



PIE INSURANCE

API Integration Documentation

September 2022

Overview

At Pie, our goal is to make workers' comp insurance easy for our partners and their small business clients.

By integrating with our API, you can:

- Check our appetite for coverage
- Get a price indication
- Request a quote on behalf of your client
- Upload documents with your submission for Pie's underwriting review
- Retrieve bindable quotes in PDF format to share with your client

You can call our RESTful individual endpoints (using JSON) to perform the following actions:

- GET - retrieve specific information, which may include arrays and sets of data and information
- POST - create/add a new API element

Our [Swagger site](#) provides full documentation on supported input objects, values, requirements, and formats. This document covers details on integrating and testing with our API, and provides details around each endpoint.

During your development and testing, we will provide you with credentials specific to the Pie staging environment.

When you are ready to launch, Pie will require a certification of your application. Upon completion of the certification process, we will supply credentials for the Pie production environment.

We recommend using [Postman](#) for testing our API in the staging environment. We will work with you to validate tests you submit in our staging environment to certify your application for use in our production environment.

If you have any questions or issues, please contact your Pie representative. We have dedicated staff here to support your integration and are happy to work with you to answer any questions.

Endpoints

We have a variety of endpoints you can use in the way that best matches your user application and experience.

Endpoint	Action	Description
Token	POST	Accepts credentials and returns the JWT authentication token.
Class Code Search	POST	Returns possible matching class codes based on a state and description provided
Appetite	POST	Returns class codes for which Pie has an appetite to write based on state (or ZIP) provided
Price Indication	POST	Returns a price indication based on a minimal set of customer data points
Eligibility	POST	Returns eligibility questions based on class code and state provided. The set of questions and responses can be sent in the quote endpoint for the most accurate price and status indication.
Quotes	POST	Accepts critical data points needed to return a status and quote if applicable. In addition, accepts optional data points that can be used later in bind or policy issue.
Quote Document	POST	Allows the ability to append files to a specific quote (based on QuoteID)
Quote PDF	GET	Accepts a quote id and returns a PDF for bindable quotes

Workflow

Based on the available endpoints, you can configure the workflow in the way that best matches your user application and experience.

First, verify that the Pie Quote API is available by attempting to get a token.

Your application can capture a search term from your end user, and call the **Class Code Search** endpoint to find matching class codes. In addition, **Class Code Search** can attempt to infer a class code from the business name, which can be useful if your application already has a name (e.g., ABC Plumbing will return plumbing related class codes for the applicable state as possible matches).

Your application can call the **Appetite** endpoint to determine which class codes and states Pie supports early in your workflow. You can use this endpoint improve your user experience by avoiding requesting a Quote from Pie where we have no appetite.

If you would like to provide your user with the ability to get a preliminary price before deciding to move forward with filling out a full quote, you can collect a minimal set of data points and submit a request to the **Price Indication** endpoint.

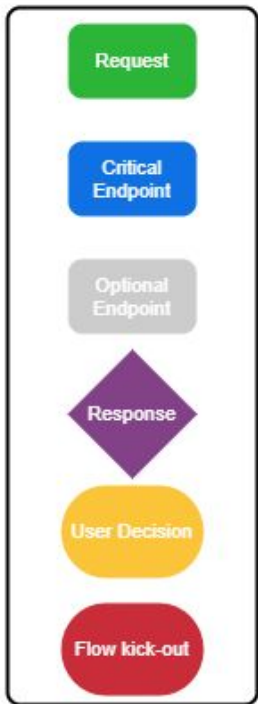
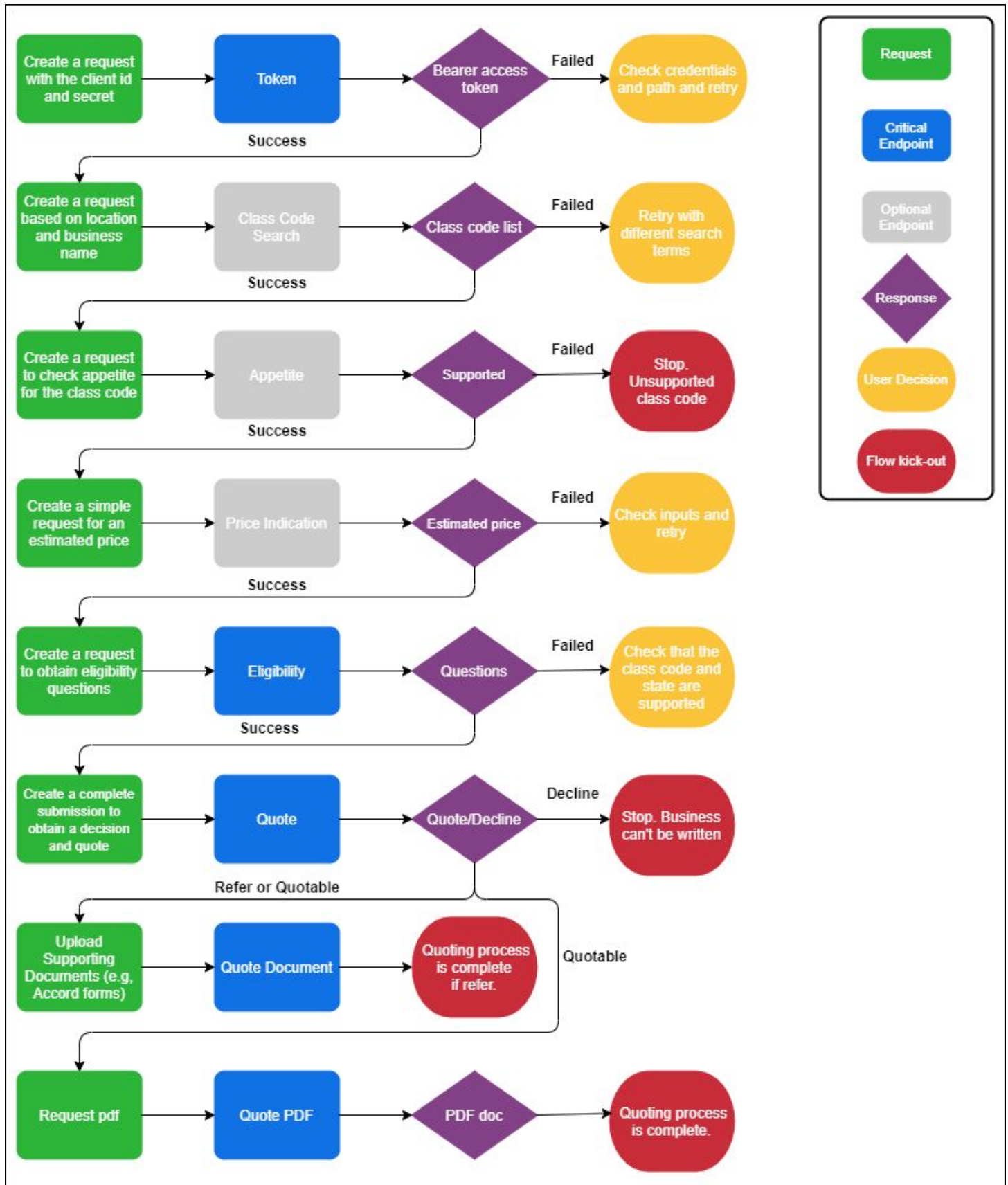
Prior to calling the Quote endpoint, your application should call the **Eligibility** endpoint to retrieve questions required in the quote response. The questions are grouped into a class code/state combination.

Once the required information is collected from the end-user, your application can create a request for the **Quote** endpoint. It's important to supply accurate and complete information to ensure the most accurate response. The Quote endpoint will supply a response (more on responses below), including an identifier for the quote, which you can then use to pass supporting documentation (e.g., ACORD 130 forms) to the **Quote Document** endpoint.

Note: Pie's underwriting team does not require supporting documentation to review referred submissions, however providing supporting documentation can speed up the underwriting decisioning process and is strongly recommended.

If your **Quote request** returns a status of **Quotable**, your application can retrieve a PDF via the **Quote PDF** endpoint using the quote id from the **Quote** response.

Workflow cont'd.



Authentication

Current and new clients of Pie's external API can be set up with one or more API keys for obtaining actual credentials. Self-service API keys are not enabled yet, so please contact your TAM at API@pieinsurance.com for help getting your first API Key and associated Agency code.

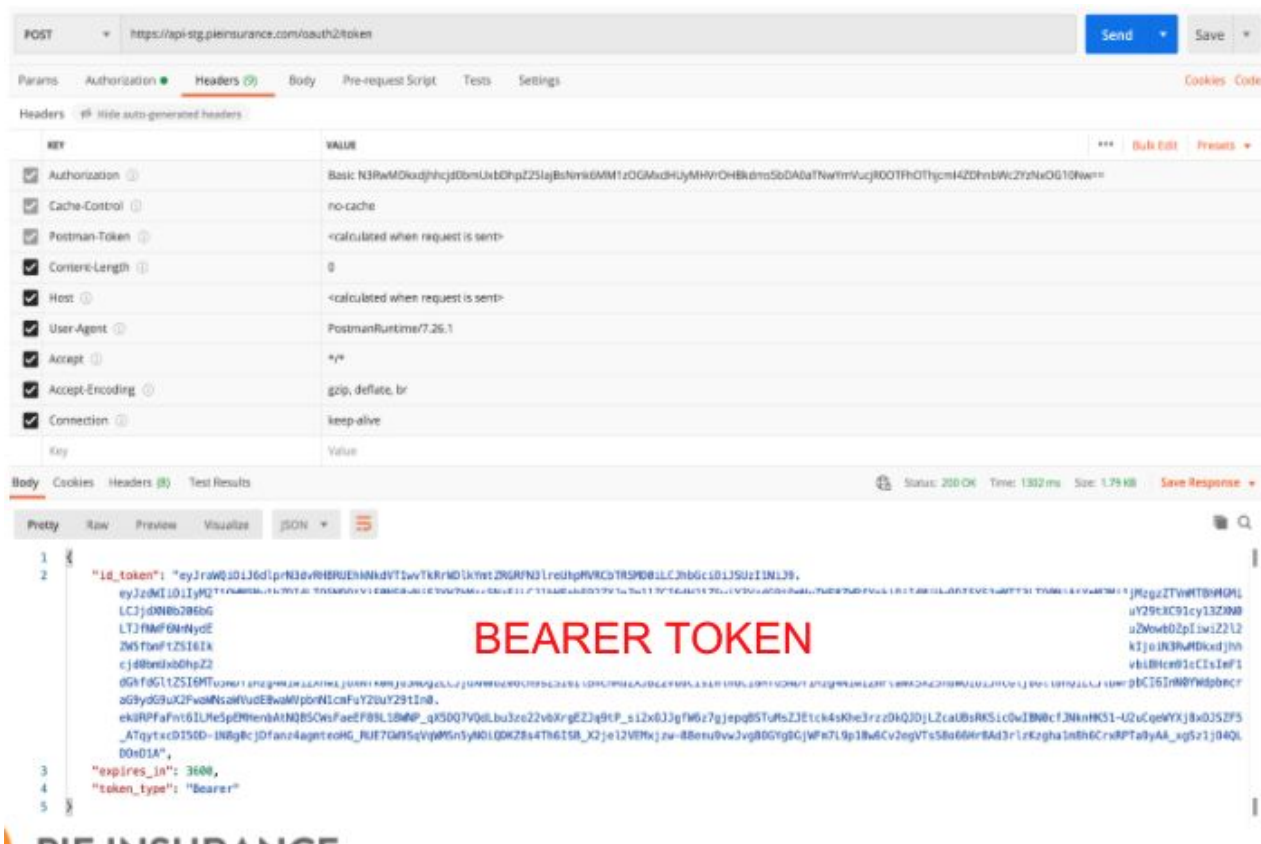
When testing through **Postman**, the request should be made with **API Key** in Base64 encoding. This can be converted by putting your Pie provided API Key into [this](#) tool. In Postman, create your Post request and follow the steps below. The JWT token (**id_token**) is passed via the response body (in blue in the above screenshot). The **id_token** is then used in subsequent API calls as a **Bearer token** and can be inherited from the parent post. Pie will also provide an Agency Code that is assigned upon creation of your API Key. It will be input in the AgencyCode Header.

To login with an API Key:

1. HTTP POST <https://api.pieinsurance.com/oauth2/token>
 - a. Authorization Header: "Basic <API-Key in Base 64 encoding>"
 - b. AgencyCode Header: <Your Agency Code>
 - c. The response will include a json payload containing the Id JWT.
3. Use the Id JWT in the Authorization header as a bearer credential for subsequent API calls, putting your agency code in the Parameters field.

If your API Key is compromised, contact your TAM (or API@pieinsurance.com) at Pie to have it revoked and you will be issued a new one. In the near future you will be able to revoke the token yourself and re-provision a new one.

Postman Authentication Example



The screenshot shows a Postman interface with a POST request to `https://api-stg.pieinsurance.com/oauth2/token`. The Headers tab is active, showing an Authorization header with a Basic authentication string. The Body tab is active, showing a JSON response. A large red text overlay reads "BEARER TOKEN".

KEY	VALUE
Authorization	Basic N3RwMDkxZjBmLkxkZDhpZDZ5ajBhbnk6MmFzOGMudHJyMHVrOHhka2kzODAlaTmVwVjR0OTF0THJmI4ZDhtbWZyZlNkOG10NmE=
Cache-Control	no-cache
Postman-Token	<calculated when request is sent>
Content-Length	0
Host	<calculated when request is sent>
User-Agent	PostmanRuntime/7.26.1
Accept	*
Accept-Encoding	gzip, deflate, br
Connection	keep-alive

```
1 {
2   "id_token": "eyJraWQiOiJlZjRwMDkxZjBmLkxkZDhpZDZ5ajBhbnk6MmFzOGMudHJyMHVrOHhka2kzODAlaTmVwVjR0OTF0THJmI4ZDhtbWZyZlNkOG10NmE",
3   "expires_in": 3600,
4   "token_type": "Bearer"
5 }
```

Responses

Conventional HTTP response codes are used to indicate the success or failure of an API request. In general, codes in the 2xx range indicate success. Codes in the 4xx range indicate an error that failed given the information provided (e.g., a required parameter was omitted, etc.). Codes in the 5xx range indicate a server error.

- 200 Successful request
- 201 Created (Quote endpoint)
- 202 Accepted (QuoteDocument endpoint)
- 400 Bad Request – Please refer to the “errors” field in the response
- 401 Unauthorized – Confirm your bearer token
- 415 Unsupported Media Type – Confirm your input data was valid and well-formed
- 500 Server Error – Intermittent issue (or a corner case we missed)
- 502 Bad Gateway - Intermittent issue, likely a code deployment

(This information is also documented on the [Pie Swagger page](#).)

Our goal is to return clear validation messages for ease of development with our API. If you encounter any unexpected errors during your development process, please let us know so that we can continue to improve our API experience.

Detailed Responses - Quote endpoint

Valid requests to the **Quote** endpoint will generate a response with HTTP status code 201 for bindable or referred quotes, as indicated by the “bindStatus” field on the response. For bindable quotes, the response includes pricing, payment schedules, and a breakdown by class code. For referred quotes, the response indicates the refer reason.

201 This value is the response to a well-formed request that Pie will potentially underwrite.

- **bindStatus : quotable:**
- **bindStatus : refer:** Indicates that Pie’s underwriting team will review the submission. As stated above, it is critical that supporting documentation (e.g., the ACORD 130) is supplied via the **Quote Document** endpoint.
- **referReasons:** In cases where **bindStatus is refer**, one or more reasons are included in the response. Refer reasons, at present, include:
 - Submitted payroll is below class code threshold.
 - Submitted loss history is below class code threshold.
 - Submitted governing class code requires review.
 - Estimated premium is above threshold.
 - Estimated schedule mod is above threshold.
 - Submitted experience modifier is too low.
 - Submitted loss history is below class code hazard group threshold.
 - Your partner account is set to refer.
 - General eligibility responses require review.
 - Industry eligibility responses require review.
 - No current coverage requires review.

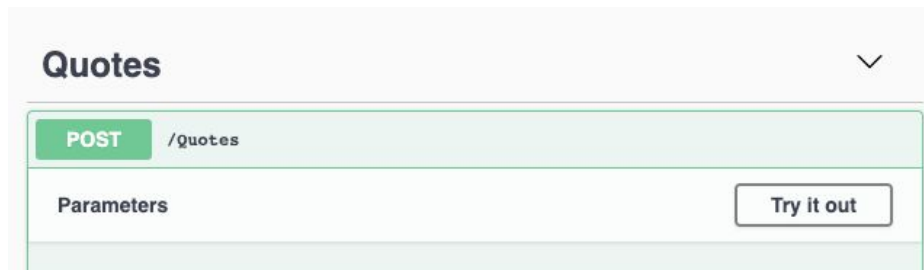
Valid requests to the **Quote** endpoint will generate a response with HTTP status code 200 for declined quotes, as indicated by the “bindStatus” field on the response. Additional details can be found in the “declineReasons” field.

200 This value is the response to a well-formed request that Pie cannot presently underwrite.

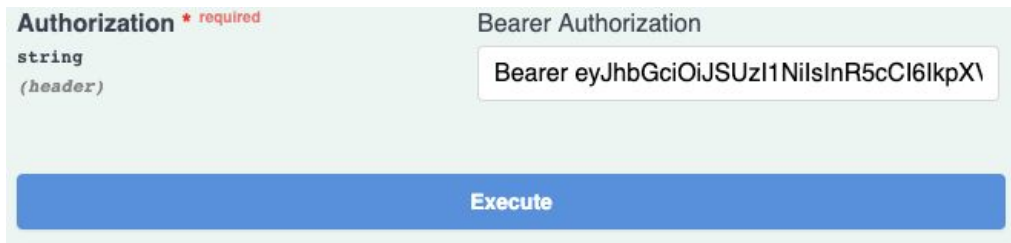
- **bindStatus : declined:** Indicates that the submission as received cannot be covered by Pie at present.
- **declineReasons:** In cases where **bindStatus is declined**, one or more reasons are included in the response.
 - Pie does not currently offer coverage in state {0}.
 - Pie does not currently offer coverage for class code {0}.
 - Pie does not currently offer coverage for class code {0}.
 - The experience mod provided exceeds the maximum amount that Pie is currently able to write.
 - Not enough years of prior continuous workers compensation coverage.
 - Payroll and loss history does not meet the minimum requirements for this class.
 - Policy premium exceeds the maximum amount that Pie is currently writing.
 - Pie is unable to sufficiently price this account to cover the exposures presented by this risk.
 - Does not meet general eligibility standards.
 - Does not meet industry eligibility standards.
 - The submitted total payroll is less than the minimum (\$1,000).
 - State in address must match address in parent submission object.

Manual API Testing with Swagger

Navigate to the [Pie Swagger page](#), click on **Post/Quotes** section, then click **Try it out**.



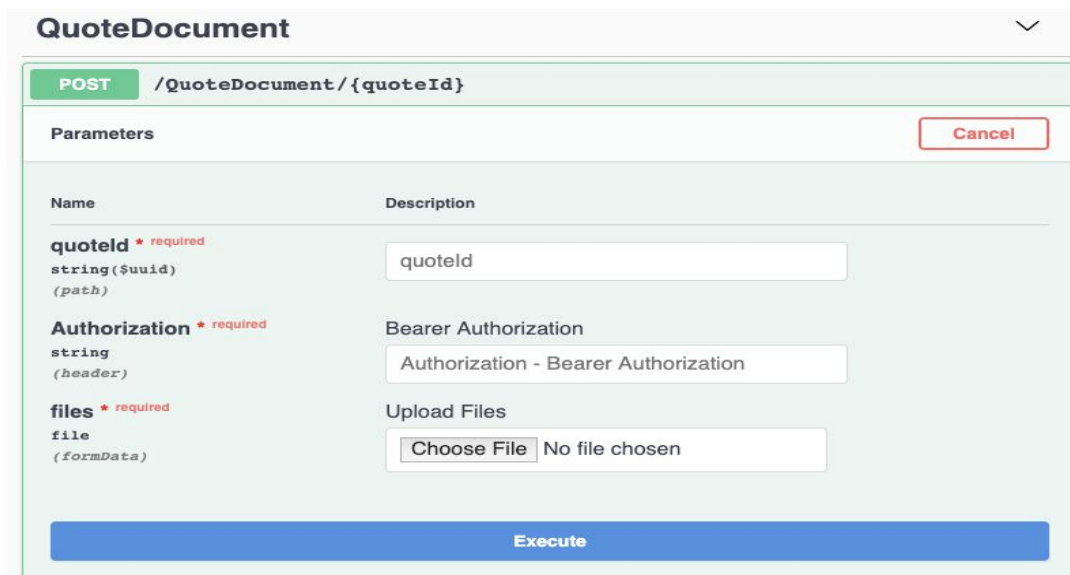
Enter the access_token from the Postman response in the Bearer Authorization box with the word Bearer in front of it (see example below).



You can now click **Execute** to submit the sample request and obtain a response from the Quote API. From here, you can edit the sample or write/paste in your test query.

Swagger details the models used for input, the acceptable input options, and the universe of response errors. This detail will be useful in troubleshooting with state-specific settings and options.

After generating a test response, use the ID from the response to test the QuoteDocument endpoint. Click the **QuoteDocument** section on Swagger, then **Try it out**. Enter the quoteID and Bearer Token, then upload a document. A successful request will generate a response consisting of a 202 and a quote URL.



FAQs

Deductibles

Our API does not currently support deductibles. Pie underwriters may offer a deductible later in the process based on an applicant's ability to pay, and of course not to exceed the annual premium.

Policy Effective Dates and Backdating

Our API requires policy effective dates to be in the future (next day at the earliest). Backdating requires subsequent underwriting review and approval. Policy Effective Dates must be within 120 days of the submission.

Waivers

Specific waivers are not currently supported by our API. Your agents can discuss waivers on a case-by-case basis with our underwriters prior to issuance.

Technical Limitations

Our API does not currently collect information about **locations across multiple U.S. states**. Requests that cross multiple states can be made directly in our Partner Portal.

Our API collects data about **owners and officers**, but the price returned does not reflect inclusion / exclusion for them. That information will be handled by our underwriting team at the time of bind.

The API supplies a new quote for each successful request. Once the Quote API generates a quote, there is currently *no way to modify* that quote without sending a request for an update to the underwriting team. The QuoteDocument endpoint enables the uploading of supporting documentation (e.g., ACORD 130, loss runs, or supplemental applications), which appends documents to a quote for Pie's underwriting team to review.

Deeplink to Quote

Once a Quote has been obtained, the agent will need to bridge into the portal to finish the bind or to make any additional edits to the quote. To do so this deeplink can be used in your UI to bridge.

<https://partner.{environment}.pieinsurance.com/agency-flow/decision/{decisionID}>

The Decision ID is returned at the end of the full quote in the response.

```
    ],  
    "id": "08da6a88-90f2-647f-698b-b500011ee65f",  
    "bindStatus": "Quotable"
```