Mendlesham Computer Club

What is behind a Web page?

What are we aiming to do today?

### Look at how web pages work, so you can spot when its safe to use them

How does a web page get to you?



Web Server

The internet

Browser

#### Web Servers

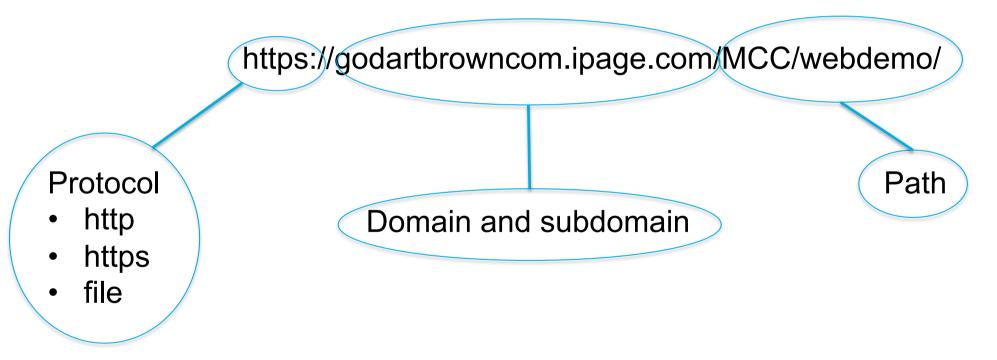
- Receive incoming requests and reply with web pages, pictures and other files.
- Come in all sizes from Google, which gets over 60,000 requests, a second down to single boards costing about £ 1.50



Demo of single chip web server.

#### What do we send to the web server?

- We ask for a page using a Uniform Resource Locator (URL)
- URLs look like this;



#### Protocol

https://godartbrowncom.ipage.com/MCC/webdemo/

The beginning of the URL

- https encrypt all of the traffic
- http send everything in the clear
- ftp used for downloads
- file don't send it to the web server, but look on your local disk

#### NEVER SEND PERSONAL INFORMATION VIA THE HTTP PROTOCOL WITHOUT THE 'S'

#### The domain and sub domains 1 of 2

https://godartbrowncom.ipage.com/MCC/webdemo/

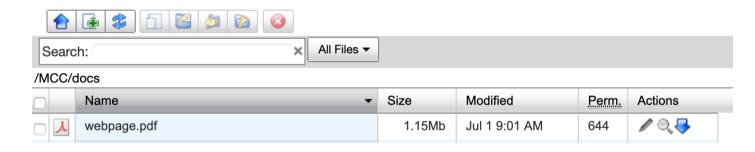
- E.g. godartbrowncom.ipage.com
- They are the same as is used after the @ in email addresses, so the same rules apply
- Read it from right to left
- Start with Top Level Domain at the right e.g.
  - .com
  - .org
  - .net
  - .co.uk
  - Country codes e.g. .uk, .fr, .it

#### The domain and sub domains 2 of 2

- Anyone can buy the next level down if its available, e.g. We own mendleshamcomputer.club (see 123-reg.com if you want your own)
- The subdomain is set by whoever owns the web site, e.g. in godartbrowncom.ipage.com, the godartbrowncom piece is set up by the people at ipage.com
- Consequently they can be abused by fraudsters.
- Always examine the last bits of a domain or email address e.g https://paypal-verification.com.seccyverifynow.tk is highly unlikely to be owned by paypal as .tk is for Tokelau, a territory of New Zealand

#### The path to the web page

- If it does not contain a filename e.g. https://godartbrowncom.ipage.com/MCC/webdemo/ the web server will open the index.html file in that directory (MCC/webdemo/index.html)
- It may be a document e.g. <u>https://godartbrowncom.ipage.com/MCC/docs/webpage.pdf</u>



- It may contain some parameters e.g. https://godartbrowncom.ipage.com/MCC/index.pl?items=familytrees where the value 'familytrees' is passed to the file index.pl by the webserver
- It's often a good idea to look at these to see what's being passed across to the web server, however good scammers are now using techniques to hide them.

What does the web server send back?

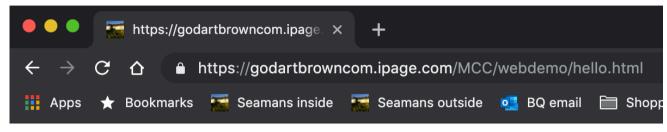
# Most of the time it sends back text formatted as HTML – see on.

## HTML is the language of web pages

- HyperText Markup Language
- Managed by the World Wide Web Consortium (W3C)
- HTML cannot do logic, anything requiring logic in the browser uses JavaScript.
- To see what is there do a <right click> and pick 'view page source' then
   <control>f to find things in the page.

See <u>https://godartbrowncom.ipage.com/MCC/webdemo/</u> for examples of HTML

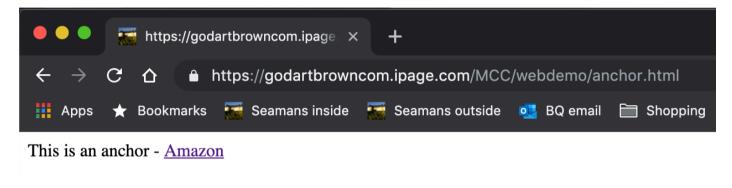
#### **Basic HTML**



Hello Mendlesham Computer Club

# <HTML> <HEAD></HEAD> <BODY> Hello Mendlesham Computer Club </BODY> </HTML>

#### Anchors



<a href=<u>https://www.amazon.com</u>>Amazon</a>

- To find these in a web page. <right click>'view source' then in the source page <control>f to search for 'href'
- In Windows mail, hover over the link and it will be displayed, you can then <right click><copy> to copy it somewhere else to get a better look.

Questions

# **Other HTML tags and Javascript**

#### Simple Formatting

- <strong>This is bold</strong>
- <font size="3" color="red">This is some red text!</font>
- <font size="2" color="blue">and this is Blue</font>

#### **Style Sheet**

```
<HEAD>
<link rel="stylesheet" href="./includes/default.css" type="text/css"
  media="screen" charset="utf-8" />
  </HEAD>
```

```
The style sheet (default.css)
```

body {

background-color: #17375e; font-family: Tahoma, Verdana, Arial, Helvetica, sans-serif; font-size: 14px; color: white;

}

#### **Tables**

<TABLE>

Row 1 column 1

Row 1 column 2

Row 2 column 1

Row 2 column 2

</TABLE>

#### Lists

<UL>

<LI>item 1

<LI>item 2

<LI>item 3

</UL>

#### Forms to enter information

- <form action="./action\_page.php">
- First name: <input type="text" name="firstname" value="John">
- <br>
  - <pr> <br> Last name: <input type="text" name="lastname" value="Player">
     <br>
    - <pr> <input type="submit" value="Submit">
    - </form>
  - If you click the "Submit" button, the form-data will be sent to a page called "./action\_page.php".

#### JavaScript

<html>

<head>

<script>

alert('hello world!');

</script>

</head>

• • •

The end