

Zadaci za učenje i vježbu

Predavanje 4. CSS 2. dio

Svi primjeri s predavanja dostupni su u repozitoriju <https://gitlab.com/fer-web1/docs>.

Primjerima s predavanja 4. CSS 2. dio možete pristupiti direktno [ovdje](#).

1. Objasnite što je CSS piksel, a što hardverski piksel.

Što mislite, ima li laserski printer tipično veći ili manji broj hardverskih piksela po CSS pikselu od npr. full HD monitora? Što znači kratica DPI? Probajte poredati po broju hardverskih piksela:

- Neki noviji smartphone (npr. Samsung Galaxy S20+)
- Neki 4K monitor (npr. LG 27UD88-W 27")
- Neki Full HD monitor (npr. Dell SE2419Hx 23.8")
- Neki noviji laserski printer (npr. HL-L8360CDW)

Razmisлите kako se neka stranica (npr. www.google.hr ili <https://www.fer.unizg.hr/>) iscrtava na tim različitim uređajima?

2. Što se događa ako „velike/široke“ stranice pokušamo prikazati na mobilnom uređaju koji su manje horizontalne rezolucije od te stranice?

Napravite sljedeći eksperiment:

- Uzmite primjer HTML 68 – Image 3: <https://gitlab.com/fer-web1/docs/-/blob/master/2.%20HTML/HTML/68-Image3.html> (zajedno sa slikom)
- Uklonite sve inline stilove za te dvije slike
- Otvorite stranicu i pogledajte ju u devtoolsima simulirajući mobilni uređaj Galaxy S5
 - Kolika je rezolucija tog uređaja?
 - Koja je rezolucija slike?
 - Objasnite zašto je prikaz takav kakav jest
- Napravite kopiju datoteke u kojoj ćete dodati u zaglavlje viewport tag, device-width, initial-scale = 1
 - Usporedite prikaz s prethodnom stranicom
 - Objasnite zašto je takav kakav jest.
- Na obje stranice prvoj slici dodajte inline style: style="width: 100%;"
 - Usporedite stranice i objasnite prikaz

3. Ostvarite sljedeće:

- uzmite neki veliki blok teksta, npr. GNU manifesto i stavite ga u vlastitu web stranicu
- za sve ekrane: neka tekst zauzima 75% ekrana s jednako praznog prostora s obje strane

- za ekrane manje od 768px prikažite tekst u **dvije** kolone
- za ekrane veće ili jednako od 768 px prikažite tekstu u **četiri** kolone
- kod ispisa (print) prikažite tekst u **jednoj koloni** do samih margina stranice (neka zauzima **100%**) i pritom postavite sve margine na 15 mm (testirajte s print preview u Chromeu).
- POMOĆ: ispis teksta u kolonama možete postići s column-count: https://www.w3schools.com/Css/css3_multiple_columns.asp

Npr.:

<p>The GNU Manifesto The GNU Manifesto (which appears below) was written by Richard Stallman in 1985 to ask for support in developing the GNU operating system. Part of the text was taken from the original announcement of 1983. Through 1987, it was updated in minor ways to account for developments; since then, it seems best to leave it unchanged. Since that time, we have learned about certain common misunderstandings that different wording could help avoid. Footnotes added since 1993 help clarify these points. If you want to install the GNU/Linux system, we recommend you use one of the</p> <p>social contribution. Creativity can be a social contribution, but only in so far as society is free to use the results. If programmers deserve to be rewarded for creating innovative programs, by the same token they deserve to be punished if they restrict the use of these programs. "Shouldn't a programmer be able to ask for a reward for his creativity?" There is nothing wrong with wanting pay for work, or seeking to maximize one's income, as long as one does not use means that are destructive. But the means customary in the field of software today are based on destruction. Extracting money from users of a</p>	<p>In GNU/Linux, the GNU Manifesto is a social contribution. Creativity can be a social contribution, but only in so far as society is free to use the results. If programmers deserve to be rewarded for creating innovative programs, by the same token they deserve to be punished if they restrict the use of these programs. "Shouldn't a programmer be able to ask for a reward for his creativity?" There is nothing wrong with wanting pay for work, or seeking to maximize one's income, as long as one does not use means that are destructive. But the means customary in the field of software today are based on destruction. Extracting money from users of a</p>	<p>The GNU Manifesto The GNU Manifesto (which appears below) was written by Richard Stallman in 1985 to ask for support in developing the GNU operating system. Part of the text was taken from the original announcement of 1983. Through 1987, it was updated in minor ways to account for developments; since then, it seems best to leave it unchanged. Since that time, we have learned about certain common misunderstandings that different wording could help avoid. Footnotes added since 1993 help clarify these points. If you want to install the GNU/Linux system, we recommend you use one of the</p> <p>social contribution. Creativity can be a social contribution, but only in so far as society is free to use the results. If programmers deserve to be rewarded for creating innovative programs, by the same token they deserve to be punished if they restrict the use of these programs. "Shouldn't a programmer be able to ask for a reward for his creativity?" There is nothing wrong with wanting pay for work, or seeking to maximize one's income, as long as one does not use means that are destructive. But the means customary in the field of software today are based on destruction. Extracting money from users of a</p>
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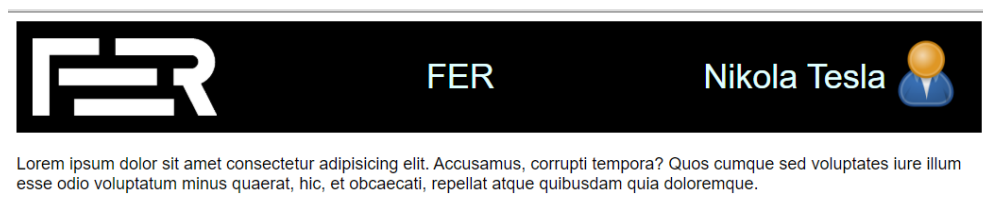
3. Napravite pet div elemenata tako da su jedan drugom roditelji (ugnijezdite ih).

- U svaki upišite „exponential growth“ i postavite svakome veličinu fonta na 2em.
- Objasnite rezultat. Koje je veličine početni font? Gdje se to definira? Pronađite i probajte promijeniti.
- Srednjem (od tih 5) promijenite stil u 2rem. Prije nego što pogledate rezultat prognozirajte kako će izgledati.

4. Koristeći flexbox i osnovna CSS svojstva ostvarite zaglavlje kao na slici:



Kada se ekran smanji na manje od 1000px širine, puni naziv fakultete potrebno je zamijeniti kraticom:



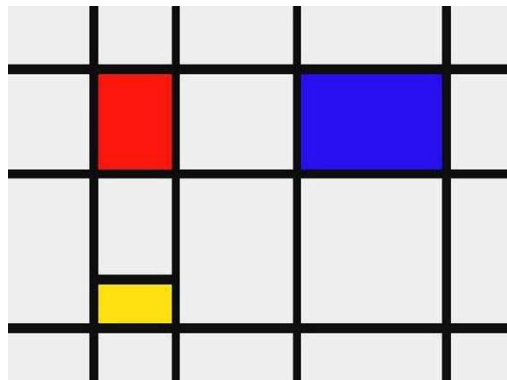
Obratite pozornost i na ostale detalje, prostor oko ikona, veličinu fonta (Helvetica), poravnanje i razmještaj elemenata. FER-ov logo sami skinite sa stranica Fakulteta, a ikonicu korisnika možete preuzeti [ovdje](#).

5. Pogledajte primjere Flexboxa: <https://webdesign.tutsplus.com/tutorials/exercises-in-flexbox-simple-web-components--cms-28049>

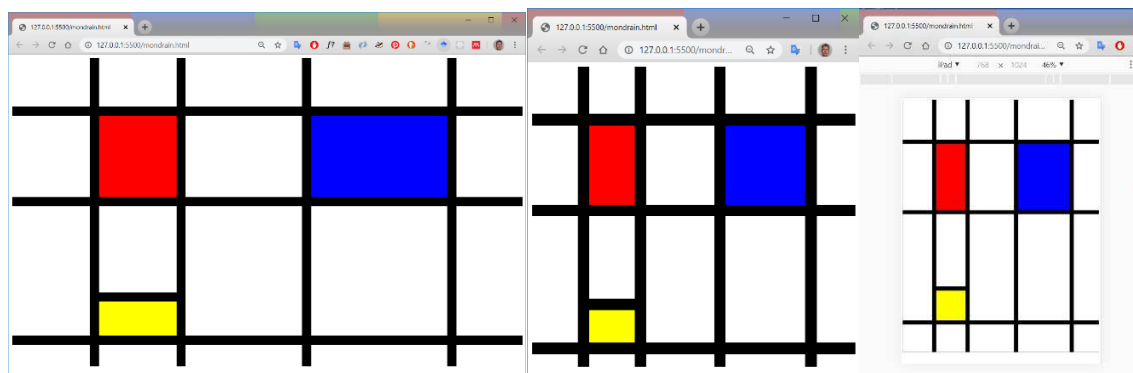
6. Objasnite što znači da je Flexbox jednodimenzionalan a CSS Grid dvodimenzionalan?

7. Naučite calc() funkciju: <https://developer.mozilla.org/en-US/docs/Web/CSS/calc>

8. Koristeći CSS (**bez dodatnih** radnih okvira poput Bootstrapa) reproducirajte jedno Mondrianovo djelo:

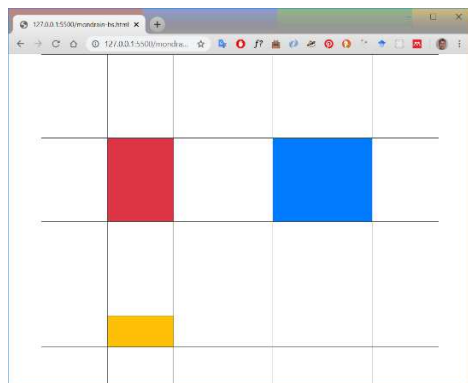


Omjere ne morate potpuno točno reproducirati, procijenite ih sami (ali ne smiju biti uniformni). Kompozicija se mora prilagođavati rezoluciji odnosno mora se „dobro ponašati“:



Možete raditi u grupi – neka svatko nezavisno riješi zadatak pa usporedite rješenja. Jeste li svi riješili na isti način?

9. Ostvarite isti/sličan razmještaj koristeći Bootstrap, ali možete zanemariti debelu rešetku, odnosno možete napraviti i rešetku debljine 1px. Omjere također možete reproducirati još manje precizno, npr:



Razmislite u razlikama u pristupu.

Što mislite – bavimo li se u praksi više podešavanjem širine elemenata ili visine? Zašto?