SCS2205

Computer Networks I

Notes

# Web Servers

## What does web server do

1. Get client request and give something back.
   1. html form
   2. picture
   3. sound
   4. video etc.
2. if there is an error about that file server will return that.

## What does a web client do

1. let the users to request something from server and shows the response from server to users.
2. browser is software that knows how to communicate with the server. It will render the HTML code to web page.

## HTML and HTTP

1. HTML tells the browser how to display the content to the user.
2. HTTP is the protocol clients and servers use on the web to communicate.
3. Servers use HTTP to send HTML to the client.

## HTTP Protocol

1. HTTP run top of TCP/IP
2. TCP is responsible for making sure that a file sent from one network node to another ends up with as a complete file at the destination. (File can split into chucks when it’s sent)
3. IP is the protocol that routes the chucks(packets) from one host to another on their way to the destination
4. HTTP also a protocol

### Request key elements

1. http method – the action to be performed
2. the page to access - URL
3. form parameters – like arguments to a method

### Response key elements

1. A status code – for whether the request was successful
2. Content-type - text, picture, html
3. Content – actual html, image

### What is the request

* HTTP protocol has several methods and mostly used GET and POST methods
* GET – ask a server to get a resource and send it back
* POST – request something from server and at the same time send form data to the server

### HTTP GET

1. Data send with GET is appended to the URL up in the browser bar.
2. So, whatever you send is exposed

### HTTP response

* What the server sends back to the request
* Response has header and body
* Header info tells the browser about the protocol being used, whether the request was successful, and what kind of content is included in the body.

## URL – Uniform Resource Locator

* Unique address that has a web

## PORT

1. TCP port is number that have 16 bits
2. There are 65536 ports in sever
3. Internet web (HTTP) server software run on port 80
4. Tenet server -23 / FTP – 21 / POP3 – 110 / SMTP – 25
5. Without port numbers server cannot find correct path and software that need the response
6. TCP port number from 0 to 1023 are reserved.