TEST PLAN	
PROJECT:	PLATFORM „CODERS GURU"
VERSION:	1.2

Document's metrics

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List of attachements

LIST OF ATTACHEMENTS		
Lp.	**Attachements**	**Comments**
1	CG_ProjektTechniczny_1_0	Requirements

List of used abbreviations, symbols and terms

LIST OF USED ABBREVIATIONS, SYMBOLS AND TERMS	
Abbreviation/term	**Meaning**
Test plan	Plan testów platformy „Coders Guru", niniejszy dokument
Software testing	The process within the software development lifecycle that evaluates the quality of a component or system and related work products.
System testing	Testing that focuses on verifying that a system as a whole meets specified requirements.
Acceptance testing	Testing that focuses on determining whether to accept the system.
Dynamic testing	Testing that involves the execution of the test item.
Static testing	Testing that does not involve the execution of a test item.
Critical defect	Incorrect operation of the Platform resulting in either a complete inability to use the Platform, or such limitation of the possibility of using it that it ceases to fulfill its basic functions.
Bloker defect	Error that makes the Platform unsuitable for further testing.
Platform	https://tester.codersguru.pl/
Mentor	
Administrator	
Client	
Ordering Party	Coders Lab Sp. z.o.o.
Stakeholder	Organizations or individuals who participate in the creation of the project or are directly interested in the results of its implementation.
Testware	Work products produced during the test process for use in planning, designing, executing, evaluating and reporting on testing.
Test case	A set of preconditions, inputs, actions (where applicable), expected results and postconditions, developed based on test conditions.
Test condition	A testable aspect of a component or system identified as a basis for testing.
Entry criteria	The set of conditions for officially starting a the tests.
Exit criteria	The set of conditions for officially completing the tests.
Technical Design	Requirements specification of the tested product, which is Annex No. 1.

Spis treści

1. Introduction

1.1. Purpose and scope of the document

The purpose of the Test Plan is to collect all information on the activities and organization of the test process in one place, so that each Stakeholder can get acquainted with them. This document covers:
- A. requirements,
- B. objectives and scope of tests,
- C. test activities and tasks,
- D. pass/fail criteria for tests and suspension/resumption of testing,
- E. schedule,
- F. risks.

1.2. Expectations

The purpose of the testing activities described in this document is to test the requirements presented by the Employer, included in the Technical Design (Annex 1). It is expected that the Product, after successful completion of the testing process, will meet all these requirements and will be able to be made available for use by potential Customers without any obstacles. Testing activities will be performed by an independent testing team, and test progress and results will be provided in the form of written reports.

2. Test subject

2.1. General product characteristics

Coders Guru is a platform that brings together experienced programmers who provide remote consultations to Clients. Their goal is to help in learning programming and solving programming problems. The operation of the platform is based on the Mentor's remote connection with the Client via video and text chat, file exchange and live code editing.

2.2. Users and product goals

The users of the product are Administrators, Mentors and Clients.
Platform clients are divided into three groups:

1. People who think about learning programming but don't know what it is.
2. Self-learners - people who need mentor support in the education process.
3. Companies that pay Mentors to their employees

The purpose of the platform is to build a database of potential lecturers and students.

2.3. Tested elements

The "Coders Guru" platform, located at https://tester.codersguru.pl, and the Technical Project (Appendix 1) will be tested.

3. The scope of the planned tests

3.1. Requirements covered by the test scope

ID	Requirement description
W-FUN.1	Possibility to register a private user. Private registration form validation: • 'First Name' field - minimum 2 characters • 'Last Name' field - minimum 2 characters • 'Password' field - minimum 5 characters • 'City-' field - minimum 2 characters • Field 'Zip code' - format 00-000 • 'Street' field - minimum 2 characters • e-mail format: name@domain.pl
W-FUN.2	Possibility to register a company user. Company registration form validation: • 'First Name' field - minimum 2 characters • 'Last Name' field - minimum 2 characters • 'Password' field - minimum 5 characters • 'City-' field - minimum 2 characters • Field 'Zip code' - format 00-000 • 'Street' field - minimum 2 characters • 'NIP' field - a string of 10 digits
W-FUN.3	Possibility to log in as a registered user
W-FUN.4	Possibility to mark the days and hours of availability of individual mentors (from the database level)
W-FUN.5	Ability to select a mentor from the list of available mentors
W-FUN.6	Possibility to filter / search for mentors by courses.
W-FUN.7	The lecturer's profile contains a photo, experience, technologies and the nearest available dates
W-FUN.8	Price list subpage - containing information about the consultation price.
W-FUN.9	Terms and Conditions subpage - containing the terms and conditions of the service.
W-FUN.10	The system, after logging in, and before going to the profile, displays a message regarding the need to confirm the validity of contact details.
W-FUN.11	The system allows to manage the customer's profile from the "My Account" panel.
W-FUN.12	The system allows to export scheduled consultations to the iCalendar format.
W-UX.3	The system enables access to all portal functionalities through a web browser: • The System's GUI must be correctly interpreted and displayed by IE, Chrome, Firefox, Safari, Opera browsers and their equivalent in mobile versions supported by manufacturers at the time of receiving the System. • The Graphical User Interface (GUI) of the System is accessible through a web browser. • The system interface is scalable to different screen resolutions (responsive).

W-UX.4	The system is adapted to display content on various mobile devices. These devices can be mobile phones, smartphones or tablets. The system will be displayed on mobile devices using RWD (Responsive Web Design). It is not required to adapt the administration panel to mobile devices.
W-BEZ.1	The system must meet all the requirements of the GDPR (General Data Protection Regulation) directive.
W-BEZ.2	Possibility for the user to change the password by themselves
W-BEZ.3	Validation of unacceptable passwords: empty, the same as the username, part of which is the user's name and surname or the name of the business entity.

3.2. Exclusion from the test scope

ID	Requirement description
W-INT.1	Integration with the online payment system
W-UX.1	The system should meet the required W3C standards in the context of the structure of the HTML5 document.
W-UX.2	The system should meet the required W3C standards in terms of the appearance and layout structure of CSS 3.0 or later.
W-BD.1	The Ordering Party requires the use of one of the database engines with the SQL language under an Open Source license.
W-WYD.1	For a system with 500 simultaneous users logged in and charging the system according to the scenario, any system page must: • generate less than 60 http requests per second, • load in less than 2 seconds, • achieve a result of not less than 82% in the PageSpeed test, • achieve a result of not less than 86% in the YSlow test, The tool that will be used to measure when collecting the template https://gtmetrix.com

4. Testing approach

4.1. Test levels and types

The functional requirements, service usability requirements and security requirements specified by the Ordering Party will be dynamically tested. Therefore, the following test levels and types will be used:

	Test levels	
	System tests	Acceptance tests
Test types	Functional, non-functional	Functional, non-functional

The Technical Design (Appendix 1) and Testware will be subjected to static testing.

4.2. Used test design techniques

Test techniques	
Black-box test techniques	Experience-based test techniques
Equivalence Partitioning Boundary Value Analysis Decision Table Testing State Transition Testing	Error guessing Exploratory testing Checklist-based testing

4.3. Tools

The following tools will be used for testing:
- o Jira
- o Testlink

5. Criteria

5.1. Pass/fail criteria

Test cases will be written for each requirement listed in point 3.1 separately. A given test case can be considered passed when its expected result coincides with the actual result. Otherwise, the test case will be failed.

5.2. Entry criteria

1. Conditions for starting the first iteration of tests:
   • Availability of a properly configured test environment,
   • Availability of test tools,
   • Access to the current version of the tested product,
   • Availability of testable requirements, user stories and/or models,
   • Accepted test documentation,
   • Accepted test schedule,
   • Fulfilled logistic and organizational conditions,
   • Access to the current version of the Technical Design,
2. Conditions for starting subsequent test iterations:
   • Fixed bugs found during the previous iteration.
   • Modification of test documentation to the extent resulting from the previous iteration of tests
   • Retests and regression tests of bug fixes from the previous iteration will be performer

5.3. Exit Criteria

The tests may be considered completed if the following conditions are met:
• 100% of the planned test cases were executed
• At least 85% of test cases completed successfully
• All Critical Errors and Blocking Errors have been removed

• The budget for scheduled tests has been exhausted

• The time allotted for test activities has been exceeded

5.4. Suspension and Resumption Criteria

Tests will be suspended in the event of:

1) lack of access to the test environment due to errors or maintenance works,

2) incorrect operation of the test environment, which does not allow for further testing activities,

3) Blocking errors in the designed system, preventing the continuation of testing activities

4) a large number of Critical Errors detected.

The tests will be resumed when the above-mentioned problems are resolved, i.e. access to the test environment will be restored, and any errors preventing the continuation of testing activities will be fixed.

6. Products of the test process

Stage of the test process	Product
Test planning	➢ test plan (comprehensive or for individual test levels)
Test analysis	➢ defined and prioritized test conditions ➢ test charter (for exploratory testing) ➢ traceability matrix
Test design	➢ test cases and sets of test cases ➢ the design and/or identification of the necessary test data ➢ the design of the test environment ➢ the identification of infrastructure and tools
Implementation	➢ test procedures and test suites ➢ test execution schedule
Test execution	➢ test logs ➢ defect reports
Test completion	➢ test completion report ➢ change requests ➢ finalized testware
Test monitoring and control	➢ test progress reports (created on an ongoing basis and/or at regular intervals) ➢ test summary reports produced at various completion milestones ➢ summary of project tasks: task completion, resource allocation and usage, effort

7. Test activities and tasks

Test activities:
- *Test planning* - preparing a test plan,
- *Test analysis* - Analyzing the test basis to identify testable features and define their associated test conditions,
- *Test design* - Converting generic, high-level test objectives into specific test conditions and test cases,
- *Implementation* - preparation for tests, consisting in creating procedures and test sets,
- *Test execution,*
- *Test completion* - Activities related to test completion, performed when project milestones are reached,
- *Test monitoring and control* - constantly comparing actual and planned test progress and taking actions that are necessary to achieve the objectives set out in the test plan. These are activities performed throughout the test process.

8. Test environment

Necessary test environment parameters:
- Stable internet connection min. 10Mbit/s
- Windows 10 Pro 64-bit
- Microsoft Edge browser, current version
- MySQL Workbench 8.0

9. Roles and responsibilities, training needs

9.1. Division of test process responsibilities

1) Test Manager - responsible for test planning, test monitoring and completion
2) Testers - their duties include:
   A. Test analysis
   B. Test design
   C. Test implementation
   D. Test execution

9.2. Training needs

In order to minimize the risk and optimize test execution time, it is necessary to train testers in the use of Jira and Testlink tools.

10. Schedule

Task	Week 1				
	Mon	Tue	Wed	Thur	Fri
Test planning	██	██			
Test analysis			██		
Test design				██	██
	Week 2				
Test implementation	██	██			
Test execution			██	██	
Test completion					██

11. Register of risks

11.1. Project risks

- Insufficient qualifications or training of employees,
- Incorrect communication by testers about their needs and/or test results,
- Developers/testers failing to take further action based on information obtained as a result of testing and reviews,
- Inappropriate approach to testing or expectations related to testing,
- Potential delays in completing tasks or meeting exit criteria (definition of completion),
- Insufficient specification of requirements,
- Inability to meet the requirements due to time constraints,
- Failure to make the test environment available on time

11.2. Product risks

A significant product risk is the possibility of omitting errors by inexperienced testers, which will cause the application to malfunction. Also, the fact that some of the requirements will not be tested creates the risk that these areas of the product will not function properly.

12. Approval

Below is a table of stakeholders who need to approve the plan in order for it to go into effect.

First name and last name	Function	Organization