

Assignment 1	Project Summary
Course	Multimedia Technologies with Angular and TypeScript - 2020

Project author		
№	Pseudonym	Face-to-face/ online
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Project name	Speed Language Quizes
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1. Short project description (Business needs and system features)

Speed Language Quizes provides the ability to test your foreign language skills and speed at the same time! You can take different tests in English, Spanish, Bulgarian, and many others. You can save your scores and compare with other users. The system will be developed as a *Single Page Application (SPA)* using **Angular** as front-end, and **Node.js + Nest** as backend technologies. Each view will have a distinct URL, and the routing between pages will be done client side using the built-in **Angular Router**. The backend will be implemented as a **REST/JSON API** using JSON data serialization. The main user roles (actors in UML) are:

- *User* – can browse tests, take tests, save their scores to the scoreboard.
- *Administrator* – can manage (create, edit, delete) all *Tests* and *Test Results*.

2. Main Use Cases / Scenarios

Use case name	Brief Descriptions	Actors Involved
2.1. Browse tests	<i>All users</i> have read access to the available tests.	All users
2.2. Manage Tests	<i>Administrator</i> can browse and filter tests based on different criteria: name, date added. <i>Administrator</i> can choose a <i>Test</i> to manage, and can manage the chosen <i>Test</i> - edit or delete.	<i>Administrator</i>

	<i>Administrator can create a new test.</i>	
2.3. Add/Edit Test	<i>Administrator specifies/edits Test metadata such as: test name. Administrator creates/edits Questions, and can delete chosen Question. Administrator saves the edited Test.</i>	<i>Administrator</i>
2.4. Add/Edit Question	<i>Administrator specifies/edits Test's Question Type, Question Content, and Answers providing weights for each answer (default weight is 0).</i>	<i>Administrator</i>
2.5. Complete Test	<i>User browses tests available and can sort and filter them using different test metadata fields. User chooses a test to complete. The system presents the Test Questions one by one to the User, who answers them. The User have a certain time to answer. Based on the time for answer, certain points are accumulated to the total score. On Test completion the Score is presented to the User by the system.</i>	<i>All users</i>
2.6. Save Score	<i>User can save their score by providing a valid name identifier.</i>	<i>All users</i>
2.7. Browse Scoreboard	<i>User can see all saved Scores for a Test in a Scoreboard.</i>	<i>All users</i>
2.8. Manage Scores	<i>Administrator can manage (edit, delete) Scores for a Test.</i>	<i>Administrator</i>

3. Main Views (SPA Frontend)		
View name	Brief Descriptions	URI
3.1. Tests List	Presents the available tests to <i>User</i> allowing them to choose a test and complete it.	<i>/test</i>
3.2. Complete Test	Starts a <i>Test</i> (specified by <i>id</i>) by showing one question at a time, allowing the <i>User</i> to enter their answer.	<i>/test/:id</i>
3.3. Scoreboard	Presents saved <i>Scores</i> for a specified <i>Test</i> (specified by <i>id</i>).	<i>/test/scoreboard/:id</i>
3.4. Manage Tests	Presents all tests in the system for an <i>Administrator</i> to manage them.	<i>/admin/test</i>
3.5 Create Test	Presents a form for adding a new test by an <i>Administrator</i> .	<i>/admin/test/create</i>

3.6. Edit Test	Present a form for updating an existing test (specified by <i>id</i>) by an <i>Administrator</i> .	<i>/admin/test/:id</i>
3.7. Edit Scores	Presents a list of all scores for a test (specified by <i>testId</i>) for an <i>Administrator</i> to manage them.	<i>/admin/scores/:testId</i>
3.5. About	Presents information about the project and its owner.	<i>/about</i>

4. API Resources (Node.js Backend)		
View name	Brief Descriptions	URI
4.1. Tests	GET a list of all available tests.	<i>/api/tests</i>
4.2. Test	GET, PUT, DELETE <i>Test Data</i> (including <i>Questions</i> and <i>Answers</i>) for <i>Test</i> with specified <i>testID</i> .	<i>/api/tests?testID=:testID</i>
4.3. Test Names	GET only the names of all available <i>Tests</i> .	<i>/api/tests/select/name</i>
4.4. Get Scores	GET, PUT, DELETE <i>Test Scores</i> for <i>Test</i> with specified <i>testID</i> .	<i>/api/scores/:testID</i>
4.5 Add a Score	POST a new score.	<i>/api/scores</i>
4.6 Add a Test	POST a new test.	<i>/api/tests</i>