VISOKA ŠKOLA STRUKOVNIH STUDIJA ZA INFORMACIONE I KOMUNIKACIONE TEHNOLOGIJE

DOKUMENTACIJA

https://gringus0.github.io/Kriptografija/

Web Programiranje 1

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Smer: Internet Tehnologije

Modul: Web Programiranje

Predmet: Web Programiranje 1

Uvod

1. Programski jezici:

Programski jezici korišćeni u izradi sajta: HTML5, CSS3, JavaScript, JQuery, XML

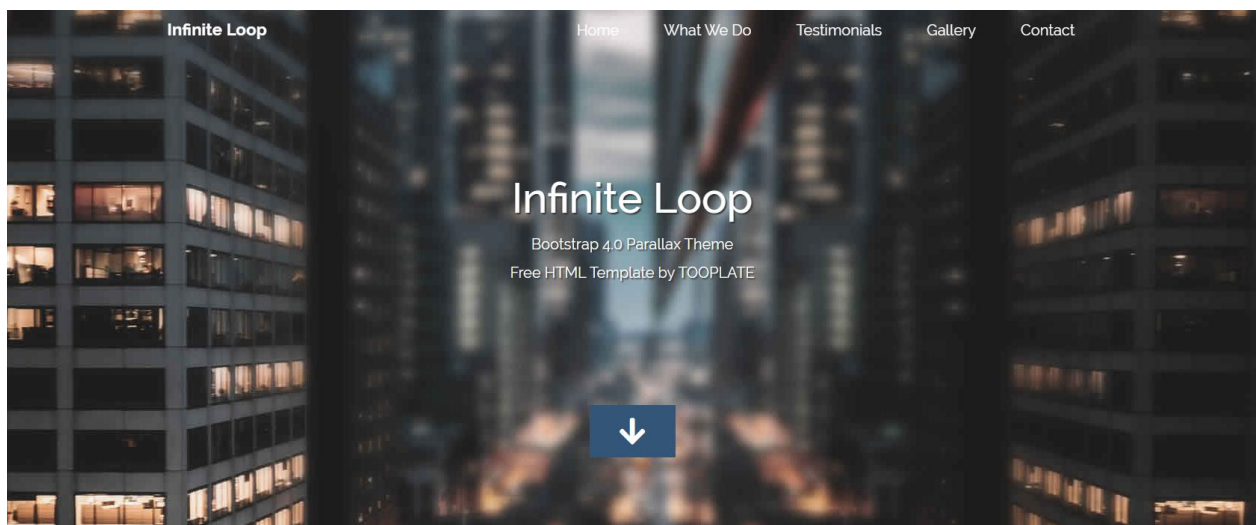Radno okruženje: Visual Studio Code

Radi lakšeg dizajniranja sajta korišćen je: Bootstrap

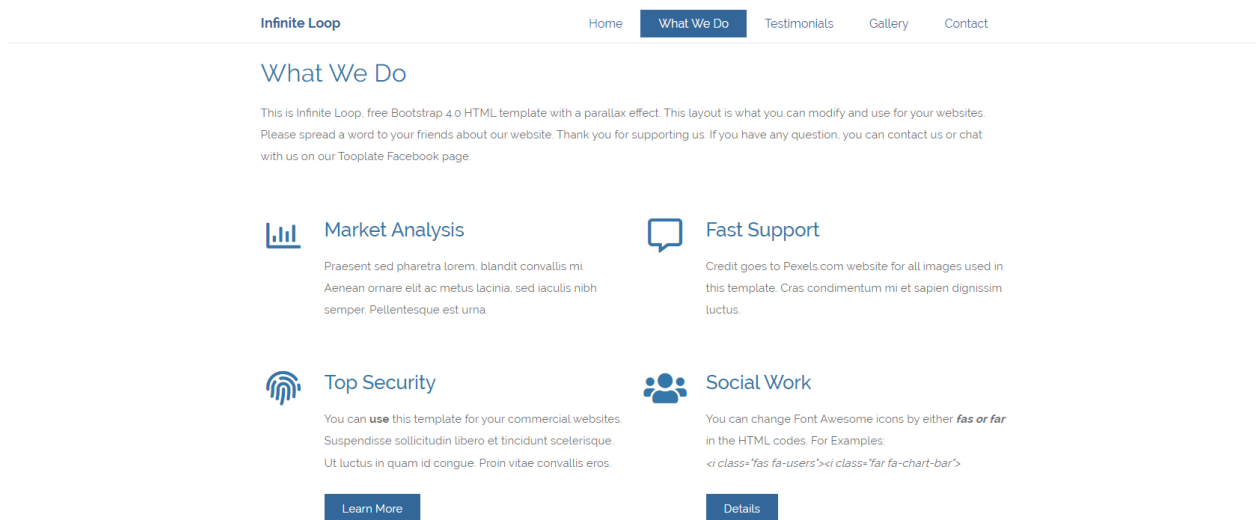### 2. Funkcionalnosti:

      1. Dinamički ispisan navigacioni meni

      2. Mogućnost korišćenja sajta za šifrovanje/dešifrovanje teksta po kvadratnoj šifri

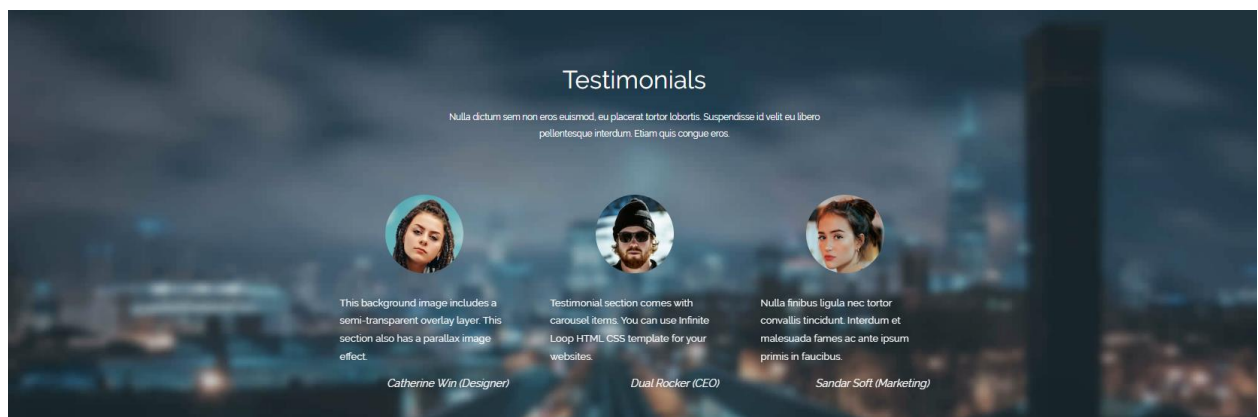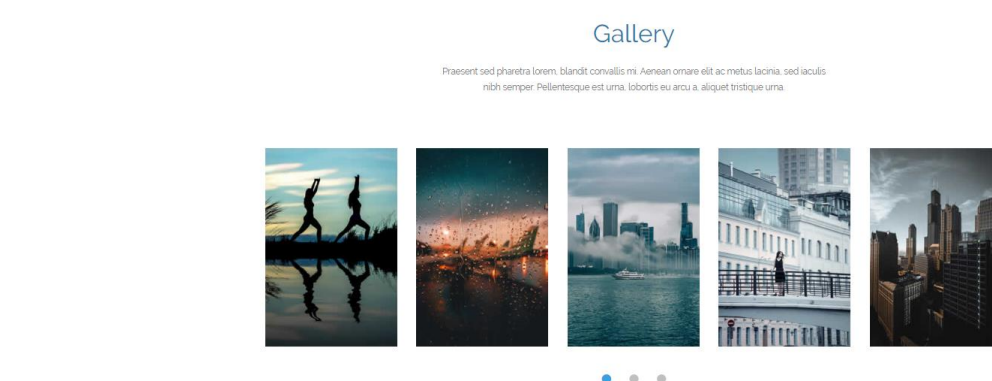   3. Dinamički ispisana forma sa regEx proverama

3. Template:

https://www.free-css.com/free-css-templates/page272/infinite-loop

Korišćena je početna stranica sa promenom pozadine i navigacije uz dinamičko ispisivanje.

Infinite Loop   Home   What We Do   Testimonials   Gallery   Contact

What We Do

This is Infinite Loop, free Bootstrap 4.0 HTML template with a parallax effect. This layout is what you can modify and use for your websites. Please spread a word to your friends about our website. Thank you for supporting us. If you have any question, you can contact us or chat with us on our Tooplate Facebook page.

Market Analysis

Praesent sed pharetra lorem, blandit convallis mi. Aenean ornare elit ac metus lacinia, sed iaculis nibh semper. Pellentesque est urna.

Fast Support

Credit goes to Pexels.com website for all images used in this template. Cras condimentum mi et sapien dignissim luctus.

Top Security

You can **use** this template for your commercial websites. Suspendisse sollicitudin libero et tincidunt scelerisque. Ut luctus in quam id congue. Proin vitae convallis eros.

Social Work

You can change Font Awesome icons by either *fas or far* in the HTML codes. For Examples: *<i class="fas fa-users"><i class="far fa-chart-bar">*

Learn More   Details

Korišćeno za ispisivanje teksta o temi sajta.

Testimonials

Nulla dictum sem non eros euismod, eu placerat tortor lobortis. Suspendisse id velit eu libero pellentesque interdum. Etiam quis congue eros.

This background image includes a semi-transparent overlay layer. This section also has a parallax image effect.

Testimonial section comes with carousel items. You can use Infinite Loop HTML CSS template for your websites.

Nulla finibus ligula nec tortor convallis tincidunt. Interdum et malesuada fames ac ante ipsum primis in faucibus.

Catherine Win (Designer)   *Dual Rocker (CEO)*   *Sandar Soft (Marketing)*

Promenjen deo koji je bio iskorišćen za ispisivanje primera jedne od šifara.

Gallery

Praesent sed pharetra lorem, blandit convallis mi. Aenean ornare elit ac metus lacinia, sed iaculis nibh semper. Pellentesque est urna, lobortis eu arcu a, aliquet tristique urna.

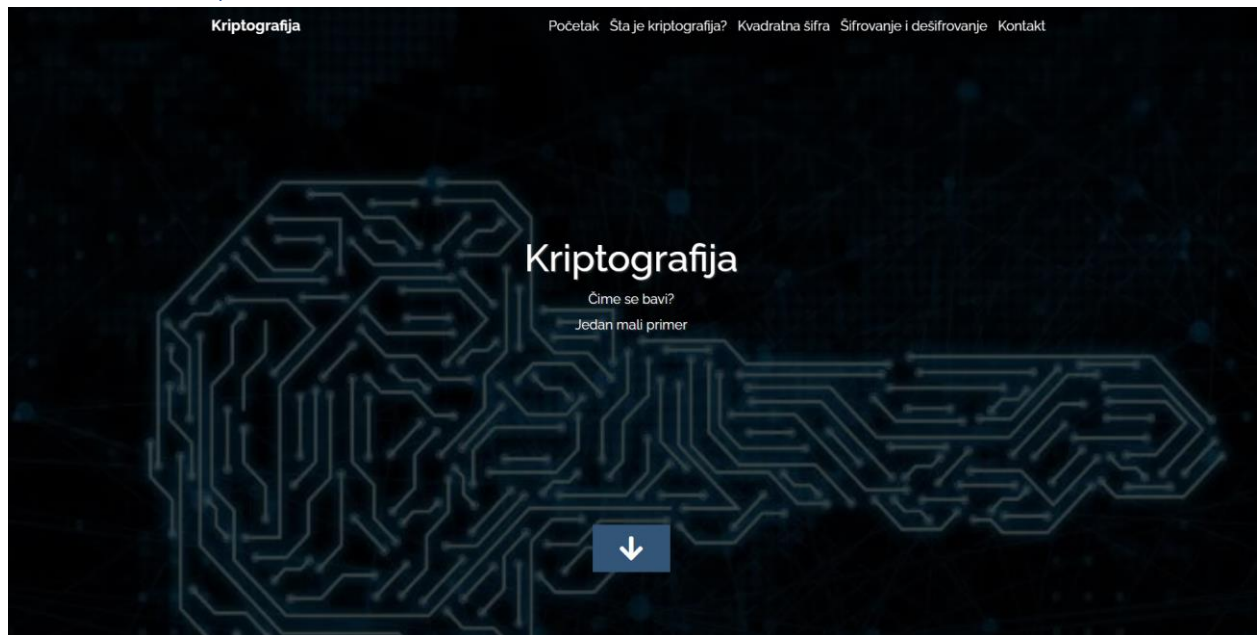Kompletno promenjen deo u textbox za šifrovanje i dešifrovanje.

Forma je delimično iskorišćena uz prepravke zajedno sa dinamičkim ispisivanjem.

Organizacija i šema sajta:

1. Sajt se sastoji samo od stranice index.html
2. Sitemap

```xml
3.  <?xml version="1.0" encoding="UTF-8"?>
4.  <urlset
5.       xmlns="http://www.sitemaps.org/schemas/sitemap/0.9"
6.       xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
7.       xsi:schemaLocation="http://www.sitemaps.org/schemas/sitemap/0.9
8.            http://www.sitemaps.org/schemas/sitemap/0.9/sitemap.xsd">
9.
10. <url>
11.   <loc>https://gringus0.github.io/Kriptografija/</loc>
12.   <lastmod>2022-12-15T00:37:29+00:00</lastmod>
13.   <changefreq>Monthly</changefreq>
14.   <priority>1.00</priority>
15. </url>
16.
17. </urlset>
```

3. Slike stranice i opisi funkcionalnosti:

Početna stranica se sastoji iz naslova i navigacije. Klikom na linkove navigacionog menija se može otići na druge delove stranice.

Dodatne informacije o šifrovanju.

Detaljan opis primera šifrovanja i dešifrovanja kvadratnom šifrom.

Mogućnost isprobavanja kvadratne šifre za šifrovanje i dešifrovanje. Nakon unosa teksta u tekstualno polje, klikom na taster "šifruj/dešifruj" moguće je šifrovati ili dešifrovati ključem kvadratne šifre.

Dinamički ispisana kontakt forma sa proverom grešaka prilikom klika na taster "Prijavi se" I prilikom izlaska sa bilo kog od obaveznih polja.

HTML:

Pored dodavanja klasa I id-jeva kod koji sam iskucao u HTML-u je sve sem obojeno žutom bojom.

```html
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <meta http-equiv="X-UA-Compatible" content="ie=edge" />
    <link rel="icon" href="img/key_icon.png"/>
    <title>Kriptografija</title>
    <link rel="stylesheet" href="fontawesome-5.5/css/all.min.css" />
    <link rel="stylesheet" href="slick/slick.css">
    <link rel="stylesheet" href="slick/slick-theme.css">
    <link rel="stylesheet" href="magnific-popup/magnific-popup.css">
    <link rel="stylesheet" href="css/bootstrap.min.css" />
    <link rel="stylesheet" href="css/tooplate-infinite-loop.css" />
<!--
Tooplate 2117 Infinite Loop
https://www.tooplate.com/view/2117-infinite-loop
-->

  </head>
  <body>
    <!-- Navigacija -->
    <section id="pocetak" class="text-white tm-font-big tm-parallax">
      <!-- Navigation -->
      <nav class="navbar navbar-expand-lg tm-navbar" id="tmNav">
        <div class="container">
```

```html
        <div class="tm-next">
            <a href="#pocetak" class="navbar-brand">Kriptografija</a>
        </div>

        <button class="navbar-toggler" type="button" data-toggle="collapse"
data-target="#navbarSupportedContent" aria-controls="navbarSupportedContent"
aria-expanded="false" aria-label="Toggle navigation">
            <i class="fas fa-bars navbar-toggler-icon"></i>
        </button>
        <div class="collapse navbar-collapse" id="navbarSupportedContent">
          <ul class="navbar-nav ml-auto" id="navitems">

          </ul>
        </div>
      </div>
    </nav>

    <div class="text-center tm-hero-text-container">
      <div class="tm-hero-text-container-inner">
            <h2 class="tm-hero-title">Kriptografija</h2>
            <p class="tm-hero-subtitle">
              Čime se bavi?
              <br>Jedan mali primer
            </p>
      </div>
    </div>

    <div class="tm-next tm-intro-next">
       <a href="#staJeKriptografija" class="text-center tm-down-arrow-link">
         <i class="fas fa-2x fa-arrow-down tm-down-arrow"></i>
       </a>
    </div>
  </section>
  <!-- Šta je kriptografija? -->
  <section id="staJeKriptografija" class="tm-section-pad-top">

     <div class="container">

          <div class="row tm-content-box"><!-- first row -->
             <div class="col-lg-12 col-xl-12">
                <div class="tm-intro-text-container">
                    <h2 class="tm-text-primary mb-4 tm-section-title">Šta
je kriptografija?</h2>
                    <p class="mb-4 tm-intro-text">
                      Kriptografija je nauka koja se bavi metodima
očuvanja tajnosti informacija. Kada se lične, finansijske, vojne ili
informacije državne bezbednosti prenose sa mesta na mesto, one postaju ranjive
na prisluškivačke taktike. Ovakvi problemi se mogu izbeći kriptovanjem
```

```
(šifrovanjem) informacija koje ih čini nedostupnim neželjenoj strani. Šifra i
digitalni potpis su kriptografske tehnike koje se koriste da bi se
implementirali bezbednosni servisi. Osnovni element koji se koristi naziva se
šifarski sistem ili algoritam šifrovanja. Svaki šifarski sistem obuhvata par
transformacija podataka, koje se nazivaju šifrovanje i dešifrovanje.</p>
                </div>
            </div>

        </div><!-- first row -->

        <div class="row tm-content-box"><!-- second row -->
        <div class="col-lg-1">
                <i class="far fa-3x fa-eye-slash text-center tm-icon"></i>
            </div>
            <div class="col-lg-5">
                <div class="tm-intro-text-container">
                    <h2 class="tm-text-primary mb-4">Šifrovanje</h2>
                    <p class="mb-4 tm-intro-text">
                        Procedura koja transformiše originalnu informaciju
(otvoreni tekst) u šifrovane podatke (šifrat)</p>
                </div>
            </div>

            <div class="col-lg-1">
                <i class="far fa-3x fa-eye text-center tm-icon"></i>
            </div>
            <div class="col-lg-5">
                <div class="tm-intro-text-container">
                    <h2 class="tm-text-primary mb-4">Dešifrovanje</h2>
                    <p class="mb-4 tm-intro-text">
                        Obrnut proces, dešifrovanje, rekonstruiše otvoreni
tekst na osnovu šifrata.</p>
                </div>
            </div>

        </div><!-- second row -->

        <div class="row tm-content-box"><!-- third row -->
        <div class="col-lg-1">
                <i class="fas fa-3x fa-lock text-center tm-icon"></i>
            </div>
            <div class="col-lg-5">
                <div class="tm-intro-text-container">
                    <h2 class="tm-text-primary mb-4">Ključ Šifrovanja</h2>
                    <p class="mb-4 tm-intro-text">
                        Prilikom šifrovanja, pored otvorenog teksta, koristi
se jedna nezavisna vrednost koja se naziva ključ šifrovanja.</p>
```

```html
                <div class="tm-continue">
                    <a href="#kvadratnaSifra" class="tm-intro-text tm-
btn-primary">O šifrovanju</a>
                </div>
            </div>
        </div>

        <div class="col-lg-1">
            <i class="fas fa-3x fa-key text-center tm-icon"></i>
        </div>
        <div class="col-lg-5">
            <div class="tm-intro-text-container">
                <h2 class="tm-text-primary mb-4">Ključ dešifrovanja</h2>
                <p class="mb-4 tm-intro-text">
                    Slično kao i kod šifrovanja, transformacija za
dešifrovanje koristi ključ dešifrovanja.</p>

                <div class="tm-continue">
                    <a href="#kvadratnaSifra" class="tm-intro-text tm-
btn-primary">O dešifrovanju</a>
                </div>
            </div>
        </div>

    </div><!-- third row -->

</div>

</section>
<!-- Kvadratna šifra -->
<section id="kvadratnaSifra" class="tm-section-pad-top tm-parallax-
2">
    <div class="container tm-testimonials-content">
        <div class="row">
            <div class="col-lg-12 tm-content-box">
                <h2 class="text-white text-center mb-4 tm-section-title">Kvadratna
šifra</h2>
                <p class="mx-auto tm-section-desc text-center aj-kvadratna-sifra-
tekst">
                    Kvadratna šifra je jedan od najzanimljivijih načina
šifrovanja. Prvo se prebroji broj karaktera (slova, brojeva, razmaka,
uzvičnika, taraba, itd.), a nakon toga se računa koji je najbliži(manji)
kvadrat broja koga smo dobili. Npr. ukoliko smo uneli 70 karaktera, najbliži
manji kvadrat od 70 je 64 (8*8). Prvih 64 karaktera rasporedimo u kvadrat
oblika 8*8. Krećemo da ih pišemo u kvadrat od gornjeg levog ugla na desno dok
nam ne ponestane mesta u tom redu. Nakon toga silazimo u novi red i
nastavljamo dalje da pišemo. Kada ispunimo kvadrat, te karaktere koje smo
upisali, prepisujemo počevši od gornjeg levog ugla, na dole i tako redom. U
```

```
našem slučaju imamo 6 karaktera "viška" (70-64=6). Sa preostalim karakterima
samo ponovimo isto što smo i do sada radili sve dok nam ne ostane 3 ili manje
karaktera. Taj, najmanji ostatak samo prepišemo na kraj. Dešifrovanje se radi
identično kao i šifrovanje.
                    </p>

            </div>
        </div>
      </div>
      <div class="tm-bg-overlay"></div>
    </section>
    <!-- Šifrovanje i dešifrovanje -->
    <section id="sifrovanje" class="tm-section-pad-top">
      <div class="container tm-container-gallery">
        <div class="row">
          <div class="text-center col-12">
              <h2 class="tm-text-primary tm-section-title mb-4">Šifrovanje i
dešifrovanje</h2>
              <p class="mx-auto tm-section-desc">
                 Uneti tekst kako bi mogli i sami da isprobate ovu šifru koju
je prosto razumeti, ali teško dešifrovati. Tekst može biti bilo koje dužine.
Ukoliko želite da dešifrujete Vaš šifrovan tekst možete prekopirati šifrovani
tekst nazad.
              </p>
          </div>
          <form class="col-12 row">
            <div class="form-group col-6">
              <label for="input">Molimo unesite neki tekst:</label>
              <textarea class="form-control" id="input" rows="3"></textarea>
            </div>
            <div class="form-group col-6">
              <label>Šifrovani tekst:</label>
              <textarea class="form-control" id="output" rows="3"></textarea>
            </div>
            <button type="button" id="sifrovanje" class="btn btn-primary col-
12">Šifruj / Dešifruj</button>
          </form>

        </div>
        <div class="row">

        </div>
      </div>
    </section>

    <!-- Kontakt -->
    <section id="kontakt" class="tm-section-pad-top tm-parallax-2">
```

```html
    <div class="container tm-container-contact">

      <div class="row">

          <div class="text-center col-12">
              <h2 class="tm-section-title mb-4">Kontaktirajte nas</h2>
              <p class="mb-5">
                  Ukoliko želite da saznate još o kriptografiji i različitim
načinima šifrovanja, možete se prijaviti za naše besplatno predavanje ili kurs
(150&euro;)
              </p><br/>
          </div>
          <!-- Forma -->
          <div class="col-sm-12 col-md-6">
            <form action="" method="get" id="formular" class="row">

            </form>
          </div>
          <!-- Forma kraj -->
          <div class="col-sm-12 col-md-6">

              <div class="contact-item">
                <a rel="nofollow" href="Dokumentacija.pdf" target="_blank"
class="item-link">
                    <i class="far fa-2x fa-file mr-4"></i>
                    <span class="mb-0">Dokumentacija</span>
                </a>
              </div>

              <div class="contact-item">
                <a rel="nofollow" href="https://www.facebook.com"
target="_blank" class="item-link">
                    <i class="fab fa-2x fa-facebook mr-4"></i>
                    <span class="mb-0">Facebook</span>
                </a>
              </div>

              <div class="contact-item">
                <a rel="nofollow" href="https://www.google.com/maps"
target="_blank" class="item-link">
                    <i class="fas fa-2x fa-map-marker-alt mr-4"></i>
                    <span class="mb-0">Gde se nalazimo?</span>
                </a>
              </div>

              <div class="contact-item">
                <a rel="nofollow" href="tel:0111234567" class="item-link">
                    <i class="fas fa-2x fa-phone-square mr-4"></i>
```

```html
                <span class="mb-0">011/123-45-67</span>
              </a>
            </div>

            <div class="contact-item">
              <a rel="nofollow" href="sitemap.xml" target="_blank"
class="item-link">
                <i class="fa fa-2x fa-sitemap mr-4"></i>
                <span class="mb-0">Sitemap</span>
              </a>
            </div>

            <div class="contact-item"> </div>

          </div>


      </div><!-- row ending -->

    </div>

    <footer class="text-center small tm-footer">
      <p class="mb-0">
      Copyright &copy; 2022 Aleksandar Jovanović (Template by TOOPLATE)
</p>
      </footer>

  </section>

  <script src="js/jquery-1.9.1.min.js"></script>
  <script src="slick/slick.min.js"></script>
  <script src="magnific-popup/jquery.magnific-popup.min.js"></script>
  <script src="js/easing.min.js"></script>
  <script src="js/jquery.singlePageNav.min.js"></script>
  <script src="js/bootstrap.min.js"></script>
  <script>

    function getOffSet(){
      var _offset = 450;
      var windowHeight = window.innerHeight;

      if(windowHeight > 500) {
        _offset = 400;
      }
      if(windowHeight > 680) {
        _offset = 300
      }
      if(windowHeight > 830) {
```

```
      _offset = 210;
    }

    return _offset;
  }

  function setParallaxPosition($doc, multiplier, $object){
    var offset = getOffSet();
    var from_top = $doc.scrollTop(),
      bg_css = 'center ' +(multiplier * from_top - offset) + 'px';
    $object.css({"background-position" : bg_css });
  }

  // Parallax function
  // Adapted based on https://codepen.io/roborich/pen/wpAsm
  var background_image_parallax = function($object, multiplier, forceSet){
    multiplier = typeof multiplier !== 'undefined' ? multiplier : 0.5;
    multiplier = 1 - multiplier;
    var $doc = $(document);
    // $object.css({"background-attatchment" : "fixed"});

    if(forceSet) {
      setParallaxPosition($doc, multiplier, $object);
    } else {
      $(window).scroll(function(){
        setParallaxPosition($doc, multiplier, $object);
      });
    }
  };

  var background_image_parallax_2 = function($object, multiplier){
    multiplier = typeof multiplier !== 'undefined' ? multiplier : 0.5;
    multiplier = 1 - multiplier;
    var $doc = $(document);
    $object.css({"background-attachment" : "fixed"});

    $(window).scroll(function(){
      if($(window).width() > 768) {
        var firstTop = $object.offset().top,
            pos = $(window).scrollTop(),
            yPos = Math.round((multiplier * (firstTop - pos)) -
186);

        var bg_css = 'center ' + yPos + 'px';

        $object.css({"background-position" : bg_css });
      } else {
        $object.css({"background-position" : "center" });
```

```
        }
      });
    };

    $(function(){
        // Hero Section - Background Parallax
        background_image_parallax($(".tm-parallax"), 0.30, false);
        background_image_parallax_2($("#kontakt"), 0.80);
        background_image_parallax_2($("#kvadratnaSifra"), 0.80);

        // Handle window resize
        window.addEventListener('resize', function(){
          background_image_parallax($(".tm-parallax"), 0.30, true);
        }, true);

        // Detect window scroll and update navbar
        $(window).scroll(function(e){
          if($(document).scrollTop() > 120) {
            $('.tm-navbar').addClass("scroll");
          } else {
            $('.tm-navbar').removeClass("scroll");
          }
        });

        // Close mobile menu after click
        $('#tmNav a').on('click', function(){
          $('.navbar-collapse').removeClass('show');
        })

        // Scroll to corresponding section with animation
        $('#tmNav').singlePageNav({
          'easing': 'easeInOutExpo',
          'speed': 600
        });

        // Add smooth scrolling to all links
        // https://www.w3schools.com/howto/howto_css_smooth_scroll.asp
        $("a").on('click', function(event) {
          if (this.hash !== "") {
            event.preventDefault();
            var hash = this.hash;

            $('html, body').animate({
              scrollTop: $(hash).offset().top
            }, 600, 'easeInOutExpo', function(){
              window.location.hash = hash;
            });
          } // End if
```

```javascript
  });

  // Pop up
  $('.tm-gallery').magnificPopup({
    delegate: 'a',
    type: 'image',
    gallery: { enabled: true }
  });

  $('.tm-testimonials-carousel').slick({
    dots: true,
    prevArrow: false,
    nextArrow: false,
    infinite: false,
    slidesToShow: 3,
    slidesToScroll: 1,
    responsive: [
      {
        breakpoint: 992,
        settings: {
          slidesToShow: 2
        }
      },
      {
        breakpoint: 768,
        settings: {
          slidesToShow: 2
        }
      },
      {
        breakpoint: 480,
        settings: {
            slidesToShow: 1
        }
      }
    ]
  });

  // Gallery
  $('.tm-gallery').slick({
    dots: true,
    infinite: false,
    slidesToShow: 5,
    slidesToScroll: 2,
    responsive: [
    {
      breakpoint: 1199,
      settings: {
```

```
                slidesToShow: 4,
                slidesToScroll: 2
              }
            },
            {
              breakpoint: 991,
              settings: {
                slidesToShow: 3,
                slidesToScroll: 2
              }
            },
            {
              breakpoint: 767,
              settings: {
                slidesToShow: 2,
                slidesToScroll: 1
              }
            },
            {
              breakpoint: 480,
              settings: {
                slidesToShow: 1,
                slidesToScroll: 1
              }
            }
          ]
        });
      });
    </script>
    <script src="js/main.js"></script>
  </body>
</html>
```

CSS:

Originalni CSS ima preko 600 linija koda. Dodati CSS se nalazi na samom kraju.

```
/*

Tooplate 2117 Infinite Loop

https://www.tooplate.com/view/2117-infinite-loop

*/

@import
url("https://fonts.googleapis.com/css?family=Raleway:100,300,400,500,700,900")
;

body {
```

```css
  font-family: "Raleway", sans-serif;
  font-size: 1.2em;
  color: #707070;
  margin: 0;
  padding: 0;
  overflow-x: hidden;
}
a {
  transition: all 0.3s ease;
  color: #38B;
}

a:hover,
a:focus {
  text-decoration: none;
  color: #D40;
}

a:focus {
  outline: none;
}

.btn {
  padding: 8px 32px;
}

.btn:hover {
  background-color: #ced4da;
}

blockquote {
  font-size: 0.86em;
  line-height: 1.8em;
}

.tm-section-pad-top {
  padding-top: 80px;
  padding-bottom: 40px;
}

.tm-content-box {
  padding-top: 20px;
  padding-bottom: 40px;
}

.tm-text-primary {
  color: #37A;
}
```

```css
.tm-font-big {
  font-size: 1.25rem;
}

.tm-btn-primary {
  color: white;
  background-color: #369;
  padding: 14px 30px;
}

.tm-btn-primary:hover,
.tm-btn-primary:focus {
  color: white;
  background-color: #38B;
}

/* Navbar */

.tm-navbar {
  position: fixed;
  width: 100%;
  z-index: 1000;
  background-color: transparent;
  transition: all 0.3s ease;
}

.tm-navbar.scroll {
  background-color: white;
  border-bottom: 1px solid #e9ecef;
}

.navbar-brand {
  color: white;
  font-size: 1.4rem;
  font-weight: bold;
}

.navbar-brand:hover,
.tm-navbar.scroll .navbar-brand:hover {
  color: #38B;
}

.tm-navbar.scroll .navbar-brand {
  color: #369;
}

.nav-item {
```

```css
    list-style: none;
}

.tm-nav-link {
  color: white;
}

.tm-navbar.scroll .tm-nav-link {
  color: #369;
}

.tm-navbar.scroll .tm-nav-link:hover,
.tm-navbar.scroll .tm-nav-link.current,
.tm-nav-link:hover {
  color: #FFF;
  background-color: #369;
}

.navbar-toggler {
  border: 1px solid white;
  padding-left: 10px;
  padding-right: 10px;
}

.navbar-toggler-icon {
  color: white;
  padding-top: 6px;
}

.tm-navbar.scroll .navbar-toggler {
  border: 1px solid #707070;
}

.tm-navbar.scroll .navbar-toggler-icon {
  color: #707070;
}

/* Hero */

@media (min-height: 600px) and (min-width: 1920px) {
  #pocetak {
    background-size: cover;
  }
}

@media (min-height: 830px) {
  #pocetak {
    background-position: center -210px;
```

```css
    }
}

@media (min-height: 680px) and (max-height: 829px) {
  #pocetak {
    background-position: center -300px;
  }
}

@media (min-height: 500px) and (max-height: 679px) {
  #pocetak {
    background-position: center -400px;
  }
}

@media (max-height: 499px) {
  #pocetak {
    background-position: center -450px;
  }
}

.tm-hero-text-container {
  width: 100%;
  height: 100%;
  display: flex;
  flex-flow: column;
  justify-content: center;
}

.tm-hero-text-container-inner {
  margin-top: -90px;
}

.tm-hero-title {
  font-size: 3.5rem;
  text-shadow: 2px 2px 2px #333;
}

.tm-hero-subtitle {
  text-shadow: 2px 2px 2px #333;
}

.tm-intro-next {
  position: absolute;
  bottom: 100px;
  left: 0;
  right: 0;
}
```

```css
@media (max-height: 480px) {
  .tm-hero-text-container-inner {
    margin-top: -40px;
  }

  .tm-intro-next {
    bottom: 20px;
  }
}

.tm-down-arrow-link {
  display: block;
  margin-top: 18%;
}

.tm-down-arrow {
    color: #FFF;
    cursor: pointer;
    background: #357;
    padding: 15px 40px;
    transition: all 0.3s ease;
}

.tm-down-arrow:hover,
.tm-down-arrow:focus {
  color: #FFF;
  background: #37A;
  padding: 20px 50px;
}

/* Introduction */

#introduction {
  padding-bottom: 100px;
}

.tm-section-title {
  font-size: 2.6rem;
  font-weight: normal;
}

.tm-intro-text {
  font-size: 1.2rem;
}

.tm-icon {
  display: block;
```

```css
  color: #37A;
}

.tm-continue {
  padding: 20px 0 30px 0;
}

/* Testimonials */



.tm-kvadratnaSifra-content {
  position: relative;
  z-index: 100;
}

.tm-bg-overlay {
  width: 100%;
  height: 100%;
  background: rgba(20, 70, 80, 0.2);
  position: absolute;
  top: 0;
  left: 0;
  right: 0;
  bottom: 0;
  z-index: 0;
}

.tm-testimonials-carousel {
  max-width: 1050px;
  margin: 0 auto;
}

.tm-testimonial-item {
  max-width: 290px;
  margin-left: 35px;
  margin-right: 35px;
}

.tm-testimonial-item img {
  border-radius: 50%;
  margin-bottom: 35px;
}

.tm-testimonial-item figcaption {
  text-align: right;
  font-style: italic;
  font-size: 1.1rem;
```

```css
}

/* Work */

.tm-section-desc {
  max-width: 650px;
  width: 100%;
  font-size: 1.2rem;
}

.tm-gallery-container {
  padding-top: 70px;
  padding-bottom: 120px;
}

.tm-gallery-item {
  margin: 0 15px;
}

.slick-dots {
  bottom: -65px;
}

.slick-dots li {
  margin: 0 13px;
}

.slick-dots li button:hover:before,
.slick-dots li button:focus:before,
.slick-dots li.slick-active button:before {
  opacity: 1;
  color: #3ba0dd;
}

.tm-testimonials-carousel .slick-dots li button:before {
  color: white;
  opacity: 0.5;
}

.tm-testimonials-carousel .slick-dots li button:hover:before,
.tm-testimonials-carousel .slick-dots li button:focus:before,
.tm-testimonials-carousel .slick-dots li.slick-active button:before {
  color: white;
  opacity: 1;
}

.slick-dots li button:before {
  font-size: 18px;
```

```css
}

/* Hover Effect */
/* Common style */
.grid figure {
  position: relative;
  float: left;
  overflow: hidden;
  background: #3085a3;
  text-align: center;
  cursor: pointer;
}

.grid figure img {
  position: relative;
  display: block;
  min-height: 100%;
  max-width: 100%;
  opacity: 0.8;
}

.grid figure figcaption {
  padding: 2em;
  color: #fff;
  text-transform: uppercase;
  font-size: 1.25em;
  -webkit-backface-visibility: hidden;
  backface-visibility: hidden;
}

.grid figure figcaption::before,
.grid figure figcaption::after {
  pointer-events: none;
}

.grid figure figcaption,
.grid figure figcaption > a {
  position: absolute;
  top: 0;
  left: 0;
  width: 100%;
  height: 100%;
}

/* Anchor will cover the whole item by default */
/* For some effects it will show as a button */
.grid figure figcaption > a {
  z-index: 1000;
```

```css
    text-indent: 200%;
    white-space: nowrap;
    font-size: 0;
    opacity: 0;
}

.grid figure h2 {
    word-spacing: -0.15em;
    font-size: 0.9em;
    font-weight: 300;
}

.grid figure h2 span {
    font-weight: 600;
}

.grid figure h2,
.grid figure p {
    margin: 0;
}

.grid figure p {
    letter-spacing: 1px;
    font-size: 68.5%;
}

/*--------------*/
/***** Honey *****/
/*--------------*/

figure.effect-honey {
    background: #4a3753;
    max-width: 220px;
}

figure.effect-honey img {
    opacity: 1;
    -webkit-transition: opacity 0.35s;
    transition: opacity 0.35s;
}

figure.effect-honey:hover img {
    opacity: 0.4;
}

figure.effect-honey figcaption::before {
    position: absolute;
    bottom: 0;
```

```css
    left: 0;
    width: 100%;
    height: 10px;
    background: #38C;
    content: "";
    -webkit-transform: translate3d(0, 10px, 0);
    transform: translate3d(0, 10px, 0);
}

figure.effect-honey h2 {
    position: absolute;
    bottom: 0;
    left: 0;
    padding: 1em 1.5em;
    width: 100%;
    text-align: left;
    -webkit-transform: translate3d(0, -30px, 0);
    transform: translate3d(0, -30px, 0);
}

figure.effect-honey h2 i {
    font-style: normal;
    opacity: 0;
    -webkit-transition: opacity 0.35s, -webkit-transform 0.35s;
    transition: opacity 0.35s, transform 0.35s;
    -webkit-transform: translate3d(0, -30px, 0);
    transform: translate3d(0, -30px, 0);
}

figure.effect-honey figcaption::before,
figure.effect-honey h2 {
    -webkit-transition: -webkit-transform 0.35s;
    transition: transform 0.35s;
}

figure.effect-honey:hover figcaption::before,
figure.effect-honey:hover h2,
figure.effect-honey:hover h2 i {
    opacity: 1;
    -webkit-transform: translate3d(0, 0, 0);
    transform: translate3d(0, 0, 0);
}

.tm-container-gallery {
    padding-top: 30px;
    }

/* Contact */
```

```css
.contact-item {
  margin-left: 20px;
  margin-bottom: 50px;
}

.item-link {
  display: flex;
  align-items: center;
}

.item-link i,
.item-link span {
  color: white;
  transition: all 0.3s ease;
}

.item-link:hover i,
.item-link:hover span {
  color: #3496d8;
}

.tm-input {
  margin: 0 0 20px 0;
  width: 90%;
  padding: 8px 20px;
  border-radius: 6px;
  border: 1px solid white;
  background: transparent;
  color: white;
}

.tm-btn-submit {
  font-size: 0.9em;
  color: #fff;
  background-color: #369;
  width: 50%;
  margin-bottom: 60px;
}

.tm-btn-submit:hover {
  color: #fff;
  background-color: #38B;
}

::placeholder {
  /* Chrome, Firefox, Opera, Safari 10.1+ */
```

```css
  color: white;
  opacity: 1; /* Firefox */
}

:-ms-input-placeholder {
  /* Internet Explorer 10-11 */
  color: white;
}

::-ms-input-placeholder {
  /* Microsoft Edge */
  color: white;
}

.tm-footer {
  position: absolute;
  bottom: 35px;
  left: 0;
  right: 0;
  padding: 0 15px;
}

.tm-footer a {
  color: #fff;
}

.tm-footer a:hover {
  color: #9CF;
}

.tm-footer-link {
  color: white;
}

.tm-footer-link:hover,
.tm-footer-link:focus {
  color: #38B;
  text-decoration: none;
}

p {
  line-height: 1.9;
}

@media (min-width: 768px) {
  .tm-intro-text-container {
    padding-left: 0px;
  }
```

```css
  .navbar-expand-md .navbar-nav .nav-link {
    padding-right: 30px;
    padding-left: 30px;
  }
}

@media (min-width: 1200px) {
  .container {
    max-width: 1275px;
  }

  .tm-container-gallery {
    max-width: 1290px;
  }

  .tm-container-contact {
    max-width: 1063px;
  }
}

@media (max-width: 991px) {
  .tm-intro-text-container {
    padding-left: 15px;
    padding-top: 30px;
    max-width: 600px;
    margin-left: auto;
    margin-right: auto;
  }

  .tm-intro-img {
    display: block;
    margin-left: auto;
    margin-right: auto;
  }

  .tm-btn-submit {
    margin-left: 0;
    margin-top: 20px;
  }
}

@media (max-width: 767px) {

  .navbar-nav {
    max-width: 200px;
    text-align: right;
  }
```

```css
  .navbar-collapse {
    background-color: rgb(255, 255, 255);
    padding: 10px;
    border-radius: 3px;
  }

  .navbar-collapse .nav-link {
    color: #707070;
  padding-right: 20px;
  }
}

@media (max-width: 480px) {
  .tm-gallery-container {
    max-width: 220px;
    margin-left: auto;
    margin-right: auto;
  }

  .tm-gallery-container-2 {
    max-width: 350px;
  }

  .slick-dots li {
    margin: 0 8px;
  }

  .tm-gallery-item {
    margin: 0;
  }
}


/* izmenjeni css */

.aj-sakrij {
  display: none;
  margin: 20px;
}

.aj-prikazi {
  display: block;
}

.aj-crveni-okvir{
  border: 2px solid #ff0000;
  border-radius: 10px;
}
```

```css
.upozorenje {
  font-size: 10pt;
}

.aj-kvadratna-sifra-tekst {
  font-size: 15pt;
  font-weight: 500;
}

#pocetak {
  background-color: #222;
  background-image: url(../img/main_key.webp);
  background-repeat: no-repeat;
  background-size: 300vh;
  height: 100vh;
  min-height: 375px;
  position: relative;
  background-blend-mode: overlay;
}

#kvadratnaSifra {
  color: white;
  background-image: url(../img/sifra.png);
  background-size: cover;
  background-repeat: no-repeat;
  background-size: 1000vh;
  background-size: 100%;
  background-attachment: scroll;
  position: relative;
  background-blend-mode: overlay;
  background-color: #222;
}

@media (max-width: 991px) {
  #kvadratnaSifra {
    background-image: url(../img/sifra_mobile.png);
  }
}

#kontakt {
  color: white;
  background-color: #001828;
  background-image: url(../img/kontakt.png);
  background-position: center;
  background-repeat: no-repeat;
  background-size: 400vh;
  min-height: 980px;
```

```css
  position: relative;
  padding-bottom: 50px;
  padding-top: 100px;
  background-blend-mode: overlay;
}

.obavezna {
  font-size: 12pt;
}

#output {
  font-size: medium;
  text-align: justify;
  height: 50vh;
}

#input {
  height: 50vh;
  font-size: medium;
  text-align: justify;
}
```

JavaScript:

```javascript
// Navigacija


let objNavMeni = document.querySelector("#navitems");
objNavMeni.innerHTML = ``

let nizNavHrefAtt = ["#pocetak", "#staJeKriptografija", "#kvadratnaSifra",
"#sifrovanje", "#kontakt"];
let nizNavImena = ["Početak", "Šta je kriptografija?", "Kvadratna šifra",
"Šifrovanje i dešifrovanje", "Kontakt"]

for (let i = 0; i < nizNavImena.length; i++){
    objNavMeni.innerHTML += `<li class="nav-item">
                                <a class="nav-link tm-nav-link"
href="${nizNavHrefAtt[i]}">${nizNavImena[i]}</a>
                             </li>`
}


objNavMeni.innerHTML += `</ul>`

// Navigacija kraj

// Kvadratna šifra šifrovanje i dešifrovanje
```

```javascript
document.querySelector("#sifrovanje").addEventListener("click",
sifrujDesifruj);

function sifrujDesifruj() {

    var tbInput = ``;
    tbInput += document.querySelector("#input").value;
    var tbOutput = document.querySelector("#output");

    //prvi niz

    var niz1 = tbInput.split("");
    console.log(niz1);

    var dvodimenzioniNizIndeks = Math.floor(Math.sqrt(niz1.length));


    //drugi niz

    var niz2 = []
    while(niz1.length) niz2.push(niz1.splice(0, dvodimenzioniNizIndeks));
    console.log(niz2);

    //treci niz

    var niz3 = napraviNiz(dvodimenzioniNizIndeks, dvodimenzioniNizIndeks);

    function napraviNiz(length) {
        var arr = new Array(length || 0),
            i = length;
        if (arguments.length > 1) {
            var args = Array.prototype.slice.call(arguments, 1);
            while(i--) arr[length-1 - i] = napraviNiz.apply(this, args);
        }
        return arr;
    }

    for (let i = 0; i < dvodimenzioniNizIndeks; i++){
        for (let j = 0; j < dvodimenzioniNizIndeks; j++){
            niz3[i][j] = niz2[j][i];
        }
    }
    console.log(niz3);

    //cetvrti niz

    var niz4 = niz3.flat(1);
```

```javascript
    console.log(niz4);

    //peti niz

    var niz5 = niz4.join("");
    console.log(niz5);

    console.log("******************************************************");

    niz2 = niz2.flat(1);
    console.log(niz2);
    niz3 = niz3.flat(1);
    console.log(niz3);
    var razlika = niz2.length - niz3.length;
    console.log(razlika);

    while (razlika > 3){
        niz2.splice(0, Math.pow(dvodimenzioniNizIndeks, 2));
        niz1 = niz2;
        console.log(niz1);
        dvodimenzioniNizIndeks = Math.floor(Math.sqrt(niz1.length));
        console.log(dvodimenzioniNizIndeks);
        niz2 = [];
        while(niz1.length) niz2.push(niz1.splice(0, dvodimenzioniNizIndeks));
        console.log(niz2);
        niz3 = napraviNiz(dvodimenzioniNizIndeks, dvodimenzioniNizIndeks);
        for (let i = 0; i < dvodimenzioniNizIndeks; i++){
            for (let j = 0; j < dvodimenzioniNizIndeks; j++){
                niz3[i][j] = niz2[j][i];
            }
        }
        console.log(niz3);
        niz4 = niz3.flat(1);
        console.log(niz4);
        niz5 += niz4.join("");
        console.log(niz5);

        niz2 = niz2.flat(1);
        console.log(niz2);
        niz3 = niz3.flat(1);
        console.log(niz3);
        var razlika = niz2.length - niz3.length;
        console.log(razlika);
    }
    niz2.splice(0, Math.pow(dvodimenzioniNizIndeks, 2));
    niz5 += niz2;
    console.log(niz5);
    console.log(niz5.length);
```

```javascript
    tbOutput.innerHTML = niz5;

}

// Kvadratna šifra šifrovanje i dešifrovanje kraj

// Forma

let objForma = document.querySelector("#formular");

let nizInputId = ["ime", "prezime", "email"];
let nizInputName = ["name", "name", "email"];
let nizInputType = ["text", "text", "email"];
let nizInputPlaceholder = ["Vaše ime*", "Vaše prezime*", "Vaš e-mail*"];


objForma.innerHTML = `<span id="obavezno" class="col-6 obavezna">*obavezna
polja</span>`;

for (let i = 0; i < nizInputId.length; i++){
    objForma.innerHTML += `<input id="${nizInputId[i]}"
name="${nizInputName[i]}" type="${nizInputType[i]}"
placeholder="${nizInputPlaceholder[i]}" class="tm-input mb-1"
required="required" />
                            <span class="aj-sakrij col-11 upozorenje mb-
3"></span>`;
}

objForma.innerHTML += `<textarea id="pitanja" name="message" rows="8"
placeholder="Pitanja?" class="tm-input"></textarea>`;

let nizRadioLabel = ["Kurs", "Predavanje"];
let nizRadioId = ["rdKurs", "rdPred"];
let nizRadioValue = ["K", "P"];

objForma.innerHTML += `<label class="col-12">Izaberite za šta se
prijavljujete*:</label>`
for (let i = 0; i < nizRadioLabel.length; i++){
    objForma.innerHTML += `<div><div class="form-check-inline mb-2">
                            <label class="form-check-label"
for="${nizRadioId[i]}">
                            <input type="radio" id="${nizRadioId[i]}"
class="form-check-input" name="tipPrijave"
value="${nizRadioValue[i]}">${nizRadioLabel[i]}
                            </label>
                        </div></div>`;
}
objForma.innerHTML += `</div>`
```

```javascript
objForma.innerHTML += `<span id="tipPrijave" class="aj-sakrij col-11"></span>
                        <div class="form-check">
                        <label class="form-check-label" for="chbObavest">
                            <input type="checkbox" id="chbObavest"
class="form-check-input" value="Obavestenja">Obeležiti ukoliko želite da
primate obaveštenja o našim predavanjima i kursevima putem e-mail pošte
(opciono).
                        </label>
                        </div>

                        <button type="button" id="prijava" class="btn tm-btn-
submit mt-3">Prijavi se</button>`

let prijavaButton = document.querySelector("#prijava");
prijavaButton.addEventListener("click", proveraForma);

var objIme = document.querySelector("#ime");
var objPrezime = document.querySelector("#prezime");
var objEmail = document.querySelector("#email");
var nizTipPrijave = document.getElementsByName("tipPrijave");

var regExImeIPrezime = /^([A-ZŠĐČĆŽ][a-zšđčćž]{2,19})(\s[A-ZŠĐČĆŽ][a-
zšđčćž)]{2,19})?$/;
var regExEmail =
/^((([^<>()[\]\\.,;:\s@"]+(\.[^<>()[\]\\.,;:\s@"]+)*)|(".+"))@((\[[0-
9]{1,3}\.[0-9]{1,3}\.[0-9]{1,3}\.[0-9]{1,3}\])|(([a-zA-Z\-0-9]+\.)+[a-zA-
Z]{2,}))$/;

blurProvera(objIme, regExImeIPrezime, "Ime nije u dobrom formatu. Dozvoljena
su dva imena. Primer: Aleksandar Radivoje");
blurProvera(objPrezime, regExImeIPrezime, "Prezime nije u dobrom formatu.
Dozvoljena su dva prezimena. Primer: Pavlović Jovanović");
blurProvera(objEmail, regExEmail, "Email nije u dobrom formatu. Primer:
johndoe@email.com");

function proveraForma() {

    proveraRegEx(regExImeIPrezime, objIme, "Ime nije u dobrom formatu.
Dozvoljena su dva imena. Primer: Aleksandar Radivoje");
    proveraRegEx(regExImeIPrezime, objPrezime, "Prezime nije u dobrom formatu.
Dozvoljena su dva prezimena. Primer: Pavlović Jovanović");
    proveraRegEx(regExEmail, objEmail, "Email nije u dobrom formatu. Primer:
johndoe@email.com")

    let tipPrijave = "";
    for (let i = 0; i < nizTipPrijave.length; i++){
        if (nizTipPrijave[i].checked){
            tipPrijave = nizTipPrijave[i].value;
```

```javascript
        }
    }

    if (tipPrijave == ""){
        nizTipPrijave[0].parentElement.parentElement.parentElement.nextElement
Sibling.nextElementSibling.classList.remove("aj-sakrij");
        nizTipPrijave[0].parentElement.parentElement.parentElement.nextElement
Sibling.nextElementSibling.innerHTML = "Morate izabrati ili predavanje ili
kurs.";
        nizTipPrijave[0].parentElement.parentElement.parentElement.nextElement
Sibling.nextElementSibling.classList.add("aj-crveni-okvir");
    }

}

function blurProvera(obj, regEx, poruka) {
    obj.addEventListener("blur", function(){
        proveraRegEx(regEx, obj, poruka)
    })
}

function proveraRegEx(re, objekat, poruka){
    if(!re.test(objekat.value)){
        objekat.nextElementSibling.classList.remove("aj-sakrij");
        objekat.nextElementSibling.innerHTML = poruka;
        objekat.classList.add("aj-crveni-okvir");
    }
    else{
        objekat.nextElementSibling.classList.add("aj-sakrij");
        objekat.nextElementSibling.innerHTML = "";
        objekat.classList.remove("aj-crveni-okvir");
    }
}


// Forma - kraj
```