Difference

Difference between GET and POST

`GET` and `POST` are two HTTP methods used to request and send data between clients and servers. They differ in their purpose, the way data is sent, and their impact on the server and the browser's history.

GET:

1. **Purpose:**
   - `GET` is used to request data from a specified resource.
   - It is designed to retrieve information and should have no other effect.
2. **Data Submission:**
   - Data is appended to the URL as query parameters.
   - Limited amount of data can be sent because data is included in the URL, and URLs have a maximum length.
3. **Visibility:**
   - Parameters are visible in the URL, which can impact security when dealing with sensitive information.
4. **Caching:**
   - Requests can be cached by the browser, and URLs can be bookmarked.
   - It is idempotent, meaning multiple identical requests will have the same effect as a single request.
5. **Examples:**
   - Reading a blog post, searching on Google, fetching data from an API.

POST:

1. **Purpose:**
   - `POST` is used to submit data to be processed to a specified resource.
   - It can be used to create or update a resource on the server.
2. **Data Submission:**
   - Data is sent in the request body, not in the URL.
   - Can send a large amount of data compared to `GET`.
3. **Visibility:**
   - Parameters are not visible in the URL, enhancing security.
4. **Caching:**
   - Requests are not cached by the browser, and URLs cannot be bookmarked.
   - It is not idempotent; multiple identical requests may have different effects.
5. **Examples:**
   - Submitting a form, uploading a file, making a payment.

When to Use Each:

- **GET:** Use when you want to retrieve data from the server, and the request has no side effects. It's suitable for safe and idempotent operations.
- **POST:** Use when you want to submit data to the server, especially when the operation has side effects (e.g., creating a new resource on the server). It's suitable for non-idempotent operations.

In summary, the choice between `GET` and `POST` depends on the purpose of the request and the type of operation you are performing.