

Asosiy tushunchalar. HTML tili.

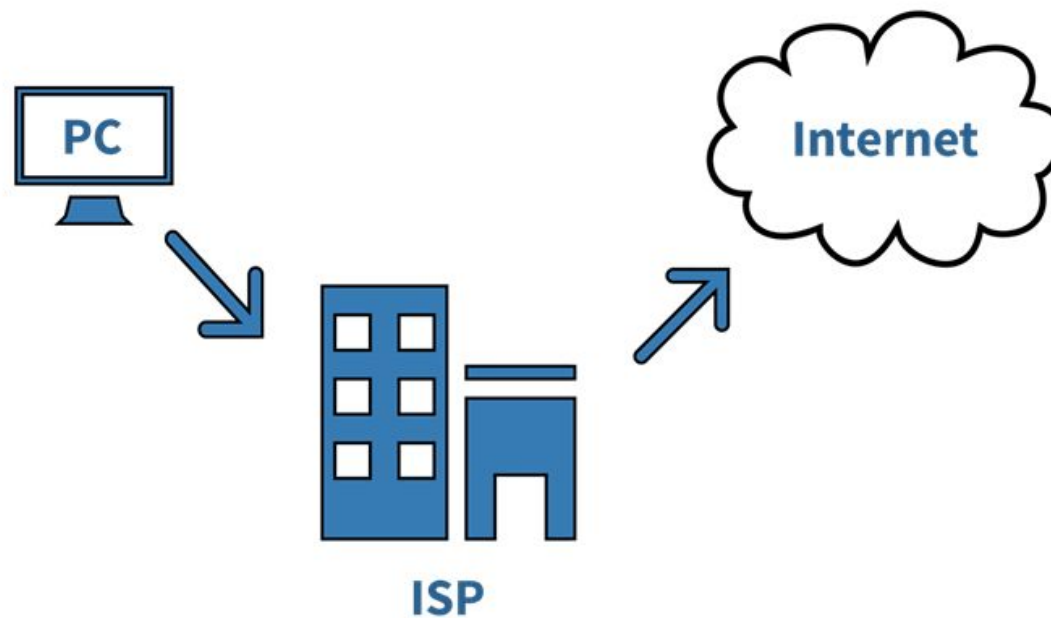
Internet

Internet – dunyo bo'ylab joylashgan va yagona tarmoqqa birlashtirilgan minglab kompyuter tarmoqlarining majmuidir.

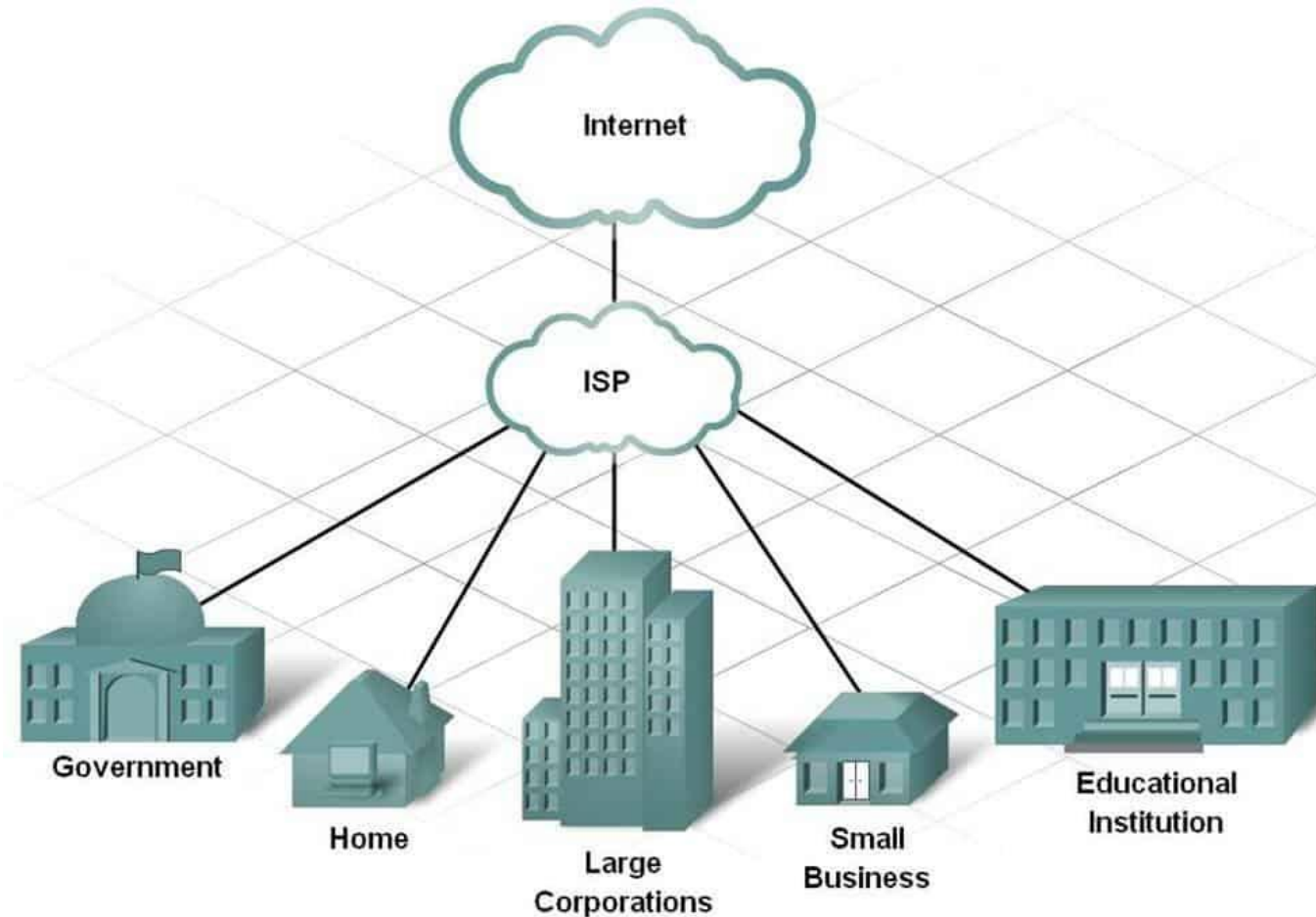


Internet service provider

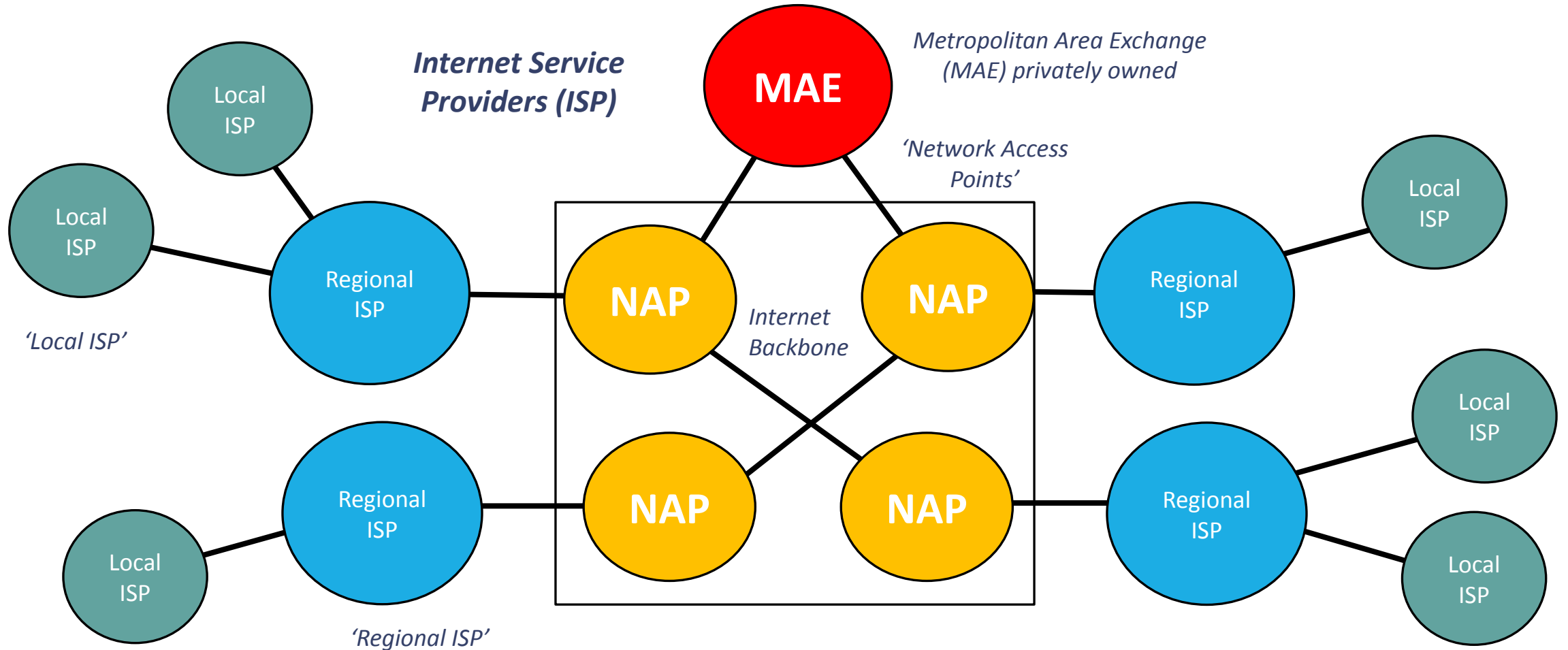
Internet-provayder (ISP) - bu foydalanuvchiga odatda haq evaziga Internetga kirishni ta'minlaydigan kompaniya.



Internet service provider



Internet service provider



ISP xizmatlari

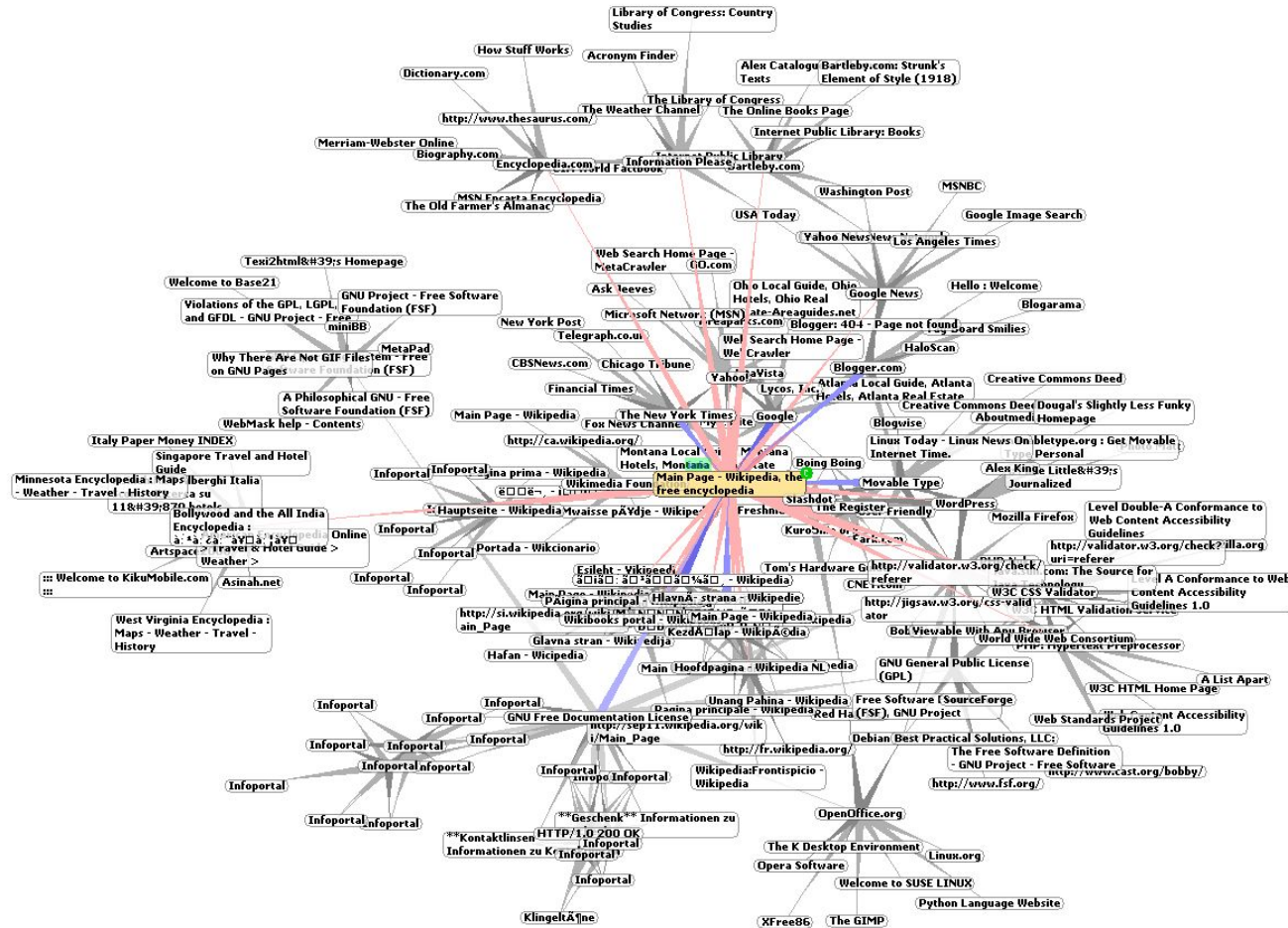


World Wide Web - WWW

WWW – Internet tarmog'iga ulangan turli kompyuterlarda (qurilmalarda) joylashgan o'zaro bog'liq xujjatlarga kirishni ta'minlovchi taqsimlangan tizim.

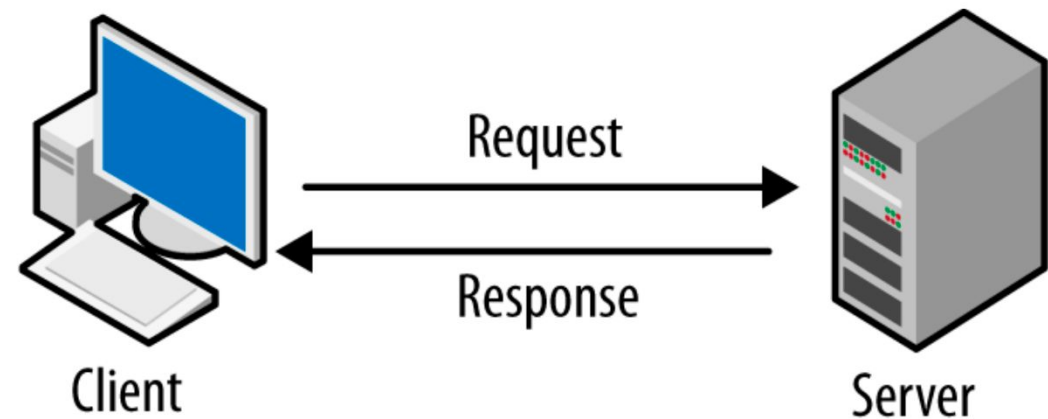
- Web-serverlar tashkil qiladi
- Resurslarining katta qismi gipermatn texnologiyasiga asoslangan
- Web sahifa - gipermatnli hujjat
- Web sayt – umumiy mavzu asosida birlashtirilgan bir nechta web sahifalar (odatda bitta web-serverda, bitta domenda joylashgan bo'ladi)
- Brauzer – web sahifalarni ko'rish va yuklash uchun maxsus dastur
- Ixtirochisi Tim Berners Li (shuningdek, HTTP, URI/URL, HTML)

Wikipedia namunasi

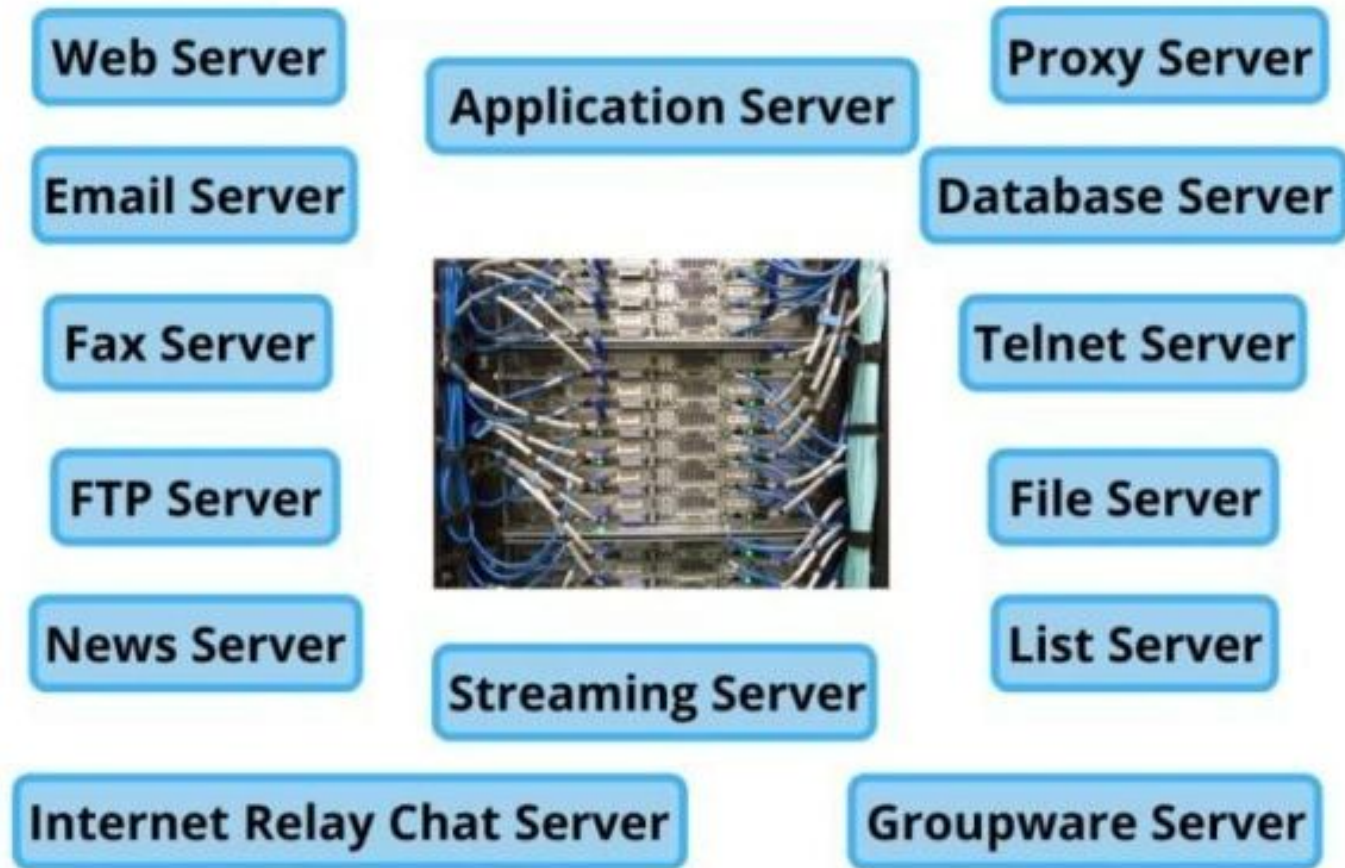


Server

Qurilma: xizmat ko'rsatuvchi dasturiy ta'minot ishlashi uchun alohida ajratilgan, maxsus kompyuter.

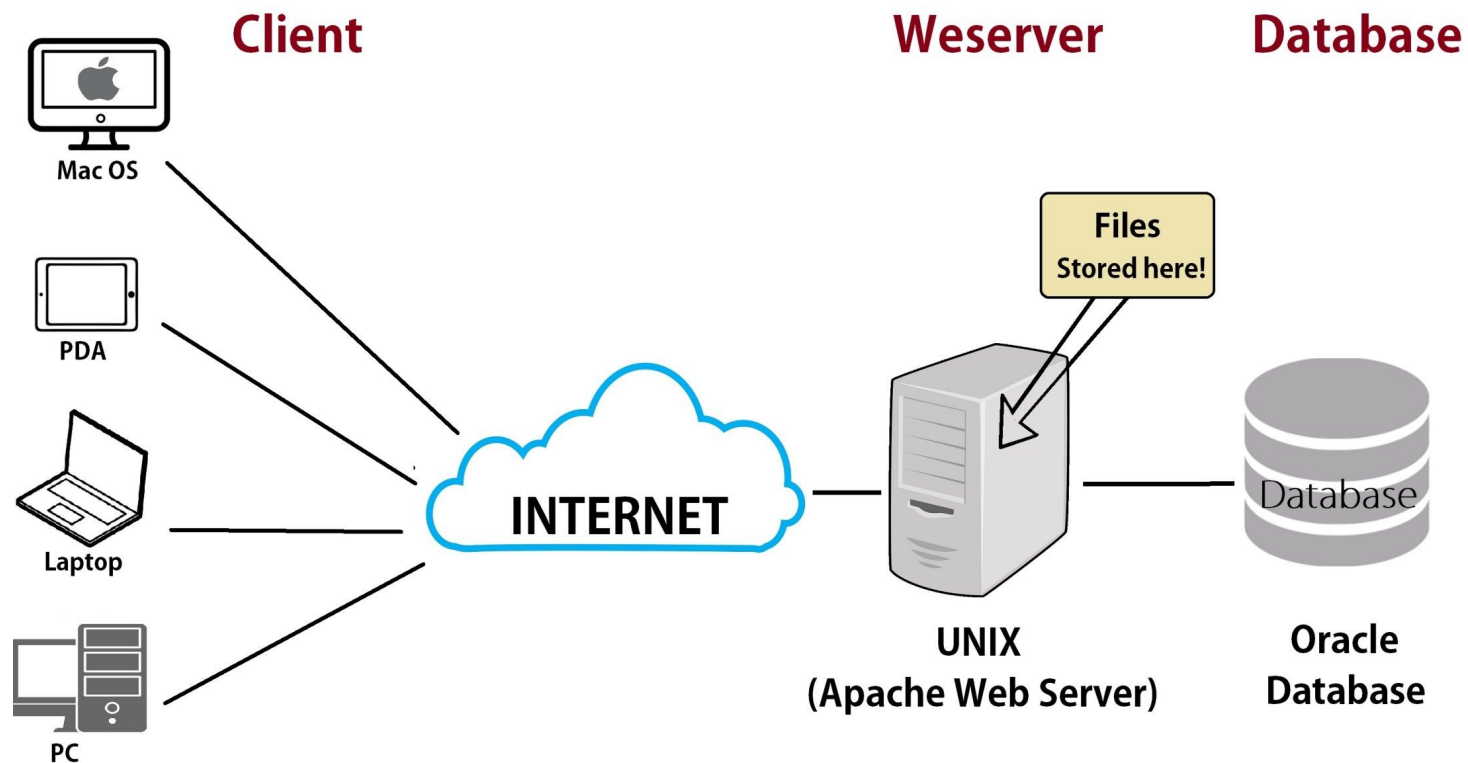


Server turlari



Web server

Web server – mijozlardan (odatda brauzer) HTTP so'rovlarni qabul qiluvchi va HTTP javoblarni (HTML sahifa, rasm, fayl, media va boshqalar bilan) qaytaruvchi server.



Web server

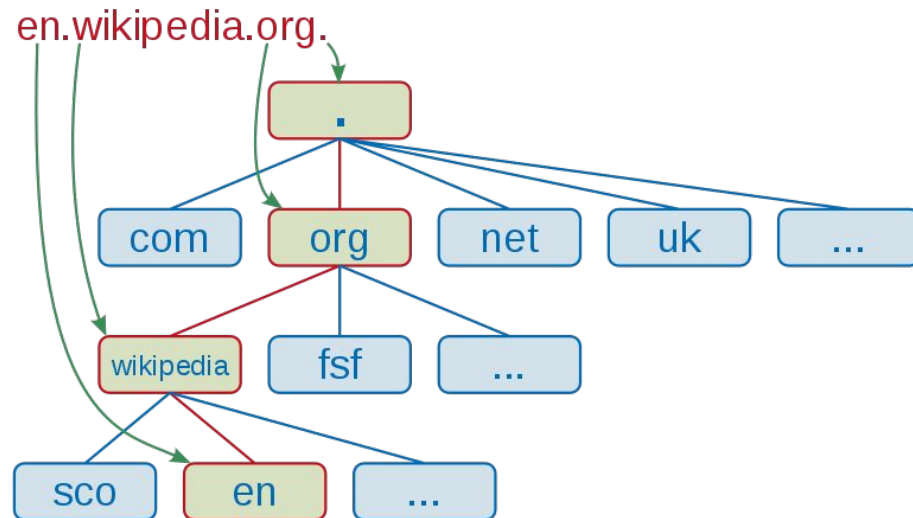
Web serverning qo'shimcha funksiyalari:

- web sahifalar ishlashini avtomatlashtirish;
- resurslarga foydalanuvchilar murojaatlarini jurnalini yuritish;
- foydalanuvchilarni autentifikatsiya va avtorizatsiyadan o'tkazish;
- dinamik yaratiluvchi sahifalarni qo'llash;
- mijozlar bilan himoyalangan aloqalarni o'rnatishda HTTPSni qo'llash.

Web serverlar – Apache, IIS, nginx, lighttpd, Google Web Server, Resin, Openserver va h.k.

Domen nomi

Domen nomi – Internet tarmog'idagi avtonom administrativ birligi hisoblangan "qismlar"ni identifikatsiya qilish uchun ishlatiladigan simvulli nom. Har bir qismi domen deyiladi.



- `.` (nuqta) – nolinchi daraja (asos)
- `org` – birinchi (yuqori) daraja
- `wikipedia` – ikkinchi daraja
- `en` – uchinchi daraja

Domen nomi

- .com (commercial) — tijorat organizatsiyalari uchun
- .net (networks) — tarmoq bilan ishlovchi kompaniyalar uchun
- .org (organizations)— notijorat organizatsiyalar uchun
- .info (information) — barcha uchun ochiq bo'lgan domen
- .name (personal) — personal saytlar uchun
- .pro (professionals) — ma'lum bir soha mutaxassislari uchun
- .int — xalqaro organizatsiyalar uchun
- .eco — ekologiya bilan bog'liq internet resurslar uchun
- .mobi — mobil telefonlar bilan ishlashga mo'ljallangan saytlar va xizmatlar uchun
- .museum — muzeylar uchun
- .travel — turistik soha uchun
- .gov (US Government) — AQSH hukumati uchun
- edu (educational) — AQSH OTMlari va ta'lim bilan bog'liq loyihalar uchun



Domen nomlari va IP manzillarni boshqaruvchi korporatsiya (*Internet Corporation for Assigned Names and Numbers*)

Yuqori darajali milliy domen

country code Top-Level Domain, ccTLD

https://cctld.uz

The screenshot displays the CCTLD.UZ website interface. The browser address bar shows the URL <https://cctld.uz/whois/?domain=ytit&zone=uz>. The page header includes the CCTLD.UZ logo and the text "Администрация доменной зоны «UZ»". A left sidebar contains navigation links: Главная, Новости, Статистика, Регистраторы, Информация, Вопросы и ответы, Термины и определения, Специальные домены, О нас пишут, and Акции. Below these are sections for "IDN КОНВЕРТОР" and "ПРОВЕРКА ДОМЕНА". The main content area is titled "ПАРАМЕТРЫ ДОМЕНА" and lists the following details for the domain ytit.uz:

Домен:	ytit.uz (www.ytit.uz)	Статус:	Активен
Регистратор:	ООО Arsenal D	Первый NS:	Домен
Дата создания:	11.06.2018 г.	Второй NS:	Домен
Активен до:	12.06.2024 г.	Третий NS:	Домен
		Четвертый NS:	Домен

Below the domain parameters is the "ПАРАМЕТРЫ КЛИЕНТА" section:

Тип:	Юридическое лицо				
Организация:					
Регион:	ГОРОД ТАШКЕНТ				
Почтовый индекс:	100013	Город:	г.Ташкент	Страна:	Узбекистан

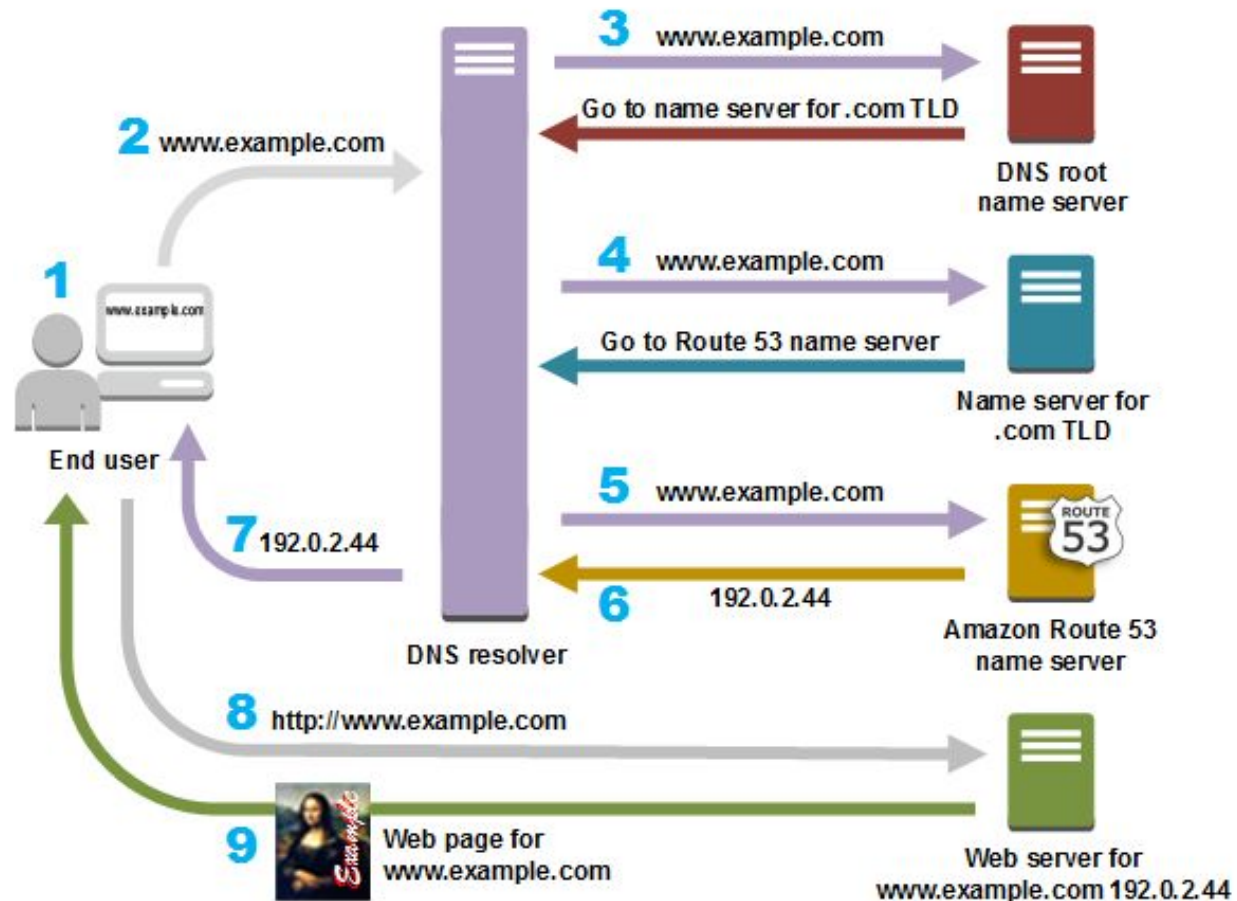
Next is the "АДМИНИСТРАТИВНЫЙ КОНТАКТ" section:

Организация:					
Регион:	ГОРОД ТАШКЕНТ				
Почтовый индекс:	100013	Город:	г.Ташкент	Страна:	Узбекистан

Finally, the "ТЕХНИЧЕСКИЙ КОНТАКТ" section is partially visible:

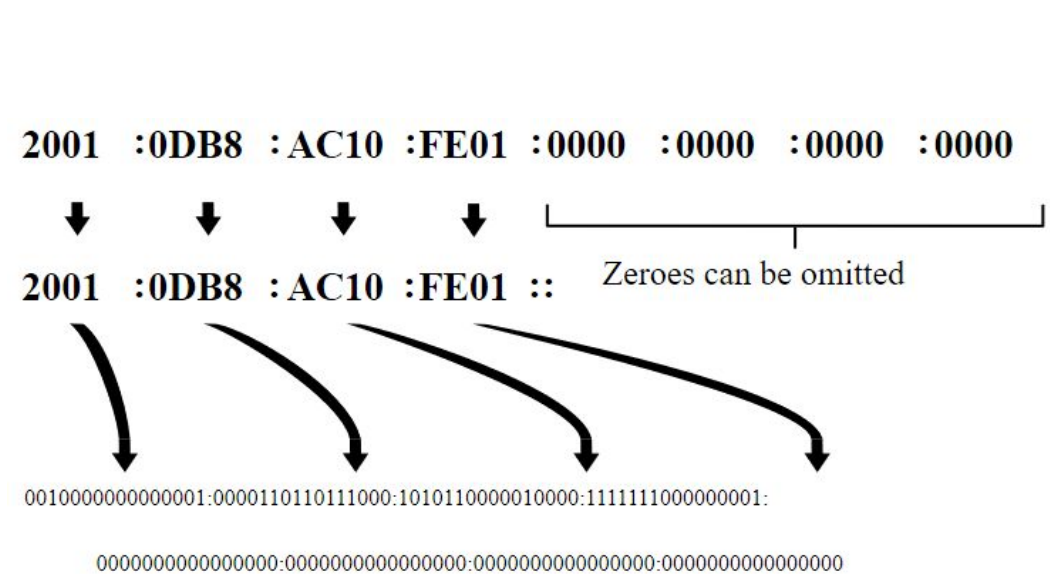
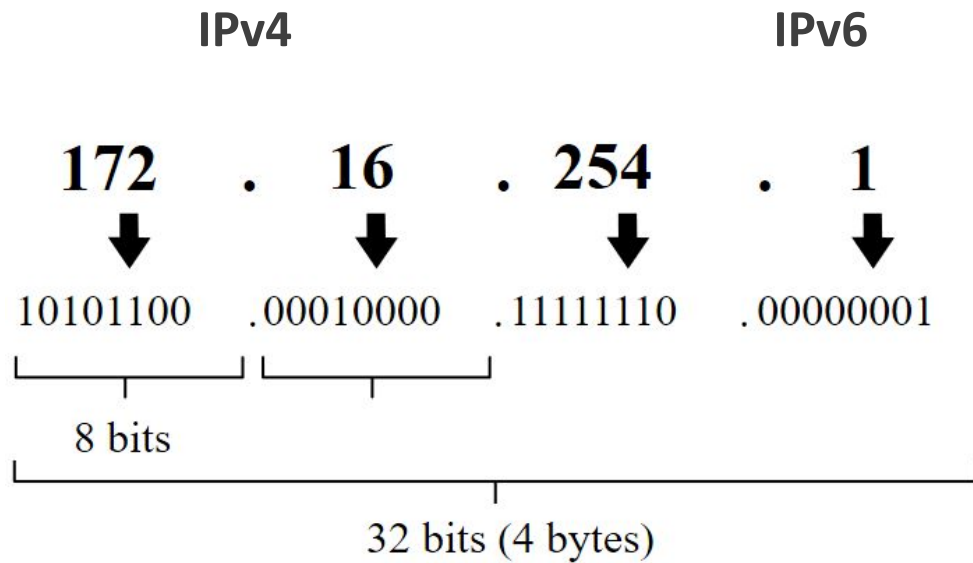
Организация:	
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DNS (Domain Name System)



IP manzil

IP manzil (Internet Protocol address) – aloqa uchun Internet protokolidan foydalanadigan, kompyuter tarmog'iga ulangan har bir qurilmaga tayinlangan raqamli metka.



OSI modeli

Tarmoq - bu ikki yoki undan ortiq qurilmalarni bog'lanishidan hosil bo'ladigan aloqadir.

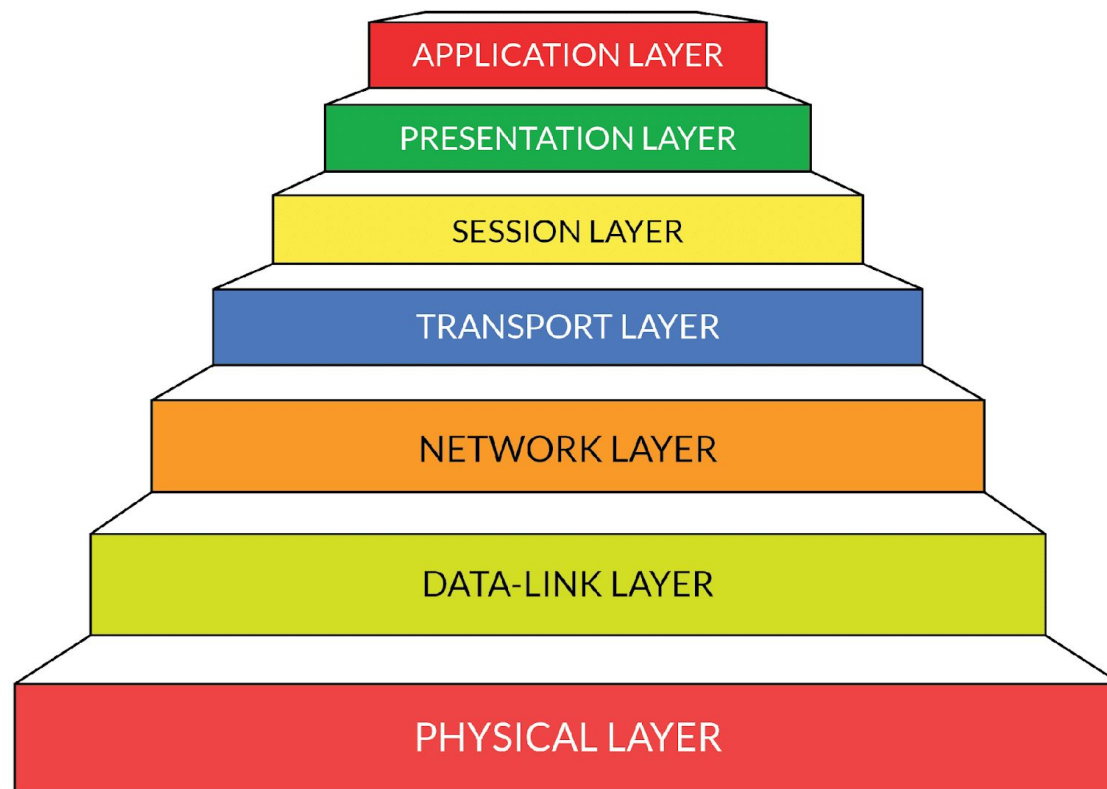
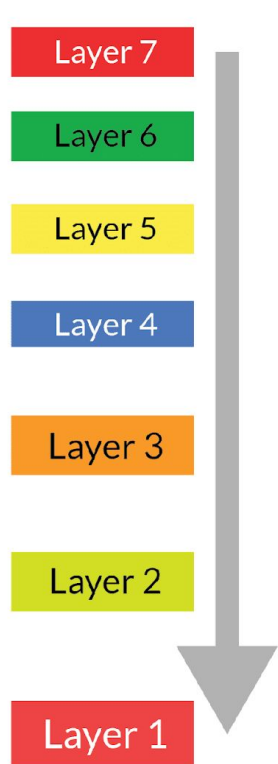
Tarmoqning ishlashi uchun OSI modeli va TCP/IP steki zarur hisoblanadi.

OSI (Open System Interconnection) modeli 7ta pog'onadan iborat.

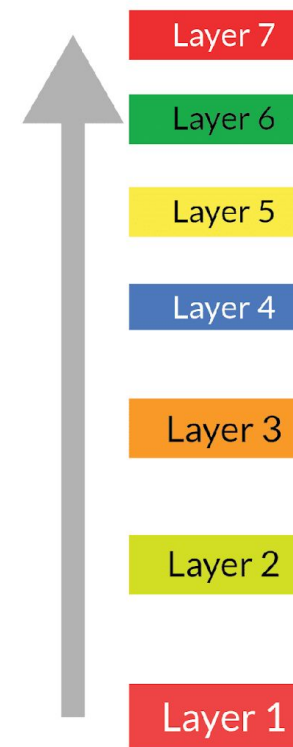


OSI modeli

Client Side

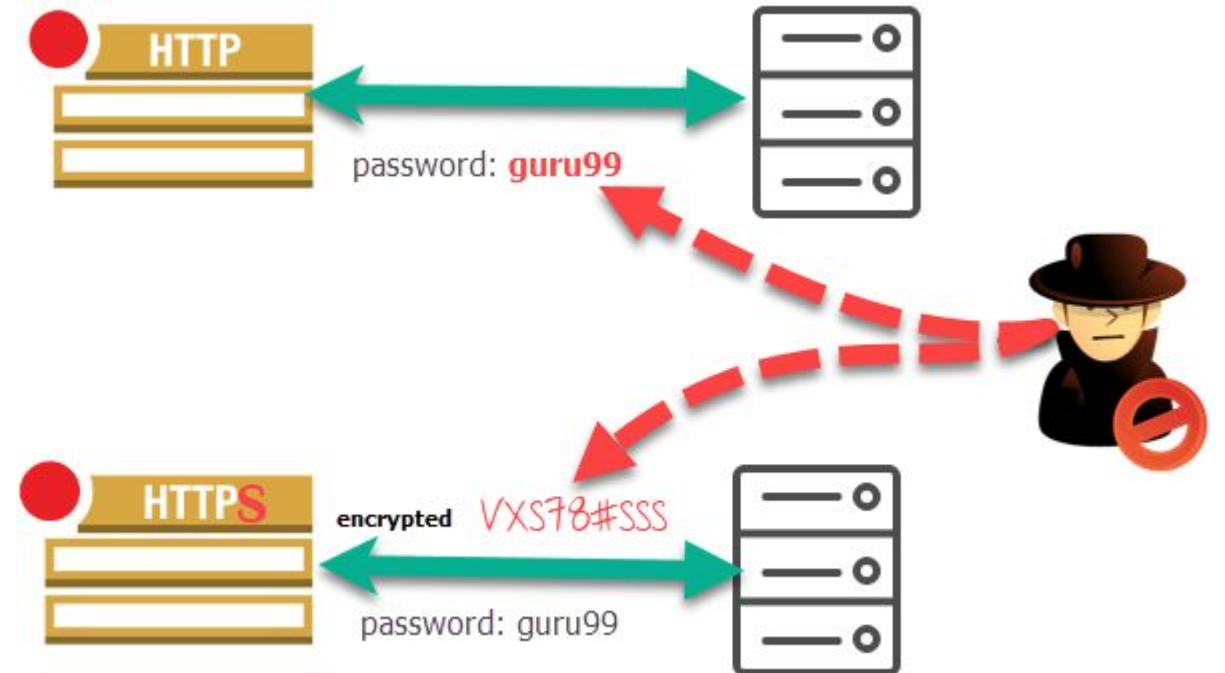


Server Side



Web dasturchi uchun zarur protokollar

- HyperText Transfer Protocol (HTTP)
- Telnet
- File Transfer Protocol (FTP)
- Hypertext Transfer Protocol Secure (HTTPS)
- IP Security (IPSec)



Brauzer

Brauzer – web hujjatlar, kompyuter fayllari va kataloglarni o'zida saqlovchi sahifalarni ko'rishga, web ilovalarni boshqarishga va boshqa masalalarni yechishga mo'ljallangan dastur.

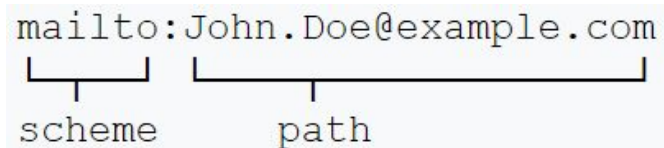
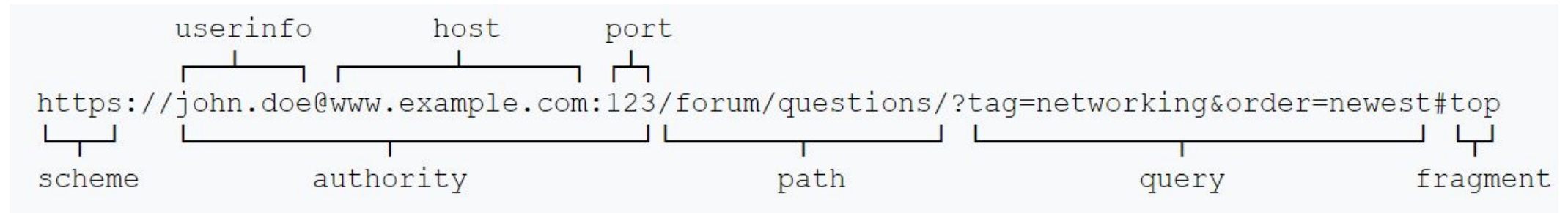


URI, URL, URN

Uniform Resource Identifier (URI)

Uniform Resource Name (URN)

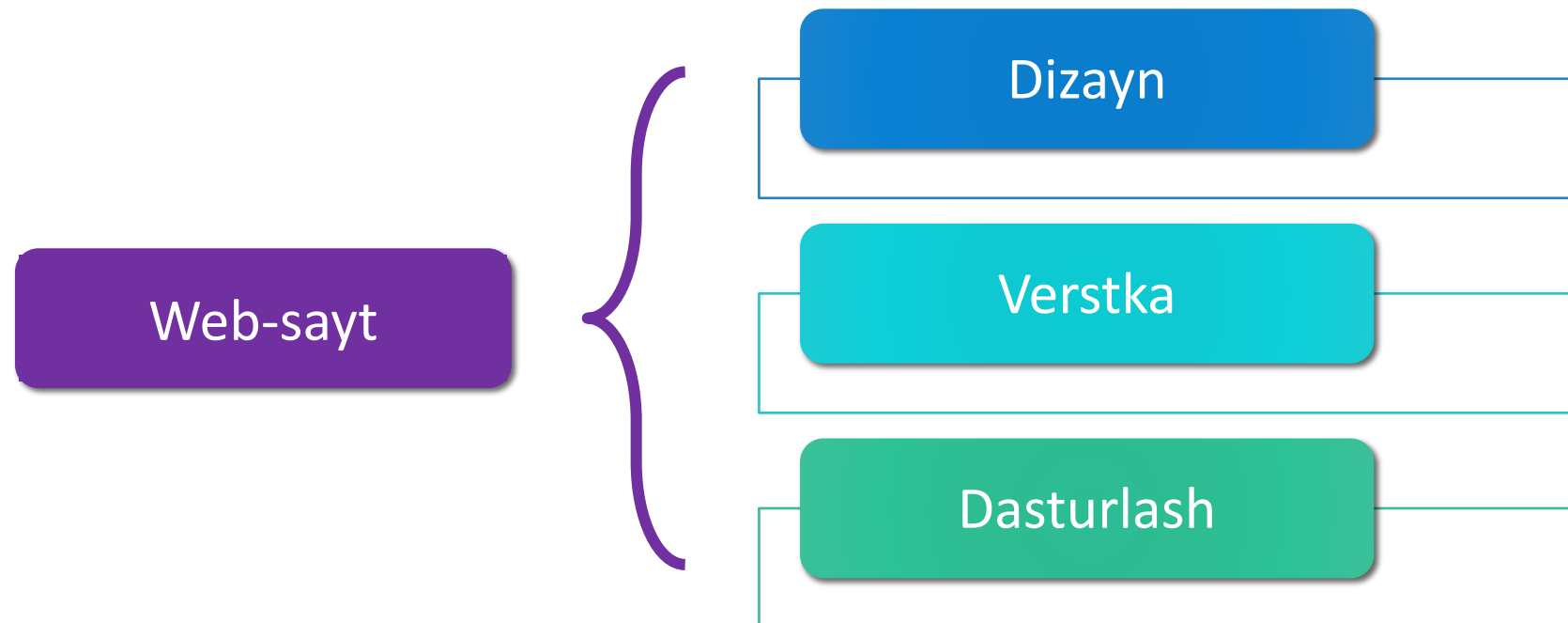
Uniform Resource Locator (URL)



Web sayt, web sahifa

Web sayt – o'zaro mantiqan bog'langan bir nechta web sahifalar.

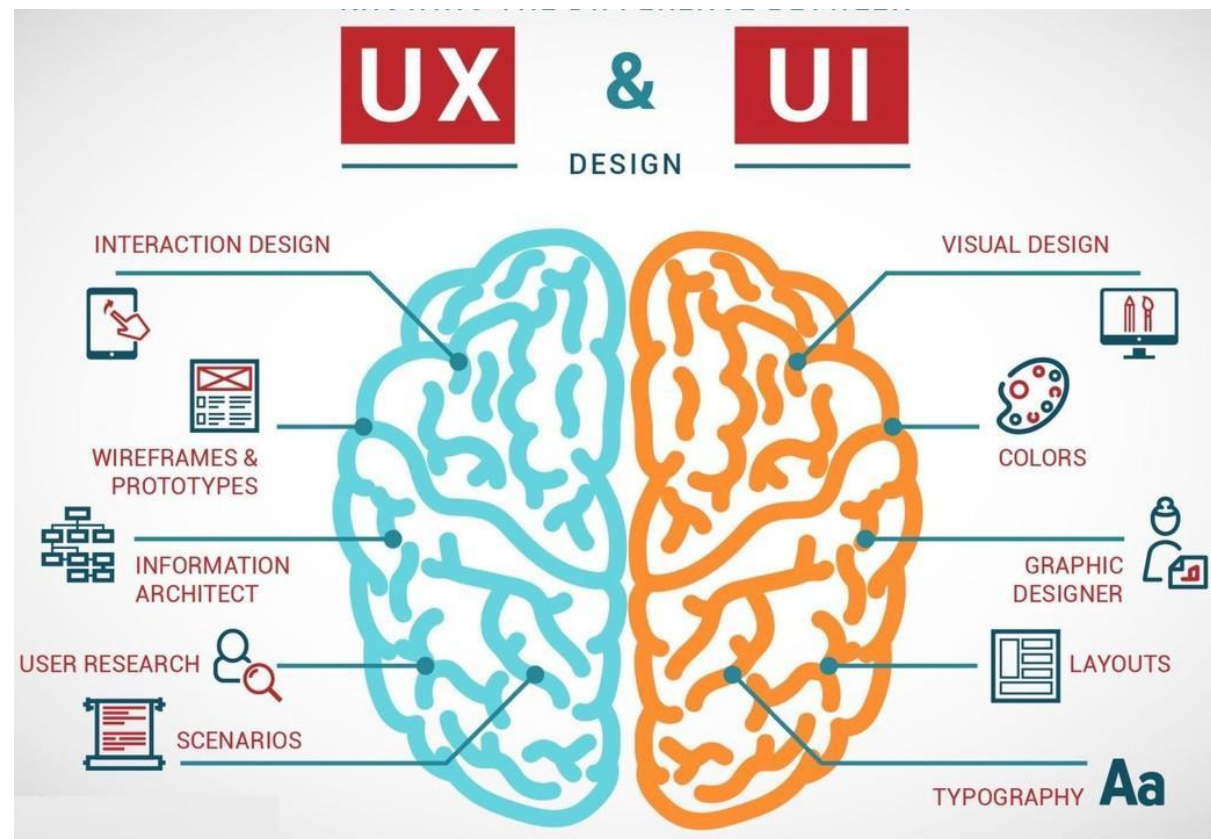
Birinchi web sayt - info.cern.ch (Tim Berners-Li, 1991 yil 6 avgustda ishga tushgan)



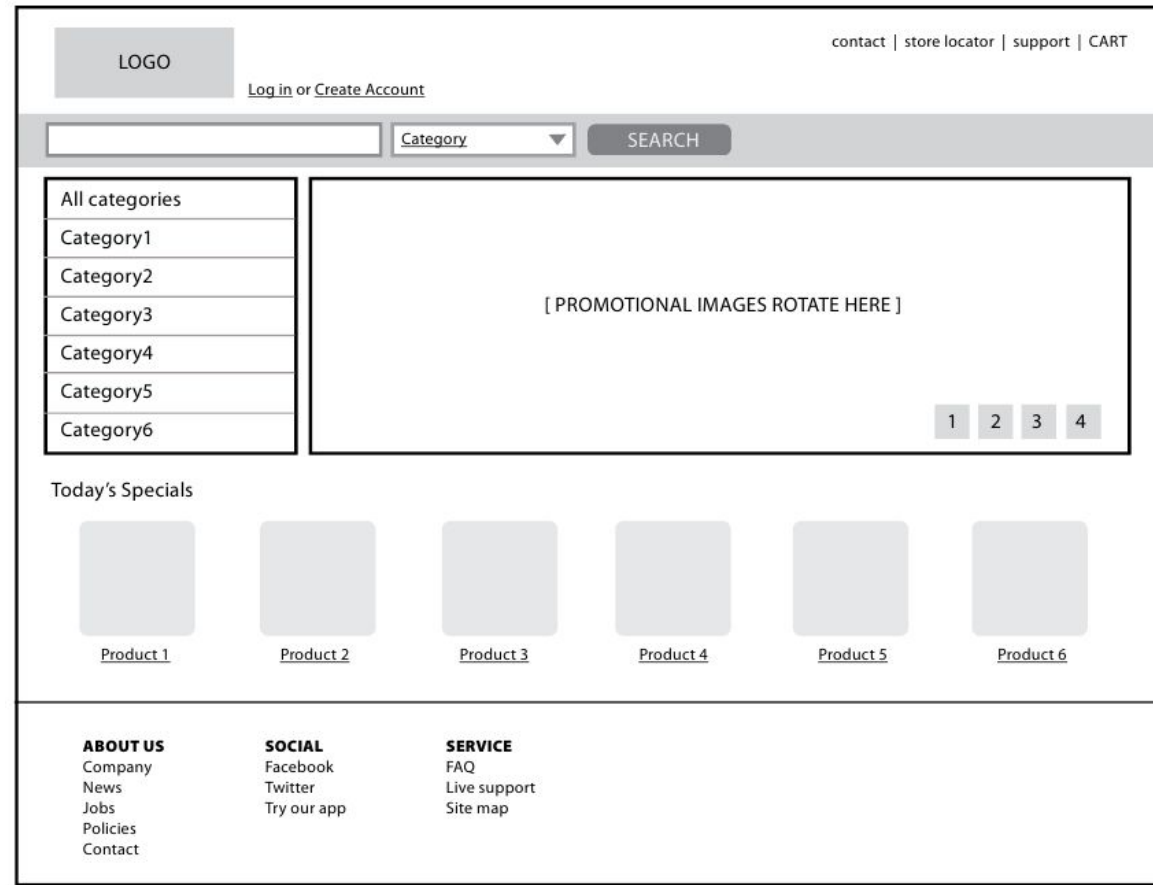
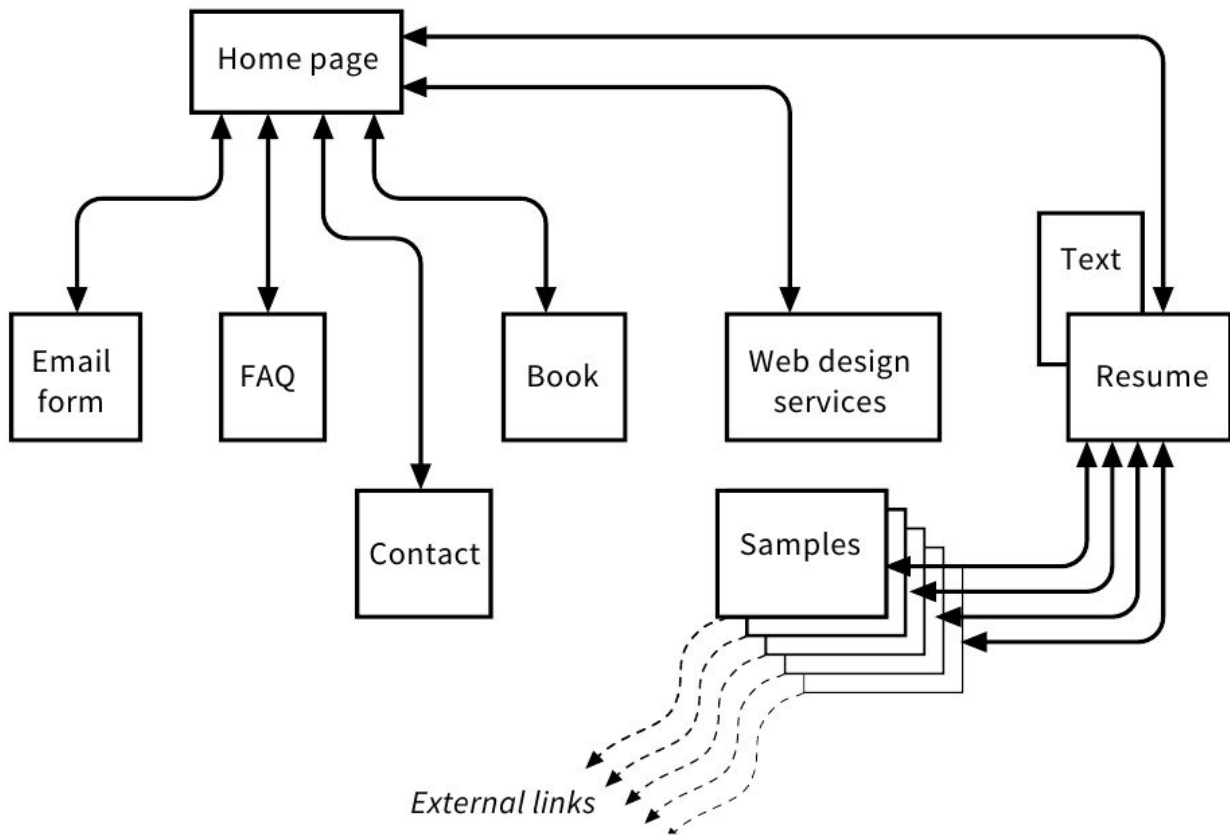
Web dizayn (UX/UI)

UX (User Experience) – foydalanuvchi malakasi, ya'ni foydalanuvchi interfeys bilan ishlaganda qanday malaka (taasurot) olishi. O'z maqsadiga erisha oldimi va bu qanchalik oson / qiyin bo'ldi.

UI (User Interface) – foydalanuvchi interfeysi, ya'ni interfeys qanday ko'rinishi, ranglarning o'zaro mosligi, foydalanuvchiga biror tugmani bosish qulaymi, undagi matnni o'qish osonmi va h.k.



Web dizayn (UX/UI)



Web dasturchilar rollari

FRONT END DEVELOPMENT



JAVASCRIPT
CSS HTML

The illustration for front-end development features a laptop displaying a web browser interface. The browser shows a yellow box with the code `<HTML >` and a green box with `<DIV >`. A red play button icon is also visible. Above the laptop, there are several grey gears and a cloud, symbolizing the client-side logic and styling of a website.

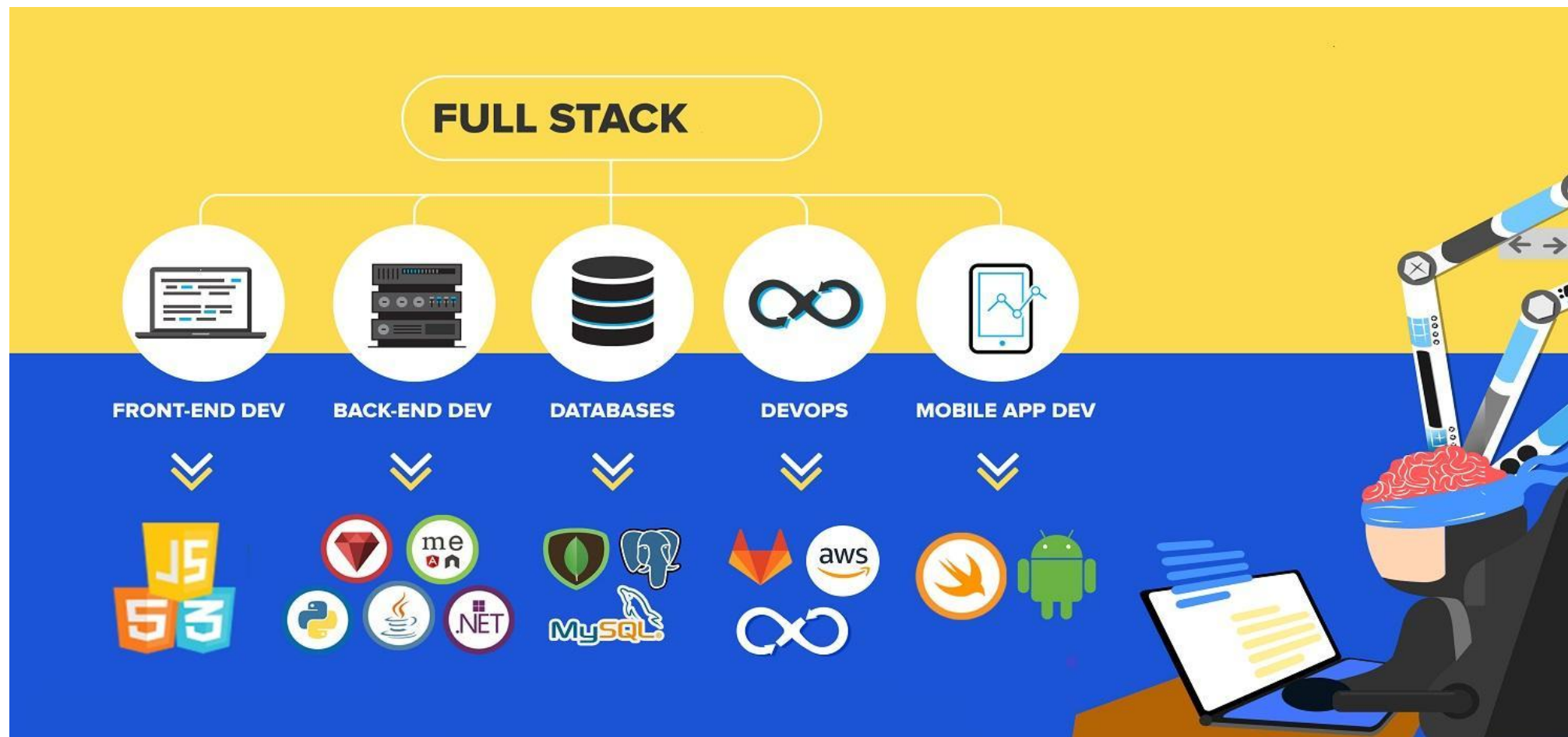
BACK END DEVELOPMENT





PYTHON PHP
RUBY JAVA GO

The illustration for back-end development shows a laptop with a screen displaying lines of code. A blue circle with the code `<code >` is positioned to the right of the laptop. A yellow circle with the code `</>` is to the left. In the background, there are grey gears and a brick wall, representing server-side logic and database interactions.

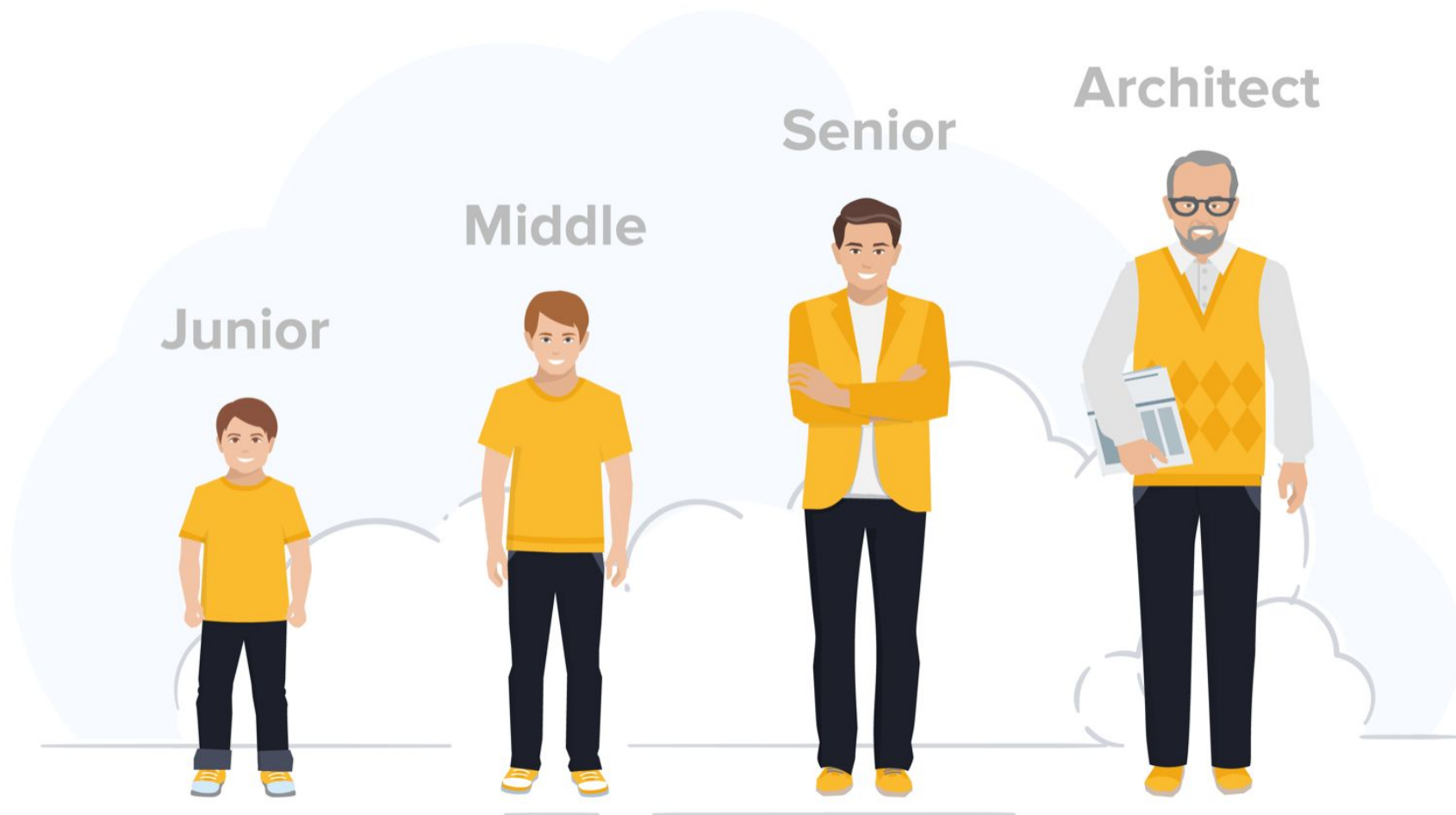
Web dasturchilar rollari



Boshqa rollar

-  Product manager
-  Project manager
-  Search Engine Optimization (SEO) specialist
-  Multimedia producer
-  Quality Assurance (QA) Developer

Dasturchilar darajasi



HTML tili

HTML tili (*HyperText Markup Language, Gipermatnli belgilash tili*) britaniyalik olim Tim Berners-Li tomonidan taxminan 1989-1991-yillarda yaratilgan.

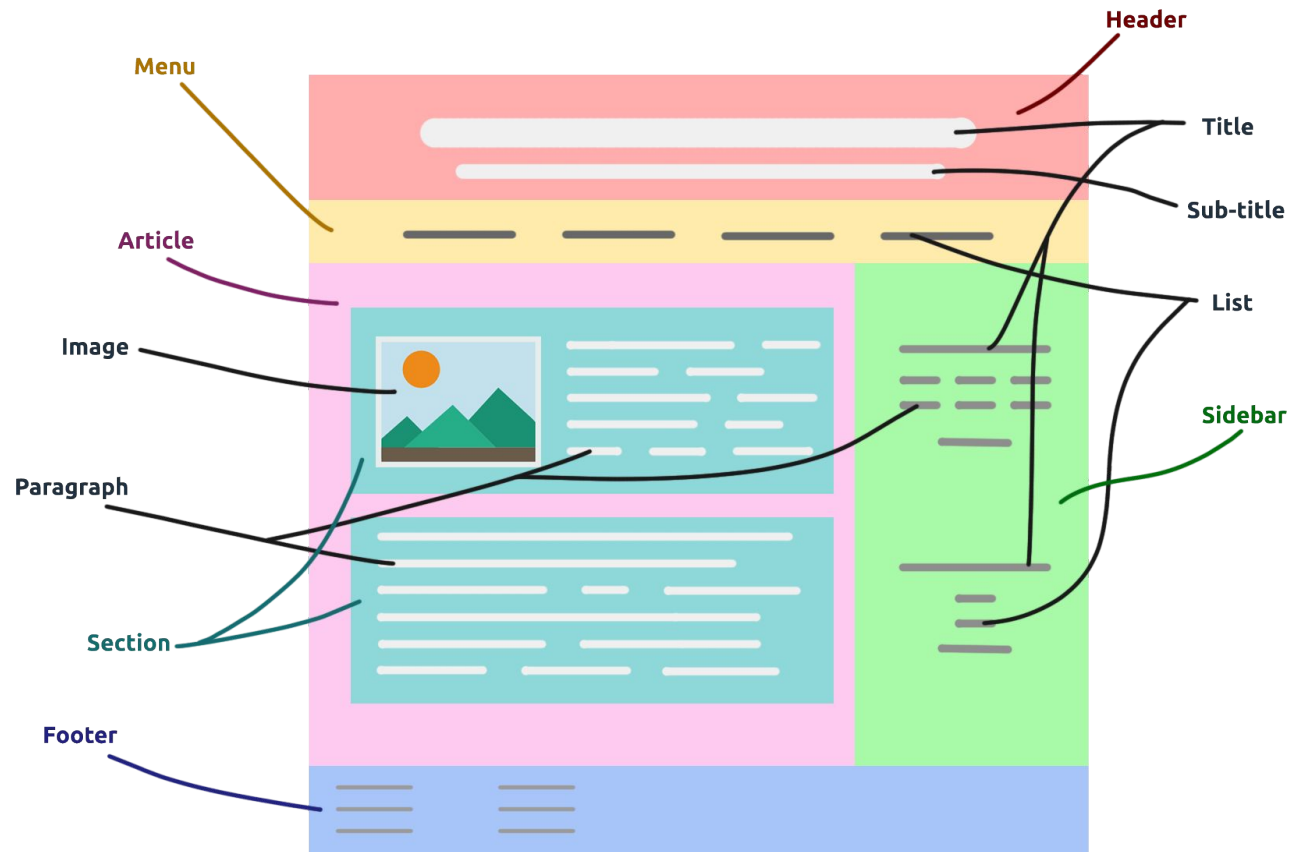
- HTML 2.0 – 1995-yil 22-sentabrda standart sifatida ma’qullangan;
- HTML 3.2 – 14.01.1997 yil;
- HTML 4.0 – 18.12.1997 yil;
- HTML 4.01 (sezilarli o’zgartirishlar kiritilgan) – 24.12.1999 yil;
- ISO/IEC 15445:2000 (ISO HTML nomlanadi) – 15.05.2000 yil.
- HTML 5 – 28.10.2014 yil.
- HTML 5.1 – 01.11.2016 yil
- HTML 5.2 – 14.12.2017 yil.

HTML formatidagi hujjatlar .html yoki .htm kengaytmasiga ega.

www.w3.org - World Wide Web Consortium (W3C) web sayti (WWW uchun xalqaro standartlar organizatsiyasi)



HTML tili



```
<!DOCTYPE html>  
  
<HTML>  
  <HEAD>  
  </HEAD>  
  <BODY>  
    CONTENT  
  </BODY>  
</HTML>
```

Kod yozish uchun

HTML, CSS, JS da kod yozish uchun oddiy matn muharriri kifoya. Lekin maxsus kod muharrirlaridan foydalanish qo'shimcha imkoniyatlar taqdim etadi, masalan, rangli kod, kod qismlariga ko'ra avtomatik to'ldirish, teglarni avtomatik yopish, xatolarni aniqlash va h.k.

Ko'p qo'llaniladigan kod muharrirlari:

- Visual Studio Code (<https://code.visualstudio.com/>)
- Sublime Text (<https://www.sublimetext.com/>)
- Atom (<https://atom.io/>)
- Brackets (<http://brackets.io/>)
- CodeKit (<https://codekitapp.com/>; Mac only)
- Adobe Dreamweaver (<https://www.adobe.com/products/dreamweaver.html>)
- Coda (<https://panic.com/coda/>)
- Webstorm (<https://www.jetbrains.com/webstorm/>)

Code muharrirlari

The image displays three overlapping code editor windows. The leftmost window shows an HTML file with a simple structure: a DOCTYPE declaration, a title 'This is a title', and a body containing a paragraph 'Hello world!'. The middle window shows a C++ file named 'xla_compilation_cache.cc' with code for handling uninitialized variables and a compilation function. The rightmost window shows a JavaScript file 'real-time-package.js' using ES6 modules and a class 'RealTimePackage'.

```
1 <!DOCTYPE html>
2 <html>
3
4 <head>
5   <title>This is a title</title>
6 </head>
7
8 <body>
9   <div>
10    <p>Hello world!</p>
11  </div>
12 </body>
13 </html>
```

```
193   arg.initialized = true;
194 } else {
195   // The values of uninitialized variables are not passed as inputs, since
196   // they are meaningless. However, it is legal to assign to a resource
197   // variable for the first time inside the XLA computation, so we do permit
198   // uninitialized variables.
199   arg.initialized = false;
200   arg.type = DT_INVALID;
201   arg.shape = xla::Shape();
202 }
203 ++input_num;
204 }
205
206 return Status::OK();
207 }
208
209 // namespace
210
211 Status XlaCompilationCache::Compile(
212   const XlaCompiler::Options& options, const NameAttrList& function,
213   int num_constant_args, const std::vector<OptionalTensor>& variable_args,
214   OpKernelContext* ctx,
215   const XlaCompiler::CompilationResult** compilation_result,
216   xla::LocalExecutable** executable) {
217   VLOG(1) << "XlaCompilationCache::Compile " << DebugString();
218
219   if (VLOG_IS_ON(2)) {
220     VLOG(2) << "num_inputs=" << ctx->num_inputs()
221       << " num_constant_args=" << num_constant_args
222       << " num_variable_args=" << variable_args.size();
223     for (int i = 0; i < ctx->num_inputs(); i++) {
224       TensorShape shape = ctx->input(i).shape();
225       VLOG(2) << i << ": dtype=" << DataTypeString(ctx->input_dtype(i))
226         << " present=" << ctx->has_input(i)
227         << " shape=" << shape.DebugString();
228     }
229   }
```

```
1 const {CompositeDisposable} = require('atom')
2 const {allowUnsafeNewFunction} = require('loophole')
3
4 let Client
5 allowUnsafeNewFunction(() => { Client =
6
7 const BufferBinding = require('./buffer-binding')
8 const EditorBinding = require('./editor-binding')
9
10 module.exports =
11 class RealTimePackage {
12   constructor (options) {
13     cons
14
```

Nomlashdagi qoidalar

- Fayllar uchun to'g'ri kengaytma tanlash kerak, .html yoki .htm. Rasmlar uchun odatda .gif, .png, .jpg (.jpeg) yoki .svg formatlari ishlatilishi maqsadga muvofiq;
- Fayl nomlarida ' ' (probel) belgisini umuman ishlatmang! Uning o'rniga '-' yoki '_' (tire, tag chiziq) belgilarini ishlatib, masalan: birinchi-kurs.html yoki birinchi_kurs.html;
- Maxsus belgilarni ishlatishdan qoching. Masalan, ? % # / : ; , . Shuningdek, xalqaro belgilarni ishlatishdan ham qoching, masalan, å ü va h.k.;
- Fayl nomlari belgilar registriga sezuvchan bo'lishi mumkin (operatsion tizimga bog'liq). Shuning uchun fayl nomlarida kichik registrli harflarni ishlatish maqsadga muvofiq;
- Fayl nomlari qisqa bo'lishi maqsadga muvofiq;
- Fayllarni nomlashni oldindan kelishiv olish, masalan, doim kichik harflar va tireni ishlatish va h.k.

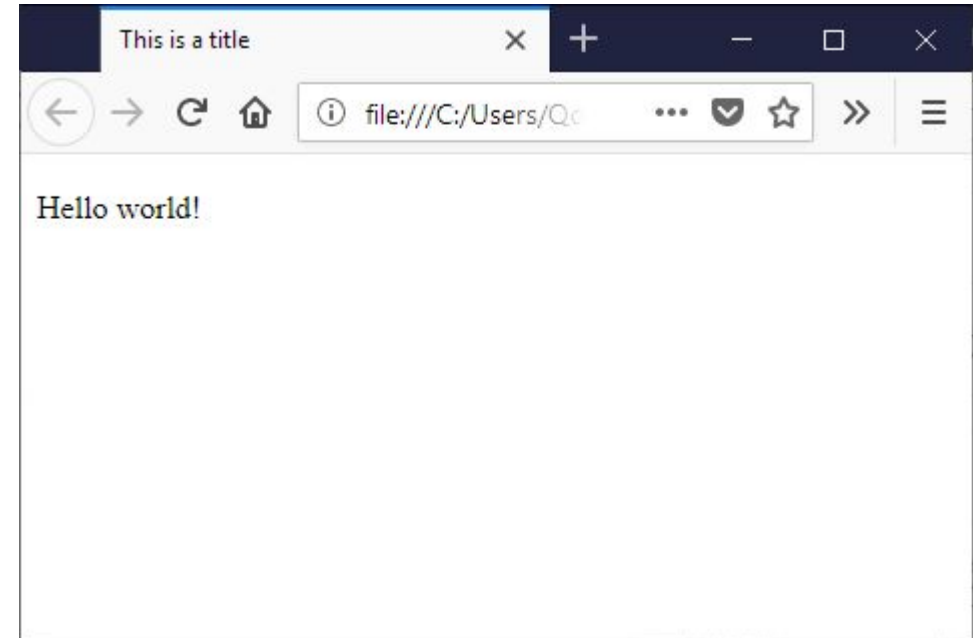
HTML tilida soda web sahifa

```
<!DOCTYPE html>
<html>

<head>
  <meta charset="utf-8">
  <title>This is a title</title>
</head>

<body>
  <div>
    <p>Hello world!</p>
  </div>
</body>

</html>
```



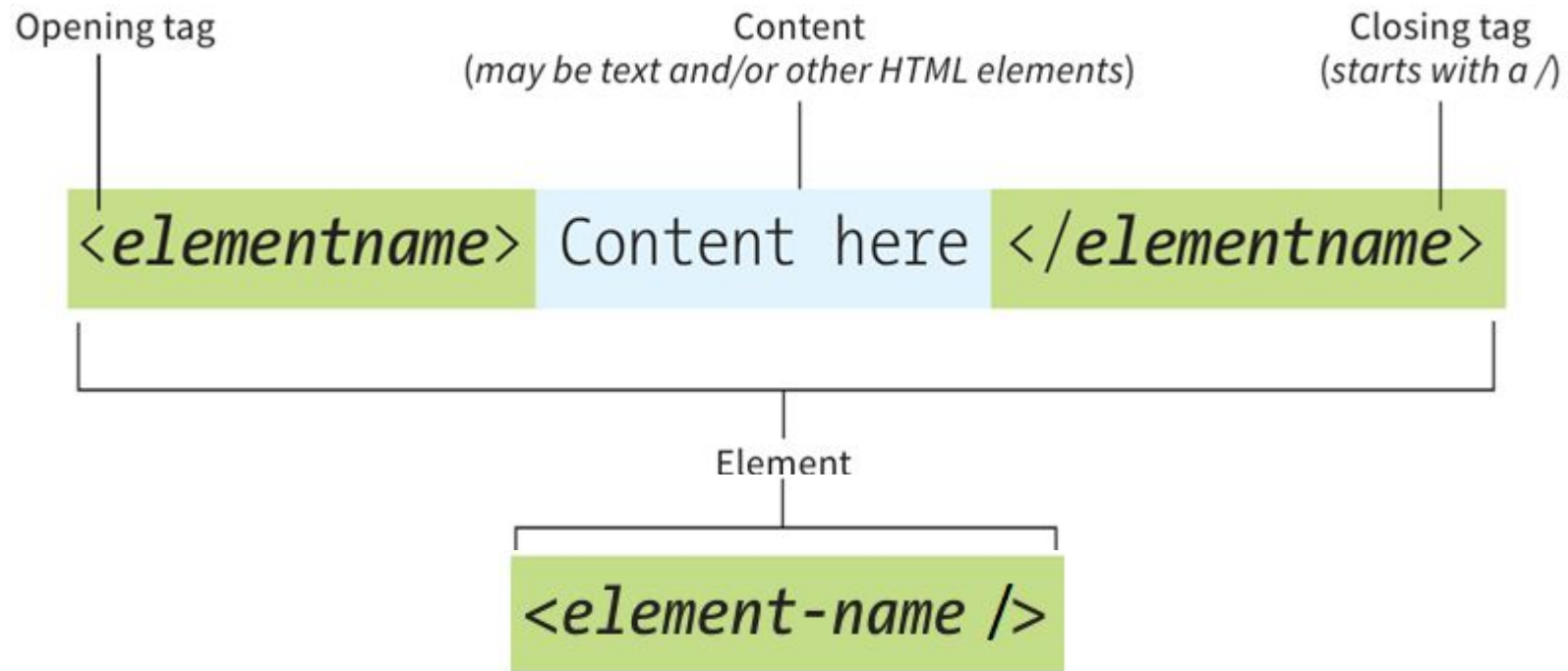
Brauzer e'tibor bermaydi:

- Bir nechta probellar
- Yangi qatorlar
- Tablar
- Aniqlanmagan belgilar (teglar)
- Izohlardagi matn

Izohlar maxsus "`<!--`" va "`-->`" teglar orasida yoziladi.

Teg

Teg – HTML tili asosi. Teglar sahifadagi elementlarni aniqlashda ishlatiladi



Example:

`<h1>Black Goose Bistro</h1>`

`
`



Atribut

Atribut – elementning turli xossalariga qiymat yuklash uchun ishlatiladi. Sintaksisi quyidagicha:

```
attributename="value"    attributename
```

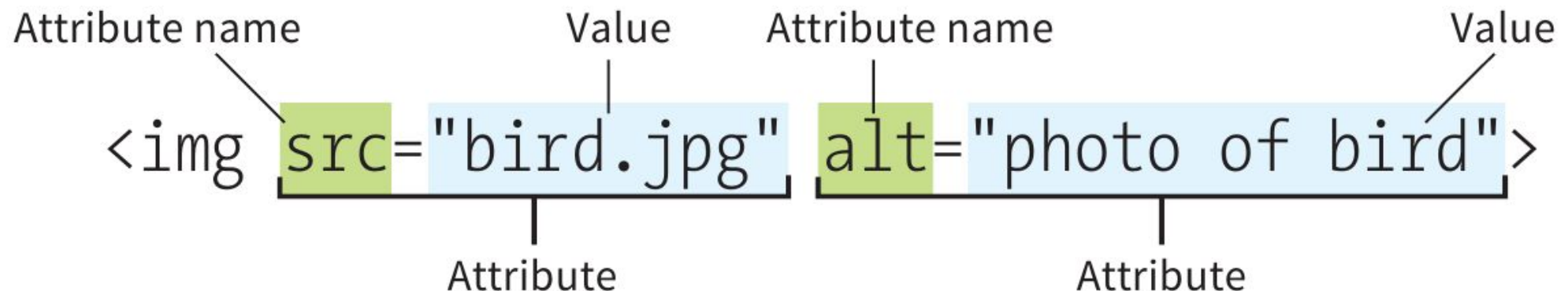
Elementlarning ochiluvchi teglarida probel bilan ajratilgan holda ishlatiladi:

```
<element attributename="value" />
```

```
<element attributename="value">Content</element>
```

Element bir nechta atributga ega bo'lishi mumkin:

```
<element attribute1="value" attribute2="value" attribute />
```



Meta teg

<meta> tegi orqali HTML hujjatning metama'lumotlari (metadata) aniqlanadi. Metadata – sahifa haqida brauzer va qidiruv tizimlari uchun ma'lumot.

Atributlari:

charset – hujjat kodirovkasini aniqlaydi;

name – metateg nomi, shuningdek uning maqsadini belgilaydi

http-equiv – metategni HTTP sarlavhaga aylantirish uchun ishlatiladi

content – name yoki http-equiv yordamida aniqlangan atribut qiymatini o'rnatadi

```
<meta charset="utf-8">
```

```
<meta http-equiv="Content-Type" content="text/html; charset=utf-8">
```

Meta teg

name atributi qiymatlari:

application-name – sahifa taqdim etayotgan web-ilova nomi

author – hujjat muallifi

description – joriy hujjat ta'rifi

generator – sahifani yaratgan dasturiy ta'minot

keywords – joriy hujjat uchun kalit so'zlar

viewport – foydalanuvchining ko'rish sohasini aniqlaydi

```
<meta name="author" content="John Doe">
```

```
<meta name="description" content="Free web tutorials">
```

```
<meta name="generator" content="FrontPage 4.0">
```

```
<meta name="keywords" content="HTML, meta tag, tag reference">
```

```
<meta name="viewport" content="width=device-width, initial-scale=1.0">
```


Meta teg – name=viewport

viewport siz



viewport bilan



Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem vel eum iriure dolor in hendrerit in vulputate velit esse molestie consequat, vel illum dolore eu feugiat nulla facilisis at vero eros et accumsan et justo odio dignissim qui blandit praesent luptatum zzril delenit augue duis dolore te feugait nulla facilisi. Nam liber tempor cum soluta nobis eleifend ornation conone nihil imperdiet domine

Savollar?
