WEB SYSTEMS & TECHNOLOGIES

0. Internet and Web

Content

- Website: Static Web + Dynamic Web
- Static Web: Design, not interation (Client) [Front end]
- Client <→ Server [Dynamic Web Dynamic = Back end]
- Design: HTML, CSS (***)
- Attendence (1)
- Regular Test (2)
- Assignment (1)
- 1 Final Practice (1)
- Middle Test
- Final Test

Content

- HTML Basic
- CSS: Format Style
- Javascript: script (code) dynamic web client
- Boostrap: = Design library= HTML+CSS
- jQuery = javascript (library)

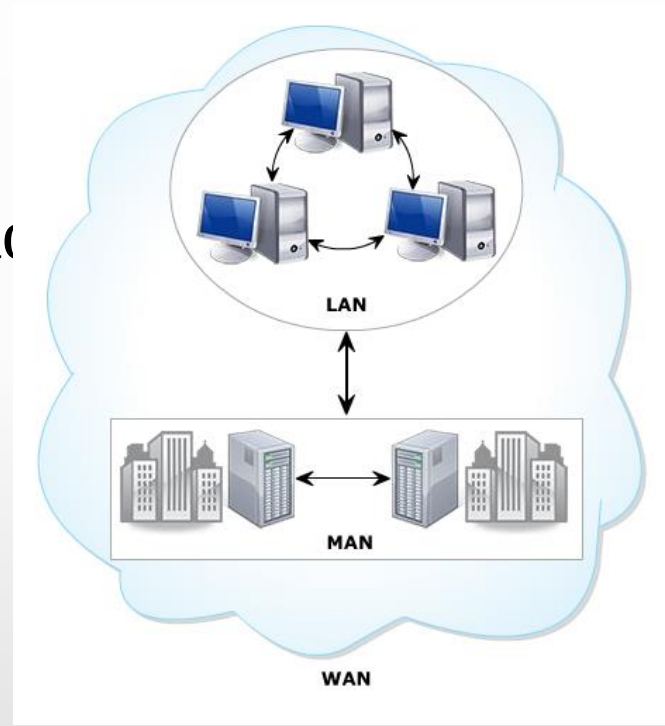
Table of Contents

Introduction of Web

- The Internet is a vast, international network, made up of computers and the physical connections (wires, routers, etc.) allowing them to communicate.
- The World Wide Web (WWW or just the Web) is a collection of software that spans the Internet and enables the interlinking of documents and resources.

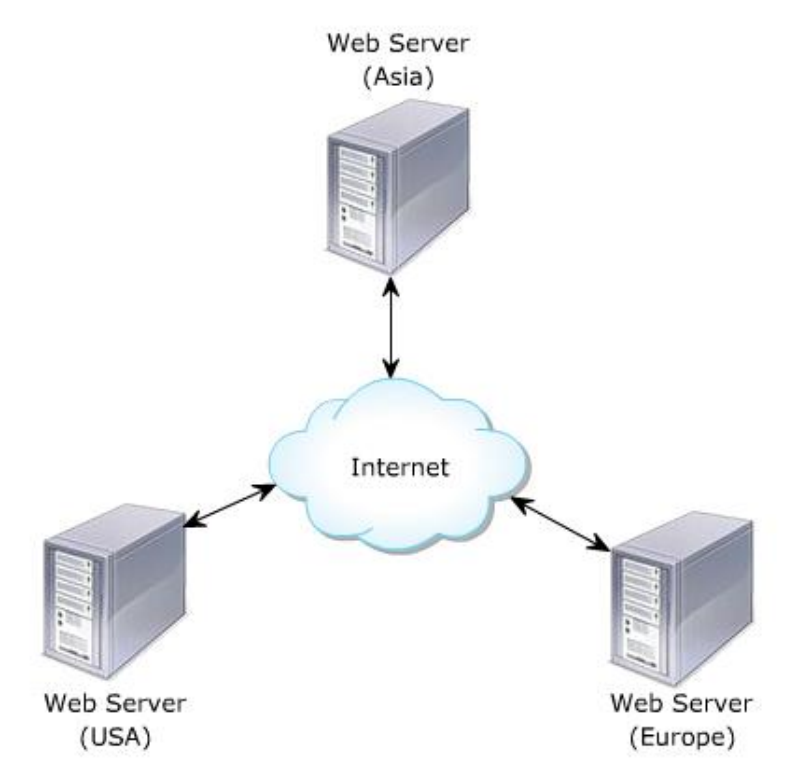
Evolution of web

- The growth of computing expanded in multiple.
- Organizations connect together t share data.
- This makes the beginning of computer networks.



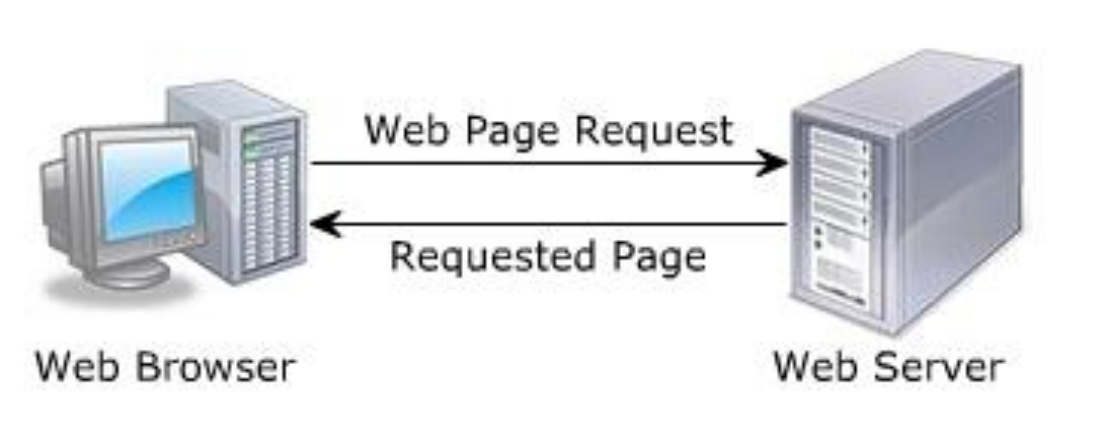
Web and Internet

- WANs raised a strong need about global data sharing
- This resulted referred as WWW.
- Internet is known as the largest WAN.



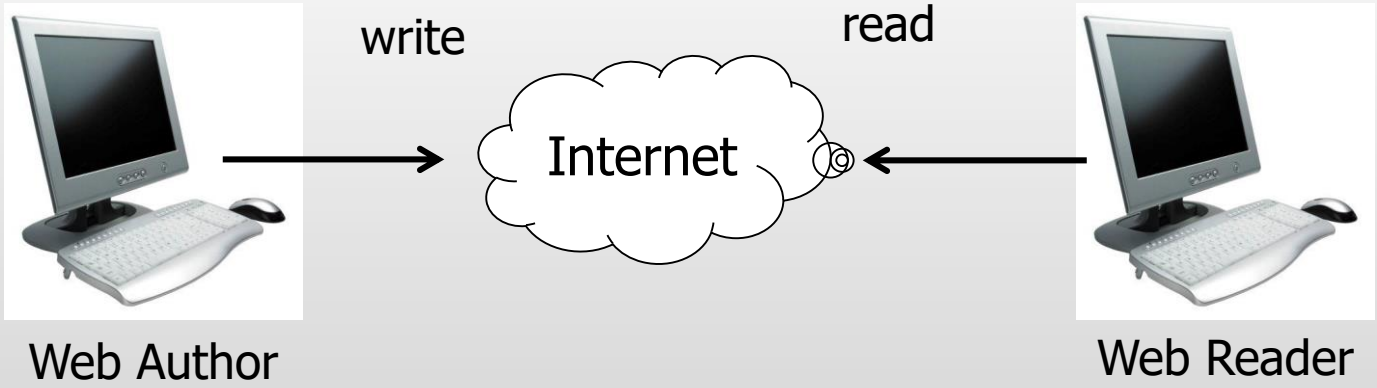
Version

- Web 1.0.
- Web 2.0.
- Semantic Web.



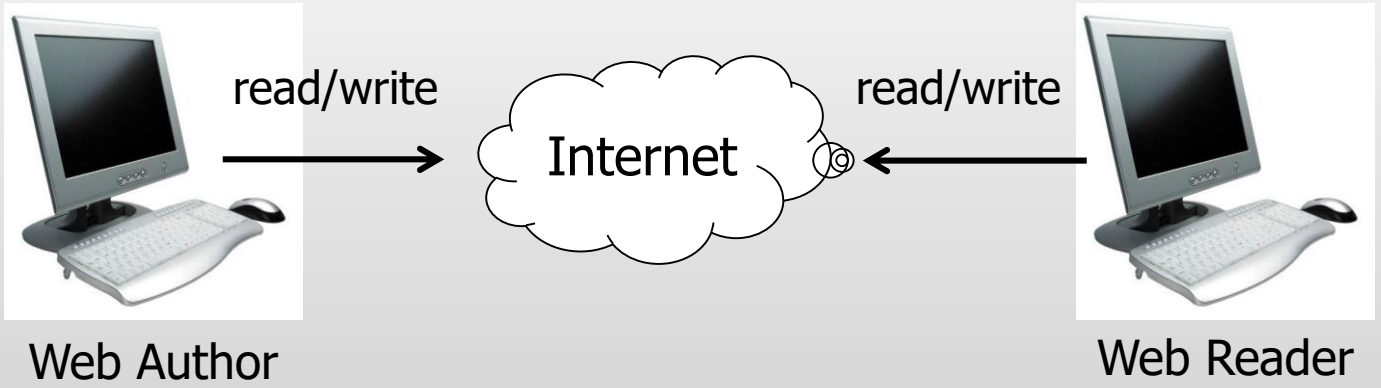
Web 1.0

- To be Known as traditional web.
- Authors write/publish content on the web.
- The published content has read-only format.
- Posing the problem of User interactivity.



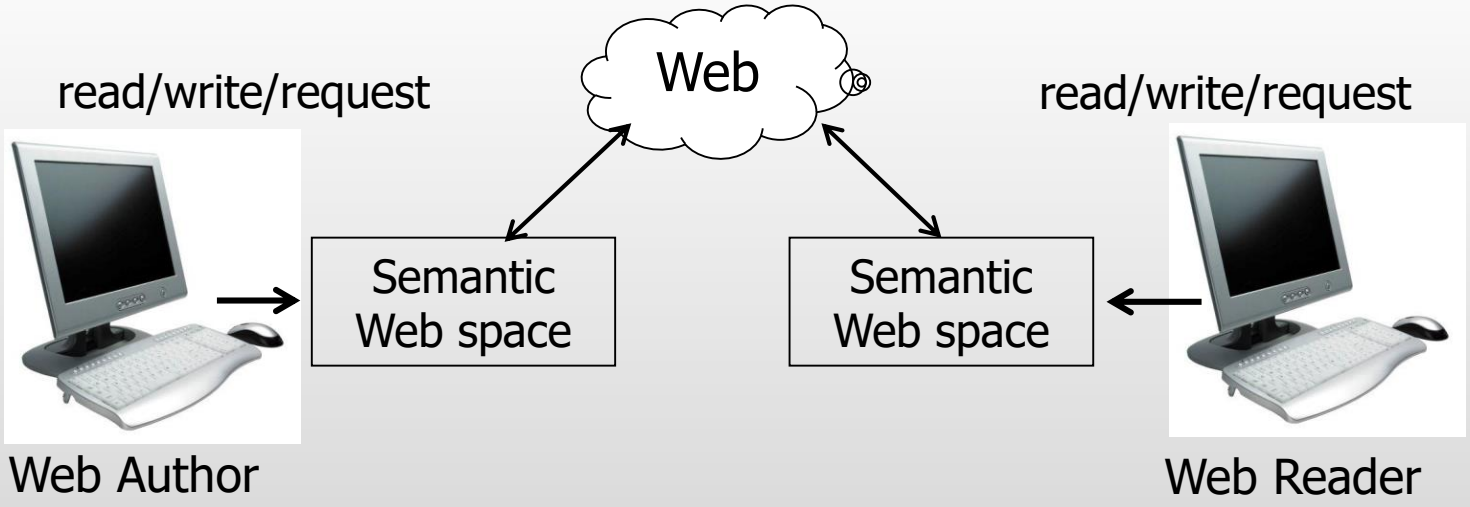
Web 2.0

- Web 2.0 also called as the read-write web.
- Readers can interact the authors by providing comments, blogs, queries, rating and so on.
- It's great platform for the readers to share their viewpoints with the authors.
- The Web space is limited in web 1.0 and 2.0.



Semantic web

- Concept to be expected as the future of web.
- It is the read-write-request web.
- The user can send the request for Web space.



Static web pages

- Static web pages have a limitations.
- Difficult to maintain.
- Updated manually.
- Inconsistency.
- Don’t allow any user interaction.

Dynamic web pages

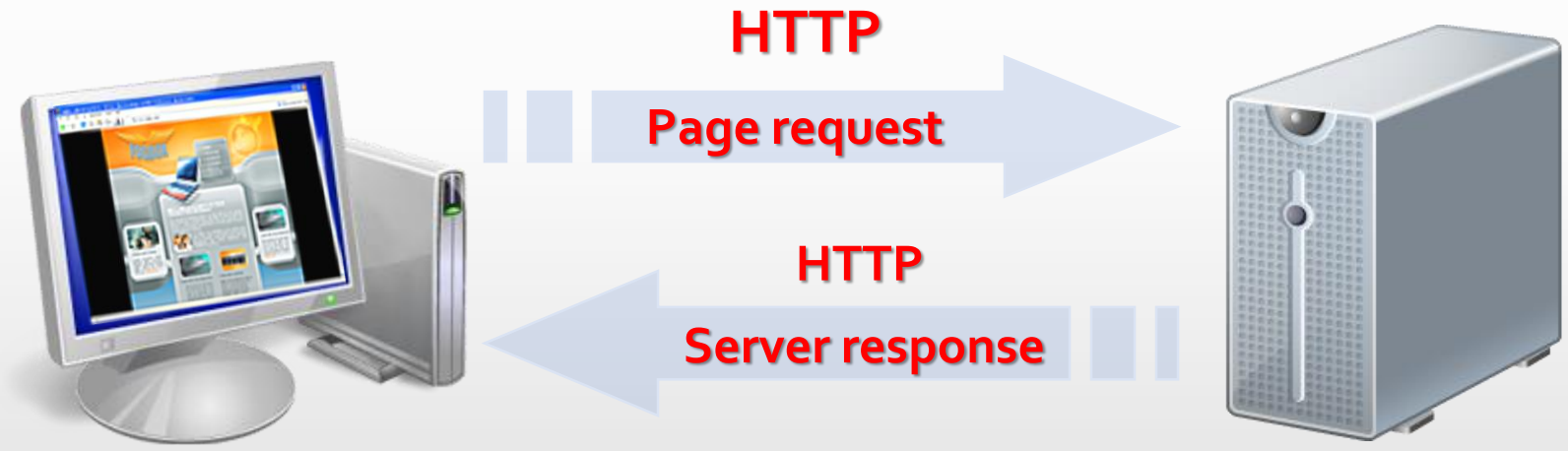
- Include static as well as dynamic web pages.
- Allows customizing the content and its appearance in the browser.
- Geneates content “on-demand”.
- Accepts the user inputs through web browser.
- Serveral technologies envoled to make web sites more flexible and dynamic.
- Variety device such as PDAs, Cell phones, and so on is used XHTML Documents

Types of Web Application

- Static Web Application
- Dynamic Web Application
- Shop online or e-commerce
- Portal Web Application
- Animation Web Application
- Web Application with CMS

Web Application architecture

- WWW use classical client / server architecture
- HTTP is text-based request-response protocol



Server-Side Code

- Languages/frameworks include but are not limited to Ruby (Rails), Javascript (Node.js), Python (Django), PHP, C#, and Java; but the list of possibilities is infinite. Any code that can run on a computer and respond to HTTP requests can run a server.
- Stores persistent data (user profiles, instatweets, mybook pages, etc.).

Server-Side Code

- Cannot be seen by the user (unless something is terribly wrong).
- Can only respond to HTTP requests for a particular URL, not any kind of user input.
- Creates the page that the user finally sees (this is generally only true in web applications that choose to render most of their layouts on the server)

Client-Side Code

- Languages used include: HTML, CSS, and JavaScript.
- Parsed by the user's browser.
- Reacts to user input.
- Can be seen and edited by the user in full.

Web Services

- A Web service is a software module that has a URL or an Internet address so they can be called upon to perform an operation via the Internet
- One Web service makes a request of another Web service to perform its task or tasks and pass back an answer creating a highly distributed system.
- using XML based messages via internet-based protocols.
- Web Services are latest distributed technology

Questions?