

Dokumentacija izradjena za potrebe predmeta: Web programiranje 2

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Broj indeksa: 61/18

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# <u>Uvod</u>

## Korišćeni programski jezici

Za izradu sajta korišćeni su sledeći programski jezici i bilioteke:

- HTML
- CSS
- JavaScript
- jQuery
- Bootstrap 4
- XML
- Kod je pisan u VS code-u

## **Opis funkcionalnosti**

Sajt se sastoji od 4 stranice:

- index.html
- store.html
- cart.html
- author\_html

### index.html

- -Responsive dizajn
- -Navigacija koja se fiksira uz gornju ivicu pri skrolovanju
- -Strelica koja se pojavljuje pri skrolovanju i koja vodi na vrh strane
- -Kontakt forma čiji se sadržaj proverava regularnim izrazima

### store.html

- Dinamičko ispisivanje uređaja iz json fajla.
- Biranjem opcije iz padajuće lista za izbor tipa uređaja dinamički se ispisuju uređaja koji zadovoljavaju kriterijum.
- Biranjem modela dinamički se ispisuju uređaji koji zadovoljavaju kriterijum.
- Odabirom opcije iz padajuće liste za sortiranje, sortiraju se uređaji koji zadovoljavaju prethodne kriterijume po zadatom kriterijumu.

- Unošenjem imena uređaja u tekstualno polje za pretragu, ispisuju se uređaji koji zadovoljavaju zadati kriterijum.
- Klikom na dugme buy uređaj se dodaje u korpu
- Klikom na sliku uređaja otvara se modal koji sadrži dodatne informacije o uređaju na koji se kliknulo.

### cart.html

- Čitanje iz local storage-a i ispisivanje uređaja u tabeli.
- Računanje ukupne cene na osnovu broja uređaja i njihovih cena.
- Dva dugmeta za povećanje količine odnosno smanjivanje, i dugme za birsanje uređaja iz korpe.
- Ako nema uređaja u korpi ispisuje se tekst da je korpa prazna i link koji vodi ka store.html.

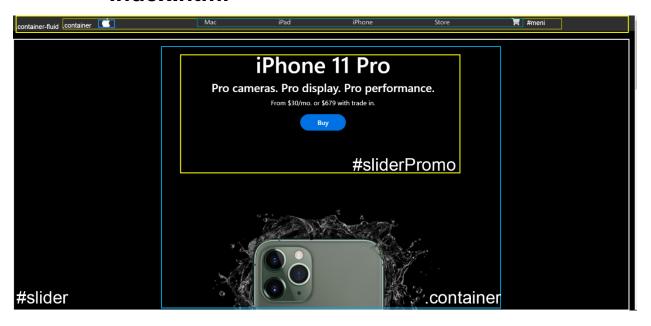
### author.html

-Responsive dizajn

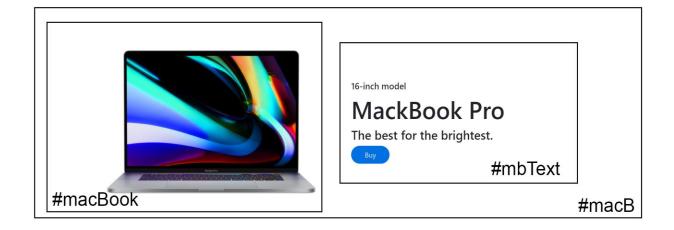
## **Template**

Nije korišćen nijedan template pri izradi. Sajt je pravljen po uzoru na oficijalni sajt Apple-a.

### index.html



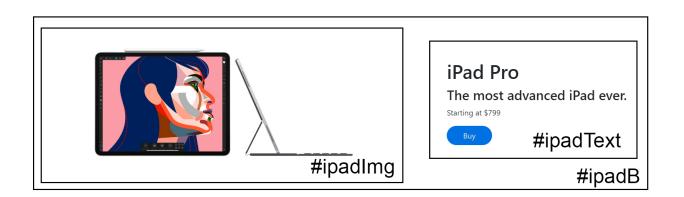
	Contact us	.row	
First name			
Last name			
Email			
Message			
		1.	
Send		.row	



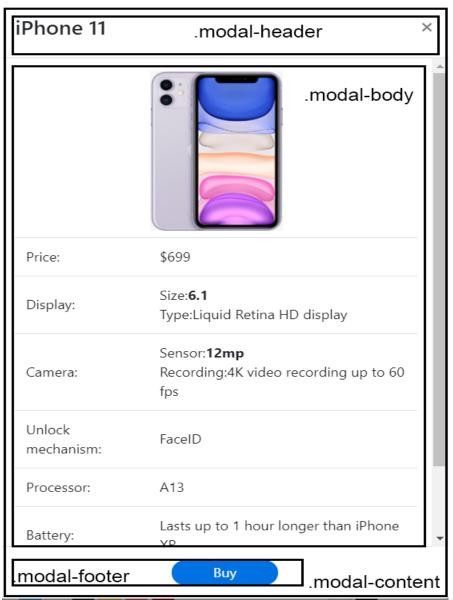


### store.html









### cart.html



### author.html

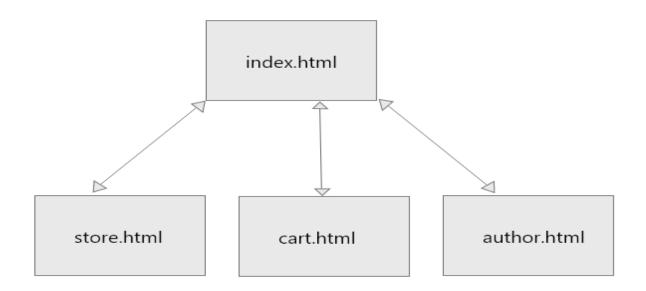


Pavle Zivanovic #authorHeading

#authorText I'm 21 years old, based in Belgrade. Currently second year at ICT school.

# <u>Organizacija</u>

# Organizaciona šema

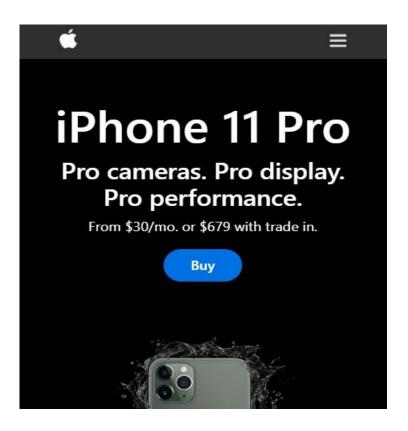


### Mapa sajta

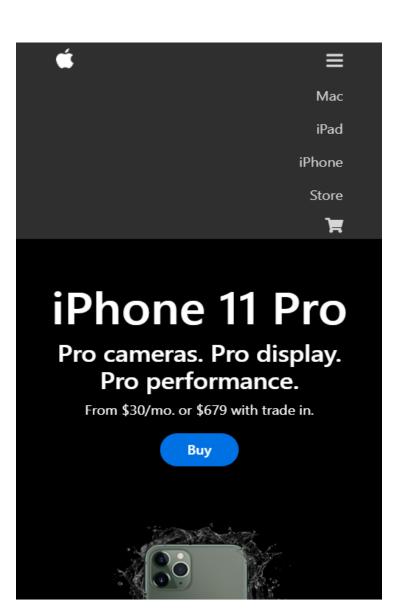
```
<urlset xmlns="http://www.sitemaps.org/schemas/sitemap/0.9">
<url>
<loc> index.html </loc>
<lastmod>2019-3-15
<changefreq>weekly</changefreq>
<priority>1</priority>
</url>
<url>
<loc> store.html </loc>
<lastmod>2019-3-15
<changefreq>daily</changefreq>
<priority>0.95</priority>
</url>
<url>
<loc>cart.html </loc>
<lastmod>2019-3-15</lastmod>
<changefreq>weekly</changefreq>
<priority>0.92</priority>
</url>
<url>
<loc>author.html </loc>
<lastmod>2019-3-15
<changefreq>yearly</changefreq>
<priority>0.80</priority>
</url>
</urlset>
```

## Slike stranica i opisi funkcionalnosti

### index.html



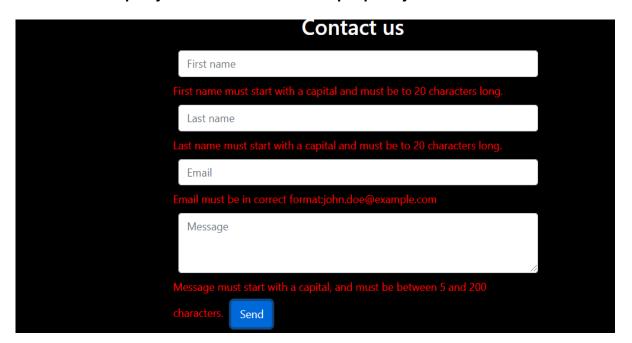
Sve stranice su responsive I na svim stranicama se navigacija fiksira za gornju ivicu pri skrolovanju, takođe obezbeđena je strelica koja vraća na vrh stranice. Klikom na ikonicu hamburgera meni se prikazuje odnosno sakriva.



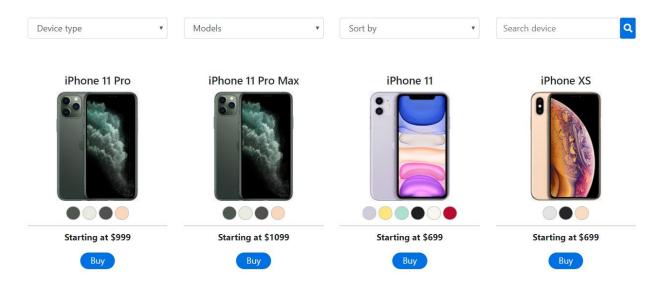


Contact us
First name
Last name
Email
Message
Send

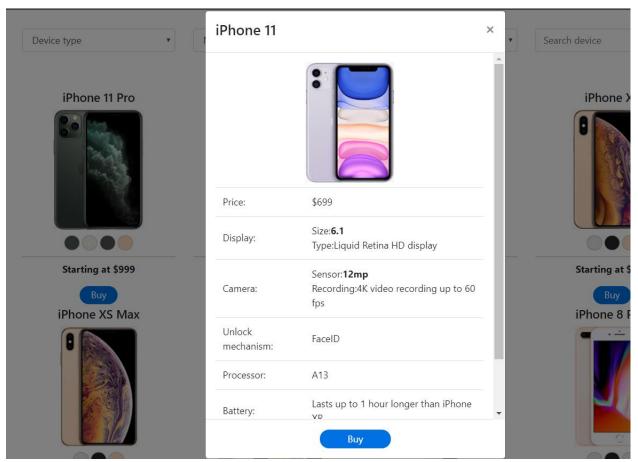
Provera ispravnosti unetih podataka u kontakt formi realizovana je pomoću regularnih izraza. Ako podaci nisu u dobrom formatu ispod polja u kom se pojavila greska prikazuje se poruka koja prikazuje format u kom polje treba da bude popunjeno.



#### store.html



Sve dropdown liste su dinamički ispisane. Odabirom tipa uređaja u zavisnosti od tipa uređaja automatski se popunjava dropdown lista modela i prikazuju se uređaji koji pripadaju tom tipu. Kad sa izabere tip uređaja iphone dropdown lista za modele se popunjava serijama iphone-a(11, X,8), u svim ostalim slučajevima dropdown lista za modele se popunjava konkretnim modelima. Na osnovu prikazanih uređaja moguće je izvršiti sortiranje po ceni(opadajuće, rastuće) i po imenu uređaja(opadajuće, rastuće). Unosom imena uređaja u polje za pretragu prikazuju se uređaji koji zadovoljavaju kriterjum pretrage.

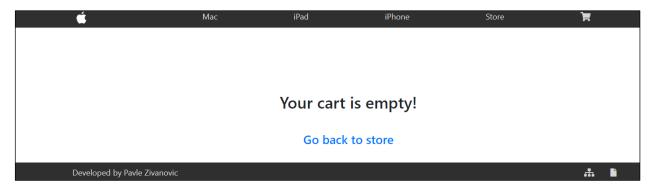


Klikom na neki od uređaja koji su prikazani pojavljuje se modal koji prikazuje detaljnije informacije o traženom uređaju. Klikom na dugme buy uređaj se dodaje u korpu.

### cart.html



Kad je uređaj dodat u korpu njemu se može povećati odnosno smanjiti količina ili se može obrisati iz iste. Takođe pri dnu strane može se videti ukupna cena uređaja koji su dodati u korpu izraženu u dolarima.



Ako nijedan uređaj nije dodat u korpu prikazuje se poruka da je korpa prazna i link koji vodi na stranicu za kupovinu.

# <u>Kodovi</u>

### index.html

```
<!DOCTYPE html>
<html lang="en">
<head>
   <meta name="keywords" content="Apple, Apple store, iphone, ipad, macbook">
    <meta name="description" content="Official apple store that provides all sort of apple pr</pre>
oducts over the web. You 'll find a great offer of our iphone, macbook and ipad devices.">
   <link rel="shortcut icon" href="assets/images/fav.ico" type="image/x-icon">
   <meta charset="UTF-8">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Apple</title>
   <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.4.1/css/boots</pre>
trap.min.css" integrity="sha384-
Vkoo8x4CGs03+Hhxv8T/Q5PaXtkKtu6ug5T0eNV6gBiFeWPGFN9MuhOf23Q9Ifjh" crossorigin="anonymous">
    <link rel="stylesheet" href="assets/css/style.css">
    <script src="https://kit.fontawesome.com/3a1f074dc3.js" crossorigin="anonymous"></script>
</head>
<body>
   <div class="container-fluid" id="header">
       <div class="container">
           <div class="row">
               <div class="col-lg-2 col-2">
                   <a href="index.html" class="nav-link my-</pre>
auto"><img src="assets/images/logo1.png" alt="logo" /></a>
               </div>
               <div class="col-lg-10 col-10">
                   <nav id="navigation" class="d-flex justify-content-center np ">
                       column flex-sm-row np w-100" id="meni">
                       </nav>
               </div>
           </div>
       </div>
    </div>
    <div class="container-fluid" id="slider">
```

```
<div class="container">
            <div class="row">
                <div class="col-lg-12">
                    <div id="sliderPromo" class="pt-5">
                        <h1>iPhone 11 Pro</h1>
                        <h3>Pro cameras. Pro display. Pro performance.</h3>
                        From $ 30/mo. or $ 679 with trade in.
                        <div class="promoLink pt-2 d-flex justify-content-center">
                            <a href="store.html">Buy</a>
                        </div>
                    </div>
                    <div id="sliderIphoneImg" class="d-flex justify-content-center">
                        <img src="assets/images/11proMedium.png" alt="Iphone 11 pro" class="i</pre>
mg-fluid" />
                    </div>
                </div>
            </div>
        </div>
    </div>
    <a name="macbook"></a>
    <div class="container-fluid" id="macB">
        <div class="container">
            <div class="row">
                <div class="col-lg-6">
                    <div id="macBook">
                        <img src="assets/images/macbook_pro.jpg" alt="Macbook pro" class="img</pre>
-fluid" />
                    </div>
                </div>
                <div class="col-lg-6 d-flex align-items-center">
                    <div id="mbText">
                        <h5>16-inch model</h5>
                        <h1>MackBook Pro</h1>
                        <h3>The best for the brightest.</h3>
                        <div class="promoLink d-flex justify-content-center">
                            <a href="store.html">Buy</a>
                        </div>
                    </div>
                </div>
            </div>
        </div>
    </div>
    <a name="iphone"></a>
    <div class="container-fluid" id="iphone11B">
        <div class="container">
            <div class="row">
                <div class="col-lg-6 d-flex align-items-center">
                    <div id="iphoneText">
                        <h3>iPhone 11</h3>
```

```
<h1>Just the right amount of everything.</h1>
                        From $18.70/mo. or $449 with trade-in
                        <div class="promoLink d-flex justify-content-center">
                            <a href="store.html">Buy</a>
                        </div>
                   </div>
                </div>
                <div class="col-lg-6">
                    <div id="iphone11Img">
                        <img src="assets/images/iphone11.png" alt="iPhone 11" class="img-</pre>
fluid" />
                   </div>
               </div>
           </div>
       </div>
    </div>
    <a name="ipad"></a>
    <div class="container-fluid" id="ipadB">
       <div class="container">
           <div class="row">
               <div class="col-lg-6">
                    <div id="ipadImg">
                        <img src="assets/images/ipad_pro_hero__phf9t8u0esii_large.jpg" alt="i</pre>
Pad Pro" class="img-fluid" />
                   </div>
               </div>
                <div class="col-lg-6 d-flex align-items-center justify-content-end">
                    <div id="ipadText">
                       <h1>iPad Pro</h1>
                        <h3>The most advanced iPad ever.</h3>
                        Starting at $799
                       <div class="promoLink d-flex justify-content-center">
                            <a href="store.html">Buy</a>
                        </div>
                   </div>
               </div>
           </div>
       </div>
    </div>
    <div class="container-fluid" id="kForma">
        <div class="container">
           <div class="row">
                <div class="col-lg-12">
                    <h2 class="text-center pt-2">Contact us</h2>
                </div>
           </div>
           <div class="row d-flex justify-content-center">
```

```
<div class="col-lg-6 pb-2">
                   <form id="contactForm">
                       <input_type="text" id="tbName" class="form-control m-</pre>
2 " placeholder="First name" /><span class="greska" id="fnameError"></span>
                       <input type="text" id="tbLName" class="form-control m-</pre>
2" placeholder="Last name" /><span class="greska" id="lnameError"></span>
                       <input type="text" id="tbEmail" class="form-control m-</pre>
2" placeholder="Email" />
                       <span class="greska" id="emailError"></span>
                       <textarea id="taMessage" cols="30" rows="3" class="form-control m-</pre>
2" placeholder="Message"></textarea>
                       <span class="greska" id="messageError"></span>
                       <input type="button" value="Send" class="btn btn-primary m-</pre>
2" id="cfBtn">
                   </form>
               </div>
           </div>
       </div>
    </div>
    <div class="container-fluid" id="footer">
       <div class="container">
           <div class="row p-2">
                <div class="col-lg-9 d-flex align-items-center justify-content-lg-</pre>
start justify-content-center" id="devby">
                   <a href="autor.html">
                       Developed by Pavle Zivanovic
                   </a>
               </div>
               <div class="col-lg-3">
                   <nav id="links " class="d-flex justify-content-center justify-content-</pre>
lg-end align-items-center">
                       end align-items-center" id="futerMeni">
                       </nav>
               </div>
           </div>
        </div>
    </div>
    <div class="strelica">
        <a href="#"><i class="fas fa-arrow-up"></i></a>
    </div>
   <script src="https://cdnjs.cloudflare.com/ajax/libs/jquery/3.4.1/jquery.min.js">
   </script>
    <script src="assets/js/main.js">
    </script>
</body>
 /html>
```

#### store.html

```
<!DOCTYPE html>
<html lang="en">
<head>
   <meta name="keywords" content="Store, Apple store, iphone, ipad, macbook">
   <meta name="description" content="Our online store will amaze you with our great offer of</pre>
iphones, macbooks and ipads.">
    <link rel="shortcut icon" href="assets/images/fav.ico" type="image/x-icon">
   <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <title>Apple</title>
   <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.4.1/css/boots</pre>
trap.min.css" integrity="sha384-
Vkoo8x4CGsO3+Hhxv8T/Q5PaXtkKtu6ug5TOeNV6gBiFeWPGFN9MuhOf23Q9Ifjh" crossorigin="anonymous">
    <link rel="stylesheet" href="assets/css/style.css">
    <script src="https://kit.fontawesome.com/3a1f074dc3.js" crossorigin="anonymous"></script>
</head>
<body>
   <div class="container-fluid" id="header">
       <div class="container">
           <div class="row">
               <div class="col-lg-2 col-2">
                   <a href="index.html" class="nav-link my-</pre>
auto"><img src="assets/images/logo1.png" alt="logo" /></a>
               </div>
               <div class="col-lg-10 col-10">
                   <nav id="navigation" class="d-flex justify-content-center np ">
                       column flex-sm-row np w-100" id="meni">
                       </nav>
               </div>
           </div>
       </div>
    </div>
    <div class="container-fluid" id="main">
       <div class="container">
           <div class="row" id="filterHolder">
               <div class="col-lg-3" id="deviceType">
                   <form id="filterForm">
```

```
<select id="devTypeDDL" class="form-control">
                           <option value="0">Device type</option>
                       </select>
                   </form>
               </div>
               <div class="col-lg-3 d-flex" id="filters">
                   <select id="modelsDDL" class="form-control" form="filterForm">
                       <option value="0">Models</option>
                   </select>
               </div>
               <div class="col-lg-3" id="filters">
                   <select id="devicesDDL" class="form-control" form="filterForm">
                       <option value="0">Sort by</option>
                   </select>
               </div>
               <div class="col-lg-3 d-flex" id="filters">
                   <input type="text" id="tbSearch" class="form-</pre>
control" placeholder="Search device" form="filterForm">
                   <button id="searchBtn" form="filterForm" class="plavaPozadina">
<i class="fas fa-search belaSlova"></i></button>
               </div>
           </div>
           <div class="row">
               <div class="col-lg-12">
                   <div class="row" id="products">
                   </div>
               </div>
           </div>
       </div>
   </div>
    <div class="container-fluid" id="footer">
       <div class="container">
           <div class="row p-2">
               <div class="col-lg-9 d-flex align-items-center justify-content-lg-</pre>
start justify-content-center" id="devby">
                   <a href="autor.html">
                       Developed by Pavle Zivanovic
                   </a>
               </div>
               <div class="col-lg-3">
                   <nav id="links " class="d-flex justify-content-center justify-content-</pre>
lg-end align-items-center">
                       end align-items-center" id="futerMeni">
```

```
</nav>
                </div>
           </div>
       </div>
   </div>
   <div class="container-fluid ">
       <div class="row">
           <div class="col-lg-12" id="modal-Device">
           </div>
       </div>
   </div>
   <div class="strelica">
       <a href="#"><i class="fas fa-arrow-up"></i></a>
   </div>
   <script src="https://cdnjs.cloudflare.com/ajax/libs/jquery/3.4.1/jquery.min.js">
   </script>
   <script src="assets/js/main.js">
   </script>
</body>
/html>
```

### cart.html

```
<!DOCTYPE html>
<html lang="en">
    <meta name="keywords" content="cart, Apple store, iphone, ipad, macbook">
    <meta name="description" content="You 'll find a great offer of our iphone , macbook and</pre>
 ipad devices.">
    <link rel="shortcut icon" href="assets/images/fav.ico" type="image/x-icon">
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Apple</title>
    <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.4.1/css/boots</pre>
trap.min.css" integrity="sha384-
Vkoo8x4CGs03+Hhxv8T/Q5PaXtkKtu6ug5T0eNV6gBiFeWPGFN9Muh0f23Q9Ifjh" crossorigin="anonymous">
    <link rel="stylesheet" href="assets/css/style.css">
    <script src="https://kit.fontawesome.com/3a1f074dc3.js" crossorigin="anonymous"></script>
</head>
<body>
    <div class="container-fluid" id="header">
        <div class="container">
```

```
<div class="row">
              <div class="col-lg-2 col-2">
                  <a href="index.html" class="nav-link my-</pre>
auto"><img src="assets/images/logo1.png" alt="logo" /></a>
              </div>
              <div class="col-lg-10 col-10">
                  <nav id="navigation" class="d-flex justify-content-center np ">
                      column flex-sm-row np w-100" id="meni">
                     </nav>
              </div>
          </div>
       </div>
   </div>
   <div class="container-fluid">
       <div class="row">
          <div class="col-lg-10 ms" id="cart"></div>
       </div>
   </div>
   <div class="container-fluid" id="footer">
       <div class="container">
          <div class="row p-2">
              <div class="col-lg-9 d-flex align-items-center justify-content-lg-</pre>
start justify-content-center" id="devby">
                  <a href="autor.html">
                      Developed by Pavle Zivanovic
                  </a>
              </div>
              <div class="col-lg-3">
                  <nav id="links " class="d-flex justify-content-center justify-content-</pre>
lg-end align-items-center">
                      end align-items-center" id="futerMeni">
                     </nav>
              </div>
          </div>
       </div>
   </div>
   <div class="strelica">
       <a href="#"><i class="fas fa-arrow-up"></i></a>
   </div>
   <script src="https://cdnjs.cloudflare.com/ajax/libs/jquery/3.4.1/jquery.min.js">
   </script>
   <!-- <script src="assets/js/cart.js"> </script> -->
   <script src="assets/js/main.js">
   </script>
 /body>
 /html>
```

### autor.html

```
<!DOCTYPE html>
<html lang="en">
<head>
   <meta name="keywords" content="Store, Apple store, iphone, ipad, macbook">
   <meta name="description" content="Our online store will amaze you with our great offer of</pre>
iphones, macbooks and ipads.">
    <link rel="shortcut icon" href="assets/images/fav.ico" type="image/x-icon">
   <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <title>Apple</title>
   <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.4.1/css/boots</pre>
trap.min.css" integrity="sha384-
Vkoo8x4CGsO3+Hhxv8T/Q5PaXtkKtu6ug5TOeNV6gBiFeWPGFN9MuhOf23Q9Ifjh" crossorigin="anonymous">
    <link rel="stylesheet" href="assets/css/style.css">
    <script src="https://kit.fontawesome.com/3a1f074dc3.js" crossorigin="anonymous"></script>
</head>
<body>
   <div class="container-fluid" id="header">
       <div class="container">
           <div class="row">
               <div class="col-lg-2 col-2">
                   <a href="index.html" class="nav-link my-</pre>
auto"><img src="assets/images/logo1.png" alt="logo" /></a>
               </div>
               <div class="col-lg-10 col-10">
                   <nav id="navigation" class="d-flex justify-content-center np ">
                       column flex-sm-row np w-100" id="meni">
                       </div>
           </div>
       </div>
    </div>
    <div class="container-fluid">
       <div class="container">
           <div class="row">
               <div class="col-8 autor">
                   <div id="imgAutor" class=" autor pt-3 pb-3">
```

```
<img src="assets/images/autor.jpg" alt="autor" class="img-fluid">
                  <div id="authorHeading" class="text-center">
                      <h2>Pavle Zivanovic</h2>
                  </div>
                  <div id="authorTekst" class="text-center">
                      I'm 21 years old, based in Belgrade. Currently second ye
ar at ICT school.
                  </div>
              </div>
           </div>
       </div>
   </div>
   <div class="container-fluid" id="footer">
       <div class="container">
           <div class="row p-2">
              <div class="col-lg-9 d-flex align-items-center justify-content-lg-</pre>
start justify-content-center" id="devby">
                  <a href="#">
                      Developed by Pavle Zivanovic
                  </a>
              </div>
              <div class="col-lg-3">
                  <nav id="links " class="d-flex justify-content-center justify-content-</pre>
lg-end align-items-center">
                      end align-items-center" id="futerMeni">
                         <a href="#" class=""><i class="fas fa-sitemap"></i></a>
                         <a href="#" class=""><i class="fas fa-file"></i></a></or>
                      </nav>
              </div>
           </div>
       </div>
   </div>
   <div class="strelica">
       <a href="#"><i class="fas fa-arrow-up"></i></a>
   </div>
   <script src="https://cdnjs.cloudflare.com/ajax/libs/jquery/3.4.1/jquery.min.js">
   <script src="assets/js/main.js">
   </script>
</body>
</html>
```

### style.css

```
box-sizing: border-box !important;
    scroll-behavior: smooth;
#header,#footer{
    background-color: #2F2F2F;
    padding: 0 !important;
    padding: 0 1rem !important;
#slider{
    background-color:#000 ;
.np{
    padding: 0;
    margin: 0;
.w-100{
    width: 100%;
ul{
    list-style: none;
.belaSlova{
    color:#fff;
.plavaPozadina{
    background-color:#0071E3;
a{
    color:#D6D6D6;
    text-decoration: none;
#searchBtn{
    outline: none;
    border: none;
    margin: 0px;
.gmm {
    margin-top:2.7rem ;
#devby a{
    text-decoration:none;
```

```
#meni li a:hover,#futerMeni li a:hover,#devby a:hover{
    color:#fff;
    transition: .3s ease-in-out;
#sliderPromo{
    color:#fff;
    text-align: center;
#sliderPromo h1,#macB #mbText h1{
    font-size: 3.4rem;
#macB,#iphone11B{
    padding-bottom: 8rem;
.donjiIgornjiPadding{
    padding: 8rem 0rem 2rem 0rem;
#sliderPromo .promoLink a{
    font-weight: 500;
    color:#fff;
#ipadB{
    padding-bottom: 8rem;
.promoLink{
    width: 25%;
    background-color:#0071E3;
    padding:0.5rem 1rem;
    border-radius:6rem;
.promoLink a{
    text-align:center;
.ms{
    margin: 0px auto;
#sliderPromo .promoLink{
    width:8%;
    margin: 0px auto;
    background-color:#0071E3;
    padding:0.5rem 1rem;
    border-radius:6rem;
#sliderPromo .promoLink a:hover,.promoLink a:hover{
    text-decoration: none;
    color:#fff;
#sliderIphoneImg{
    width:80%;
```

```
margin:0px auto;
#macB,#iphone11B,#ipadB,#watchB{
    padding-top: 8rem;
#filterHolder{
    padding-top: 2rem;
#products{
    padding: 4rem 0;
#iphone11B{
    background-color: #000;
    color:#fff;
#watchB{
    background-color: #fff;
    color:#000;
    padding-bottom: 8rem;
#futerMeni li a{
    padding:0 1rem ;
.color{
    width:10%;
    height:25px;
    margin: 2px;
    background-color: #2F2F2F;
    border-radius: 50%;
    border:1px solid #bbb;
.colors{
    padding-top: 0.5rem;
.nm{
    margin:0 !important;
dl, ol, ul{
    margin: 0;
#futerMeni li a{
    text-decoration: none;
#searchBtn{
    border-radius: 3px;
.line{
    width:100%;
    height: 1px;
    background-color: #D6D6D6;
```

```
margin:0.5rem 0;
.buy{
    width: 25%;
    background-color: #0071E3;
    color:#fff;
    margin: 0.3rem auto;
    padding:0.2rem;
    border-radius: 20px;
.fiksniMeni{
    position: fixed;
    z-index: 999;
    top:0;
    left:0;
    width:100%;
    border-bottom:1px solid #777;
    transition: position 1s, border-bottom 1.5s;
.buy a{
    color:#fff;
    text-decoration: none;
.table td{
    height:auto;
   vertical-align: middle;
#kForma{
    background-color: #000;
    color:#fff;
.siva{
    background-color:#2F2F2F;
.greska{
    color:#ff0000;
#modal-Device{
    position: fixed;
    left: 0;
    top: 0;
    height:100vh;
    padding: 0rem 3rem;
    background-color: rgba(0,0,0,0.5);
    visibility: hidden;
    opacity: 0;
    transition: visibility 0s, opacity 0,5s;
.modal-devices{
```

```
height:40%;
.show-bg{
    visibility: visible !important;
    opacity: 1 !important;
.hide-bg{
    visibility: hidden !important;
    opacity: 0 !important;
.dugme{
    outline:none;
    border:none;
    border-radius: 5px;
.sakrij{
    display: none !important;
.prikazi{
    display: block !important;
.hamburger{
    font-size: 1.3rem;
.productsmd{
    cursor: pointer;
.korpica{
    font-size: 1.1rem;
.strelica{
    position: fixed;
    display: none;
    bottom:10%;
    right:5%;
.strelica i{
    font-size: 2rem;
    color:#ccc;
@media only screen and (max-width: 576px) {
    #sliderPromo .promoLink{
        width:25%;
    .color{
        width:1.5rem;
@media only screen and (min-width: 576px) {
    #sliderPromo .promoLink{
```

```
width:20%;
#imgAutor{
    width: 40%;
#imgAutor img{
    border-radius: 50%;
.autor{
    margin: 0px auto;
.b{
    font-weight: 600;
@media only screen and (min-width: 576px) {
    .hamburger{
        display: none !important;
    .stavka{
        display:flex !important;
    .color{
        width:1.5rem;
   }
@media only screen and (min-width: 800px) {
    #sliderPromo .promoLink{
        width:10%;
    .color{
        width:1.6rem;
@media only screen and (min-width: 990px) {
    .color{
        width:10%;
```

### main.js

```
var svi;
$(document).scroll(function() {
    if ($(document).scrollTop() > 50) {
        $("#header").addClass("fiksniMeni");
        $(".strelica").removeClass("sakrij");
        $(".strelica").addClass("prikazi");
    } else {
        $("#header").removeClass("fiksniMeni");
        $(".strelica").removeClass("prikazi");
        $(".strelica").addClass("sakrij");
});
window.onload = function() {
    // alert(window.location.href);
    localStorage.removeItem("products");
    localStorage.removeItem("searchObjs");
    let url = window.location.href.split("/");
    let adresa = url[url.length - 1];
    $.ajax({
        url: "data/meni.json",
        method: "get",
        dataType: "json",
        success: function(data) {
            // console.log(data);
            prikaziMeni(data);
        },
        error(xhr, status, err) {
            console.log(xhr);
            console.log(status);
            console.log(err);
        }
    })
    $.ajax({
        url: "data/futer.json",
        method: "get",
        dataType: "json",
        success: function(data) {
            // console.log(data);
```

```
prikaziFuter(data)
    },
    error(xhr, status, err) {
        console.log(xhr);
        console.log(status);
        console.log(err);
})
if (adresa == "index.html") {
    document.getElementById("cfBtn").addEventListener("click", proveriPodatke);
} else if (adresa == "store.html") {
    $.ajax({
        url: "data/products.json",
        method: "get",
        dataType: "json",
        success: function(data) {
            svi = data;
            prikaziProizvode(data);
        },
        error(er) {
            console.log(er);
    })
    $.ajax({
        url: "data/deviceTypes.json",
        method: "get",
        dataType: "json",
        success: function(data) {
            popuniDeviceTypes(data);
            bookDTP = data;
        },
        error: function(err) {
            console.log(err)
    })
    document.getElementById("devTypeDDL").addEventListener("change", popuniModele);
    document.getElementById("modelsDDL").addEventListener("change", filterPoModelu);
```

```
popuniFiltere();
       document.getElementById("devicesDDL").addEventListener("change", sortiranje);
       document.getElementById("searchBtn").addEventListener("click", pretrazi);
   } else if (adresa == "cart.html") {
       $.ajax({
           url: "data/products.json",
           method: "get",
           dataType: "json",
           success: function(data) {
               svi = data;
               iscitajIzKorpe(data);
           },
           error(er) {
               console.log(er);
       })
function prikaziMeni(stavke) {
   let divIspis = document.getElementById("meni");
   html = "";
   stavke.forEach(stavka => {
       if (stavka.tekst == "<i class=\"fas fa-bars\"></i>") {
           html += `
end hamburger" id="meniToggle"><a href="${stavka.href}" class="nav-</pre>
link">${stavka.tekst}</a>`;
       } else {
           html += `
end stavka sakrij"><a href="${stavka.href}" class="nav-link d-flex justify-content-end align-
items-center">${stavka.tekst}</a>`
   })
   // console.log(html);
   divIspis.innerHTML = html;
   $(".hamburger").click(function(e) {
       e.preventDefault();
       if ($("#meni .stavka").is(":visible")) {
           $("#meni .stavka").removeClass("prikazi");
           $("#meni .stavka").addClass("sakrij");
       } else {
           $("#meni .stavka").remove("sakrij");
           $("#meni .stavka").addClass("prikazi");
```

```
}
   })
function prikaziFuter(stavke) {
   let divIspis = document.getElementById("futerMeni");
   let html = "";
   stavke.forEach(stavka => {
        html += `<a href="${stavka.href}" target="_blank">${stavka.tekst}</a>`;
   })
   divIspis.innerHTML = html;
function prikaziProizvode(devices) {
   let divIspis = document.getElementById("products");
   html = "";
   devices.forEach(device => {
        html += `<div class="col-lg-3 " >
           <div class="productsmd" data-id="${device.id}"> <div class="name">
                <h5 class="text-center">${device.name}</h5>
            </div>
        <div class="deviceImg d-flex justify-content-center">
            <img src="${device.picture.src}" alt="${device.picture.alt}" class="img-fluid">
        </div>
        <div class="colors d-flex justify-content-center">
           ${vratiBoje(device.colors)}
        </div>
        <div class="line"></div>
        <div><p class="text-
center"><b>Starting at &dollar;${device.startingPrice}</b></div>
       </div>
        <div class="buy d-flex justify-content-center">
            <a href="#" class ="dodajUkorpu"data-prodid="${device.id}" class="text-</pre>
center">Buy</a>
       </div>
    </div>`;
   });
   divIspis.innerHTML = html;
   $(".dodajUkorpu").click(dodajUkorpu);
   $(".productsmd").click(prikaziUredjajeModal)
function vratiBoje(boje) {
   let html = "";
   boje.forEach(boja => {
```

```
html += `<div class="color" style="background-color:${boja};"></div>`;
    })
    return html;
function popuniDeviceTypes(types) {
    let divIspis = document.getElementById("devTypeDDL");
   html = "";
   types.forEach(type => {
        html += `<option value="${type.id}">${type.name}</option>`;
   });
    divIspis.innerHTML += html;
function popuniModele() {
    let chosenDevice = document.getElementById("devTypeDDL").value;
   //localStorage.removeItem("searchObjs");
   var p;
   let productIDs = [];
   let modeli;
   if (chosenDevice == 0) {
        document.getElementById("modelsDDL").innerHTML = `<option value="0">Models</option>`;
        prikaziProizvode(svi);
        br = 0;
        modeli = svi;
        modeli.forEach(model => {
            productIDs[br++] = {
                deviceID: model.id,
                seriesID: model.series.id,
                deviceTypeID: deviceType.id
            };
        })
        localStorage.setItem("products", JSON.stringify(productIDs));
    } else {
        $.ajax({
            url: "data/products.json",
            method: "get",
            dataType: "json",
            success: function(data) {
                let modeli;
                if (chosenDevice == 1)
                    modeli = data.filter(d => d.deviceType.id == chosenDevice && d.series.id
!= undefined);
```

```
else
                    modeli = data.filter(d => d.deviceType.id == chosenDevice);
                br = 0;
                modeli.forEach(model => {
                    productIDs[br++] = {
                        deviceID: model.id,
                        seriesID: model.series.id,
                        deviceTypeID: model.deviceType.id
                    };
                })
                localStorage.setItem("products", JSON.stringify(productIDs));
                ispisiIphoneSerije(modeli)
                prikaziProizvode(modeli);
            },
            error(er) {
                console.log(er);
       })
    }
function ispisiModele(modeli) {
   let modelsDDL = document.getElementById("modelsDDL");
   let html = "";
   modeli.forEach(model => {
        html += `<option value="${model.id}">${model.name}</option>`;
    });
   modelsDDL.innerHTML = `<option value="0">Models</option>`;
   modelsDDL.innerHTML += html;
function popuniFiltere() {
    let nizFiltera = ["Price ascending", "Price descending", "Name ascending", "Name descendi
ng"];
   let html = "";
   let divIspis = document.getElementById("devicesDDL");
   let br = 1;
   nizFiltera.forEach(filter => {
        let val = filter.split(" ")[0] + "-
 + filter.split(" ")[1].toLowerCase().substr(0, 1);
        html += `<option value="${val}">${filter}</option>`;
    })
   divIspis.innerHTML += html;
```

```
function ispisiIphoneSerije(iphoni) {
    let divIspis = document.getElementById("modelsDDL");
    let html = "";
   let nizSerija = [];
    iphoni.forEach(iphone => {
        if (!nizSerija.includes(iphone.series.name)) {
            nizSerija.push(iphone.series.name)
            html += `<option value="${iphone.series.id}">${iphone.series.name}</option>`;
    });
   divIspis.innerHTML = `<option value="0">Models</option>`;
    divIspis.innerHTML += html;
function filterPoModelu() {
    let chosenModel = document.getElementById("modelsDDL").value;
   let chosenDevice = document.getElementById("devTypeDDL").value;
    localStorage.removeItem("searchObjs");
    let zaIspis;
    (chosenModel != 0) ? zaIspis = svi.filter(p => p.series.id == chosenModel): zaIspis = svi
.filter(p => p.deviceType.id == chosenDevice);
    prikaziProizvode(zaIspis);
function sortiranje() {
   let deviceType = document.getElementById("devTypeDDL").value;
   let models = document.getElementById("modelsDDL").value;
   let filter = document.getElementById("devicesDDL").value;
   let poCemuSeSortira = filter.split("-")[0];
   let poredak = filter.split("-")[1];
    let sortirano = sortiraj(deviceType, models, poCemuSeSortira, poredak);
    prikaziProizvode(sortirano);
function sortiraj(devType, models, criteria, order) {
    let p = productsForSorting(devType, models);
    if (JSON.parse(localStorage.getItem("searchObjs")) != null && JSON.parse(localStorage.get
Item("searchObjs")).length > 0) {
        return sorting(JSON.parse(localStorage.getItem("searchObjs")), criteria, order)
```

```
return (devType == 0) ? sorting(svi, criteria, order) : sorting(p, criteria, order)
function productsForSorting(deviceType, models) {
    let productsLS = JSON.parse(localStorage.getItem("products"));
    if (JSON.parse(localStorage.getItem("searchObjs")) != null && JSON.parse(localStorage.get
Item("searchObjs")).length > 0) {
        return JSON.parse(localStorage.getItem("searchObjs"))
    return (models == 0) ? svi.filter(el => el.deviceType.id == deviceType) : svi.filter(el =
> el.deviceType.id == deviceType && el.series.id == models);
function sorting(products, criteria, order) {
    let sorted = (order == 'a') ? products.sort(function(a, b) {
        let kritA = criteria == "Price" ? a.startingPrice : a.name;
        let kritB = criteria == "Price" ? b.startingPrice : b.name;
        if (kritA > kritB) return 1;
        if (kritA < kritB) return -1;</pre>
        else return 0;
    }) : products.sort(function(a, b) {
        let kritA = criteria == 'Price' ? a.startingPrice : a.name;
        let kritB = criteria == 'Price' ? b.startingPrice : b.name;
        if (kritA > kritB) return -1;
        if (kritA < kritB) return 1;</pre>
        else return 0;
    })
    return sorted;
function pretrazi(e) {
    e.preventDefault();
   let zaPrikaz;
   let query = document.getElementById("tbSearch").value;
   if (!localStorage.getItem("products")) {
        zaPrikaz = svi.filter(p => p.name.toLowerCase().indexOf(query.toLowerCase()) != -1);
    } else {
        let productsLS = JSON.parse(localStorage.getItem("products"));
        // console.log(productsLS);
        let zaPretragu = svi.filter(p => productsLS.some(x => x.deviceTypeID == p.deviceType.
id));
```

```
console.log(filter);
        zaPrikaz = zaPretragu.filter(p => p.name.toLowerCase().indexOf(query.toLowerCase()) !
= -1);
   localStorage.setItem("searchObjs", JSON.stringify(zaPrikaz));
    //console.log(zaPrikaz);
   prikaziProizvode(zaPrikaz);
    if (zaPrikaz.length == 0) {
        document.getElementById("products").innerHTML += `<h3>Requested product doesn't exist
!</h3>`;
function dodajUkorpu(e) {
   e.preventDefault();
   let id = Number(this.dataset.prodid);
   let productInCarts = [];
   if (!localStorage.getItem("zaKorpu")) {
        let obj = {
            id: id,
            quantity: 1
        };
        productInCarts.push(obj);
        localStorage.setItem("zaKorpu", JSON.stringify(productInCarts));
    } else {
        let uKorpi = JSON.parse(localStorage.getItem("zaKorpu"))
        let postoji = uKorpi.filter(x => x.id == id);
        if (postoji.length) {
            postoji[0].quantity += 1;
            localStorage.setItem("zaKorpu", JSON.stringify(uKorpi));
        } else {
            let uKorpi = JSON.parse(localStorage.getItem("zaKorpu"));
            let obj = {
                id: id,
                quantity: 1
            uKorpi.push(obj);
            localStorage.setItem("zaKorpu", JSON.stringify(uKorpi));
        }
    }
function proveriPodatke() {
    let fname = document.getElementById("tbName").value;
```

```
let lname = document.getElementById("tbLName").value;
   let email = document.getElementById("tbEmail").value;
    let message = document.getElementById("taMessage").value;
   let regFname = /^[A-Z][a-z]{2,19}$/;
    let nameFlag = ispravno(fname, regFname, document.getElementById("fnameError"), "First na
me must start with a capital and must be to 20 characters long.");
   let regLname = /^[A-Z][a-z]{2,19}(\s[A-Z][a-z]{2,19})*$/;
   let lNameFlag = ispravno(lname, regLname, document.getElementById("lnameError"), "Last na
me must start with a capital and must be to 20 characters long.");
   let regEmail = /^[a-z-0-9]+@[a-z]{3,8}\\.[a-z]{2,4}$/;
    let emailFlag = ispravno(email, regEmail, document.getElementById("emailError"), "Email m
ust be in correct format:john.doe@example.com");
   let regMessage = /^[A-Z][\w\s\.\/]{4,200}$/;
    let messageFlag = ispravno(message, regMessage, document.getElementById("messageError"),
'Message must start with a capital, and must be between 5 and 200 characters.");
   if (nameFlag && lNameFlag && emailFlag && messageFlag) {
        window.open('mailto:apple@info.com');
    }
function ispravno(podatak, regularniIzraz, greskaPolje, greskaTekst) {
    if (!regularniIzraz.test(podatak)) {
        greskaPolje.innerHTML = greskaTekst;
        return false;
    } else {
        greskaPolje.innerHTML = "";
        return true;
    }
function prikaziUredjajeModal() {
   let id = this.dataset.id;
   let uredjaj = svi.filter(p => p.id == id);
   let proizvod = uredjaj[0];
    ispisiProizvodModal(uredjaj)
function ispisiProizvodModal(proizvod) {
    let divIspis = document.getElementById("modal-Device");
   let html = ``;
    proizvod.forEach(el => {
        html = 
        <div class=" " id="exampleModalCenter" tabindex="-1" role="dialog" aria-</pre>
labelledby="exampleModalCenterTitle" aria-hidden="true">
```

```
<div class="modal-dialog modal-dialog-xl modal-dialog-</pre>
scrollable gmm" role="document">
      <div class="modal-content">
             <div class="modal-header">
                <h4 class="text-center">${el.name}</h4>
                <button type="button" class="close"> <span class="hideModal">&times;</spa</pre>
n></button>
             </div>
             <div class="modal-body">
                <div class="prodImg d-flex justify-content-center">
                    <img src="${el.picture.src}" alt="${el.picture.alt}" class="img-</pre>
fluid"/>
                </div>
                <div class="tableDiv mt-2">
                Price:
                    $ ${el.startingPrice}
                Display:
                    Size: <b>${el.display.size}</b><br>Type:${el.display.type.name}</t
                Camera:
                Sensor: <b>${el.camera.mps}mp</b><br>Recording:${el.camera.recording}<
/td>
             Unlock mechanism:
                    ${el.unlockMechanism}
                Processor:
                ${el.CPU}
             Battery:
                ${el.battery}
             Capacity:
                ${dajKapacitete(el.capacity,el.deviceType.name)}
             </div>
             </div>
         <div class="modal-footer">
```

```
<div class="buy d-flex justify-content-center">
                <a href="#" class ="dodajUkorpu"data-prodid="${el.id}" class="text-
center">Buy</a>
                </div>
            </div>
        </div></div></div>
    })
    divIspis.innerHTML = html;
    divIspis.classList.add("show-bg");
    divIspis.classList.remove("hide-bg");
    $(".hideModal").click(sakrijModal);
    $(".dodajUkorpu").click(dodajUkorpu);
function dajKapacitete(kapaciteti, name) {
    ispis = "";
    let br = 0;
    kapaciteti.forEach(k => {
        if (name != "MackBook") {
            (br == 0) ? ispis += `$\{k\}GB`: ispis += `, $\{k\}GB`;
        } else {
            (br == 0) ? ispis += \frac{1}{2} \{k\}TB: ispis += \frac{1}{2}, \frac{1}{2} \{k\}TB;
            br++;
    })
    return ispis;
function sakrijModal() {
    $("#modal-Device").removeClass("show-bg")
    $("#modal-Device").addClass("hide-bg")
     -----KORPA-----
function iscitajIzKorpe(podaci) {
    praznaKorpa();
    let cartDiv = document.getElementById("cart");
    if (!localStorage.getItem("zaKorpu")) {
        cartDiv.innerHTML = `<h2 class="text-</pre>
center donjiIgornjiPadding">Your cart is empty!</h2><a href="store.html"class="text-
center pb-4"><h4 class=" pb-4 text-primary">Go back to store</h4></a>`;
    } else {
        let products = JSON.parse(localStorage.getItem("zaKorpu"));
```

```
let uredjajiUkorpi = [];
      products.forEach(el => {
          uredjajiUkorpi.push(el.id);
      });
      let zaPrikaz = podaci.filter(element => uredjajiUkorpi.includes(element.id))
      prikaziItemeIzKorpe(zaPrikaz);
function prikaziItemeIzKorpe(items) {
   praznaKorpa();
   let divIspis = document.getElementById("cart");
   >Quantity`;
   let br = 1;
   items.forEach(el => {
      html += `${br++}<img src="${el.picture.src}" alt="${el.pic
ture.alt}" class="img-
fluid"><fd>${el.name}<do>lar;${el.startingPrice}<button
class="dodaj d-block dugme bg-dark text-light " data-
pid="${el.id}">+</button><span id="q${el.id}"class=" ">${dajKolicinu(el.id)}</span><button cl</pre>
ass="oduzmi dugme bg-dark text-light d-block pl-2 pr-2" data-pid="${el.id}">-
</button><button data-pid="${el.id}" class="obrisi bg-dark mt-2 text-light dugme d-
block"><i class="fas fa-trash-alt"></i></button>`
   })
   html += `
center"><b>Total:&dollar;${dajSumu(items)}</b>`
   html += "";
   divIspis.innerHTML = html;
   $(".oduzmi").click(umanjiKolicinu);
   $(".dodaj").click(dodajKolicinu);
   $(".obrisi").click(obrisiProizvod);
function dajKolicinu(idUredaja) {
   let products = JSON.parse(localStorage.getItem("zaKorpu"));
   let kolicina = products.filter(p => p.id == idUredaja)
   return kolicina[0].quantity;
function dajSumu(items) {
   let suma = 0;
   items.forEach(el => {
      suma += el.startingPrice * dajKolicinu(el.id);
```

```
return suma;
function umanjiKolicinu(e) {
   e.preventDefault();
   let id = this.dataset.pid;
   let products = JSON.parse(localStorage.getItem("zaKorpu"));
   let obj = products.filter(p => p.id == id);
   obj[0].quantity -= 1;
   localStorage.setItem("zaKorpu", JSON.stringify(products));
   osveziKolicine(id);
   proveriKolicine(id);
   iscitajIzKorpe(svi);
   praznaKorpa();
function dodajKolicinu(e) {
   e.preventDefault();
   let id = this.dataset.pid;
   let products = JSON.parse(localStorage.getItem("zaKorpu"));
   let obj = products.filter(p => p.id == id);
   obj[0].quantity += 1;
   localStorage.setItem("zaKorpu", JSON.stringify(products));
   osveziKolicine(id);
    proveriKolicine(id);
   iscitajIzKorpe(svi);
function osveziKolicine(id) {
   let products = JSON.parse(localStorage.getItem("zaKorpu"));
   let kolicina = products.filter(p => p.id == id)
   document.getElementById(`q${id}`).innerHTML = kolicina[0].quantity;
   praznaKorpa();
function proveriKolicine(id) {
   let prodid = id;
   let products = JSON.parse(localStorage.getItem("zaKorpu"));
   let productQ = products.filter(p => p.id == prodid)
   let quantity = productQ[0].quantity;
   let index = 0;
   if (quantity == 0) {
        for (var i in products) {
```

```
if (products[i].id == prodid) {
                index = i;
        products.splice(index, 1);
        localStorage.setItem("zaKorpu", JSON.stringify(products));
        praznaKorpa();
    }
function praznaKorpa() {
   let products = JSON.parse(localStorage.getItem("zaKorpu"));
   if (products == null || products.length === 0) {
        localStorage.removeItem("zaKorpu");
function obrisiProizvod() {
   let id = this.dataset.pid;
   let products = JSON.parse(localStorage.getItem("zaKorpu"));
    for (var i in products) {
        if (products[i].id == id) {
            index = i;
    products.splice(index, 1);
   localStorage.setItem("zaKorpu", JSON.stringify(products));
   praznaKorpa();
    iscitajIzKorpe(svi);
```

## meni.json

```
"href": "#",
   "tekst":"<i class=\"fas fa-bars\"></i>"
},
   "href": "index.html#macbook",
   "tekst": "Mac"
   "href": "index.html#ipad",
   "tekst":"iPad"
},
   "href": "index.html#iphone",
   "tekst":"iPhone"
},
   "href": "store.html",
   "tekst": "Store"
},
   "href": "cart.html",
   "tekst":"<i class=\"fas fa-shopping-cart korpica\"></i>"
```

## futer.json

## deviceTypes.json

## products.json

```
"id":1,
"series":{
   "id":1,
   "name":"11 series"
},
"picture":{
   "src": "assets/images/products/iphone11pro.png",
   "alt":"iPhone 11 Pro"
},
"deviceType":{
   "id":1,
   "name":"iphone"
"name": "iPhone 11 Pro",
"colors":[
   "#4E5851",
   "#EBEBE3",
   "#535150",
   "#FAD7BD"
"startingPrice":999,
"display":{
   "size":5.8,
   "type":{
```

```
"name":"Super Retina XDR display"
},
"camera":{
   "id":1,
   "mps":12,
   "recording": "4K video recording up to 60 fps"
},
"unlockMechanism":"FaceID",
"CPU":"A13",
"battery": "Lasts up to 4 hours longer than iPhone XS",
"waterResistent":4,
"capacity":[
   64,
   256,
   512
"id":2,
"series":{
   "id":1,
   "name":"11 series"
},
"picture":{
   "src": "assets/images/products/iphone11pro_max.png",
   "alt":"iPhone 11 Pro Max"
},
"deviceType":{
   "id":1,
   "name":"iphone"
"name": "iPhone 11 Pro Max",
"colors":[
   "#4E5851",
   "#EBEBE3",
   "#535150",
   "#FAD7BD"
],
"startingPrice":1099,
"display":{
   "size":6.5,
   "type":{
      "id":1,
      "name": "Super Retina XDR display"
},
"camera":{
   "id":1,
```

```
"recording":"4K video recording up to 60 fps"
},
"unlockMechanism":"FaceID",
"CPU":"A13",
"battery": "Longest battery life in an iPhone. Lasts up to 5 hours longer than iPhone X
"waterResistent":4,
"capacity":[
   64,
   256,
   512
"id":3,
"series":{
   "id":1,
   "name":"11 series"
},
"picture":{
   "src": "assets/images/products/iphone11_large.png",
   "alt":"iPhone 11"
"deviceType":{
   "id":1,
   "name":"iphone"
},
"name":"iPhone 11",
"colors":[
   "#D1CDDA",
   "#FFE681",
   "#AEE1CD",
   "#1F2020",
   "#F9F6EF",
   "#BA0C2E"
],
"startingPrice":699,
"display":{
   "size":6.1,
   "type":{
      "name": "Liquid Retina HD display"
},
"camera":{
   "id":1,
   "mps":12,
   "recording":"4K video recording up to 60 fps"
```

```
"unlockMechanism":"FaceID",
   "CPU":"A13",
   "battery": "Lasts up to 1 hour longer than iPhone XR",
   "waterResistent":2,
   "capacity":[
      64,
      128,
      256
   ]
},
   "id":4,
   "series":{
      "id":2,
      "name":"X series"
   },
   "picture":{
      "src": "assets/images/products/iphoneXS.png",
      "alt":"iPhone XS"
   },
   "deviceType":{
      "id":1,
      "name":"iphone"
   "name":"iPhone XS",
   "colors":[
      "#E4E4E2",
      "#262529",
      "#FADCC2"
   "startingPrice":699,
   "display":{
      "size":5.8,
      "type":{
         "name": "Super Retina HD display"
   },
   "camera":{
      "id":2,
      "mps":7,
      "recording": "1080p HD video recording up to 60 fps"
   },
   "unlockMechanism":"FaceID",
   "CPU": "A12",
   "battery": "Lasts up to 30 minutes longer than iPhone X",
   "waterResistent":2,
   "capacity":[
      64,
      256,
```

```
512
]
"id":5,
"series":{
   "id":2,
   "name":"X series"
},
"picture":{
   "src": "assets/images/products/iphoneXSmax.png",
   "alt":"iPhone XS Max"
},
"deviceType":{
   "id":1,
   "name":"iphone"
"name": "iPhone XS Max",
"colors":[
   "#E4E4E2",
   "#262529",
   "#FADCC2"
],
"startingPrice":799,
"display":{
   "size":6.5,
   "type":{
      "id":3,
      "name":"Super Retina HD display"
},
"camera":{
   "id":2,
   "mps":7,
   "recording": "1080p HD video recording up to 60 fps"
"unlockMechanism":"FaceID",
"CPU": "A12",
"battery": "Lasts up to 1.5 hours longer than iPhone X",
"waterResistent":2,
"capacity":[
   64,
   256,
   512
"id":6,
"series":{
   "id":2,
```

```
"name":"X series"
},
"picture":{
   "src": "assets/images/products/iphoneXR.png",
   "alt":"iPhone XR"
},
"deviceType":{
   "id":1,
   "name":"iphone"
"name": "iPhone XR",
"colors":[
   "#48AEE6",
   "#F3F3F3",
   "#2E3034",
   "#F9D045",
   "#FF6E5A",
   "#B41325"
],
"startingPrice":599,
"display":{
   "size":6.1,
   "type":{
      "id":2,
      "name": "Liquid Retina HD display"
},
"camera":{
   "id":2,
   "mps":7,
   "recording": "1080p HD video recording up to 60 fps"
},
"unlockMechanism":"FaceID",
"CPU":"A12",
"battery": "Lasts up to 1.5 hours longer than iPhone 8 Plus",
"waterResistent":1,
"capacity":[
   64,
   128
"id":7,
"series":{
   "id":2,
   "name":"X series"
},
"picture":{
   "src": "assets/images/products/iphoneX.png",
   "alt":"iPhone X"
```

```
},
"deviceType":{
   "id":1,
   "name":"iphone"
"name":"iPhone X",
"colors":[
   "#E4E4E2",
   "#262529"
],
"startingPrice":579,
"display":{
   "size":6.1,
   "type":{
      "id":3,
      "name": "Super Retina HD display"
},
"camera":{
   "id":3,
   "mps":7,
   "recording": "1080p HD video recording up to 30 fps"
},
"unlockMechanism":"FaceID",
"CPU": "A11",
"battery": "Lasts up to 2 hours longer than iPhone 7",
"waterResistent":1,
"capacity":[
   64,
   256
"id":8,
"series":{
   "id":3,
   "name":"8 series"
},
"picture":{
   "src": "assets/images/products/iphone8plus.png",
   "alt":"iPhone 8 Plus"
},
"deviceType":{
   "id":1,
   "name":"iphone"
},
"name": "iPhone 8 Plus",
"colors":[
   "#E4E4E2",
   "#262529",
```

```
"#F7E8DD"
],
"startingPrice":549,
"display":{
   "size":5.5,
   "type":{
      "id":4,
      "name": "Retina HD display"
},
"camera":{
   "id":3,
   "mps":7,
   "recording": "1080p HD video recording up to 30 fps"
},
"unlockMechanism":"Touch ID",
"CPU":"A11",
"battery": "Lasts about the same as iPhone 7 Plus",
"waterResistent":1,
"capacity":[
   64,
   128
"id":9,
"series":{
   "id":3,
   "name":"8 series"
"picture":{
   "src": "assets/images/products/iphone8.png",
   "alt":"iPhone 8"
},
"deviceType":{
   "id":1,
   "name":"iphone"
},
"name":"iPhone 8",
"colors":[
   "#E4E4E2",
   "#262529",
  "#F7E8DD"
],
"startingPrice":449,
"display":{
   "size":4.7,
   "type":{
      "id":4,
      "name": "Retina HD display"
```

```
}
  },
  "camera":{
     "id":3,
     "mps":7,
     "recording": "1080p HD video recording up to 30 fps"
 },
 "unlockMechanism":"Touch ID",
 "CPU":"A11",
  "battery": "Lasts about the same as iPhone 7",
 "waterResistent":1,
  "capacity":[
     64,
     128
 "id":10,
 "series":{
  "id":10,
   "name":"12.9-in. iPad Pro"
},
  "picture":{
     "src": "assets/images/products/11proMedium.png",
     "alt":"12.9-in. iPad Pro"
 },
  "deviceType":{
     "id":2,
     "name":"ipad"
  "name": "12.9-in. iPad Pro",
  "colors":[
     "#E2E3E4",
     "#B1B2B7"
 ],
  "startingPrice":999,
  "display":{
     "size":12.9,
     "type":{
        "id":2,
        "name": "Liquid Retina HD display"
 },
  "camera":{
     "id":2,
     "mps":7,
     "recording": "1080p HD video recording up to 60 fps"
  "unlockMechanism":"FaceID",
  "CPU": "A12X",
```

```
"battery": "Up to 10 hours of surfing the web on Wi-Fi, watching video, or listening to
music",
       "capacity":[
          64,
          256,
          512
    },
       "id":11,
       "series":{
        "id":11,
        "name":"11-in. iPad Pro"
       "picture":{
          "src": "assets/images/products/ipad_pro_11.png",
          "alt":"11-in. iPad Pro"
       },
       "deviceType":{
          "id":2,
          "name":"ipad"
       },
       "name":"11-in. iPad Pro",
       "colors":[
          "#E2E3E4",
          "#B1B2B7"
       "startingPrice":799,
       "display":{
          "size":11,
          "type":{
             "name": "Liquid Retina HD display"
       },
       "camera":{
          "id":2,
          "mps":7,
          "recording": "1080p HD video recording up to 60 fps"
       },
       "unlockMechanism":"FaceID",
       "CPU": "A12X",
       "battery": "Up to 10 hours of surfing the web on Wi-Fi, watching video, or listening to
music",
       "capacity":[
          64,
          256,
          512
```

```
"id":12,
       "series":{
        "id":12,
        "name":"iPad Air"
     },
       "picture":{
          "src": "assets/images/products/ipad air.png",
          "alt":"iPad Air"
       },
       "deviceType":{
          "id":2,
          "name":"ipad"
       "name":"iPad Air",
       "colors":[
          "#E2E3E4",
          "#B1B2B7",
          "#F6CDB9"
       ],
       "startingPrice":499,
       "display":{
          "size":10.5,
          "type":{
             "id":5,
             "name": "Retina display"
       },
       "camera":{
          "id":3,
          "mps":7,
          "recording": "1080p HD video recording up to 30 fps"
       "unlockMechanism":"Touch ID",
       "CPU": "A12",
       "battery": "Up to 10 hours of surfing the web on Wi-Fi, watching video, or listening to
music",
       "capacity":[
          64,
          256
       ]
    },
       "id":13,
       "series":{
        "id":13,
        "name":"MackBook Air(Retina)"
       "picture":{
          "src": "assets/images/products/macbook_air.png",
```

```
"alt": "MackBook Air"
   },
   "deviceType":{
      "id":3,
      "name": "MackBook"
   },
   "name":"MackBook Air(Retina)",
   "colors":[
      "#E2E3E4",
      "#B1B2B7",
      "#E3CCB4"
   ],
   "startingPrice":1099,
   "display":{
      "size":13.3,
      "type":{
         "id":5,
         "name": "Retina display"
   },
   "camera":{
      "id":4,
      "mps":5,
      "recording":" 720p FaceTime HD camera"
   },
   "unlockMechanism":"Touch ID",
   "CPU":"15",
   "battery": "Up to 12 hours",
   "capacity":[
      1
   ]
},
   "id":14,
   "series":{
    "id":14,
    "name": "MackBook Pro 13-in"
    },
   "picture":{
      "src": "assets/images/products/macbook pro 13.png",
      "alt": "MackBook Pro 13-in"
   },
   "deviceType":{
      "id":3,
      "name": "MackBook"
   },
   "name": "MackBook Pro 13-in",
   "colors":[
      "#E2E3E4",
      "#B1B2B7"
```

```
"startingPrice":1299,
"display":{
   "size":13,
   "type":{
      "id":5,
      "name": " Retina display"
},
"camera":{
   "id":4,
   "mps":5,
   "recording":" 720p FaceTime HD camera"
"unlockMechanism":"Touch ID",
"CPU":"i7",
"battery": "Up to 10 hours",
"capacity":[
   2
"id":15,
"series":{
"id":15,
"name": "MackBook Pro 16-in"
},
"picture":{
   "src": "assets/images/products/macbook_pro_16.png",
   "alt": "MackBook Pro 16-in"
},
"deviceType":{
   "id":3,
   "name": "MackBook"
},
"name": "MackBook Pro 16-in",
"colors":[
   "#E2E3E4",
   "#B1B2B7"
],
"startingPrice":2399,
"display":{
   "size":16,
   "type":{
      "id":5,
      "name": " Retina display"
},
"camera":{
   "id":4,
```

```
"mps":5,
    "recording":" 720p FaceTime HD camera"
},
    "unlockMechanism":"Touch ID",
    "CPU":"i9",
    "battery":"Up to 11 hours",
    "capacity":[
        8
    ]
}
```