



# Welcome to the Riot API Bootcamp!

*KNOW MORE, WIN MORE.*

# RIOT API BOOTCAMP SYLLABUS

## 1. Basics (Python, GitHub, Notepad++)

1. Resources to get started
2. Setting up an environment
3. Downloading GitHub repos
4. JSON explanation & Notepad++ example
5. *Project: read csv file, convert to data frame, create graphs*

## 2. Riot API introduction

1. What is an API?
2. Getting access & Registering your App
3. What end points are there/what data is available?
4. Explanation of puuid/account name
5. *Project: make an API call on the website & download the data*

## 3. Automating API interactions

1. Introduction to libraries (Cassiopeia, Riot Watcher)
2. Getting help (documentation, Discord)
3. *Project: automate an API call using a library*

## 4. Single Endpoint Data

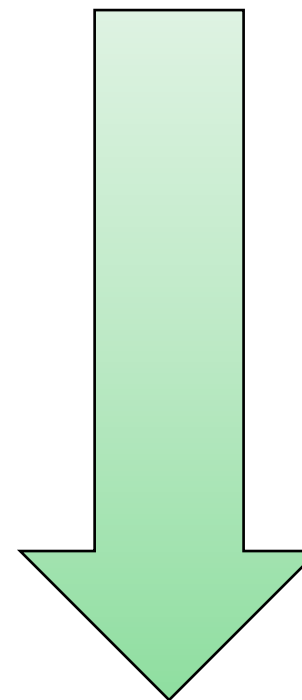
1. Use case explanation (e.g., in-depth match analysis, leaderboards)
2. Code example- getting challenger leaderboard
3. *Project: request last 25 games for an account and determine the most common champion(s)*

## 5. Large Scale Data Collection

1. Use case explanation (e.g., match history of top 50 players)
2. Setting up a process pipeline
3. Comparing 1 file approach vs. functions across files approach
4. *Project: determine number of roles (TOP, MID, etc) on the challenger ladder using the last 5 games*

**5 Modules** covering core topics

**Project** at the end of each



# Module 2: Riot API introduction

*RIOT API BOOTCAMP*

Slide Deck





# MODULE 2: INTRODUCTIONS

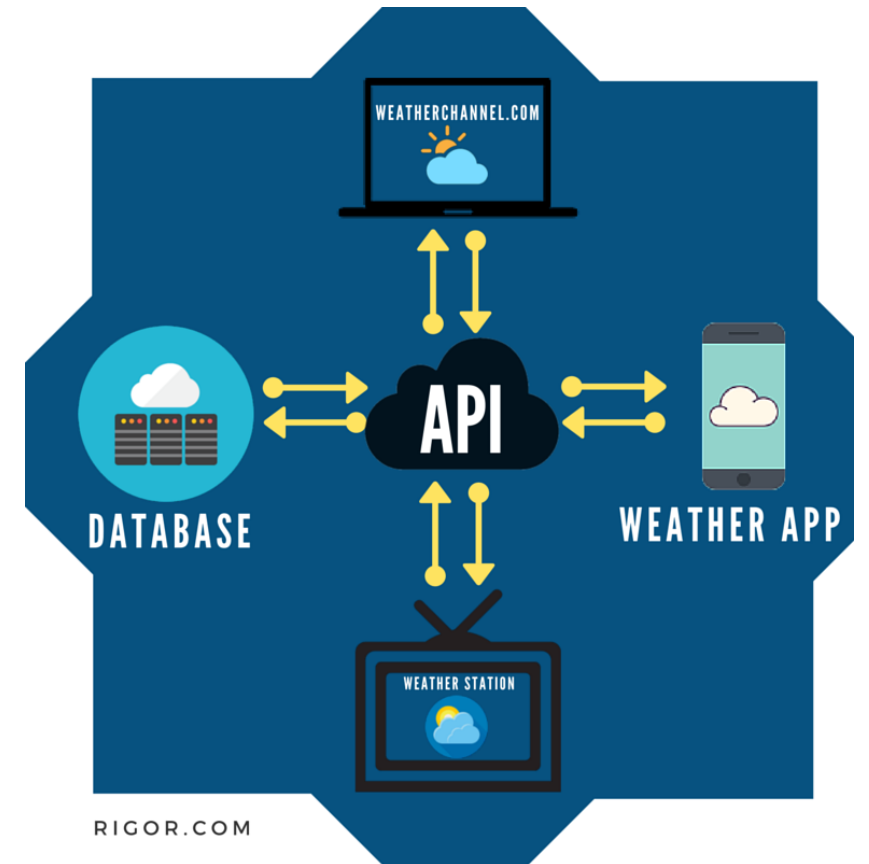
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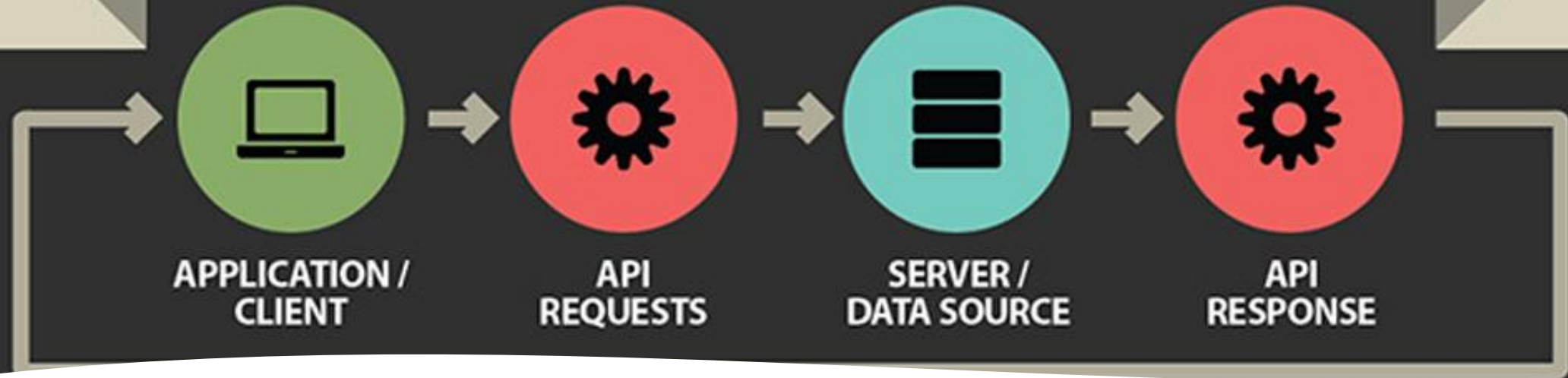
LET'S DIVE IN

# WHAT IS AN API?

- **API= Application Programming Interface**
- Application programming interfaces, or APIs, simplify software development and innovation by enabling applications to exchange data and functionality easily and securely.
- An API, enables companies to open up their applications' data and functionality to external third-party developers, business partners, and internal departments within their companies.
- **Developers don't need to know how an API is implemented; they simply use the interface to communicate with other products and services.**



# How an API works

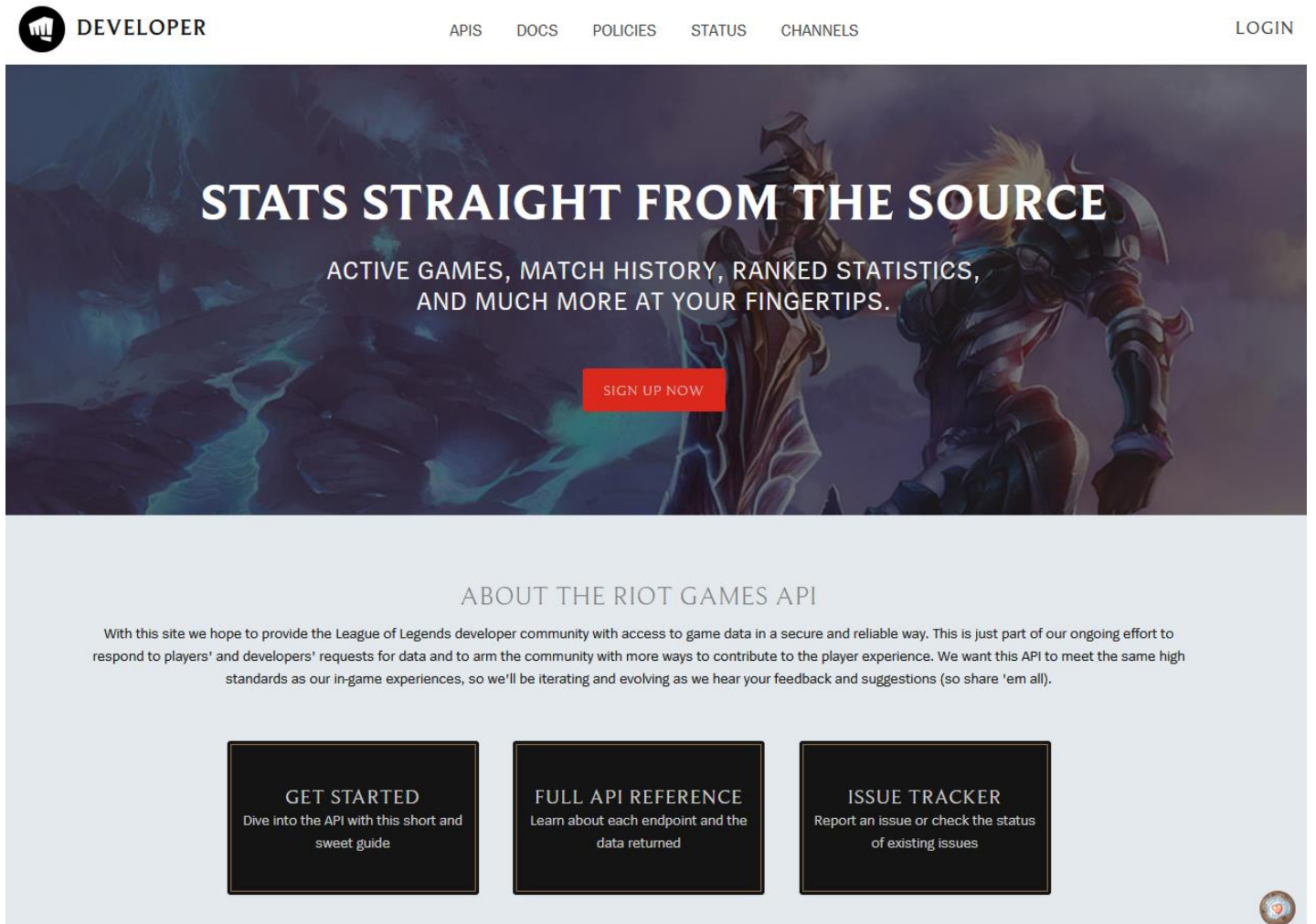


## HOW DOES AN API WORK?

1. **A client application initiates an API call** to retrieve information—also known as a *request*. This request is processed from an application to the web server via the API's Uniform Resource Identifier (URI) and includes a request verb, headers, and sometimes, a request body.
2. **After receiving a valid request**, the API makes a call to the external program or web server.
3. **The server sends a *response*** to the API with the requested information.
4. **The API transfers the data** to the initial requesting application.

# ACCESSING THE RIOT API

<https://developer.riotgames.com/>



The screenshot shows the Riot Games Developer API website. At the top, there's a navigation bar with the Riot logo, 'DEVELOPER', and links for 'APIS', 'DOCS', 'POLICIES', 'STATUS', 'CHANNELS', and 'LOGIN'. The main hero section features a dark, atmospheric background with a League of Legends character. The headline reads 'STATS STRAIGHT FROM THE SOURCE', followed by the subtext 'ACTIVE GAMES, MATCH HISTORY, RANKED STATISTICS, AND MUCH MORE AT YOUR FINGERTIPS.' A red 'SIGN UP NOW' button is positioned below the subtext. The 'ABOUT THE RIOT GAMES API' section contains a paragraph explaining the site's purpose. At the bottom, three dark boxes with gold borders provide links to 'GET STARTED', 'FULL API REFERENCE', and 'ISSUE TRACKER', each with a brief description.

**DEVELOPER**

APIS DOCS POLICIES STATUS CHANNELS LOGIN

## STATS STRAIGHT FROM THE SOURCE

ACTIVE GAMES, MATCH HISTORY, RANKED STATISTICS,  
AND MUCH MORE AT YOUR FINGERTIPS.

[SIGN UP NOW](#)

### ABOUT THE RIOT GAMES API

With this site we hope to provide the League of Legends developer community with access to game data in a secure and reliable way. This is just part of our ongoing effort to respond to players' and developers' requests for data and to arm the community with more ways to contribute to the player experience. We want this API to meet the same high standards as our in-game experiences, so we'll be iterating and evolving as we hear your feedback and suggestions (so share 'em all).

**GET STARTED**  
Dive into the API with this short and sweet guide

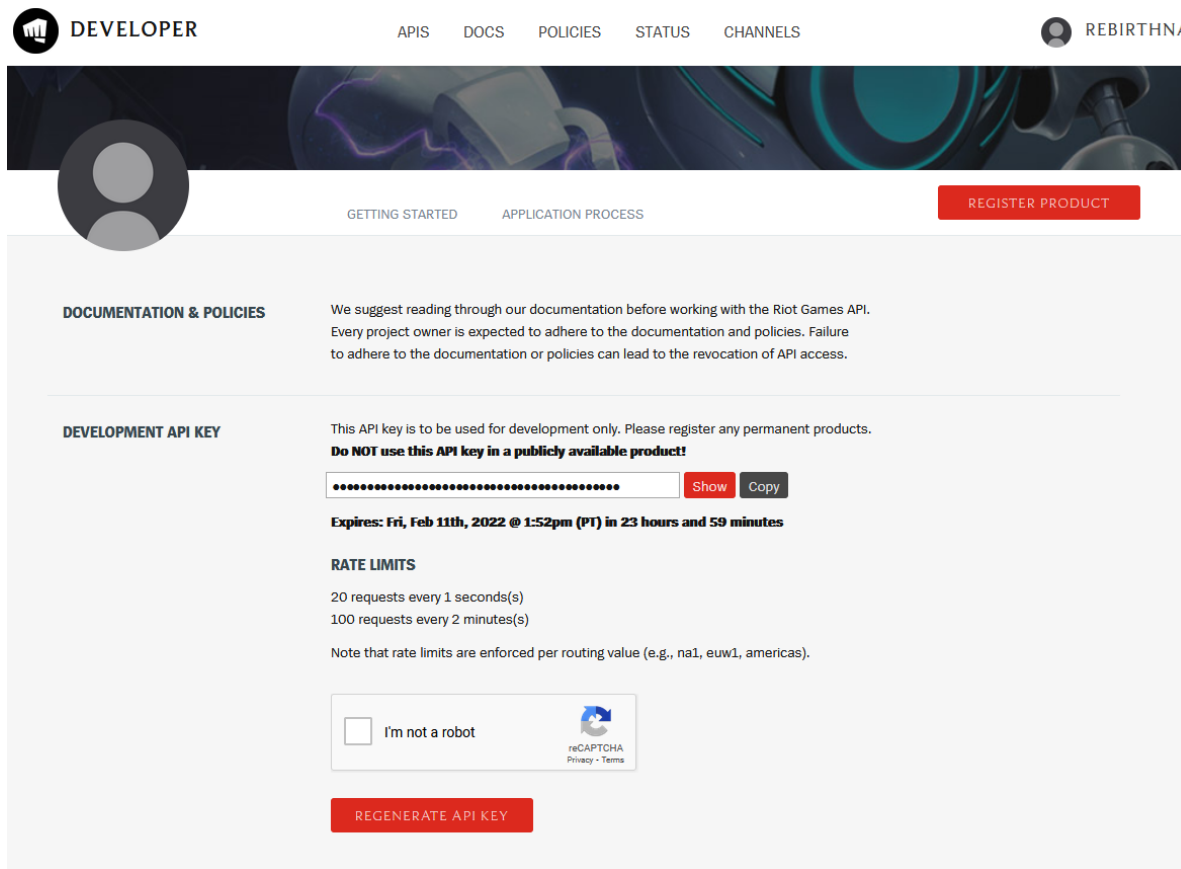
**FULL API REFERENCE**  
Learn about each endpoint and the data returned

**ISSUE TRACKER**  
Report an issue or check the status of existing issues



# ACCESSING THE RIOT API

- Every account has a daily developer API key
- Registering an app gives you a static API key for that product
- **DO NOT SHARE YOUR API KEY**



The screenshot shows the 'GETTING STARTED' page of the Riot Games Developer Portal. The header includes a 'DEVELOPER' logo, navigation links for APIS, DOCS, POLICIES, STATUS, and CHANNELS, and a user profile for 'REBIRTHNA'. The main content area has a 'REGISTER PRODUCT' button and a 'REGENERATE API KEY' button. It also features a 'DOCUMENTATION & POLICIES' section and a 'DEVELOPMENT API KEY' section with a key display, expiration date, and rate limits.

**DEVELOPER** APIS DOCS POLICIES STATUS CHANNELS REBIRTHNA

GETTING STARTED APPLICATION PROCESS REGISTER PRODUCT

**DOCUMENTATION & POLICIES**

We suggest reading through our documentation before working with the Riot Games API. Every project owner is expected to adhere to the documentation and policies. Failure to adhere to the documentation or policies can lead to the revocation of API access.

**DEVELOPMENT API KEY**

This API key is to be used for development only. Please register any permanent products.  
**Do NOT use this API key in a publicly available product!**


..... Show Copy

**Expires:** Fri, Feb 11th, 2022 @ 1:52pm (PT) in 23 hours and 59 minutes

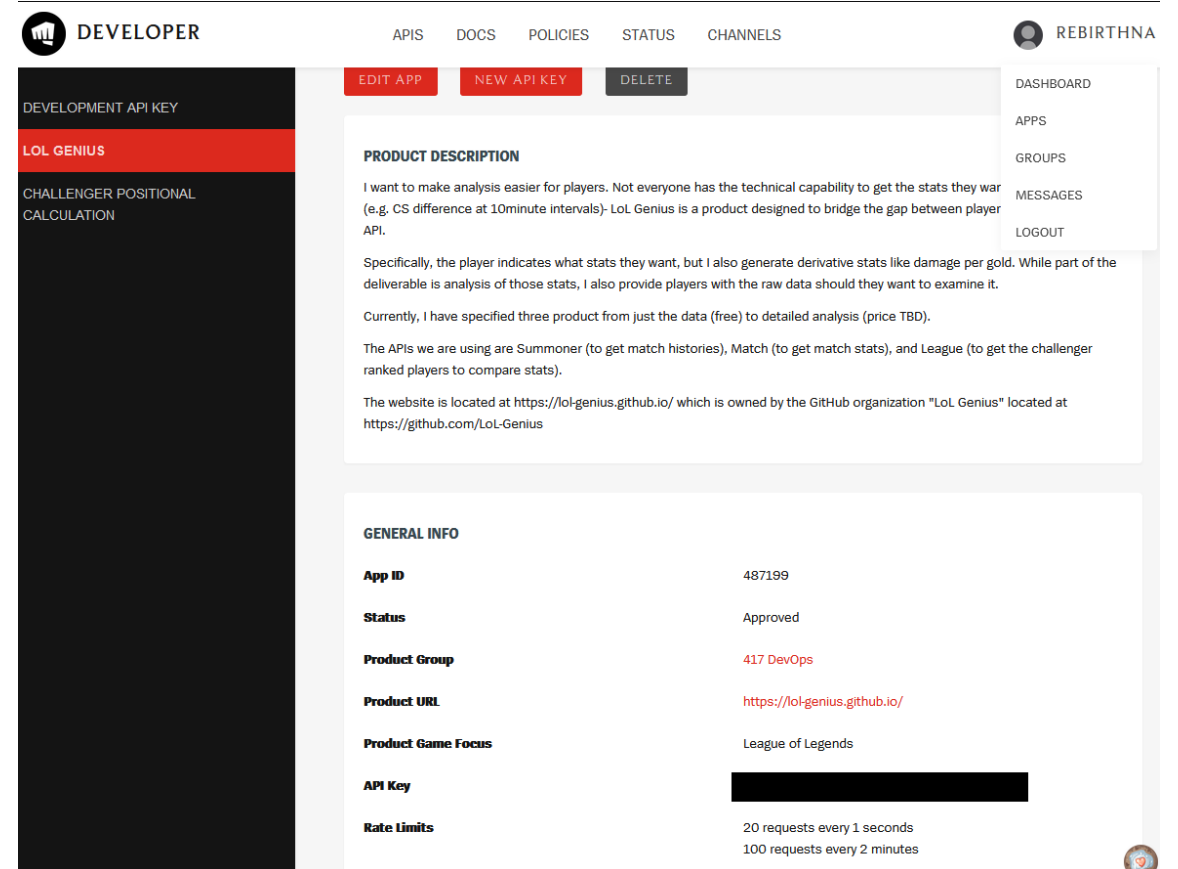
**RATE LIMITS**

20 requests every 1 seconds(s)  
100 requests every 2 minutes(s)

Note that rate limits are enforced per routing value (e.g., na1, euw1, americas).

☐ I'm not a robot  reCAPTCHA Privacy - Terms

REGENERATE API KEY



The screenshot shows the 'LOL GENIUS' app page in the Riot Games Developer Portal. The header is the same as the previous page. The main content area has buttons for 'EDIT APP', 'NEW API KEY', and 'DELETE'. It features a 'PRODUCT DESCRIPTION' section with text about the app's purpose and a 'GENERAL INFO' section with a table of app details.

**DEVELOPER** APIS DOCS POLICIES STATUS CHANNELS REBIRTHNA

EDIT APP NEW API KEY DELETE

**DEVELOPMENT API KEY**

**LOL GENIUS**

**CHALLENGER POSITIONAL CALCULATION**

**PRODUCT DESCRIPTION**

I want to make analysis easier for players. Not everyone has the technical capability to get the stats they want (e.g. CS difference at 10minute intervals)- LoL Genius is a product designed to bridge the gap between player API.

Specifically, the player indicates what stats they want, but I also generate derivative stats like damage per gold. While part of the deliverable is analysis of those stats, I also provide players with the raw data should they want to examine it.

Currently, I have specified three product from just the data (free) to detailed analysis (price TBD).

The APIs we are using are Summoner (to get match histories), Match (to get match stats), and League (to get the challenger ranked players to compare stats).

The website is located at <https://lol-genius.github.io/> which is owned by the GitHub organization "LoL Genius" located at <https://github.com/LoL-Genius>

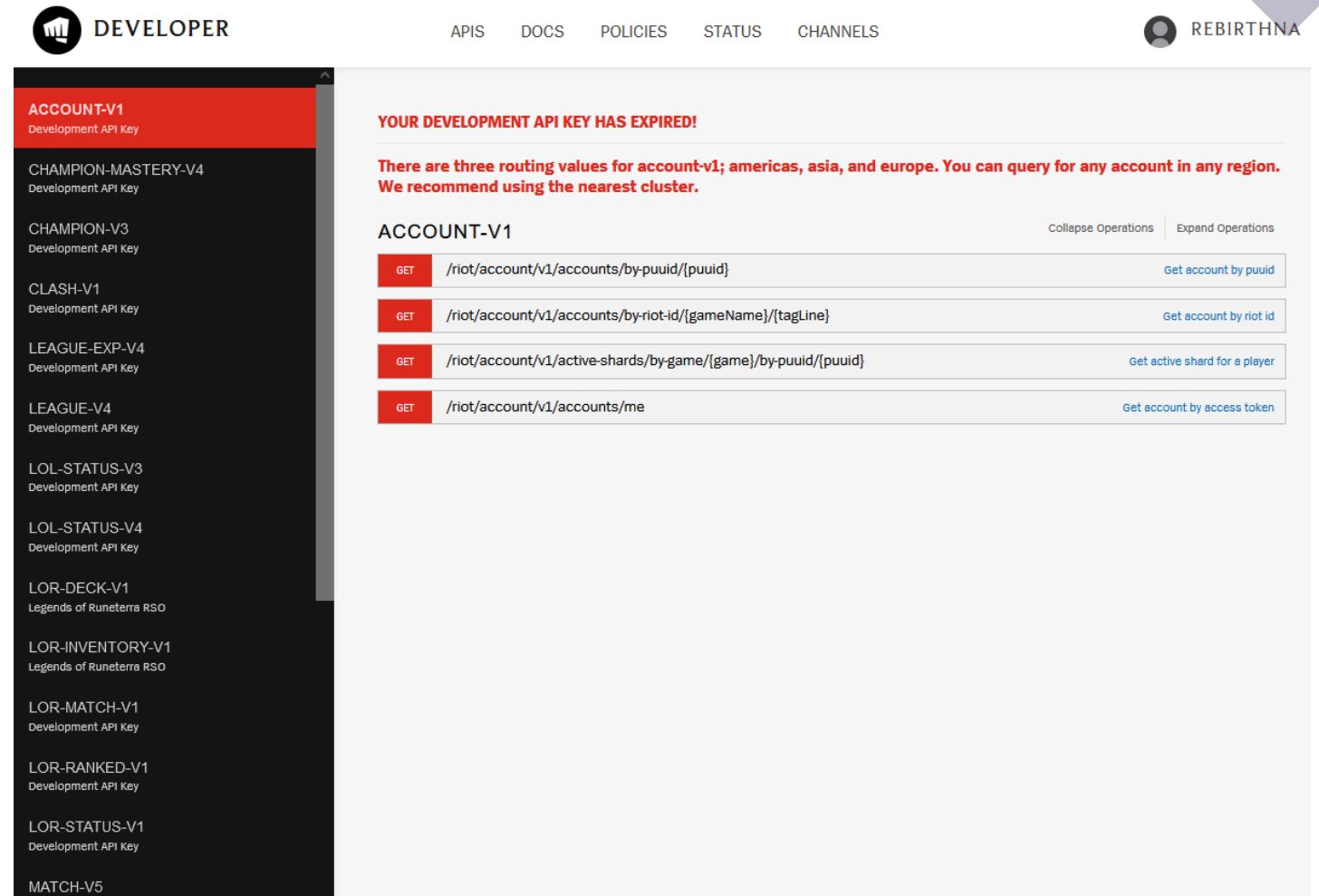
**GENERAL INFO**

<b>App ID</b>	487199
<b>Status</b>	Approved
<b>Product Group</b>	417 DevOps
<b>Product URL</b>	<a href="https://lol-genius.github.io/">https://lol-genius.github.io/</a>
<b>Product Game Focus</b>	League of Legends
<b>API Key</b>	.....
<b>Rate Limits</b>	20 requests every 1 seconds 100 requests every 2 minutes



# RIOT API ENDPOINTS

- Each entry on the side is an endpoint
- Each endpoint has a different purpose and returns different values
- Most commonly used endpoints:
  - Account-v1
  - League-v4
  - Match-v5
  - Summoner-v4



The screenshot shows the Riot Games Developer API documentation page. The top navigation bar includes the 'DEVELOPER' logo and links for 'APIS', 'DOCS', 'POLICIES', 'STATUS', and 'CHANNELS'. A user profile 'REBIRTHNA' is visible in the top right corner.

The sidebar on the left lists various API endpoints, with 'ACCOUNT-V1' highlighted in red. The main content area displays the details for the 'ACCOUNT-V1' endpoint, which is a 'Development API Key'.

**YOUR DEVELOPMENT API KEY HAS EXPIRED!**

There are three routing values for account-v1; americas, asia, and europe. You can query for any account in any region. We recommend using the nearest cluster.

**ACCOUNT-V1** Collapse Operations Expand Operations

GET	/riot/account/v1/accounts/by-puuid/{puuid}	<a href="#">Get account by puuid</a>
GET	/riot/account/v1/accounts/by-riot-id/{gameName}/{tagLine}	<a href="#">Get account by riot id</a>
GET	/riot/account/v1/active-shards/by-game/{game}/by-puuid/{puuid}	<a href="#">Get active shard for a player</a>
GET	/riot/account/v1/accounts/me	<a href="#">Get account by access token</a>

# GAME NAME VS. PUUID

- Game name and tagline are what you are used to seeing
- `puuid` (and sometimes `accountID`) is what Riot uses internally to reference players
- You can get one from the other (same API response)
- When searching for a player, you will need one of those instead of just their name/tag

## RESPONSE BODY

```
{
  "puuid": "b-zNFgYAT2sxjwn6483-dpbjI_hIcwKmEiTnZPv4UMa0lg-EzeCuXUJLC-AFXSfExhq_mx-dVqHnWlg",
  "gameName": "RebirthNA",
  "tagLine": "NA1"
}
```

## PATH PARAMETERS

NAME	VALUE	DATA TYPE	DESCRIPTION
tagLine <small>required</small>	NA1	string	When querying for a player by their riot id, the gameName and tagLine query params are required. However not all accounts have a gameName and tagLine associated so these fields may not be included in the response.
gameName <small>required</small>	RebirthNA	string	When querying for a player by their riot id, the gameName and tagLine query params are required. However not all accounts have a gameName and tagLine associated so these fields may not be included in the response.

## SELECT REGION TO EXECUTE AGAINST

AMERICAS

## SELECT APP TO EXECUTE AGAINST

Development API Key

## INCLUDE API KEY AS (?)

☐ Query Param ☒ Header Param

EXECUTE REQUEST

CLOSE

gameName/ tagLine endpoint

</riot/account/v1/accounts/by-riot-id/{gameName}/{tagLine}>

## PATH PARAMETERS

NAME	VALUE	DATA TYPE	DESCRIPTION
puuid <small>required</small>		string	

## SELECT REGION TO EXECUTE AGAINST

AMERICAS

## SELECT APP TO EXECUTE AGAINST

Development API Key

## INCLUDE API KEY AS (?)

☐ Query Param ☒ Header Param

EXECUTE REQUEST

CLOSE

Puuid endpoint

</riot/account/v1/accounts/by-puuid/{puuid}>

# MAKING A REQUEST ON THE WEBSITE

## DEMONSTRATION with

/riot/account/v1/accounts/by-riot-id/{gameName}/{tagLine}

GET

/riot/account/v1/accounts/by-riot-id/{gameName}/{tagLine}

Get account by riot id

Jump to Inputs

RESPONSE CLASSES

Return value: AccountDto

AccountDto

NAME	DATA TYPE	DESCRIPTION
puuid	string	
gameName	string	This field may be excluded from the response if the account doesn't have a gameName.
tagLine	string	This field may be excluded from the response if the account doesn't have a tagLine.

# QUESTIONS?

Contact me



RebirthNA#2359



@LoL-Genius



417devops@gmail.com

It is my hope that this course is easy to understand and follow

Have a question or want additional details?  
Just reach out!

***If you want to know more about my work (LoL Genius) or have questions about something you're building, LMK!***