# The Internet and useful web pages

### Sir Tim Berners-Lee did not invent the Internet



### But his team did develop the World Wide Web

### The URL

- The Universal Resource Locator (URL) is the address you type in at the top of your Browser (Chrome, Edge etc) for example
  - https://www.google.com/
  - https://godartbrowncom.ipage.com/MCC/docs/Internet and maps.pdf
  - URLs that start 'http' or 'https' send a request to a web server which replies with a web page.
- It is also what is called when you click on a link in a web page.

### What is a web server?

- A web server listens for http or https requests, builds web pages and sends them back to the requesting client.
- The requests are normally created and sent by a Browser which formats the page to display to the user.
- The response is always in a language called Hypertext Markup Language (or HTML)
  - HTML consists of the text of the page plus tags in pairs which tell it how to format it for example
    - <strong>This will be in bold</strong>
  - You can always see the source of a web page by right click on it and 'view page source'

### What is a browser?

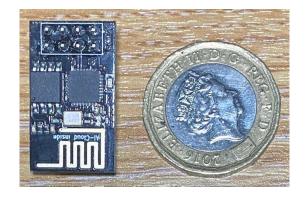
- A Browser is an application that allows you to enter a URL, which is sends to the web server and displays the response it gets back.
- The most common browsers are Chrome, Edge, Internet Explorer and Safari.
- The browser can only do very limited logic, like check if you entered a number or a character

# The Internet of Things (IoT)

### The Internet of Things (IoT)

 As processors have become smaller and more powerful it is now possible to have web servers on very small devices, notably the ESP8266 chip which has a processor and Wi-Fi on one chip. This one has 4 pins for inputs (sensors) or outputs (switches)





## **Search Engines**

### What is a search engine?

- Search engines allow you to enter some keywords an they find pages that match these criteria. Most common are Google, Yahoo and Bing.
- They work by having 'bots' that automatically connect to web sites, index their content and search for links, they then use these links to search of other web sites.
- The order that sites appear in results is dictated by the number of times thy are searched for and accessed, or money paid to the search engine.
- Sophisticated web sites use "Search Engine Optimisation" (SEO) to fool the search engines into bringing them higher in the results list.

### How to get the best results from a search engine

- Be specific with what you want.
  - Start with a lot of words then work back.
- Use + and -.
  - If you put in front of a word the engine will exclude sites that contain that word for example pest –cats wont return cat sites pets +cats will only return sites that refer to cats (does not work well in Google)
- Put key phrases in quotes.
  - If you are looking for say the King Kong movie, enter "King Kong" and it will only return sites that contain that phrase.

## Useful web sites

Some useful web sites

I've created a menu of some useful web sites at

https://godartbrowncom.ipage.com/MCC/index.pl?items=useful\_urls