

What is a web service?

When a developer wants to share the functionality of a function but not the actual code in the program, they can place the function on a web server.

A programmer with the address of that function on the web server and the required permissions can call the function

This is called a web service



What is an API

You can't call a function unless you know the function name and the required parameters

When you create a web service you create an Application Programming Interface (API)

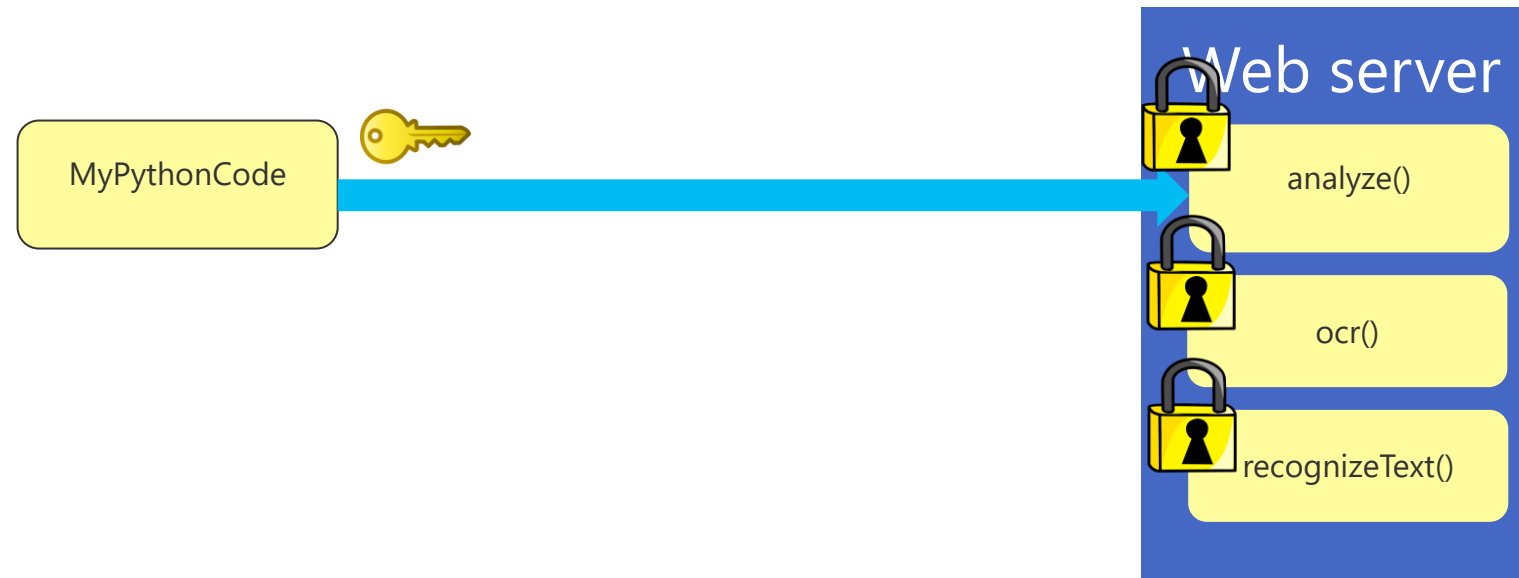
The API defines the function names and parameters so others know how to call your function.

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analyze(visualfeatures, details, language)
```

Keys allow me to track which users have permission to use my web service

A developer signs up on my web site, or buys a license for my software and is provided a unique key

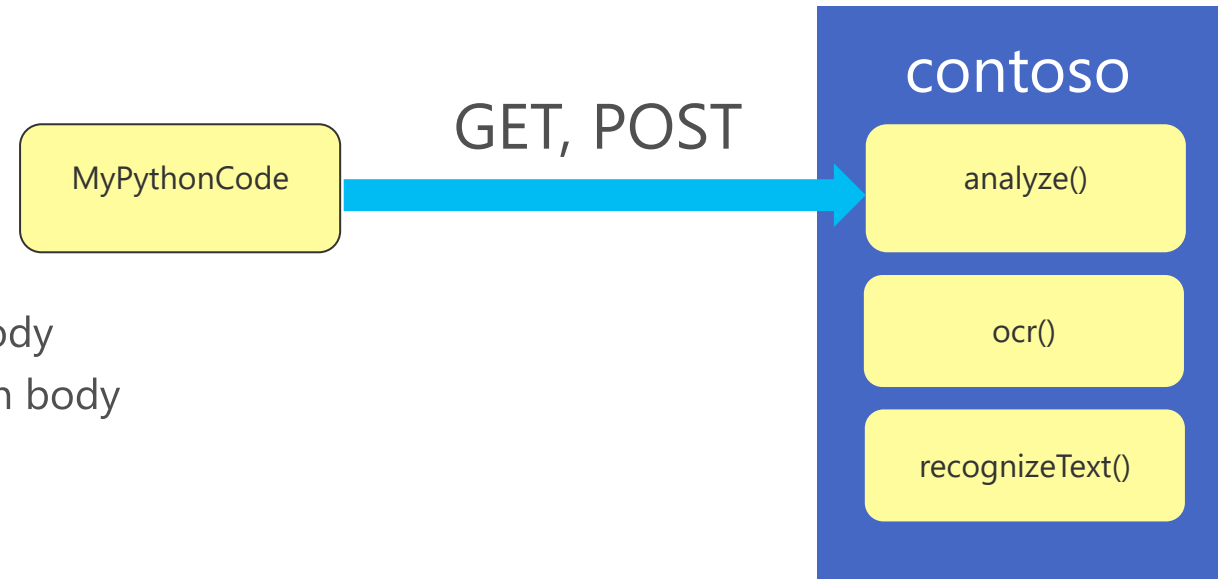
When the developer calls my web service they provide their unique key and I am able to verify the key has been approved for calls to my web service



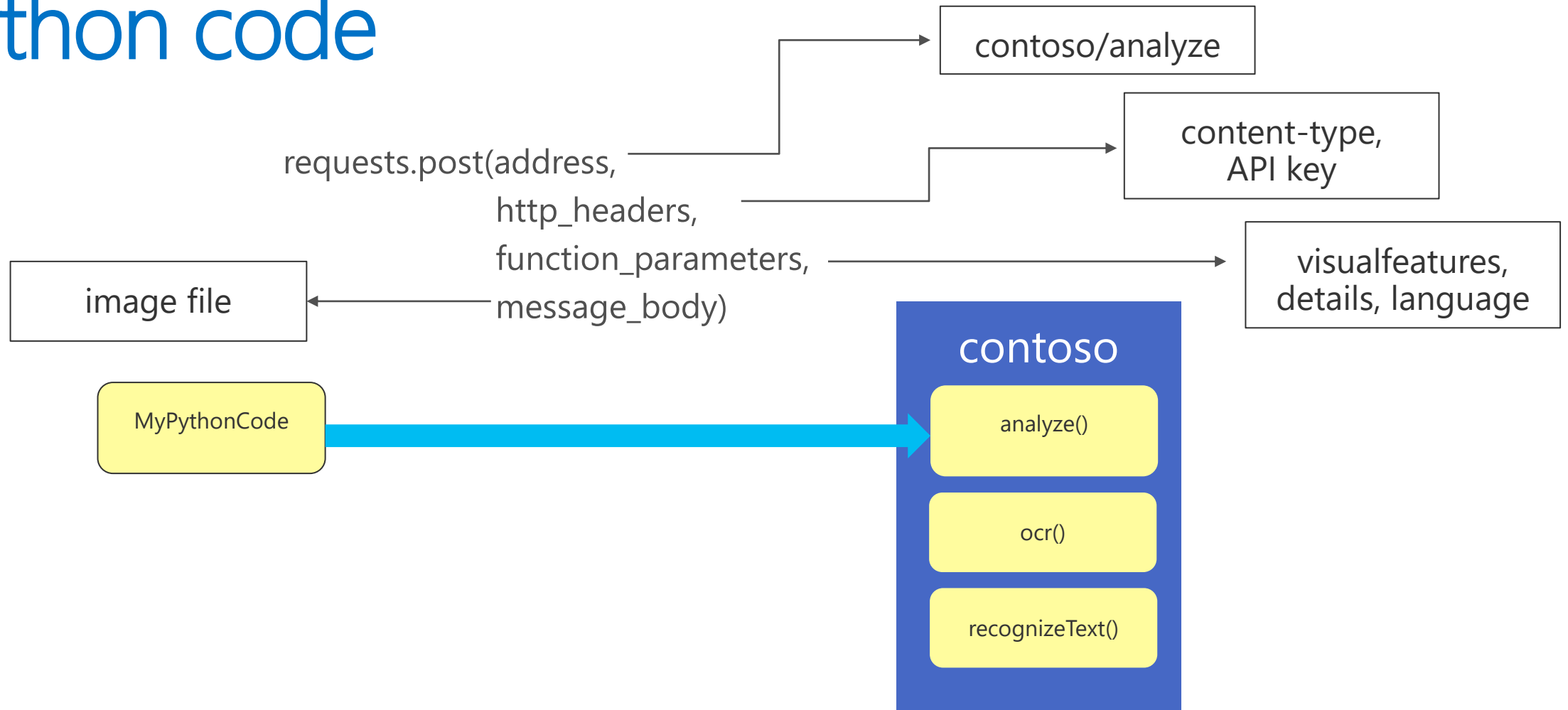
There is a standard for sending messages across the web

Hypertext Transfer Protocol (HTTP) is a standard protocol for sending messages across the web

- GET
 - Pass values in query string only
 - Special characters must be "escaped"
 - Limited amount of data
- POST
 - Pass values in query string **and** body
 - No need to escape special characters if passed in body
 - Can pass large amounts of data, including images, in body



The requests library simplifies HTTP calls from Python code



Learning how to call APIs unlocks functionality from developers and software companies around the world

API parameters and keys requirements will vary

Refer to product and API documentation to learn how to call a specific API