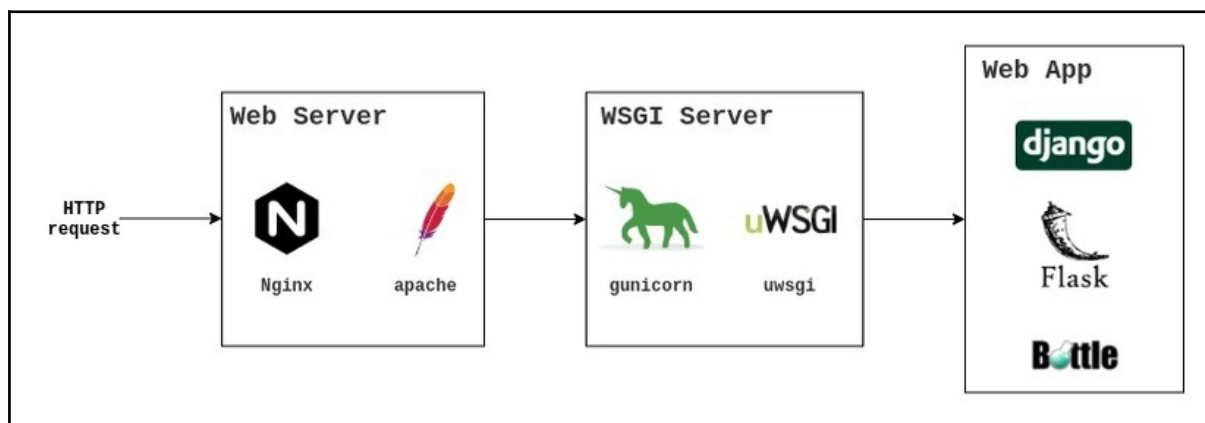# Flask Framework

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Flask framework is a complete web framework which is created with the python programming language. There are 2 main components in flask and they are :

- WSGI (Web Server Gateway Interface)
- Jinja2 (Template Engine)

What is WSGI ?

To understand WSGI you need to understand what a web server is. A web server is nothing but where we specifically deploy our entire applications. These web servers may be present in AWS, EC2 instance, Azure app, Apache and it may also be an IIS server based on your application requirements. Nowadays AWS, EC2, Azure, Google GCP, these are the most common web servers that we specifically use. In this web server we deploy our entire web application.

Let's consider that we have a web app which is completely created using the python flask framework. Whenever a request comes from any user (e.g. the user wants to see the home page of our web app) the request is sent to your web server where your web app is deployed. After the web server receives the request sent by the user from the web app, the web server further communicates by redirecting this particular request to the web app getting the response back in the form of URLs (e.g. /home, /API).

In order to redirect and communicate with the web app, we will be using a very important protocol called WSGI which stands for Web Server Gateway Interface. Based on this protocol the request will get redirected to a web app and this web app will provide some kind of response and based on that response the response will be sent to the end user based on the request, what they are actually sending.

Flask framework uses this as its component so that the communication between web server and web app actually happens based on the request that is sent by the end user.

What is the Jinja2 template engine ?

Jinja2 is a web template engine that helps to combine a web template (any pages in a website) with a data source (SQL DB, CSV sheet, ML Model, MongoDB). From this particular data source we will be getting the data inside this web template loading the entire web page. This helps us create dynamic web pages.