cd to SystemCode/src folder, and enter the following

- \$ conda create -n travelai python
- \$ conda activate travelai (Remove conda on windows)
- \$ pip install -r requirements.txt
- \$ npm install (You may need to run sudo apt install npm)

Ensure that Python is 64 bit.

Getting Credentials for API

Amadeus API

Go to <https://developers.amadeus.com/>.

Click on the blue button “**Register**” at the top right-hand corner

The screenshot shows a web browser window for the Amadeus Developers website. The URL in the address bar is <https://developers.amadeus.com/>. The page features a large banner with the text "Build the future of travel" and an image of an airplane flying over a modern building. A blue "Get started" button is visible on the left. At the top right, there is a "Register" button which is circled in red. Below the banner, a blue footer bar contains a warning icon and the text: "Flight Low-fare Search will be decommissioned on May 28, 2020. Please migrate to Flight Offers Search. [Learn more](#)". The main content area below the banner includes sections for "Discover our APIs" and a description of Amadeus APIs.

Self-Service APIs Enterprise APIs Blog Support

AMADEUS for Developers

Build the future of travel

Amadeus Travel APIs connect you to the richest information in the travel industry. Now you can play, innovate and launch your application.

Get started

⚠ Flight Low-fare Search will be decommissioned on May 28, 2020. Please migrate to Flight Offers Search. [Learn more](#)

Discover our APIs

Whether you are a developer, a startup or a leading travel brand, Amadeus APIs allow you to build up high-quality apps.

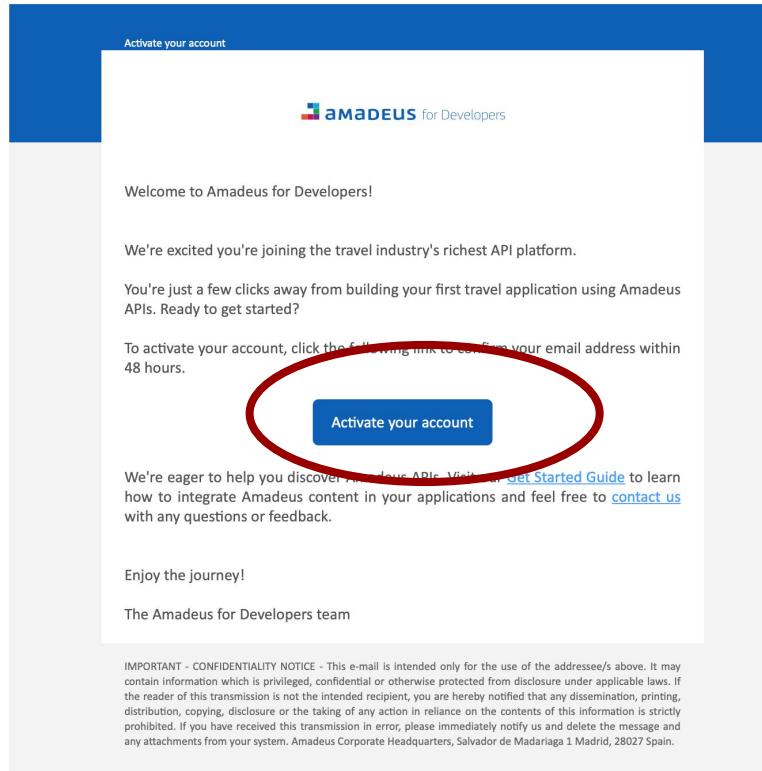


Fill in details. When done, click on button “Create account”

The screenshot shows a web browser window with the URL developers.amadeus.com/register. The page title is "Register | Amadeus for Developers". The main heading is "Create an account". Below it, there's a note for existing users ("Already have an Account? [Sign In](#)") and a note for developers ("By submitting this form you will only get instant access to test Self-Service APIs, which allow you to connect to selected travel content. If you are developing an application for an [airline](#) or you have any specific business needs, please [request access](#) to our Enterprise APIs catalogue."). The form fields are as follows:

- First name* (text input field: "Your first name")
- Last name* (text input field: "Your last name")
- Country* (dropdown menu)
- Email* (text input field: "Your email")
- Business area* (dropdown menu)
- Full legal company name (if applicable) (text input field: "Your company name (if applicable)")
- Password* (text input field: "Enter a password" with eye icon)
- Confirm password* (text input field: "Repeat password" with eye icon)
- A small note below the password fields: "Use: 8 characters minimum and include at least one number, 1 special character, one capital letter and one lowercase letter"
- A CAPTCHA field showing "VMTWB3EY" with a refresh icon.
- A text input field for "Type the text above*" containing "VMTWB3EY".
- A red circle highlights the checkbox agreement section.
- The checkbox text: "I hereby agree to the [term of use](#), the [privacy policy](#) and the [cookies policy](#) of the Amadeus for Developers Portal."
- A large red circle highlights the "Create account" button.

Go to your email and click on the **Activate your account**



Enter your password, and press **Activate your account**.

The screenshot shows a web browser window with multiple tabs open. The active tab is titled "Activate your account | Amadeus" and has the URL "developers.amadeus.com/activate-account?userId=kikopong@hotmail.com&activationKey=15890263...". The page content is a registration form with a red oval highlighting the "Activate your account" button.

Platform for Amadeus Developers | Amadeus for Developers | Mail - Veronica Ioy - Outlook | Activate your account | Amadeus

developers.amadeus.com/activate-account?userId=kikopong@hotmail.com&activationKey=15890263...

amADEUS for Developers Self-Service APIs Enterprise APIs Blog Support Register Sign In

Your registration is still not complete
You need to sign in to activate your account.

Email
kikopong@hotmail.com

Password*
.....

Activate your account

Legal Cookies policy Privacy policy amadeus.com Amadeus Partner Network

YouTube Facebook Twitter

Click on your **username** (top right corner), Go to [My Self-Service Workspace](#)

The screenshot shows a web browser window with three tabs open: 'Amadeus for Developers', 'Mail - Veronica Ioy - Outlook', and 'Connect to Amadeus travel API'. The main content area features a large image of a city skyline at night with a flying airplane. The text 'Build the future of travel' is displayed, along with a message about Amadeus Travel APIs connecting users to rich travel information and encouraging them to play, innovate, and launch applications. A 'Get started' button is visible. A red oval highlights the user profile menu in the top right corner, which includes options for 'My Account', 'My Self-Service Workspace', and 'Log out'. At the bottom, there is a warning message about the decommissioning of Flight Low-fare Search and a call to migrate to Flight Offers Search, followed by a 'Learn more' link. The footer contains a 'Discover our APIs' section and a link to 'https://developers.amadeus.com/my-apps'.

Build the future of travel

Amadeus Travel APIs connect you to the richest information in the travel industry. Now you can play, innovate and launch your application.

Get started

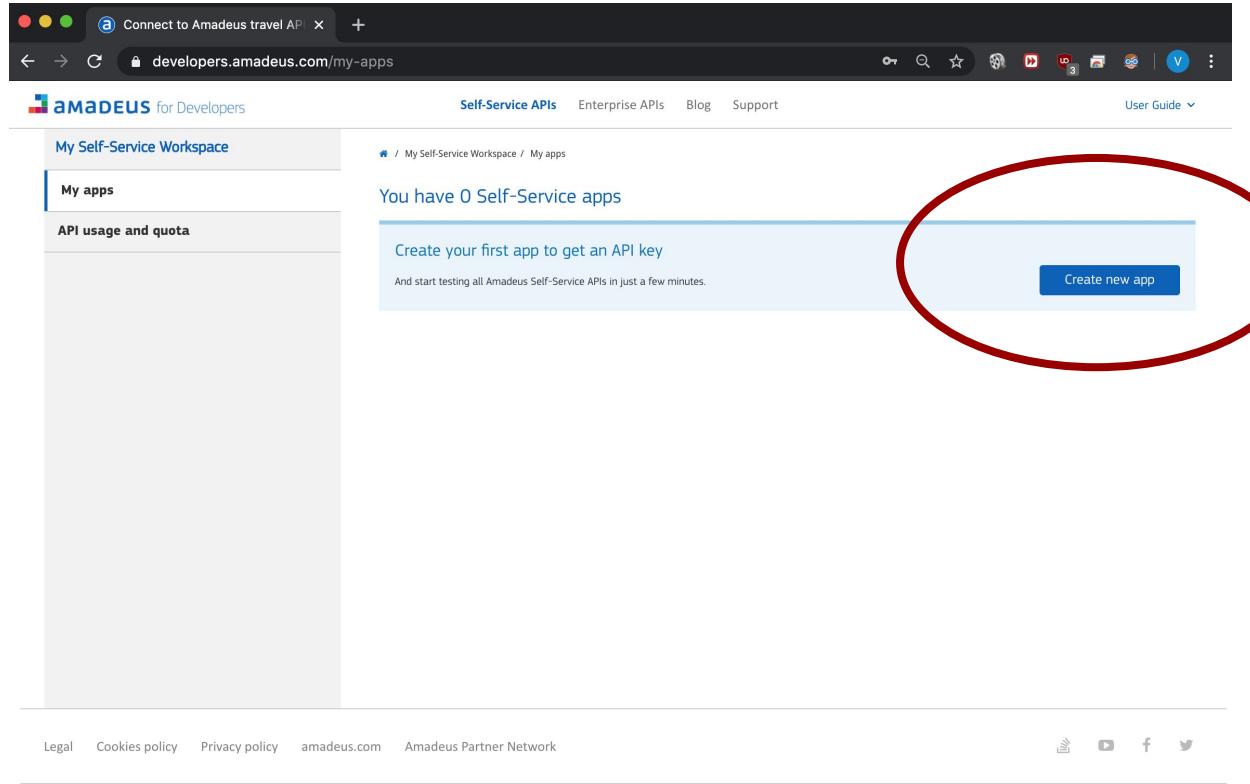
Flight Low-fare Search will be decommissioned on May 28, 2020. Please migrate to Flight Offers Search. [Learn more](#)

Discover our APIs

Whether you are a developer, a startup or a leading travel brand, Amadeus APIs allow you to build up high-quality apps.

<https://developers.amadeus.com/my-apps>

Click on **Create New App** button



Enter your application details and click on **Create**

The screenshot shows a web browser window for the Amadeus Developers portal at developers.amadeus.com/my-apps. The page title is "Connect to Amadeus travel API". The main content area is titled "Create new app". It includes fields for "App name *" (containing "userguide"), "Targeted to(optional)" (with checkboxes for "Business to consumer" and "Business to business" both unchecked), and "Description(optional)" (with a placeholder "Enter a description"). A red oval highlights the "Create" button, which is blue with white text. Below the form, a message says "You have 0 Self-Service apps". On the left sidebar, there are sections for "My apps" and "API usage and quota". The top navigation bar includes links for "Self-Service APIs", "Enterprise APIs", "Blog", "Support", and "User Guide".

Click on **Get production environment**

The screenshot shows the Amadeus Developers userguide page for the 'userguide' application. The top navigation bar includes links for 'Self-Service APIs', 'Enterprise APIs', 'Blog', and 'Support'. The main content area has tabs for 'Application Info' and 'App Keys'. Under 'Application Info', there is a box for 'App name' (set to 'userguide'), 'Targeted to' (set to 'None'), and 'Description' (set to 'userguide'). To the right, there is a promotional box for the 'Flight Create Orders API' with a 'Stack it up' button. The 'App Keys' tab is active, showing 'Test keys | Base URL: test.api.amadeus.com'. It displays 'API Key' (JeRU8doRY1jVIX7UFR4eZOXjI7f4ix5) and 'API Secret' (redacted). A note at the bottom of this section says: 'Important: Don't add any personal info when testing this app in Sandbox. See more.' On the right, a box states 'Production key not requested' and 'You are only using our testing environment for this app.' It includes a note: 'Note: After moving to production, don't forget to update your app with the production keys and the base URL.' and a 'Get production environment' button.

Enter values in the compulsory field and click **Next**

Amadeus Developers | Amadeus + developers.amadeus.com/my-apps/userguide/move-to-production?userId=kikopong...

AMADEUS for Developers Self-Service APIs Enterprise APIs Blog Support will

Personal information

Email*
kikopong@hotmail.com

First name*

Last name *

Your country*

Phone number

Select your profile

Individual developer Working on behalf of a company

Billing address

Address*

Town/city*

Zip Code*

App information

App Name*

Describe briefly the type of APP you want to launch*
Hint: What is the purpose of the APP you developed? What is it about?

App information
 Business to consumer Business to business

Does your app use an API that requires validation?
 Yes No

Cancel Next

Enter your credit card details and click **next**

AMADEUS for Developers Self-Service APIs Enterprise APIs Blog Support User Guide ▾

/ My Self-Service Workspace / My apps / userguide / Request production environment

Request production Environment

1 Personal & Billing info 2 Payment method 3 Sign agreement & confirm

>Payment method
Please review and update your personal and app information. The information provided will be used for billing purposes only.

Credit card
 Bank transfer

Heads up! This is how the access to production works
Since this is the first time you move an app to production, you will need to sign a contract and provide your payment information. Additional apps will not require this process.

Card details

Cardholder name *
user guide

Card type *
 Mastercard

Card number *
Please fill in the required fields.

Expiry date *
May 2020

BACK NEXT

Check the tick box, click **continue**

Personal information

Email: kikopong@hotmail.com
Name: User Guide
Phone number: 67648408

Billing address

Address: Jurong West Street 41
Town/city: Singapore
Zip Code: 640468
Your country: Singapore

App Information

Description: flight booking
Payment method: We will use your filed payment method for this and all future new apps. If you have any questions about this instance, please contact us.

Sign agreement

Please Review & Act on These Documents

Amadeus for Developers
IT GROUP SOCIEDAD ANONIMA.

AMADEUS
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Please read the Electronic Record and Signature Disclaimer
 I agree to use electronic records and signatures.

CONTINUE OTHER ACTIONS ▾

The Amadeus for Developers portal ("Portal") is divided in three main sections: (i) the general introduction of the Portal, (ii) the Self-Service section and (iii) the Enterprise section. The Self-Service and Enterprise sections are themselves divided in two environments: Test and Production. These Terms of Use will cover Your access to and usage of the Production environment of the Self-Service section.

1. SCOPE

1.1 The other environments of the Portal will be subject to other terms and conditions, which we will communicate to You when You access them.

1.2 For Your convenience provide on the right column a summary of some of the provisions of these Terms of Use in plain English. You understand and agree that this summary is provided for convenience only, is not part of the Terms of Use and in no way will modify or supersede the Terms of Use.

1.4 The (ii) Enterprise environment service interface available in the Portal. Your use of the Portal and the API is subject to:

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Scroll all the way down the mini document, click Finish, click sign

Select the sign field to create and add your signature.

FINISH OTHER ACTIONS ▾

Name of the represented entity (N/A if You entering this Agreement as an individual):

Address:

NEXT

Required - Sign Here
Sign 

Date of signature:
09 May 2020 | 16:16:00 CEST



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Click ADOPT AND SIGN

Sign agreement

Confirm your name, initials, and signature.

* Required

Full Name*

Initials*

[SELECT STYLE](#) [DRAW](#) [UPLOAD](#)

PREVIEW [Change Style](#)

DocuSigned by: DS
 UG
E4339363E25D416...

By selecting Adopt and Sign, I agree that the signature and initials will be the electronic representation of my signature and initials for all purposes when I (or my agent) use them on documents, including legally binding contracts - just the same as a pen-and-paper signature or initial.

ADOPT AND SIGN [CANCEL](#)

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Enter fields in **RED**. Click **FINISH**

Sign agreement

Done! Select Finish to send the completed document.

FINISH OTHER ACTIONS ▾

Name of the signatory: **user guide**

Name of the represented entity (N/A if You entering this Agreement as an individual):
userguide
Required
iss

Signature:
DocuSigned by
user guide
E430993E25D416

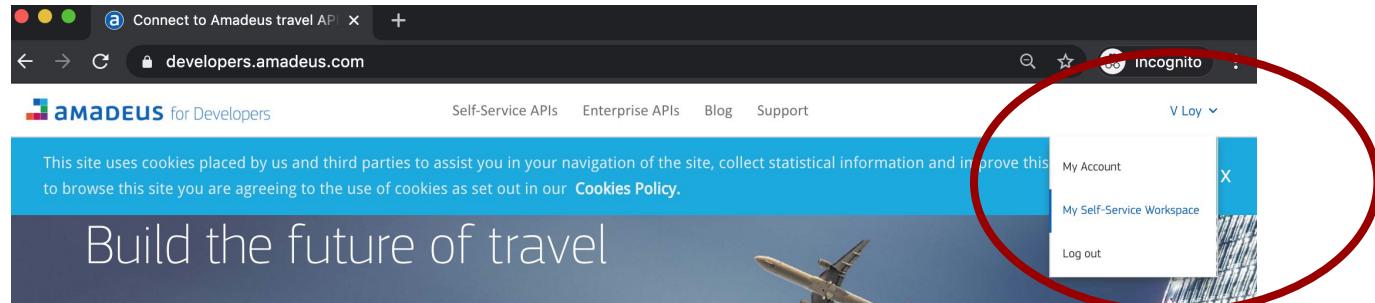
Date of signature:
09 May 2020 | 16:22:32 CEST

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BACK

Click on your **username** (top right corner), Go to [My Self-Service Workspace](#)

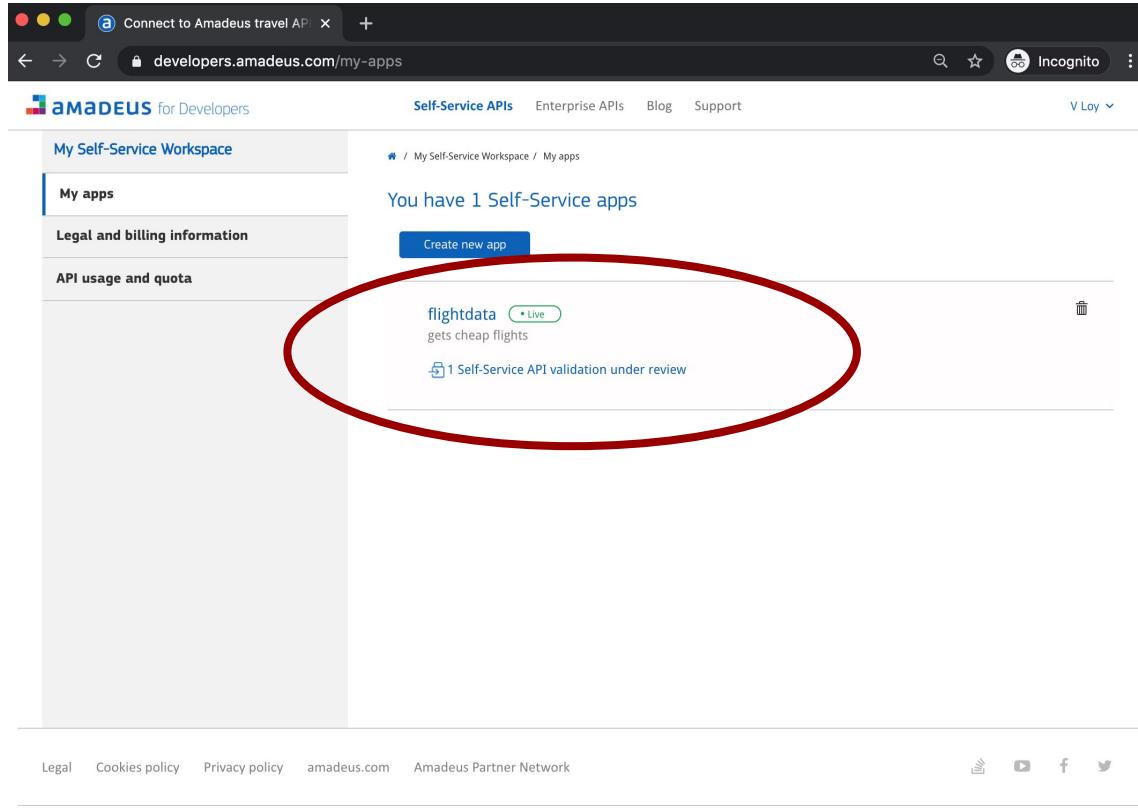


Discover our APIs

Whether you are a developer, a startup or a leading travel brand, Amadeus APIs allow you to build up high-quality apps.



Click on your app



The screenshot shows a web browser window for the Amadeus Developers portal at developers.amadeus.com/my-apps. The page title is "Connect to Amadeus travel API". The main content area displays the "My Self-Service Workspace" with the "My apps" tab selected. A message indicates "You have 1 Self-Service apps". A single app entry is listed: "flightdata" (status: Live), described as "gets cheap flights". Below this entry is a note: "1 Self-Service API validation under review". A large red oval highlights the "flightdata" app entry.

My Self-Service Workspace

Self-Service APIs Enterprise APIs Blog Support

My apps

My Self-Service Workspace / My apps

Create new app

flightdata (Live)
gets cheap flights

1 Self-Service API validation under review

Legal Cookies policy Privacy policy amadeus.com Amadeus Partner Network

Incognito

Copy your API Key and API Secret

Navigate to the SystemCode/src folder, open the .env file

Paste the client_id and client_secret into the fields respectively (second and third row here)

Note that it may take up to 30 minutes before your API keys are active once you have them.

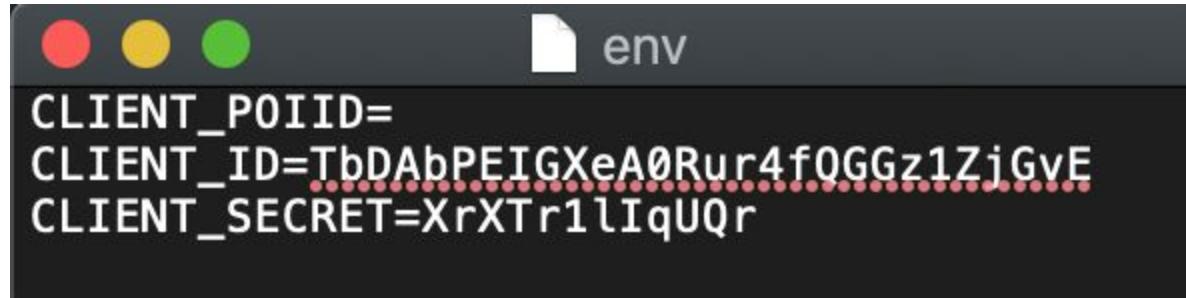
The screenshot shows the Amadeus Developers API requests page. At the top, there's a navigation bar with links for Self-Service APIs, Enterprise APIs, Blog, and Support. Below the navigation is a search bar and an Incognito mode button. The main content area features a large blue icon of a briefcase with an arrow pointing right, labeled "API requests". Below the icon, there are two tabs: "App Keys" (which is selected) and "App analytics". A note below the tabs says, "You can use these keys to consume all our Self-Service APIs. To learn more about how our APIs work check the [get started](#) section." A note below that says, "Note: After moving to production, don't forget to update your app with the production keys and the base URL. Be informed that it may take up to 30 minutes before your API Keys are active once you have them." The "App Keys" section contains two tables: "Test keys | Base URL: test.api.amadeus.com" and "Production keys | Base URL: api.amadeus.com". Each table has columns for "API Key" and "API Secret", each with a copy icon. Red circles highlight the "copy" icons for both the API Key and API Secret in the Production keys table. To the right, a portion of a terminal window titled ".env" is shown with the environment variables:

```
CLIENT_POIID=
CLIENT_ID=
CLIENT_SECRET=
```

Be informed that it may take up to 30 minutes before your API keys are active once you have them.

End result of the env.sh file should look something like this.

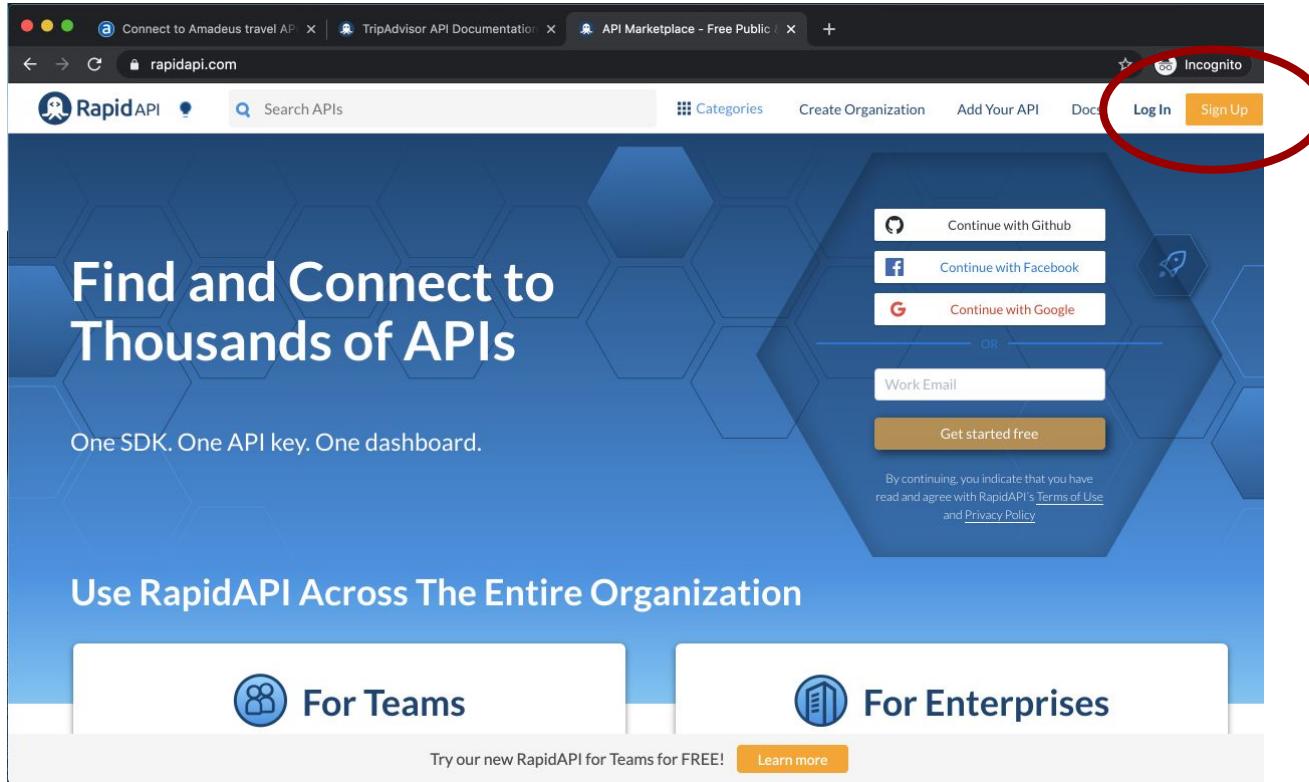
(note that the credentials below are only examples. They are not actual credentials and do not work.)



Getting Credentials for API

TripAdvisor API

Go to <https://rapidapi.com/>, click **sign up**



Choose one of the following sign up methods

The screenshot shows a web browser window with the title bar "Connect to Amadeus travel API" and "TripAdvisor API Documentation". The address bar displays the URL "rapidapi.com/apidojo/api/tripadvisor1?endpoint=apiendpoint_e2b2dc1f-fdd3-46a0-8bc0-0111176fe46e". The page itself is titled "RapidAPI" and features a dark blue header with the text "Find and Connect to Thousands of APIs". Below the header, there are four social sign-up buttons: "Sign up with Github" (black), "Sign up with Facebook" (blue), "Sign up with Google" (red), and a "Sign up with" button followed by a blank input field. A horizontal line with the word "or" separates these from three text input fields: "Username" (placeholder "Enter your user name"), "Work Email" (placeholder "Enter your email"), and "Password" (placeholder "Must have at least 8 characters"). At the bottom is a large blue "Get Started" button.

Go back to <https://rapidapi.com/>. Type ‘Tripadvisor’ in Search button, click on the Tripadvisor dropdown icon

The screenshot shows the RapidAPI homepage. At the top, there is a navigation bar with links for 'Create Organization', 'API Marketplace', 'My Apps', 'Add Your API', and 'Docs'. Below the navigation bar, a large banner features the text 'Find and Connect to Thousands of APIs' and 'One SDK. One API key. One dashboard.' A search bar contains the text 'Tripadvisor'. A dropdown menu is open over the search bar, showing a result for 'TripAdvisor' with a small logo and the description 'Human Like Sentiment Analysis for Hotel Reviews'. A red oval highlights this dropdown menu. At the bottom of the page, there are buttons for 'Discover APIs', 'Test from the browser', 'Connect using code snippets', and 'Manage from one dashboard'. On the left side, there is a sidebar with 'Categories' (Data, Sports, Finance) and a 'Discover New APIs' section with a magnifying glass icon.

Click **Subscribe to Test**

The screenshot shows the TripAdvisor API Documentation page on RapidAPI.com. At the top, there's a navigation bar with tabs for 'Categories', 'Create Organization', 'Add Your API', 'Docs', 'Log In', and 'Sign Up'. Below the navigation bar, there's a search bar labeled 'Search APIs' and a logo for 'RapidAPI'. The main content area features a card for the 'TripAdvisor' API, which is listed as 'FREEMIUM' and updated 5 months ago. It includes metrics for Popularity (9.9 / 10), Latency (1221ms), and Success Rate (99%). Below the card, there are links for 'Endpoints', 'About', 'Discussions', 'Pricing', and 'Tutorials'. The 'Endpoints' link is underlined, indicating it's the active section. The main title is 'TripAdvisor API Documentation', followed by a subtitle: 'These APIs help to query realtime Flights prices, Hotels booking, Restaurants, Attracting locations, etc...'. There's a link to 'Learn more about this API >'. On the left, there's a sidebar with a search bar for 'Search endpoints' and a list of shared endpoints: 'answers/list', 'locations/search', 'photos/list', 'locations/auto-complete', and 'tips/list'. The main content area shows the 'GET attractions/get-details' endpoint. This endpoint is described as 'Get all information of specific attracting location by its location_id'. It has a 'Header Parameters' section with a required 'X-RapidAPI-Host' parameter set to 'tripadvisor1.p.rapidapi.com'. To the right of the endpoint details, there are buttons for '(Node.js) Unirest', 'Install SDK', and 'Copy Code', along with a snippet of code using Node.js and Unirest to make the API call. A large blue button labeled 'Subscribe to Test' is highlighted with a red oval.

Select Basic plan

The screenshot shows the TripAdvisor API pricing page on the RapidAPI platform. At the top, there's a navigation bar with tabs for 'Endpoints', 'About', 'Discussions', and 'Pricing' (which is currently selected). Below the navigation is a header for 'TripAdvisor' with a 'FREEMIUM' badge, indicating it's a free API. To the right of the badge are metrics: Popularity (9.9/10), Latency (1221ms), and Success Rate (99%). A 'Test Endpoints' button is also present. On the left, a user profile for 'Personal Account' is shown. The main content area displays a table comparing four plan levels: Basic, Pro, Ultra, and Mega. The 'Basic' plan is highlighted with a red oval around its 'Select Plan' button. The table includes details like monthly quotas and descriptions for each plan.

| | Basic | Pro | Ultra | Mega |
|----------|---|---|---|---|
| Objects | \$S\$0.00 Select Plan For individuals who just want the essentials or get started quickly | \$S\$27.75*/mo (\$20.00 USD) Select Plan For professionals who require more volume for their application | \$S\$69.38*/mo (\$50.00 USD) Select Plan For professionals who work on larger scale applications | \$S\$416.29*/mo (\$300.00 USD) Select Plan For businesses who need high volume, production-level use |
| Requests | 500 / month quota Hard Limit ⓘ | 10000 / month quota +\$S\$0.00278* each (\$0.002 USD) | 30000 / month quota +\$S\$0.00139* each (\$0.001 USD) | Unlimited |

Click on the Search icon, Type TripAdvisor in the **Search** bar, and click on **dropdown TripAdvisor icon**

The screenshot shows a web browser window with the title "TripAdvisor API: Pricing & Cost" and the URL "rapidapi.com/apidojo/api/tripadvisor1/pricing". A red oval highlights the search bar area, specifically the magnifying glass icon and the search input field containing "TripAdvisor". Below the search bar, a modal window is open for the TripAdvisor API, also highlighted by a red oval. The modal contains the RapidAPI logo, the TripAdvisor logo, and the text "Human Like Sentiment Analysis for Hotel Reviews". The main page below the modal features a heading "Choose the Right Plan For You" and a subtext about RapidAPI's partnership with API providers for transparent pricing. At the bottom, there is a user profile section for "Personal Account Veronica Loy" and a table comparing five pricing plans: Basic, Pro, Ultra, and Mega. The "Basic" plan is currently selected, showing a price of S\$0.00 and noting it is "Currently subscribed". Upgrade buttons are available for the Pro, Ultra, and Mega plans.

Choose the Right Plan For You

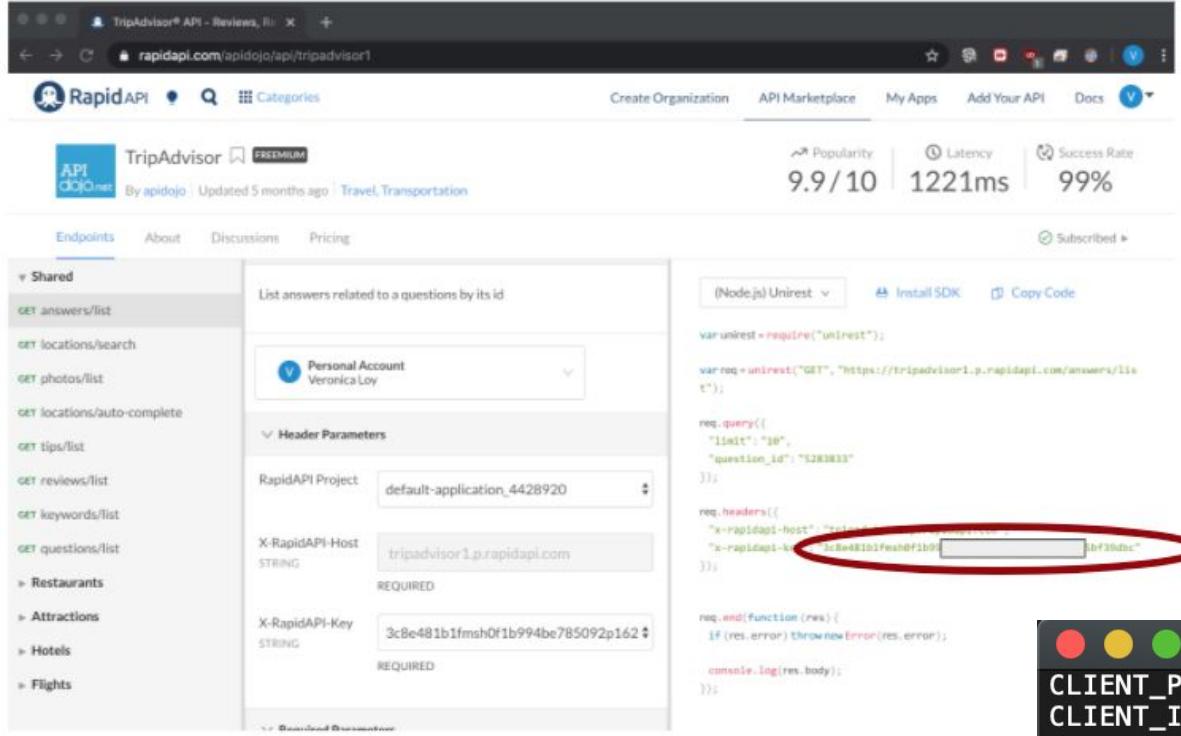
RapidAPI partners directly with API providers to give you no-fuss, transparent pricing. Find a plan that best matches the scale you need for your application.

| | Basic | Pro | Ultra | Mega |
|--------|---------------------------------------|-------------------------------|-------------------------------|---------------------------------|
| Price | S\$0.00 (\$0.00 USD) | S\$27.75*/mo (\$20.00 USD) | S\$69.38*/mo (\$50.00 USD) | S\$416.29*/mo (\$300.00 USD) |
| Status | Currently subscribed | Upgrade | Upgrade | Upgrade |
| Usage | Manage and View Usage | | | |

* Estimate based on current exchange rate from listed \$USD price

<https://rapidapi.com/apidojo/api/tripadvisor1>

Copy the x-rapidapi-key and paste in the **.env** file located in SystemCode/src folder



The screenshot shows the RapidAPI interface for the TripAdvisor API. On the left, there's a sidebar with various endpoints like GET answers/list, GET locations/search, etc. The main area displays the TripAdvisor API endpoint: `GET answers/list`. It shows a personal account dropdown (Veronica Loy), header parameters (RapidAPI Project: default-application_4428920, X-RapidAPI-Host: tripadvisor1.p.rapidapi.com, X-RapidAPI-Key: 3c8e481b1fmsh0f1b994be785092p162). A red circle highlights the X-RapidAPI-Key input field. To the right, there's a code snippet for Node.js using Unirest to make the API call, and a preview of the response body.

```
var unirest = require("unirest");
var req = unirest("GET", "https://tripadvisor1.p.rapidapi.com/answers/list");
req.query({
  "limit": "10",
  "question_id": "5283833"
});

req.headers({
  "x-rapidapi-host": "tripadvisor1.p.rapidapi.com",
  "x-rapidapi-key": "3c8e481b1fmsh0f1b994be785092p162"
});

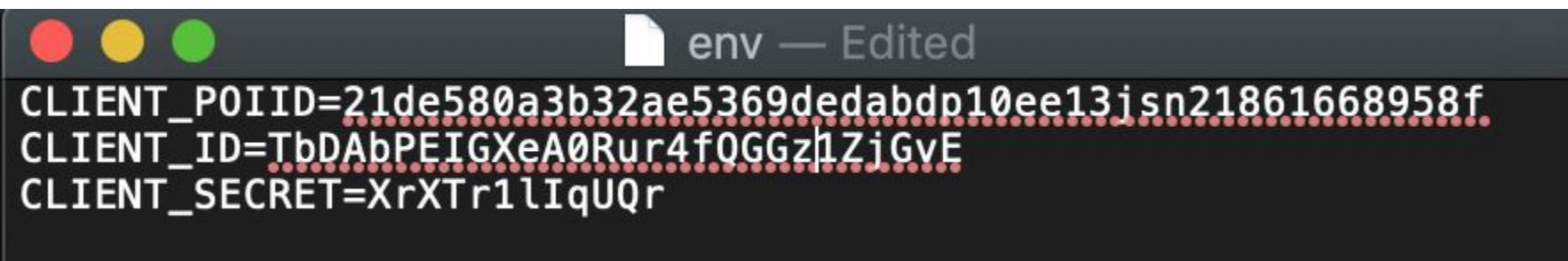
req.end(function (res) {
  if (res.error) throw new Error(res.error);
  console.log(res.body);
});
```

On the far right, a modal window titled "env" shows the copied environment variable:

```
CLIENT_POID=...  
CLIENT_ID=TbDAbPEIGXeA0Rur4f0GGz1ZjGvE  
CLIENT_SECRET=XrXTr1lIqUQr
```

End results should look something like this:

(note that the credentials below are only examples. They are not actual credentials and do not work.)



A screenshot of a terminal window titled "env — Edited". The window contains three environment variable assignments:

```
CLIENT_POID=21de580a3b32ae5369dedabdp10ee13jsn21861668958f
CLIENT_ID=TbDAbPEIGXeA0Rur4f0GGz1ZjGvE
CLIENT_SECRET=XrXTr1lIqUQr
```

The variable names are in white, and the values are in light blue. The terminal has a dark background with red circular icons in the top-left corner.

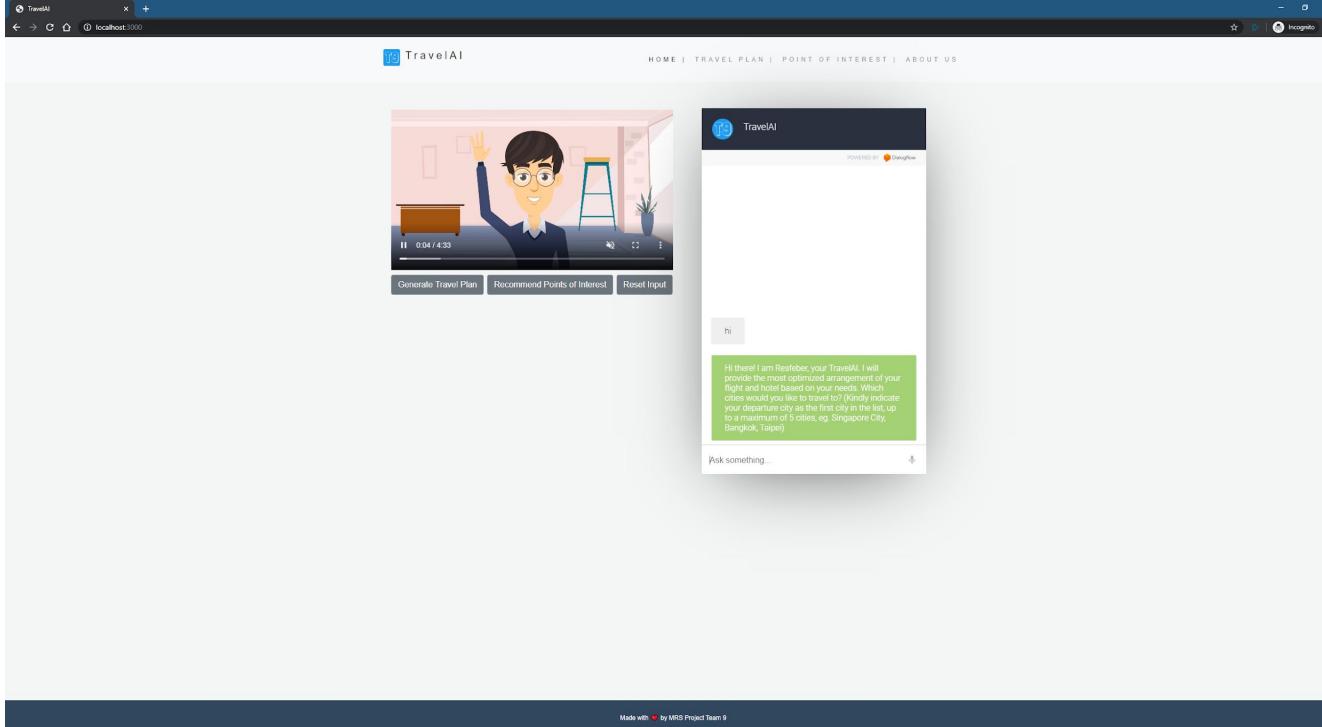
Running the App

Finally..

In your terminal, cd to SystemCode/src folder, and enter the following

- \$ node app.js

Open your web browser, go to the address bar and enter: '<http://localhost:3000/>'



Congratulations !