

JavaScript - uvod

Adaptirana verzija slajdova.
Zahvaljujemo kolegici Viktoriji Kirst

Plan rada

U ovoj lekciji:

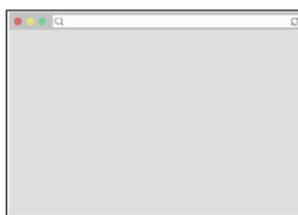
- Uvod u jezik JavaScript
 - Što je JavaScript?
 - Pregled mogućnosti jezika

Kako pristupamo veb- stranici

Vi na vašem laptop
računaru

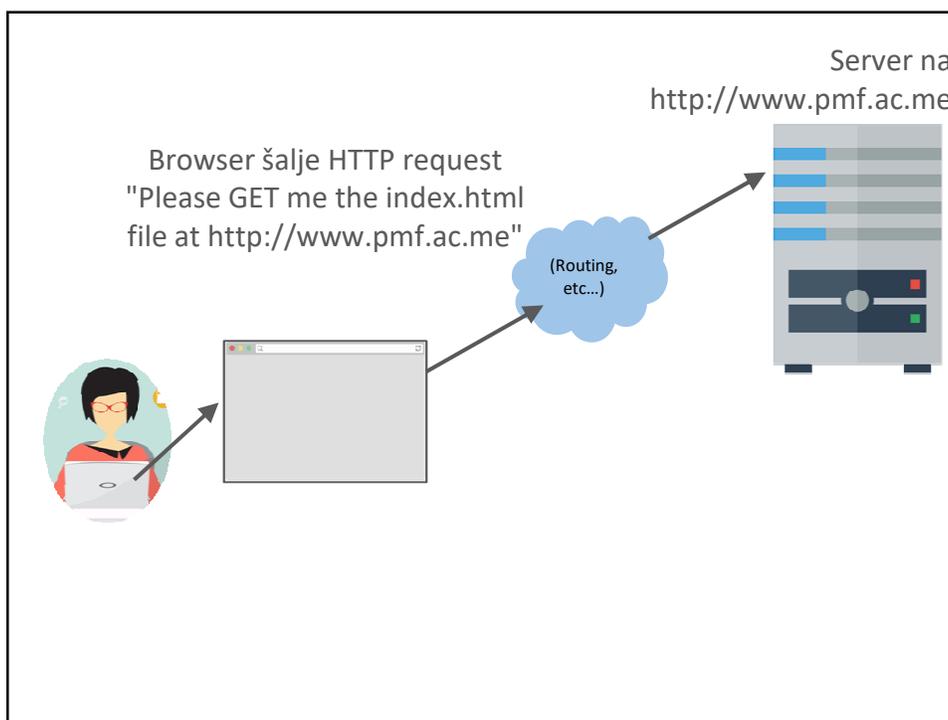
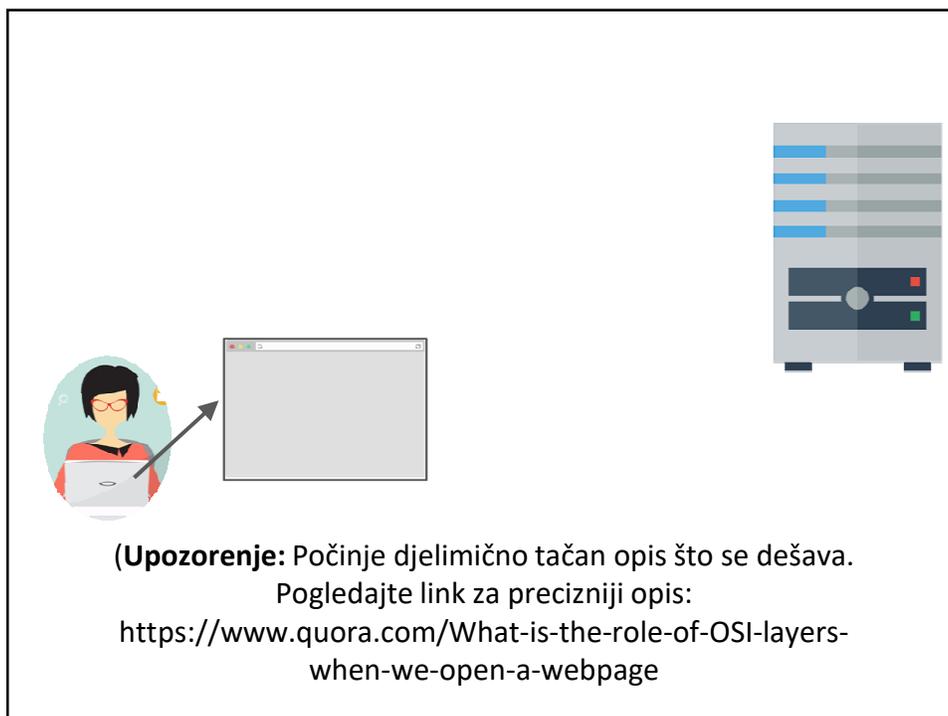


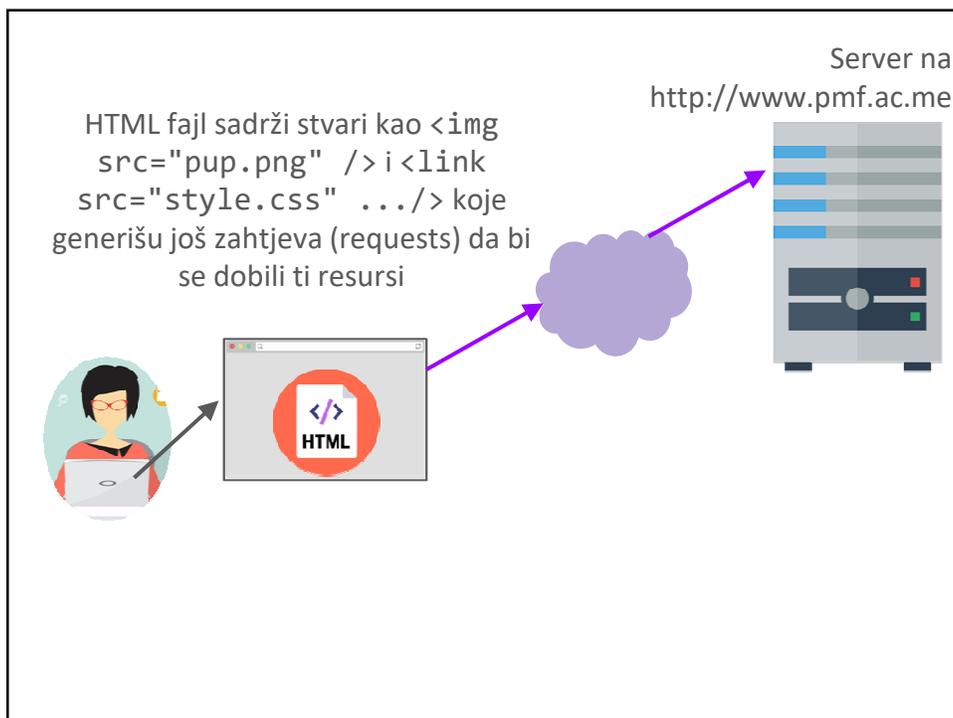
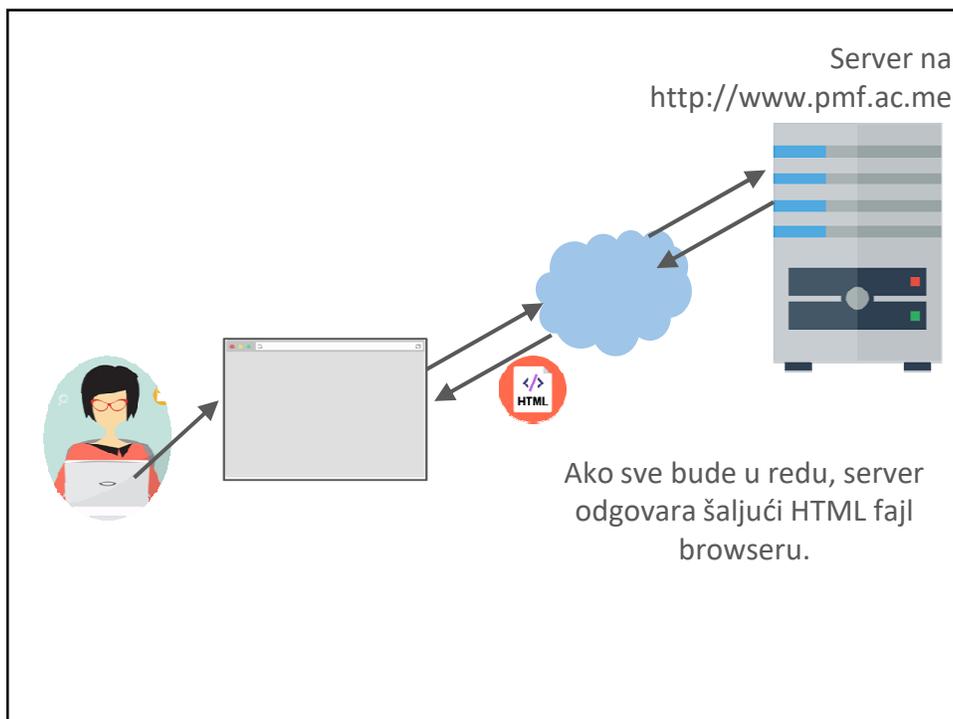
Na laptopu se radi
browser, npr.
Chrome

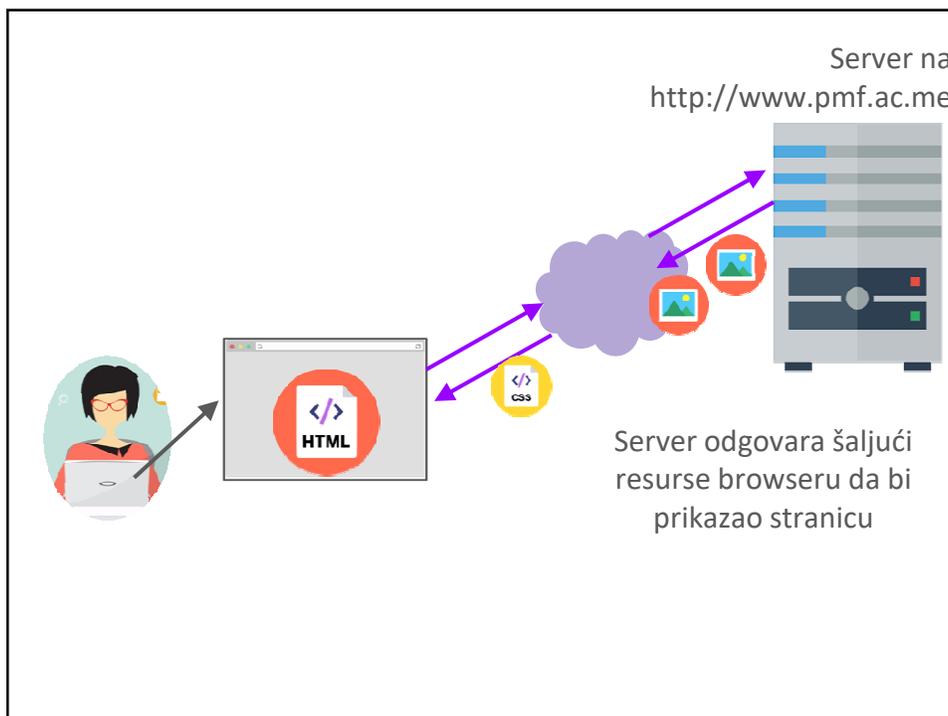


Unosite URL u
adresnoj liniji i
pritiskate "enter"









Konačno, kada se učitaju svi resursi,
vidimo učitanu veb-stranicu

http://www.pmf.ac.me

SYLLABUS INFO STAFF LECTURES HOMEWORK

Stanford CS Department
CS193X: Spring 2017

Welcome to CS193X: Web Programming Fundamentals! This is an opinionated introduction to web programming. In this class, you will learn modern full-stack web development techniques without use of a frontend framework.

- **Prereq:** CS100, Unix/command-line proficiency or CS11
- **Lectures:** Mon-Wed-Fri, 1:10-2:20 in [Shirree Center 184](#)
- **Final exam:** No final exam.
- **Final project:** Yes, there will be one. Details TBD.

CS193X is **limited enrollment**. This is the first offering of CS193X, so enrollment is limited and by application only. It will be offered again sometime in the 2017-2018 school year.

Course staff



Naučili smo (nadam se...)

Da kreiramo veb-stranice koje:

- Izgledaju kako mi želimo
- Mogu se povezati sa drugim stranicama
- Prikazuju se različito na različitim uređajima



Ali naše stranice ništa ne rade :

- Get user input
- Save user input
- Interaktivno akiravaju i otkrivaju elemente na zahtjev korisnika



Enter JavaScript!

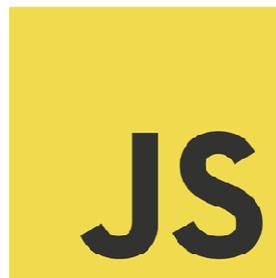
JavaScript

JavaScript

JavaScript je programski jezik.

Trenutno jedini jezik koji browser izvršava (natively). (Pokušaji da se to promijeni: [link](#))

Dakle, morate naučiti JavaScript.



JavaScript

- Kreiran 1995 – Brendan Eich
(jedna od osnivača Mozilla-e; otpušten 2014)
- JavaScript nema veze sa jezikom Java
 - Ime dato zbog marketinga [marketing reasons](#)
- Prva verzija napisana za 10 dana
- Nekoliko važnih odluka je donešeno zbog politike kompanije a ne zbog tehničkih razloga

"I was under marketing orders to make it look like Java but not make it too big for its britches ... [it] needed to be a silly little brother language." ([source](#))

JavaScript

- Kreiran 1995 – Brendan Eich
(jedna od osnivača Mozilla-e; otpušten 2014)
- JavaScript nema veze sa jezikom Java
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Drugim riječima:

**JavaScript is messy and full of drama...
and our only option.**

(mada, postaje malo bolje posljednjih godina)

JavaScript in the browser

Kod na veb-stranicama

HTML can embed JavaScript files into the web page via the `<script>` tag.

```
<!DOCTYPE html>
<html>
  <head>
    <title>CS 193X</title>
    <link rel="stylesheet" href="style.css" />
    <script src="filename.js"></script>
  </head>
  <body>
    ... sadrzaj stranice...
  </body>
</html>
```

console.log

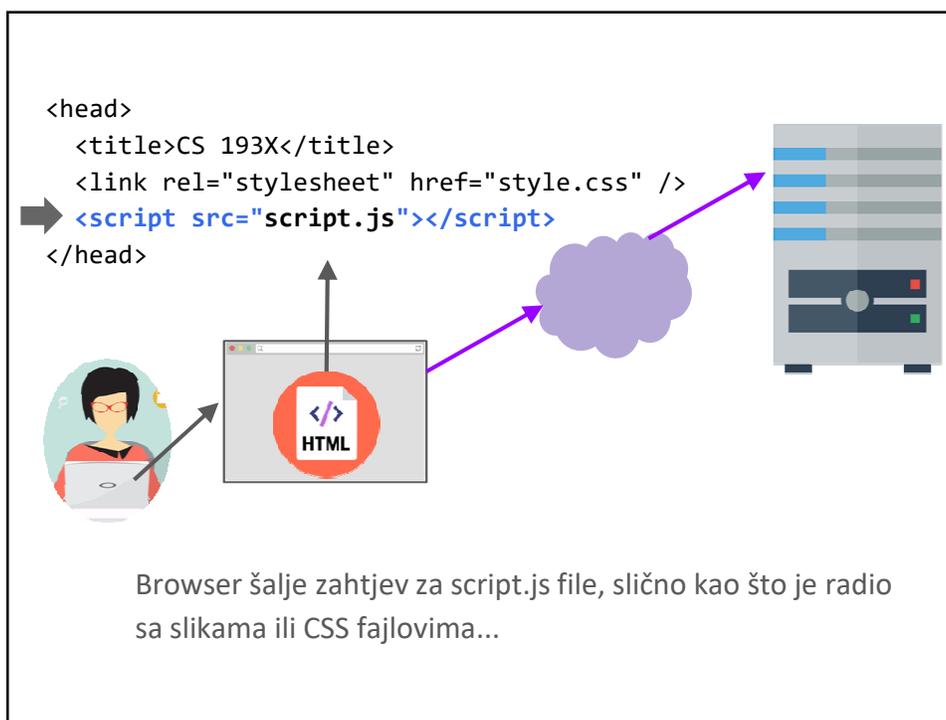
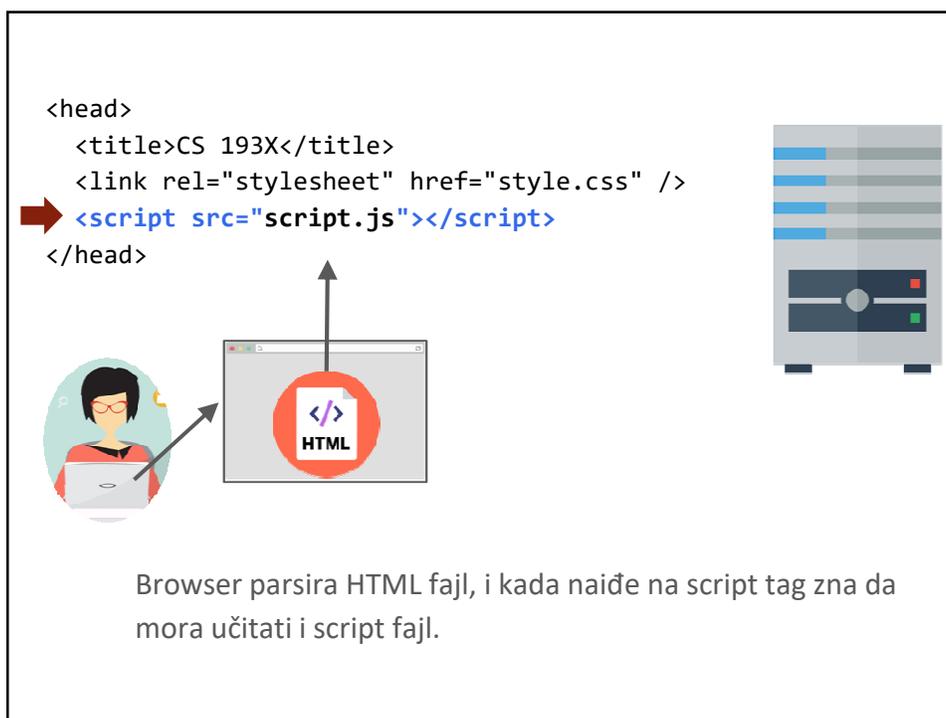
Štampanje poruka pozivom `console.log()`:

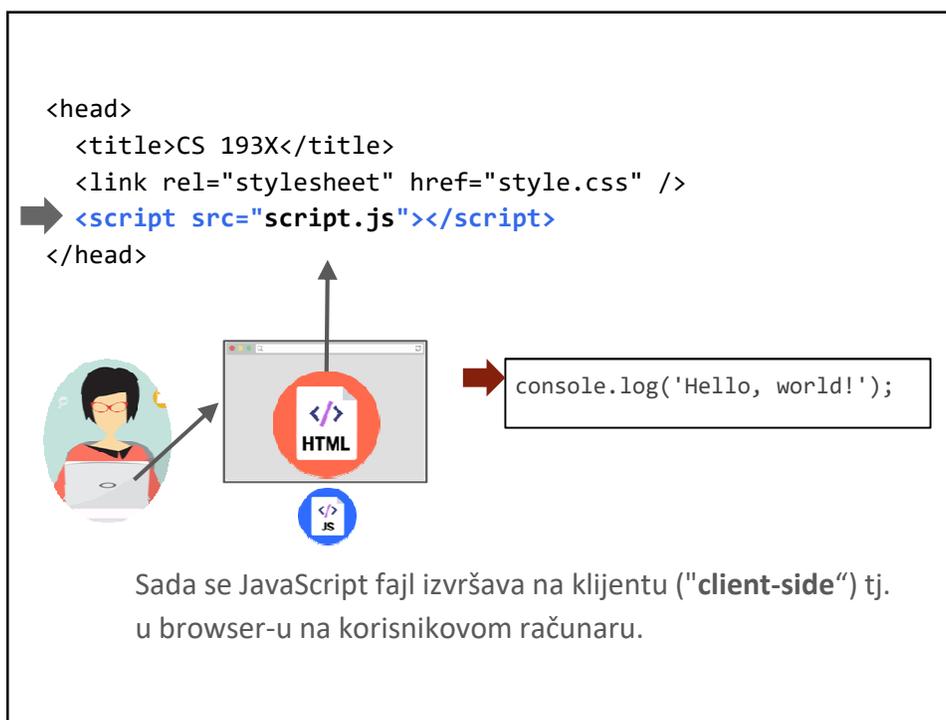
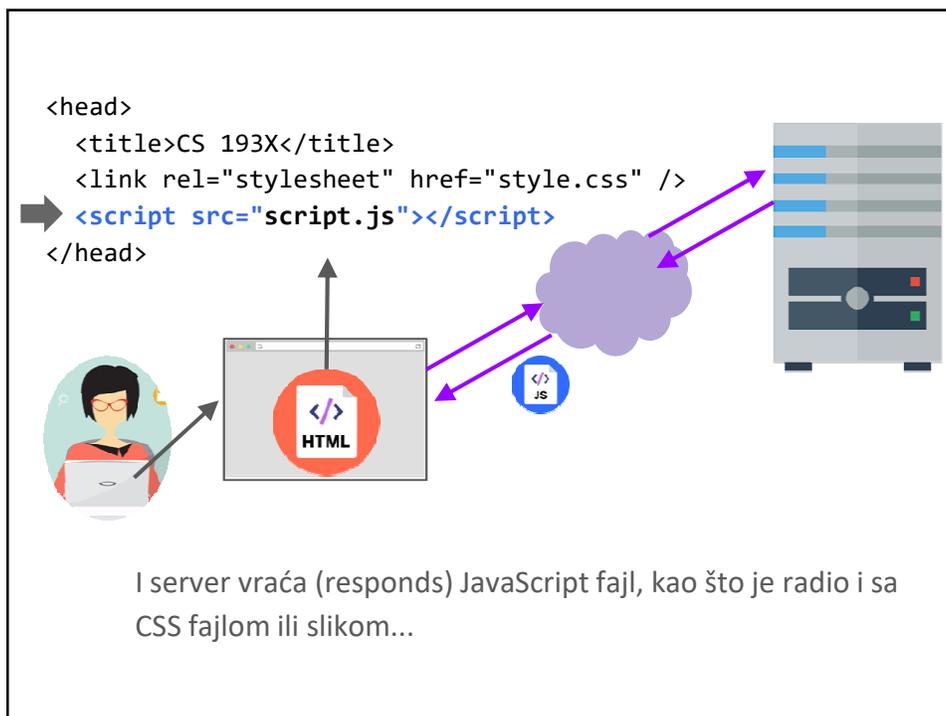
`script.js`

```
console.log('Hello, world!');
```

Ovo je ekvivalentno sa Javinim
`System.out.println`, `print`, `printf`, itd..

Kako se učitava JavaScript?





JavaScript izvršavanje

Ne postoji "main method"

- Script fajl se izvršava od vrha prema dnu.

Nema prevođenja(**compilation**) od strane programera

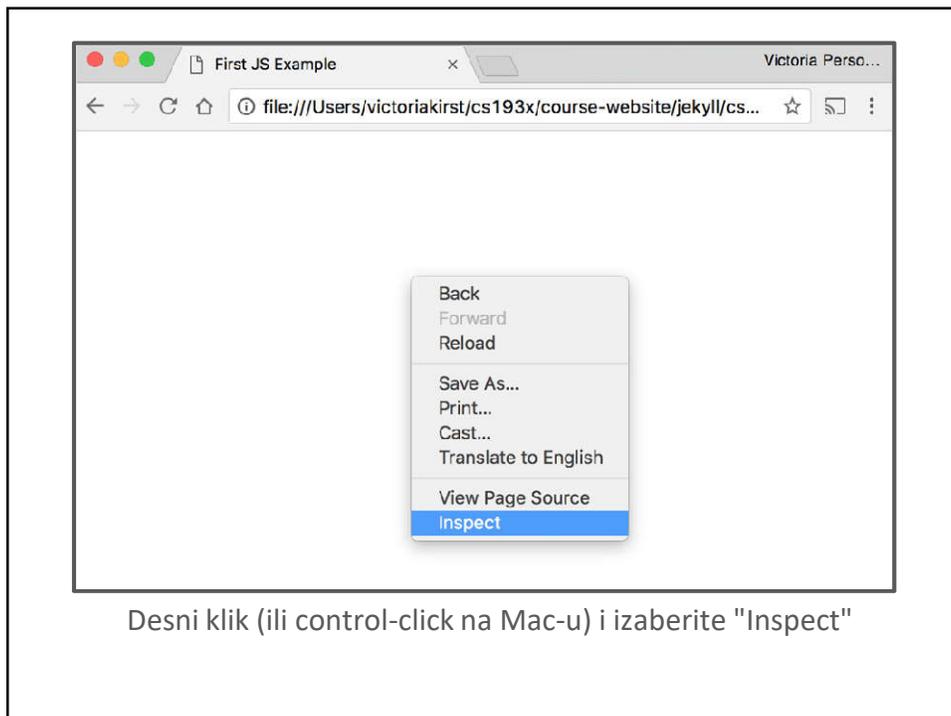
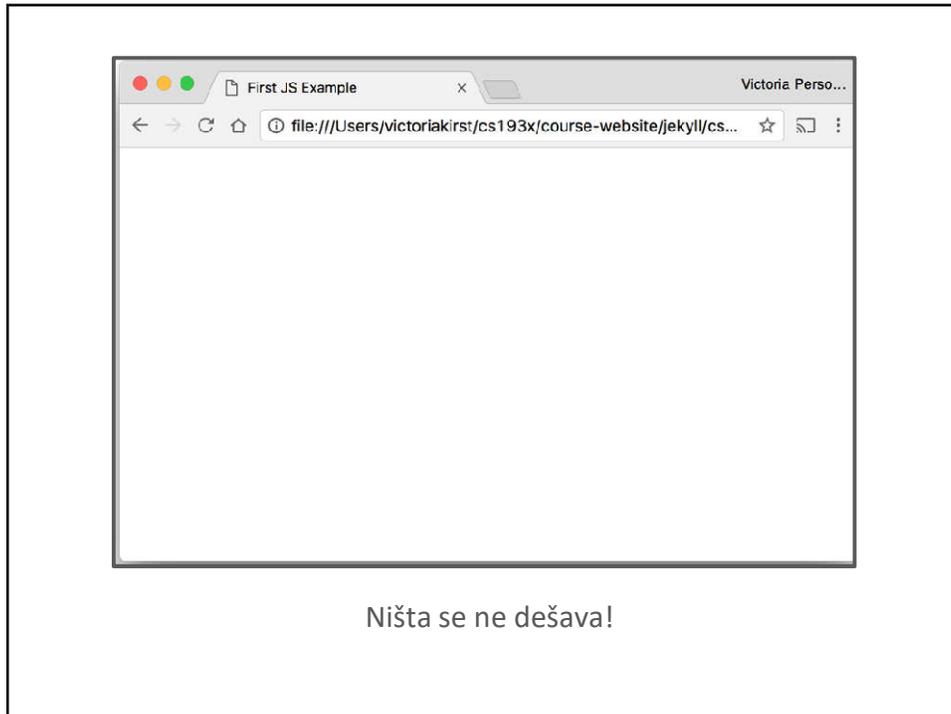
- JavaScript se kompajlira i izvršava od strane browser-a
Napomena: Ovo je malo drugačije od "interpretiranja":
pogledajte [just-in-time \(JIT\) compilation](#)

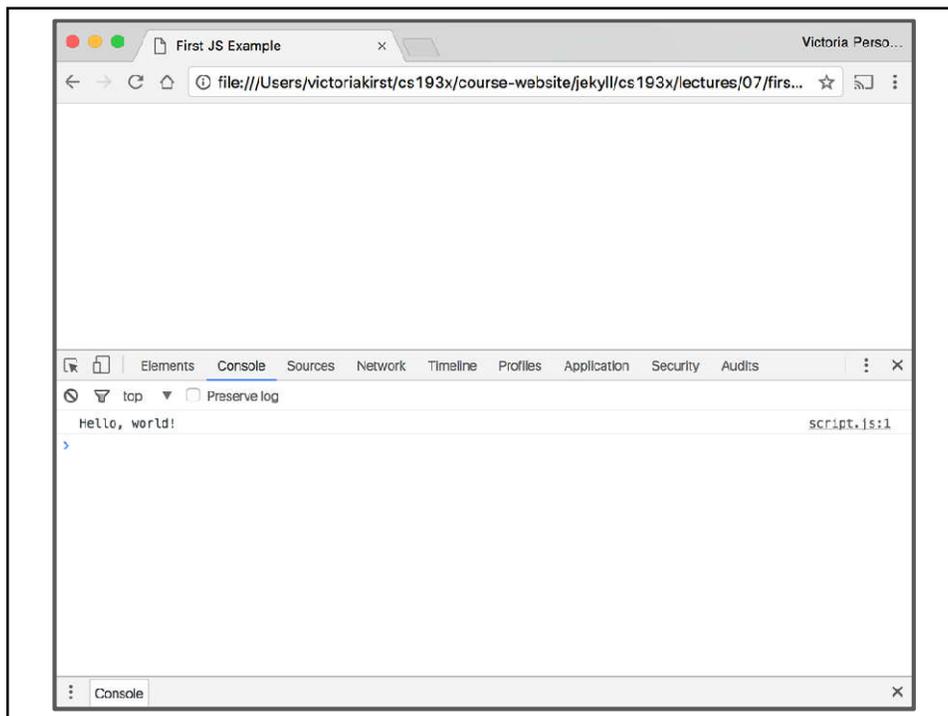
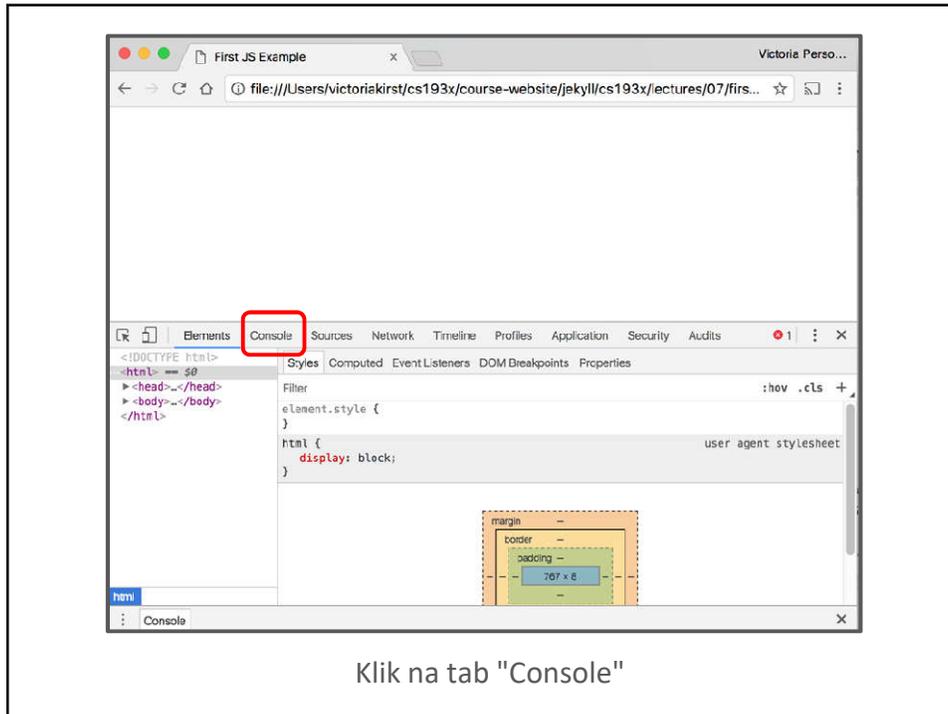
first-js.html

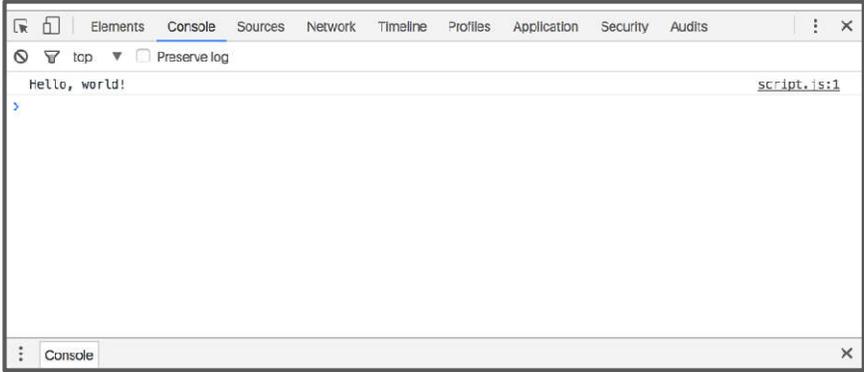
```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8">
    <title>First JS Example</title>
    <script src="script.js"></script>
  </head>
  <body>
  </body>
</html>
```

script.js

```
console.log('Hello, world!');
```







The screenshot shows a browser's developer console with the 'Console' tab selected. The console displays the text 'Hello, world!' on the first line, with a source link 'script.js:1' to its right. Below the text is a blue prompt character '>'. The console interface includes a toolbar at the top with icons for refresh, copy, and zoom, and a 'Preserve log' checkbox. The bottom of the console shows a tab labeled 'Console'.

Tab "Console" je takođe [REPL](#), ili interaktivni shell, pa možete kucati izraze, itd.

JavaScript osobine jezika

Isto kao u Java/C++/C

for-ciklus:

```
for (let i = 0; i < 5; i++) { ... }
```

while-ciklus:

```
while (notFinished) { ... }
```

komentari:

```
// comment or /* comment */
```

Uslovne naredbe (if statements):

```
if (...) {  
  ...  
} else {  
  ...  
}
```

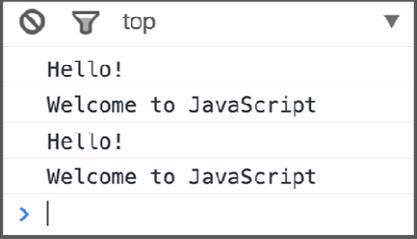
Funkcije

Jedan način definisanja funkcija u jeziku JavaScript :

```
function name() {  
  statement;  
  statement;  
  ...  
}
```

script.js

```
function hello() {  
  console.log('Hello!');  
  console.log('Welcome to JavaScript');  
}  
  
hello();  
hello();
```

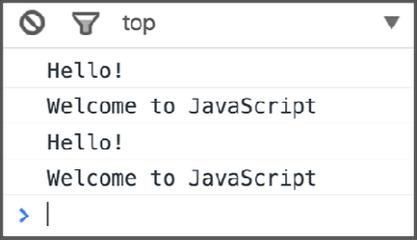


Console output

script.js

```
function hello() {  
  console.log('Hello!');  
  console.log('Welcome to JavaScript');  
}  
  
hello();  
hello();
```

Browser prvo “izvršava” definiciju funkcije, ali se samo kreira funkcija hello (koja se ne izvršava), slično deklaraciji promenljive.



Console output

script.js

```
hello();  
hello();  
  
function hello() {  
  console.log('Hello!');  
  console.log('Welcome to JavaScript');  
}
```

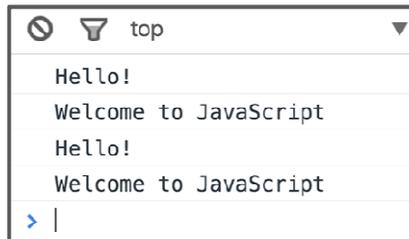
Q: Radi li ovo?

script.js

```
hello();  
hello();  
  
function hello() {  
  console.log('Hello!');  
  console.log('Welcome to JavaScript');  
}
```

A: Da, za baš ovu sintaksu.

Deklaracije funkcija su "**hoisted**" ([mdn](#)). Možete smatrati da se definicije "pomjeraju" na vrh opsega u kom su definisane (iako se to stvarno ne dešava).



Console output

script.js

```
hello();  
hello();  
  
function hello() {  
  console.log('HUello!');  
  console.log('Welcome to JavaScript');  
}
```

Upozorenje:

- Postoje drugi načini definisanja funkcija kada nema hoisting-a.
- Pokušajte da se ne oslanjate na hoisting kada programirate ([It gets bad](#)).

⊗ ☹ top ▼

```
Hello!  
Welcome to JavaScript  
Hello!  
Welcome to JavaScript  
> |
```

Console output