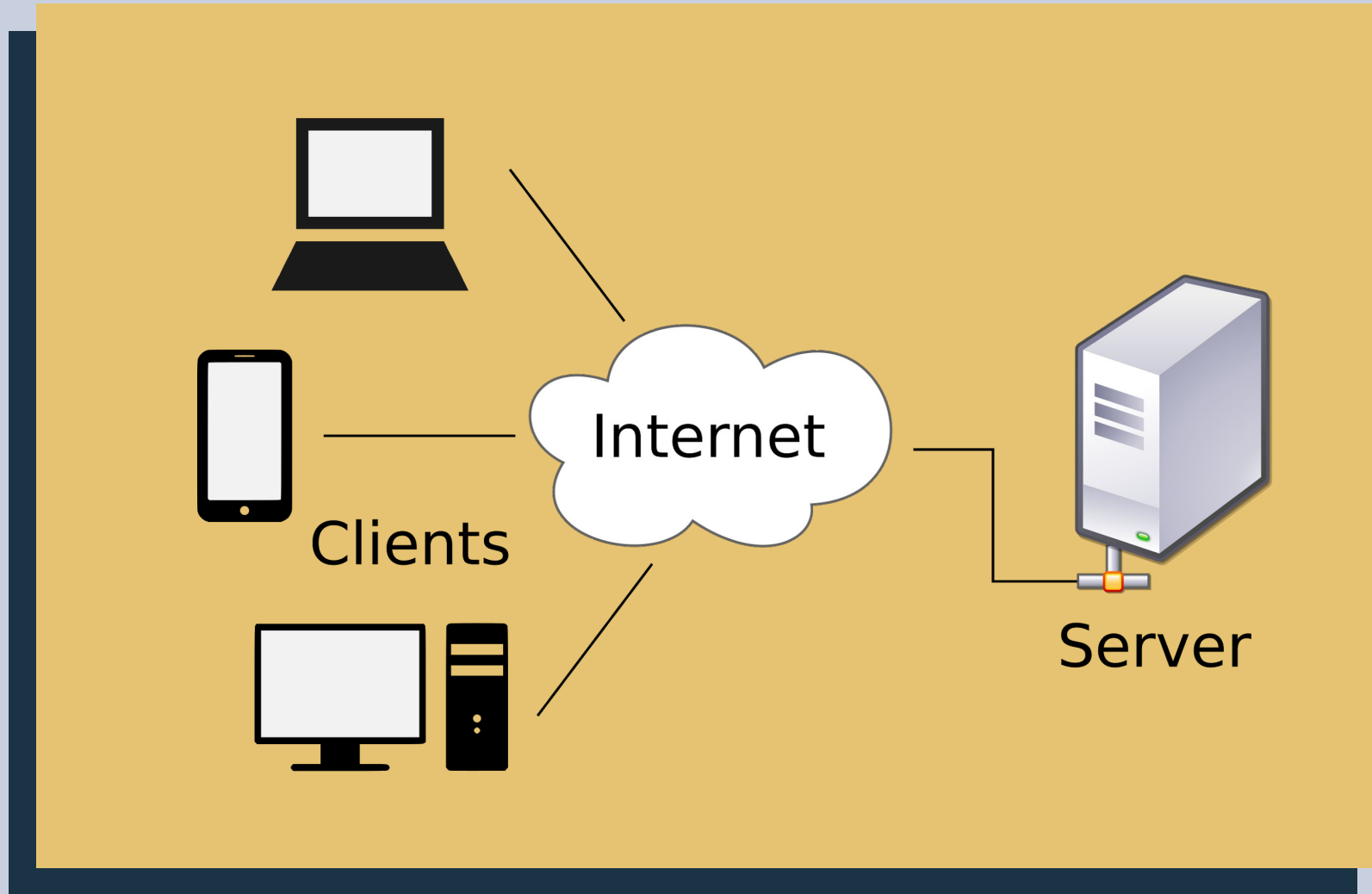


How the Internet Works_

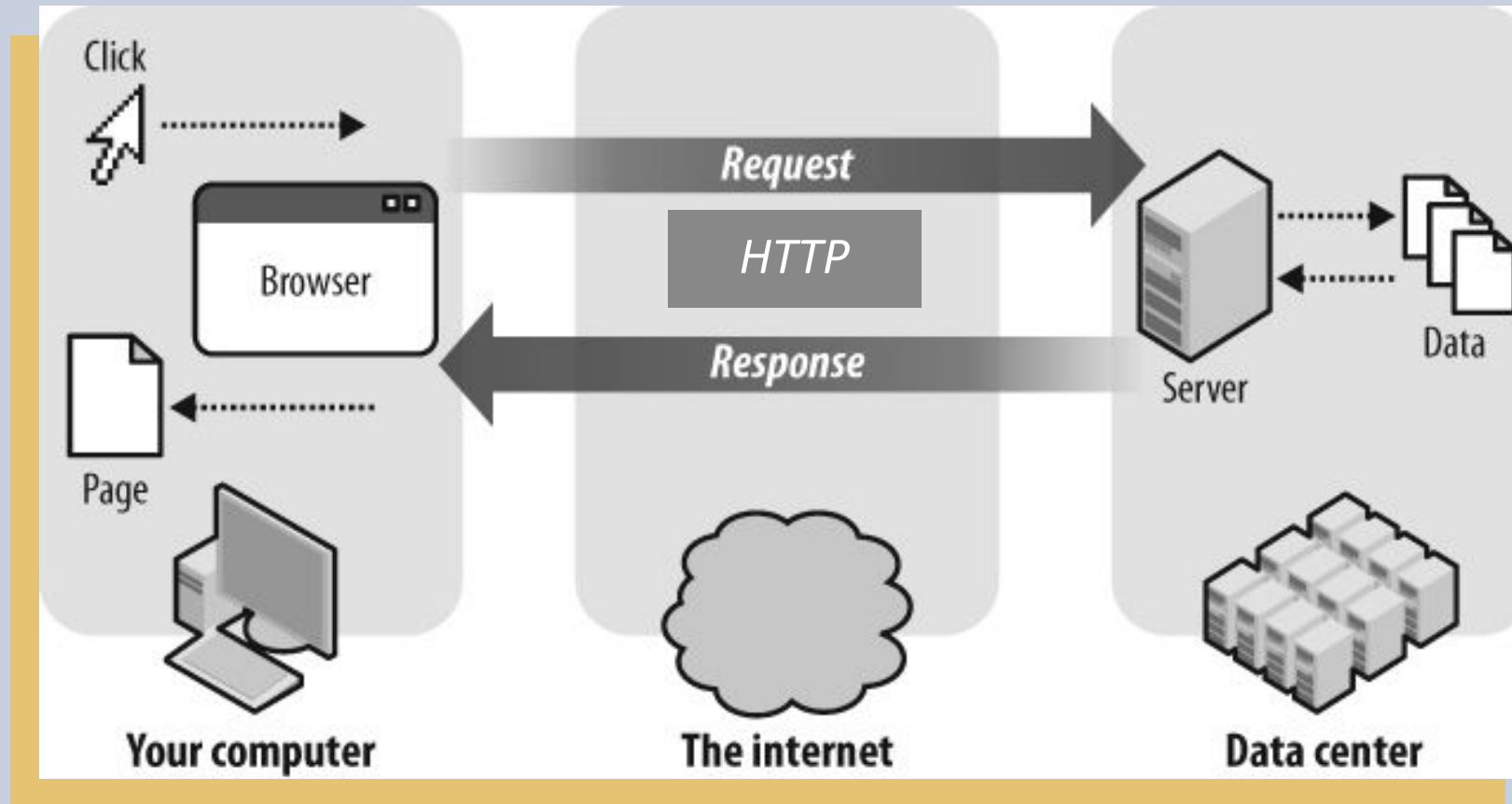


The cloud is just another name for
the internet

How the Internet Works_



Request / Response Cycle_



The Domain Name System_

DNS - The phonebook of the internet.

DNS converts a URL into the IP address of the server.

www.bbc.co.uk -> 151.101.0.81

HTTP Requests - Resources_

A HTTP request is made to a specific URL which is constructed of

a domain name



www.bbc.co.uk/news



a resource (optional)

Types of HTTP Requests_

The two most basic types of HTTP request are:

GET - sent by the client when they want to get some data. For example:

- A web page, or some CSS.

POST - sent by the client when they want to supply some data. For example:

- The contents of a <form>

HTTP Responses_

A HTTP response has a **header** and a **body**

The **header** gives us metadata about the response -

```
content-type: text/html  
status: 200  
content-length: 38323
```

The **body** is the actual content -

```
<!DOCTYPE html>  
<html lang="en">  
<head>  
...
```

```
body {  
  margin: 0;  
}  
...
```

HTTP Responses - Status Codes

A HTTP response header includes a status code to tell the client the result of the request -

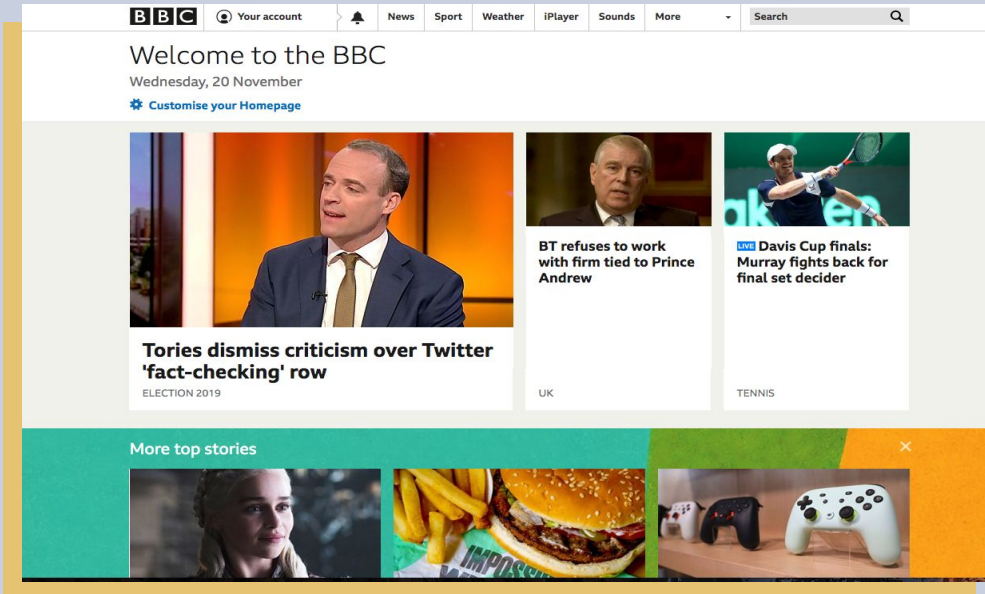
404 - Not Found

```
content-type: text/html  
status: 404  
content-length: 36238
```

200 - OK

```
content-type: text/html  
status: 200  
content-length: 38323
```

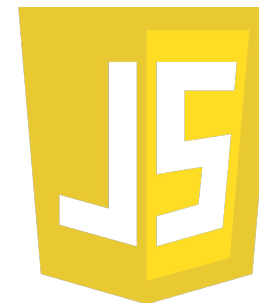

Front-End - Client



HTML



JS



CSS



Back-End - Server_

Database

Relational

- PostgreSQL

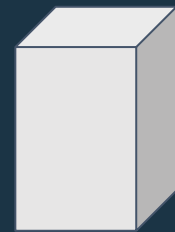
Non-Relational

- MongoDB

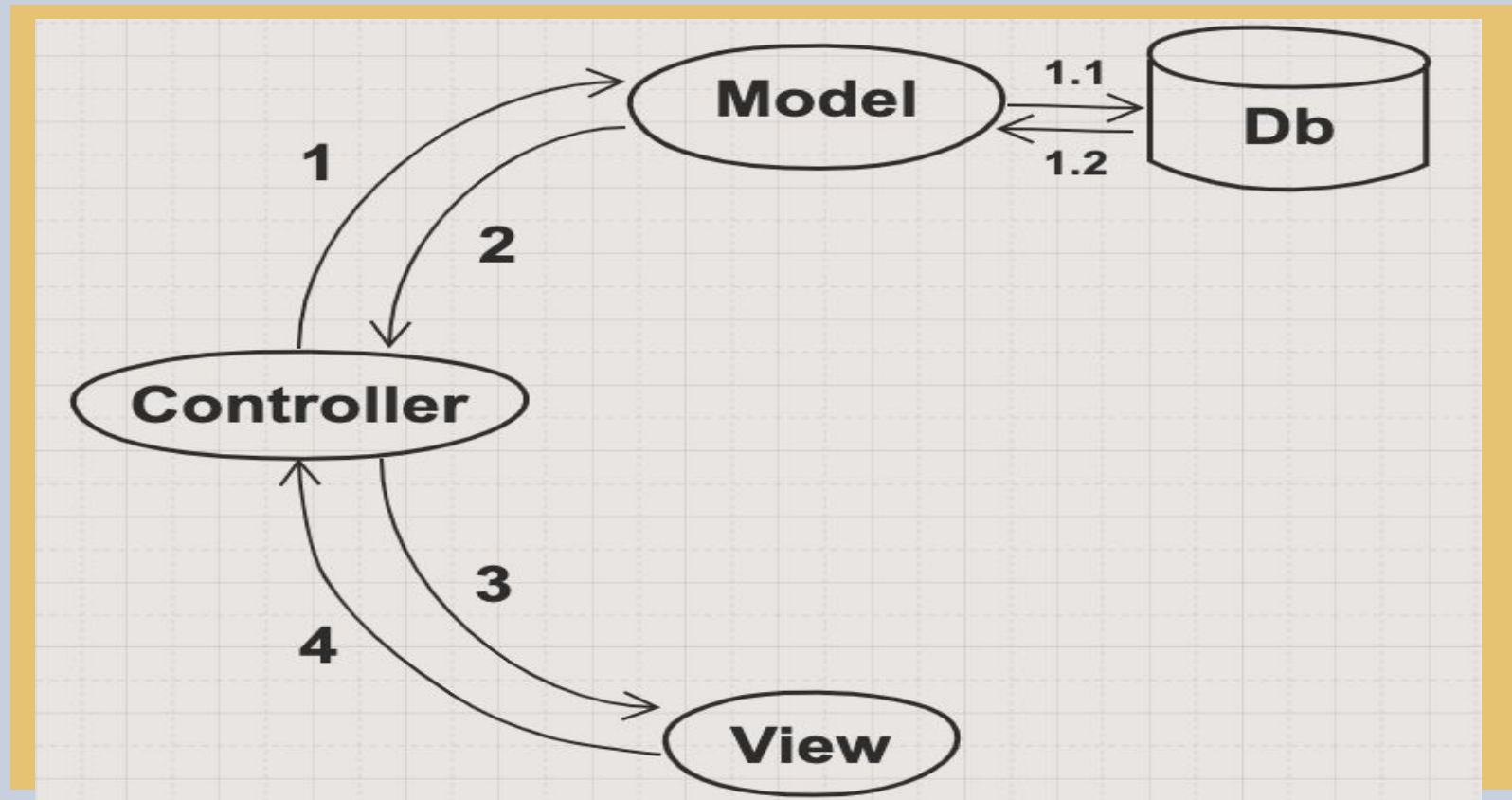


Web Server

- Flask



MVC Architecture



Key Takeaways_

- The internet is made up of clients and servers
- The front-end is what the user sees and interacts with using a client (e.g. web browser)
- The back-end (server) is where information is stored and can be served to a front end
- The client and server communicate over the internet using HTTP
- A back-end typically consists of a database and a web server