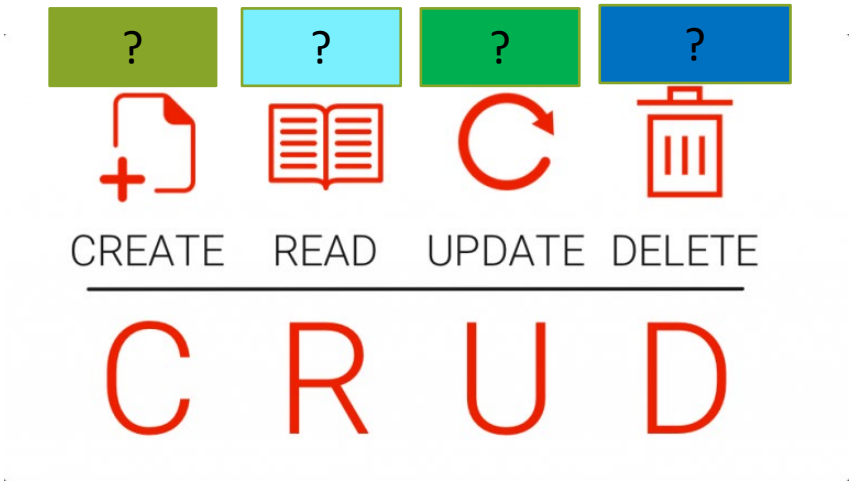
HTTP Methods

- In your coursework you are going to develop a dynamic website
- As a part of this you will use a database and perform different operations on the database based on your requirements.
- On a database, you are expected to perform **CRUD** operations.

- You will use **HTTP methods** to perform CRUD operations.

- You can use GET, PUT, POST, DELETE methods to accomplish the CRUD operations.
- **Search** and **Identify** the functionality of each of the above mentioned methods and replace the question marks below with suitable methods.



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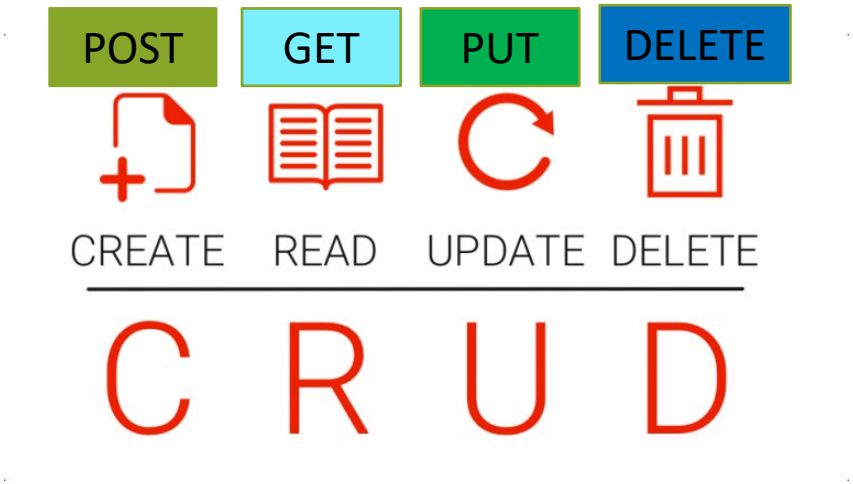

Parameters

- From your previous activity you must know how each HTTP request is made, i.e., the format of each request.
- Via HTTP requests, clients can pass parameters to the server (e.g. price=100)
- Parameters are simple name and value pairs
- Parameters are generally collected from HTML forms
- Form values are sent as parameters to the server when you click the `Submit` or `Next` button on the form
- The client encodes parameters before they are sent to the server (why?)
- Multiple parameters are separated by ampersands (&)

URL Encoding reference: https://www.w3schools.com/tags/ref_urlencode.ASP

Parameters with GET and POST

GET and POST are two widely used HTTP methods. Find the dissimilarities between these two methods.

- With a GET request, parameters are added at the end of the URL in encoded form
- If your URL is the following
  - http://www.mydomain.com/mypage
- The parameter “user” added to the URL
  - http://www.mydomain.com/mypage?user=myName
- Additional parameters can be added, separated by &
  - http://www.mydomain.com/mypage?user=myName&postcode=BD71DP
- POST is basically the same as GET, but parameters are handled differently:
  - parameters are passed as the body of request with the same type of encoding
- If you have lots of parameters or binary data, you may use the POST request

PUT vs POST

- It appears that in many cases PUT and POST methods can achieve the same outcome. But these methods are not the same.
- The choice of a particular method to do a job can have significant side effects.
- Find the differences between the PUT and POST method.

Idempotent	Safe
✓ GET	✓ GET
✓ PUT	✗ PUT
✗ POST	✗ POST
✓ DELETE	✗ DELETE

An idempotent HTTP method is a HTTP method that can be called many times without different outcomes.

Safe methods are HTTP methods that do not modify resources.