

TMS

Tecnologie dell'informazione:
mercato, società, cultura

Contenuti della presentazione

- HTML
- W3C
- XML
- DTD
- Web Client
- Web Server

Un esempio di pagina HTML

Semplice pagina di esempio - Mozilla Firefox

File Modifica Visualizza Cronologia Segnalibri Strumenti ?

file:///C:/Documents%20and%20Settings/defaveri/Desktop/TM5/materiale%20slides/slide3%20esempio%203.pptx

Google

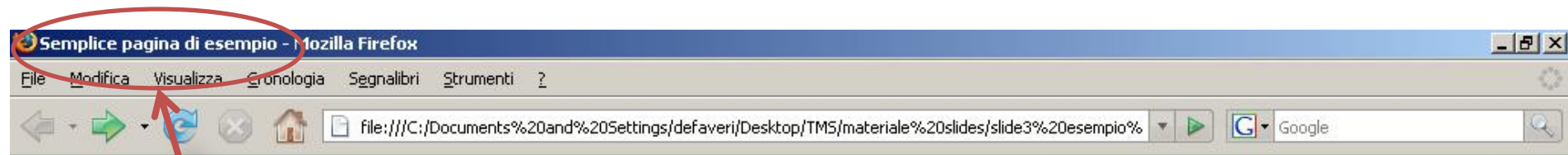
Home Simpson



Homer: Ok, cervello, io non piaccio a te e tu non piaci a me, ma facciamola questa cosa così potrò tornare a sbombartarti con la birra!

Cervello: Affare fatto!

[The Simpsons Movie](#)



Home Simpson



Homer: Ok, cervello, io non piaccio a te e tu non piaci a me, ma facciamola questa cosa così potrò tornare a sbombartarti con la birra!

Cervello: Affare fatto!

[The Simpsons Movie](#)

Home Simpson



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Home Simpson



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Home Simpson



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Semplice pagina di esempio - Mozilla Firefox

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Home Simpson



Homer: Ok, cervello, io non piaccio a te e tu non piaci a me, ma facciamola questa cosa così potrò tornare a sbombartarti con la birra!

Cervello: Affare fatto!

[The Simpsons Movie](#)

Cosa c'è dietro questa pagina?



```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML
4.01//EN"
"http://www.w3.org/TR/html4/strict.dtd">
<html>
  <head>
    <title>Semplice pagina di esempio</title>
  </head>
  <body>
    <center>
      <h1>Home Simpson</h1>
      
    </center>
    <p>
      <b>Homer</b>: Ok, cervello, io non piaccio a
      te e tu non piaci a me, ma facciamola
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Un Tag

`<nomeTag attributi> contenuto </nomeTag>`

Esempio:

`The Simpsons Movie`

Un Tag

Tag di Apertura

`<nomeTag attributi>` contenuto `</nomeTag>`

Esempio:

``The Simpsons Movie``

Un Tag

Tag di
Chiusura

`<nomeTag attributi> contenuto </nomeTag>`

Esempio:

`The Simpsons Movie`

Un Tag

Nome = "valore"



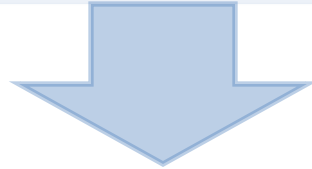
`<nomeTag attributi> contenuto </nomeTag>`

Esempio:

`The Simpsons Movie`

Un Tag

Nome = "valore"



`<nomeTag attributi> contenuto </nomeTag>`

Esempio:

`The Simpsons Movie`



Struttura di un documento HTML

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<html>
```

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<title>Semplice pagina di esempio</title>
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W3C



To lead the World Wide Web to its full potential by developing protocols and guidelines that ensure long-term growth for the Web.

W3C

- CSS
- CGI
- DOM
- HTML
- RDF
- SVG
- SOAP
- SMIL
- SRGS
- SSML
- VoiceXML
- WSDL
- XHTML
- XML
- XML Information Set
- XML Schema
- XPath
- XQuery
- XSLT

W3C

- **CSS**
- CGI
- DOM
- **HTML**
- RDF
- **SVG**
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- WSDL
- XHTML
- **XML**
- XML Information Set
- **XML Schema**
- **XPath**
- **XQuery**
- **XSLT**

XML

Extensible Markup Language

Esempio: un'agenda

<note>

<to>Bart**</to>**

<from>Homer**</from>**

<heading>Brutto bagarospo!**</heading>**

<body>Ragazzo, tu hai fatto del tuo meglio e hai fallito miseramente. La lezione è: mai tentare.

</body>

</note>

Esempio: un'agenda

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Esempio: un'agenda

```
<notes>
  <note>
    <to>Bart</to>
    <from>Homer</from>
    <heading>Brutto bagarospo!</heading>
    <body>Ragazzo, tu hai fatto del tuo meglio e hai fallito miseramente. La lezione è:
      mai tentare.
    </body>
  </note>
  <note>
    <to>Homer</to>
    <from>Bart</from>
    <heading>Ciucciati il calzino!</heading>
    <body></body>
  </note>
</notes>
```

Esempio: un'agenda

<notes>

<note>

<to>

<from>

<heading>

<body>

Esempio: un'agenda

```
<?xml version="1.0" ?>
```

```
<notes>
```

```
<note>
```

```
<to>Bart</to>
```

```
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```
<heading>Brutto bagarospo!</heading>
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<body>Ragazzo, tu hai fatto del tuo meglio e hai fallito miseramente. La lezione è:  
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Esempio: un'agenda

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    <body></body>
  </note>
</notes>
```

Un esempio di DTD

Document Type Definition

```
<!ELEMENT notes (note*)>  
<!ELEMENT note (to, from, heading, body)>  
<!ELEMENT to (#PCDATA)>  
<!ELEMENT from (#PCDATA)>  
<!ELEMENT heading (#PCDATA)>  
<!ELEMENT body (#PCDATA)>
```

```
<?xml version="1.0" ?>
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<!ELEMENT note (to, from,
  heading, body)>
<!ELEMENT to (#PCDATA)>
<!ELEMENT from (#PCDATA)>
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<!ELEMENT body (#PCDATA)>
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<?xml version="1.0" ?>
<!DOCTYPE notes SYSTEM="notes.dtd">
<notes>
  <note>
    <to>Bart</to>
    <from>Homer</from>
    <heading>Brutto bagarospo!</heading>
    <body>Ragazzo, tu hai fatto del tuo meglio e
hai fallito miseramente. La lezione è: mai
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  </body>
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<!ELEMENT body (#PCDATA)>

PCDATA

Parsed Character DATA

I dati all'interno vengono parsati e le entità espanse.

CDATA

Character DATA

I dati non vengono parsati, nessuna espansione di entità.

```
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  <note>
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    <from>Homer</from>
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```

XML Schema

Fare?

XML non è solo web

L'xml è usato in tanti ambiti:

- Configurazione applicazioni
- Trasmissione/salvataggio di dati (serializzazione classi)
- Persistenza dei dati (Database, XQuery, XPath)
- Documentazione (DocBook)
- Immagini (SVG)

Esempio di database XML: XPeer

- Progetto del Dipartimento di Informatica.
- Prevede la creazione di un Database XML distribuito.
- Ogni nodo della rete condivide documenti in formato XML
- Da ogni nodo è possibile ricercare i documenti attraverso interrogazioni nel linguaggio XQuery.

Linguaggi per XML: XPath e XQuery

- XPath: linguaggio per la navigazione degli alberi XML

Esempio:

```
/notes/note[1]
```

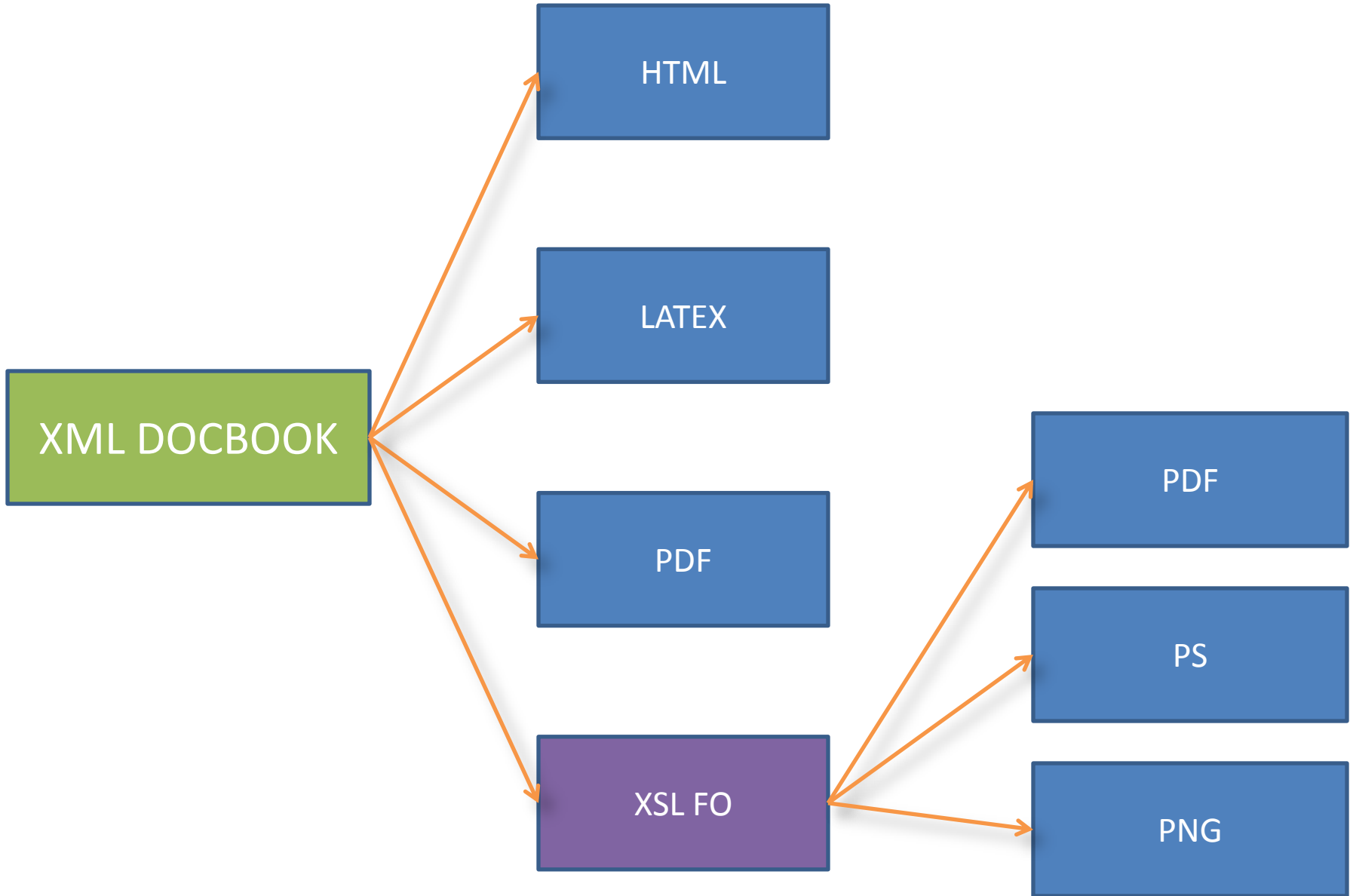
- XQuery: linguaggio per l'interrogazione di basi di dati XML.

Esempio:

```
for $x in doc("notes.xml")/notes/note  
  where $x/to="bart"  
  order by $x/header  
  return $x/body
```

DocBook

- Linguaggio di markup per documentazione tecnica, e non solo.
- Unica sorgente del documento in XML tante destinazioni



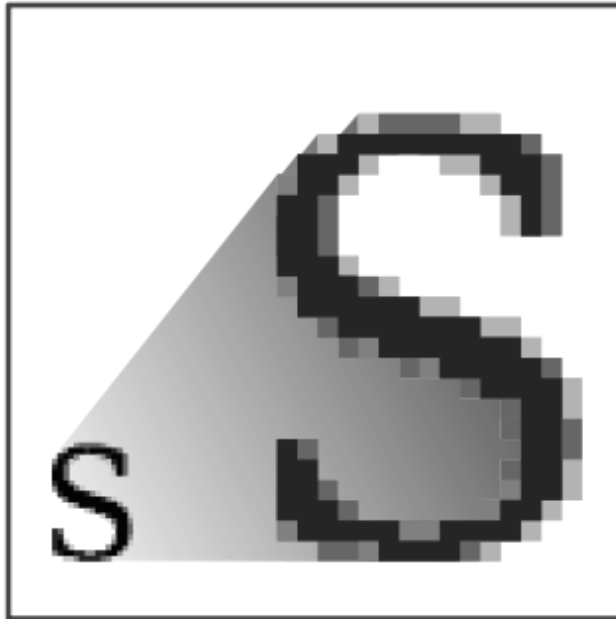
Esempio di file DocBook

```
<book id="simple_book">
  <title>Very simple book</title>
  <chapter id="simplechapter1">
    <title>Chapter 1</title>
    <para>Hello world!</para>
    <para>I hope that your day is proceeding splendidly!</para>
  </chapter>
  <chapter id="simplechapter2">
    <title>Chapter 2</title>
    <para>Hello again, world!</para>
  </chapter>
</book>
```


SVG

Scalable Vector Graphics

GIMP



BITMAP

.jpeg .gif .png

INKSCAPE



OUTLINE

.svg

I Web Client

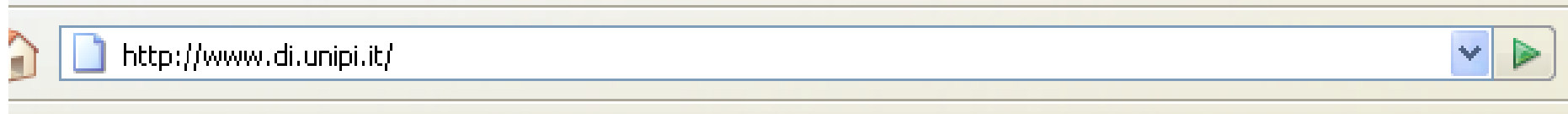
Browser

I Web Client

- Strumento per la navigazione dei siti Web.
- Nasconde i meccanismi dell'HTTP all'utente.
- In genere offre la possibilità di aprire più siti nella stessa pagina (Tabs).

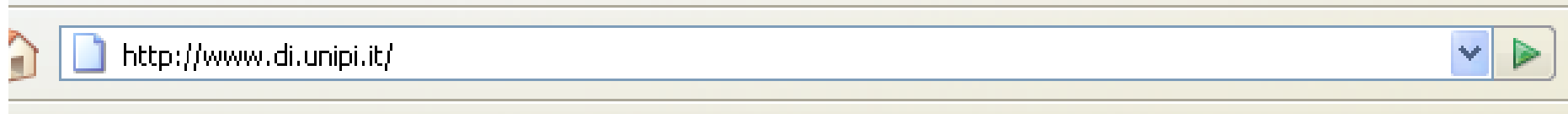
Comunicazione Client-Server 1

1. L'utente digita l'indirizzo nel browser:

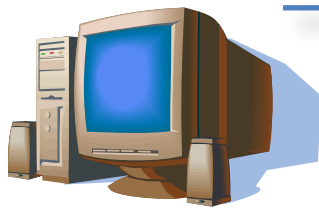


Comunicazione Client-Server 2

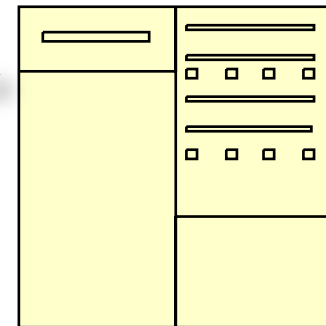
1. L'utente digita l'indirizzo nel browser:



2. Il browser richiede la pagina al Server
(in questo caso index.html):



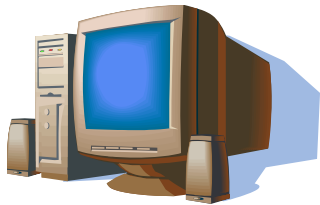
Web Client



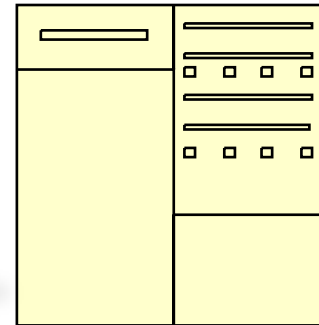
Web Server

Comunicazione Client-Server 3

3. Il server ricerca il file index.html nel proprio disco e lo invia al client:



Web Client



Web Server

Comunicazione Client-Server 4

4. Il client riceve e visualizza il file:



The screenshot shows a Mozilla Firefox browser window with the title "Dipartimento di Informatica - Università di Pisa - Mozilla Firefox". The address bar shows "http://www.di.unipi.it/". The browser's toolbar includes "File", "Modifica", "Visualizza", "Cronologia", "Segnalibri", and "Strumenti". The page content features the University of Pisa logo and the text "Dipartimento di Informatica Università di Pisa". A navigation menu on the right lists "Unimap", "Biblioteca", "Catalogo on-line", "Riviste on-line", "Collane", "Biblioteca ISTI", and "Catalogo on-line". A central image shows a building facade. Below the image, there are sections for "Ricerca" (Area di ricerca, progetti, pubblicazioni, laboratori, seminari, convegni. [Prometeo](#)), "Dottorato di ricerca" (Informazioni su ammissione, corsi, seminari, tesi. [Scuola "Galileo Galilei"](#)), "Didattica" (Segreteria dei corsi di studio, Erasmus. [Opuscolo informativo](#), [Master OS](#), [Master SIT](#), [EUCIP](#)), "Persone" (Professori ordinari e associati, ricercatori, dottorandi, contrattisti, personale tecnico-amministrativo), and "Amministrazione" (Segreteria amministrativa, organi decisionali, struttura organizzativa, regolamenti, moduli). A "Novità" section lists "Master OS", "Proceedings online", and "Sui brevetti software". An "Eventi" section lists "Gare di Informatica" and "Seminari". The browser's status bar at the bottom shows "Completato" and system information: "Adesso: Poggia, 16° C", "Mar: 16° C", and "Mer: 16° C".

Alcuni esempi di browser



Firefox

Main Page - Wikipedia, the free encyclopedia - Mozilla Firefox

File Edit View History Bookmarks Tools Help

W http://en.wikipedia.org/wiki/Main_Page W Wikipedia (English)

Get Started Latest Headlines

Sign in / create account

main page discussion view source history

Your continued donations keep Wikipedia running!

Welcome to **Wikipedia**,
the free encyclopedia that anyone can edit.
1,463,440 articles in English

- Arts
- History
- Society
- Biography
- Mathematics
- Technology
- Geography
- Science
- All portals

Overview · Searching · Editing · Questions · Help

Categories · Featured content · A-Z index

navigation

- Main Page
- Community Portal
- Featured articles
- Current events
- Recent changes
- Random article
- Help
- Contact Wikipedia
- Donations

search

Go Search

toolbox

Done

Today's featured article

 **Stuyvesant High School** is a New York City public high school that specializes in **math** and **science**. The school opened in 1904 on **Manhattan's East Side** and moved to a new building in **Battery Park City** in 1992. The school is noted for its famous alumni, including four **Nobel laureates**, its strong academic programs, and the large percentage of its graduates who attend prestigious universities. Together with **Brooklyn Technical High School** and

In the news

- The journal *Science* publishes a study predicting the collapse of commercial **fisheries** in 2048, due to **overfishing**, **pollution** and other **environmental factors**. 
- The government of **Uganda** and the **Lord's Resistance Army** rebels agree to

Internet Explorer

The screenshot shows the Windows Internet Explorer 7 browser window. The title bar reads "Main Page - Wikipedia, the free encyclopedia - Windows Internet Explorer". The address bar shows the URL "http://en.wikipedia.org/wiki/Main_Page". The browser's toolbar includes navigation buttons (back, forward, home, stop, refresh), a search box with "MSN Search", and various utility icons like star, zoom, and print. The main content area displays the Wikipedia Main Page, featuring a globe logo, navigation tabs (main page, discussion, view source, history), and a sign-in prompt. The page content includes a welcome message, a list of featured articles (Arts, History, Society, Biography, Mathematics, Technology, Geography, Science, All portals), and a "Today's featured article" section about the band Nirvana. A sidebar on the left contains navigation and search options. The status bar at the bottom shows "Internet" and "100%" zoom.

Main Page - Wikipedia, the free encyclopedia - Windows Internet Explorer

http://en.wikipedia.org/wiki/Main_Page

MSN Search

Microsoft Corporation Main Page - Wik... X Internet Explorer - ...

Sign in / create account

main page discussion view source history

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- Arts
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- Society
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- Technology
- Geography
- Science
- All portals

Overview · Searching · Editing · Questions · Help

Categories · Featured content · A-Z index

Today's featured article

 Nirvana was a popular American rock band from Aberdeen, Washington. With the lead single "Smells Like Teen Spirit" from their 1991 album *Nevermind*, Nirvana exploded into the mainstream, bringing along with it an offshoot of punk and alternative rock referred to as grunge. As Nirvana's frontman, Kurt Cobain found himself referred to in the media as the "spokesman of a generation", with Nirvana the "flagship band" of "Generation X". Cobain was uncomfortable with the attention, and placed his focus on the band's music, challenging the band's audience with their third studio

In the news

- Voting to select the next elected member of the United Nations Security Council from Latin America and the Caribbean remains a stalemate.
- The government of Sudan (flag pictured) and the Eastern Front rebels sign a peace treaty in Asmara, Eritrea.
- In Ecuador, results from the general election indicate that Álvaro Noboa will likely face Rafael Correa in a run-off for the presidency.
- The chemical element with the atomic

Go Search

What links here Related changes Upload file

Internet 100%



Opera

A screenshot of the Opera browser window showing the Wikipedia Main Page. The browser's title bar reads "Main Page - Wikipedia, the free encyclopedia - Opera". The address bar shows the URL "http://en.wikipedia.org/wiki/Main_Page". The page content includes a navigation menu, a search box, and several featured articles. The "Today's featured article" section highlights the "Sunday Times Golden Globe Race". The "In the news" section lists several recent events, including a controversial law on author's rights and the Republic of Montenegro becoming a UN member.

Main Page - Wikipedia, the free encyclopedia - Opera

File Edit View Bookmarks Widgets Tools Help

New tab W Main Page - Wikip... x

W http://en.wikipedia.org/wiki/Main_Page

Google

Sign in / create account

main page discussion view source (editing restricted) history

Your continued donations keep Wikipedia running!


Welcome to Wikipedia,
the free encyclopedia that anyone can edit.
1,224,538 articles in English

- Arts
- History
- Society
- Biography
- Mathematics
- Technology
- Geography
- Science
- All portals

Overview • Searching • Editing • Questions • Help

Categories • Featured content • A-Z index

Today's featured article

 The **Sunday Times Golden Globe Race** was a non-stop, single-handed, round-the-world yacht race, held in 1968–1969. It was the first round-the-world yacht race in any format. The Golden Globe Race was sponsored by the British *Sunday Times* newspaper and was designed to capitalise on a number of individual round-the-world voyages which were already being planned by various sailors; for this reason, there were no qualification requirements, and competitors were permitted to start at any time between **June 1** and **October 31, 1968**. Nine sailors started the race; four retired before leaving the **Atlantic Ocean**. Of the five remaining, **Chay Blyth**, who had set off with absolutely no sailing experience, sailed past the **Cape of Good Hope** before retiring, **Nigel Tetley** sank as he approached the finishing line, **Donald Crowhurst**, who attempted to fake a round-the-world voyage, went insane and then committed suicide, and **Bernard Moitessier**, who rejected the philosophy behind a commercialised competition, abandoned the race while in a strong position to win, kept sailing non-stop, and stopped in **Tahiti** after circling the globe one and a half times. Only one of the nine sailors finished the race: **Robin Knox-Johnston** became the first person to sail single-handed and non-stop around the world. Knox-Johnston was awarded both prizes and later

In the news

- A new, controversial law on **author's rights** is approved by the French Parliament (*coat of arms pictured*).
- Women in Kuwait **participate in general elections** for the first time.
- Democrats 66 prompts a Dutch **coalition cabinet** collapse over the **Ayaan Hirsi Ali** affair.
- The U.S. Supreme Court rules in **Hamdan v. Rumsfeld** that planned Guantanamo Bay military tribunals are illegal.
- The **Republic of Montenegro** becomes the 192nd member of the United Nations.
- Israel launches a **major incursion** into the Gaza Strip to free captured soldier Gilad Shalit.
- Nguyễn Minh Triết** is elected by the National Assembly as President of Vietnam, and appoints **Nguyễn Tấn Dũng** as Prime Minister.
- The 2006 FIFA World Cup enters the **quarterfinals** in Germany. (*Hatsie!*)

navigation

- Main Page
- Community Portal
- Featured articles
- Current events
- Recent changes
- Random article
- Help
- Contact Wikipedia
- Donations

search

Go Search

toolbox

- What links here
- Related changes
- Upload file
- Special pages
- Printable version
- Permanent link
- Cite this article

Web Server

Web Server

Elabora le richieste provenienti dai Web Client:

- Richieste di pagine/immagini
- Controllo delle autorizzazioni
- Può ridirigere le richieste ad altri moduli (PHP, JSP, ASP, PLSQL)

Esempi di Web Server

Apache HTTP Web Server

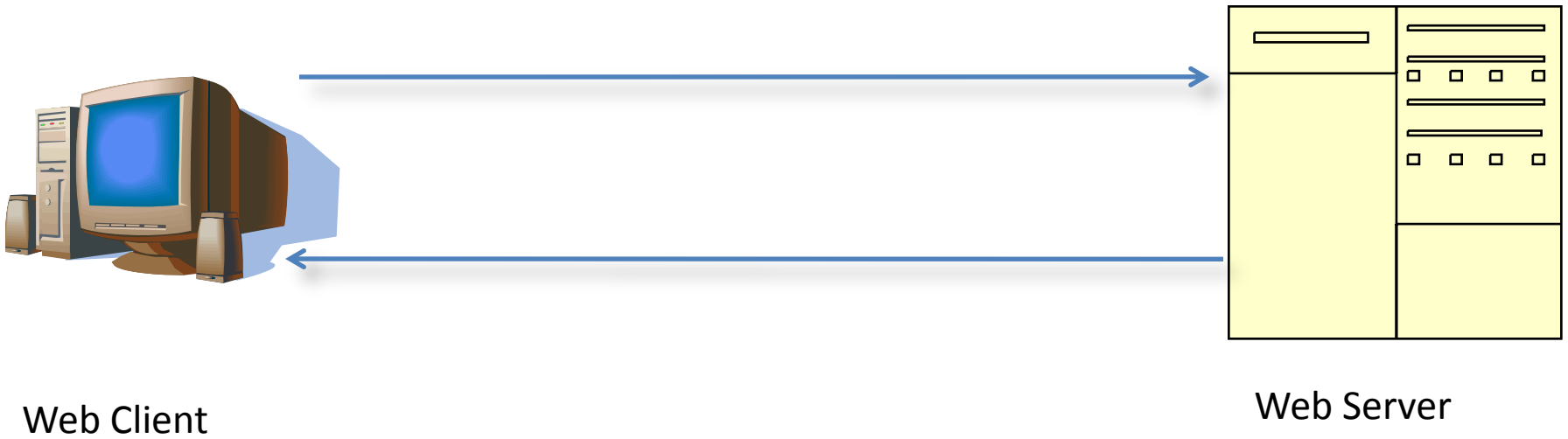


Internet Information Service

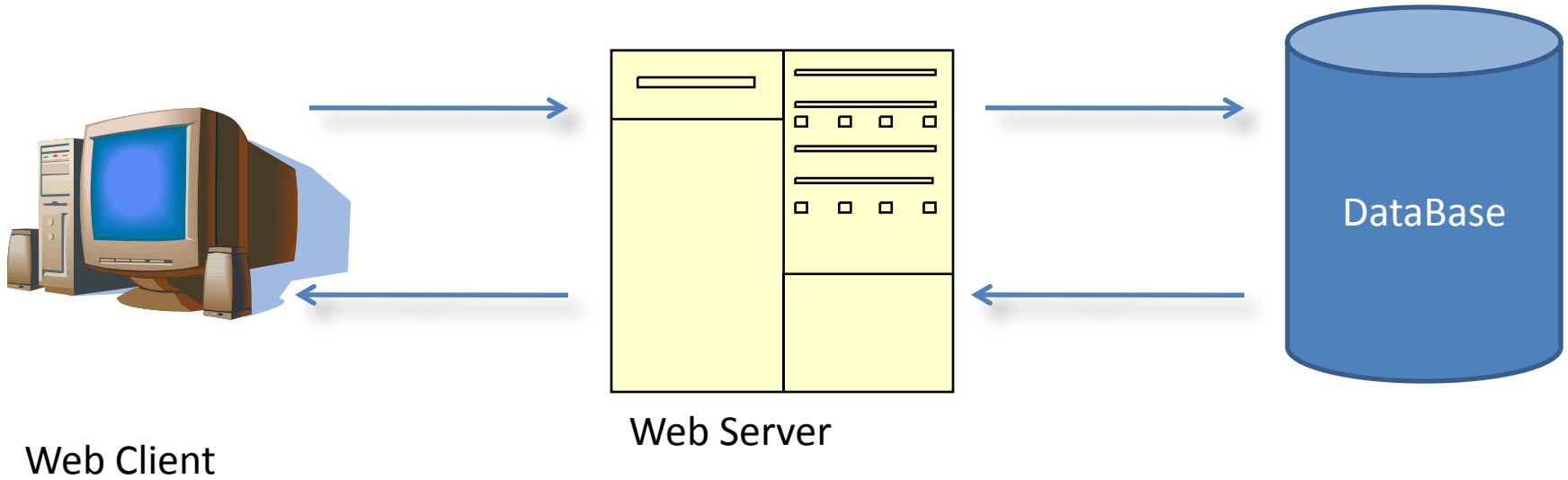


Architetture di rete

Two-tier



Three-tier

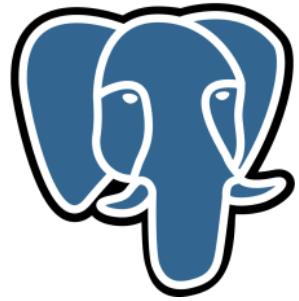


DataBase Managment System

I DBMS

- Mantengono i dati (ad esempio elenco utenti, elenco prodotti)
- Permettono l'interrogazione tramite opportuni linguaggi (SQL, XQuery)
- Spesso posseggono linguaggi per la produzione di pagine html (Oracle PLSQL)

Alcuni DBMS



PostgreSQL



ORACLE®

Riferimenti

- <http://www.w3.org/>
- <http://www.di.unipi.it/~manghi/XPeerWeb/homexpeer.htm>
- <http://www.docbook.org/>

Siti utili

- <http://www.html.it/>
- <http://www.w3schools.com/>