**Test Plan**

**Educational Centre of High-Tech Park**

**Web application «IT-academy.by»**

|  |  |
| --- | --- |
| **Related Artifacts** | |
| **Name** |  |
| Testing timetable.xlsx | <https://drive.google.com/open?id=1AvFqgqJpfsTUojIdI9xp0n1DYidaeIUfKQCFbY-XoGo> |
| Available devices.xlsx | <https://docs.google.com/spreadsheets/d/1QtJgwtR1HXng-sBNonPf_XRQX5ueWlYa9G66XyPRQrQ/edit?usp=sharing> |
| Test team.xlsx | <https://docs.google.com/spreadsheets/d/1JA8WytXOFHKXB224nm3CfO751MHDcyHledqQarcaanU/edit?usp=sharing> |
| TestRail v5.5.0 | Writing test case. Writing check list. Trial version. <https://group3nato.testrail.io/index.php?/projects/overview/1>  Username: [stv\_stv@tut.by](mailto:stv_stv@tut.by)  Password: MjyXh16fORFz92KC8k6a |
| Jira v7.1.1 | Create and modify tasks. Creation of bug reports.  http://jira.it-academy.by:8080/secure/RapidBoard.jspa?rapidView=427&projectKey=IAST&view=detail |

|  |  |
| --- | --- |
| **Abbreviations and Acronyms** | |
| GUI | Graphical User Interface |
|  |  |
|  |  |

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# **1. Introduction**

This document describes the approach and methodologies used by the testing team to plan, organize and perform the testing applications of the «IT-academy.by»

The «IT-academy.by» consists of the site of Educational Center of High-Tech Park (IT-academy). The team's work consists in testing the efficiency and functionality of the site «It-academy.by». This is necessary for the site to perform its functionality, so that the end-user can easily find all the information on the site. The client of this project is the Educational Center of the High-Tech Park (IT-Academy). The end-user are potential visitors of the courses, tenants of the premises of the educational center. The product will be used to obtain information on the services provided by the educational center, on leased premises, their characteristics, cost, also will be used for enrollment in courses.

# **2. Scope of work**

# **2.1 Components and functions to be tested**

|  |  |  |  |
| --- | --- | --- | --- |
| # | Application/ component name | Function name | Reference |
| 1 | Homepage, course information | Menu «Востребованные программы» | www.it-academy.by |
|  |  | Information about courses on links:  1. «Программирование»  2. «Тестирование ПО»  3. «Бизнес-анализ»  4. «Веб-дизайн»  5. «Администрирование веб-систем»  6. «Маркетинг и продажи»  7. «Технологии успеха»  8. «Английский для IT»  9. «Комплексные программы обучения»  10. «Подготовительные курсы»,  11. «IT practice lab». | 1. <www.it-academy.by/specialization/programmirovanie/>  2. [www.it-academy.by/specialization/testirovanie-po/](http://www.it-academy.by/specialization/testirovanie-po/)  3. [www.it-academy.by/course/biznes-analiz-v-it/](http://www.it-academy.by/course/biznes-analiz-v-it/)  4. [www.it-academy.by/course/ui-ux-dizayner1/](http://www.it-academy.by/course/ui-ux-dizayner1/)  5. [www.it-academy.by/specialization/administrirovnie-veb-sistem/](http://www.it-academy.by/specialization/administrirovnie-veb-sistem/)  6. [www.it-academy.by/specialization/marketing/](http://www.it-academy.by/specialization/marketing/)  7. [www.it-academy.by/course/tekhnologii-uspekha/](http://www.it-academy.by/course/tekhnologii-uspekha/)  8. [www.it-academy.by/course/angliyskiy-dlya-it/](http://www.it-academy.by/course/angliyskiy-dlya-it/)  9. [www.it-academy.by/specialization/kompleksnye-programmy-obucheniya/](http://www.it-academy.by/specialization/kompleksnye-programmy-obucheniya/)  10. [www.it-academy.by/course/osnovy-programmirovaniya/](http://www.it-academy.by/course/osnovy-programmirovaniya/)  11. [www.it-academy.by/course/it-practice-lab/](http://www.it-academy.by/course/it-practice-lab/) |
| 2 | Homepage, Stocks and News | Menu «Акции и новости» | [www.it-academy.by](http://www.it-academy.by) |
|  |  | 1. Shares panel on the main window  2. News panel on the main window |  |
| 3 | Homepage,Graduates reviews | Menu «Отзывы выпускников» | [www.it-academy.by](http://www.it-academy.by) |
|  |  | 1. Reviews panel on the main window  2. It-companies tabs |  |
| 4 | Footer of the site |  | [www.it-academy.by](http://www.it-academy.by) |
|  |  | 1. Contacts  2. Site-map  3. Links on social networks | 1. <https://www.it-academy.by/about/contacts/>  2. <https://www.it-academy.by/sitemap/> |

# **2.2 Components and functions not to be tested**

|  |  |  |  |
| --- | --- | --- | --- |
| # | Application/ component name | Function name | Reference/Comment |
| 1 | Left hand navigation menu |  | Tested by another team of testers |
|  |  | 1. «Минск» and «Гродно» links  2. Tab «IT Practice Lab» content  3. Tab «Акции и новости» content  4. Tab «О центре» content  5. Tab «Трудоустройство» content  6. Tab «Отзывы» content  7. Search menu | Tested by another team of testers |
| 2 | Yandex Сards in the submenu |  | <https://www.it-academy.by/about/contacts/> |
| 3 | Information and functions in social networks |  | Social networks are not functional of the site [www.it-academy.by](http://www.it-academy.by) |
| 4 | Iteen Academy functional in the footer |  | https://iteen.by/?\_ga=2.257767752.219601095.1527679191-1528827617.1527259310 |

# **2.3 Third-party components**

|  |  |  |  |
| --- | --- | --- | --- |
| # | Component name | Component role | Reference/Comment |
|  | Browsers: Internet explorer 11, edge, Opera, Chrome 66, Safari, Default browser of the Android OS | Site display programs for the consumer |  |
|  | Devices: PC, Ipad 2, Iphone 6+, Tablet Samsung, Android 7.0 | Site display on the different devices for the consumer |  |
|  | TestRail **v5.5.0** | Tool for fixing test cases | <https://group3nato.testrail.io/index.php?/projects/overview/1>  Username: [stv\_stv@tut.by](mailto:stv_stv@tut.by)  Password: MjyXh16fORFz92KC8k6a |
|  | JIRA v7.1.1 | Tool for fixing bug reports | <http://jira.it-academy.by:8080/secure/RapidBoard.jspa?rapidView=427&projectKey=IAST&view=detail> |

# **3. Quality and acceptance criteria**

* The product should work according to the requirements and functional specification. Due to the lack of requirements for the web application "IT-academy.by" we will use standard requirements for web applications and common sense;
* In the final build, there are no critical bugs;
* Compliance with the quality standards of writing test-plan, test cases, the availability of detailed and quality check-lists, test-cases;
* Getting feedback from colleagues, client. The application should not deteriorate, all major application bugs must be committed.

# **4. Critical success factors**

Every project’s process has to meet several conditions. These are critical success factors, which should be obeyed to achieve all the goals. In this issue, several types of factors are distinguished, that is, external (environment) and internal (resources).

External factors or environmental factors include:

* Successful work of all software components required for testing.
* Full access to the test management system.
* Access to the bug-tracking system.
* The absence of malfunction in the application itself, which affects the process.
* Other favorable working conditions (availability of electricity, working space, etc.)

The internal factors of success include:

* The ability of each employee to team work, that is, timely execution of the task, taking into account the functions and interests of other team members.
* The physical ability of team members to communicate with themselves and exchange information (having social networks or other means of communication).

# **5. Risk management**

Based on the presence of some critical success factors, we can also note the presence of risk factors. To manage them effectively, a special table has been formed, indicating a possible risk factor, as well as a way to prevent/resolve it.

|  |  |  |
| --- | --- | --- |
| # | Risk assignment | Actions to be taken |
|  | The lack of synchronization of actions within the team (untimely fulfillment by the team members of their site of work, which prevents further actions) | Clear deadlines for all team members set by team-lead |
|  | Scheduled short-term vacation | The need to inform all team members in advance, fulfillment of planned work beforehand or the redistribution of resources |
|  | Unplanned vacation, force majeure or illness | Emergency reallocation of resources, distribution of tasks of the absent team member between the rest |
|  | Unexpected failure of the equipment of one of the team members (broken computer/tablet/access to the Internet/application) | Report this to all team members and make every effort to fix the problem, or emergency reallocation of resources, distribution of tasks of the absent team member between the rest |
|  | Unexpected lack of access to the tested product (work on the site, blocking access/lack of access for unidentified reasons) | Report this to the customer/project manager/ head of the department and in the temporary absence of possibility of active actions, deal with other important issues (preparing documentation, compiling interim reports, etc.) |
|  | Misunderstanding by one of the team members of the principles of functioning of the tested product | Readiness of all more knowledgeable team members to help (create a chat/conference where team can discuss any issues) |

# **6. Resources**

# **6.1 Key project resources**

|  |  |  |
| --- | --- | --- |
| # | Project Role | Name, e-mail, location |
| 1 | Project Manager | Lidziya Smirnova, [lidziya\_smirnova@epam.com](mailto:lidziya_smirnova@epam.com), Minsk |
| 2.1 | Test Leader (week 1-2) | Tatiana Smatova, smatova.tatiana@gmail.com, Minsk |
| 2.2 | Test Leader (week 3) | Anton Myshlennik, myshlennik@gmail.com, Minsk |
| 2.3 | Test Leader (week 4) | Vlad Dargel, Anafemy12@gmail.com, Minsk |
| 2.4 | Test Leader (week 5) | Nadya Lozitskaya, nadyallozitskaya@gmail.com, Minsk |

# **6.2 Test team**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| # | Project Role | Name | Location | Responsibilities |
| 1 | Test Leader, Tester | Tatiana Smatova | Minsk, Belarus | Writing a test plan.  Writing test result reports.  Forming of check sheets.  Writing test cases. Testing.  Finding bugs.  Forming bug reports.  Making a presentation. |
| 2 | Test Leader, Tester | Anton Myshlennik | Minsk, Belarus | Writing a test plan.  Writing test result reports.  Forming of check sheets.  Writing test cases. Testing.  Finding bugs.  Forming bug reports.  Making a presentation. |
| 3 | Test Leader, Tester | Vlad Dargel | Minsk, Belarus | Writing a test plan.  Writing test result reports.  Forming of check sheets.  Writing test cases. Testing.  Finding bugs.  Forming bug reports.  Making a presentation. |
| 4 | Test Leader, Tester | Nadya Lozitskaya | Minsk, Belarus | Writing a test plan.  Writing test result reports.  Forming of check sheets.  Writing test cases. Testing.  Finding bugs.  Forming bug reports.  Making a presentation. |

# 

# **6.3 Test hardware**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| # | Role | Resource | Hardware configuration | Software configuration |
| 1 | tester | Tatiana Smatova | Windows 7 | Internet explorer 11 |
| 2 | tester | Anton Myshlennik | Windows 10 | Edge |
| 3 | tester | Nadya Lozitskaya | Windows 7 | Opera |
| 4 | tester | Vlad Dargel | Windows 10 | Chrome 66 |
| 5 | tester | Tatiana Smatova | Ipad 2 | Safari |
| 6 | tester | Anton Myshlennik | Iphone 6+ | Safari |
| 7 | tester | Nadya Lozitskaya | Tablet Samsung | Opera |
| 8 | tester | Vlad Dargel | Android 7 | Chrome |

# **6.****4 Test tools**

|  |  |  |
| --- | --- | --- |
| # | Tool | Comment |
| 1 | TestRail v5.5.0 | Writing test case. Writing check list. Trial version. <https://group3nato.testrail.io/index.php?/projects/overview/1>  Username: [stv\_stv@tut.by](mailto:stv_stv@tut.by)  Password: MjyXh16fORFz92KC8k6a |
| 2 | Jira v7.1.1 | Create and modify tasks. Creation of bug reports.  http://jira.it-academy.by:8080/secure/RapidBoard.jspa?rapidView=427&projectKey=IAST&view=detail |
| 3 | Microsoft Word 16 | Writing documentation, test plan, test result report. |
| 4 | Microsoft Excel 16 | Management testing timetable. |

# **7. Test documentation**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| # | Title | Responsible person(s) | Frequency (delivery time) | Method of delivery |
| 1 | Web application «IT-academy.by» TestPlan | Tatiana Smatova | Once before the testing start.  Change after correction. | <https://drive.google.com/file/d/1W5n3v1Jj73TKFRS7uicuZP-wf3BtwgVd/view?usp=sharing> |
| 2 | TestRail TestCases | Tatiana Smatova  Anton Myshlennik  Vlad Dargel  Nadya Lozitskaya | Before the testing start | <https://group3nato.testrail.io/index.php?/projects/overview/1>  Username: [stv\_stv@tut.by](mailto:stv_stv@tut.by)  Password: MjyXh16fORFz92KC8k6a |
| 3 | Bug reports | Tatiana Smatova  Anton Myshlennik  Vlad Dargel  Nadya Lozitskaya | Upon finding a bug | <http://jira.it-academy.by:8080/secure/RapidBoard.jspa?rapidView=427&projectKey=IAST&view=detail> |
| 4 | Test Result Reports | Tatiana Smatova  Anton Myshlennik  Vlad Dargel  Nadya Lozitskaya | Status report  Three times per week | By e-mail. Important correct test lead. |
| 5 | Final Test Result Reports | Nadya Lozitskaya | Once until June 25, 2018 | By email. TRR.docx |

# **8. Test strategy**

The web application «IT-academy.by» will be tested using a “black box” approach, which is based on the requirements and functional specification without knowledge of the internal structure or program source code. Due to the lack of requirements for the web application "IT-academy.by" we will use standard requirements for web applications and common sense.

# **8.1 Entry criteria**

The Testing Team may suspend partial or full-testing activities on a given build if any of the following occurs:

* There is a fault with a feature that prevents its testing.
* A severe problem has occurred that does not allow testing to continue.
* A new version of the software is available to test.

# **8.2 Test methods**

Testing is the process of attempting to find discrepancies between the program and its functional specification/ requirements. The goal is to make sure that all functions of the web applications «IT-academy.by» works correctly.

Manual functional testing – is considered as the main method of the application testing.

# **8.3 Test types**

The following types of tests will be used for testing the web application:

* Configuration testing - testing is executed on different equipment and with different settings.
* Compatibility testing - testing is performed on different operating systems and with different settings.
* Usability testing - testing the usability for the users of the web application «IT-academy.by».
* GUI testing.
* Responsive design testing - testing the behavior of the web application depending on the position of the screen (portrait / landscape) using hardware described on 6.3 sections.
* Cross-browser testing - testing in different browsers, described in sections 6.3.

# **8.4 Test levels**

*Smoke Test* is performed to quickly assess the readiness of the product for further more deep and thorough testing. It includes testing «IT-academy.by» applications major functions on the one most often used and consequently most important server/ client configuration.

If Smoke Test failed, Testing Team sends notification and suspends testing until corrected version of the product is available.

*Critical Path Test* will be performed after Smoke Test is passed. The goal of the Critical Path Test is to find bugs that could affect the major functionality of the application that is most important for the product users. Critical Path Test will be performed manually according to TestRail Test Cases document on all platforms to be certified.

The *Extended Test’*sgoal to find bugs related to the non-typical but still possible and likely usage scenarios (e.g. entering the incorrect data into the fields, boundary testing and so on). Extended Test will be performed both according to test cases and using ad hoc testing scenarios.

# **8.5 Bug and documentation tracking**

Tools described in the section [Test Tools](#Test_tools) will be used for bug reporting and documentation tracking. The bug metrics and statistics will be included in the test results reports.

# **8.5.1 Bug severity definition**

Blocker – Blocks development and/or testing work, production could not run.

Critical - Crashes, loss of data, severe memory leak.

Major – Major loss of function.

Minor – Minor loss of function, or other problem where easy workaround is present.

Trivial – Cosmetic problem like misspelt words or misaligned text.

# **9. Testing schedule**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| # | Activity | Begin Date | End Date | Assignment | Location | Work content |
|  | Test plan creation | 26 may 2018 | 27 may 2018 | Anton Myshlennik  Nadya Lozitskaya  Tatiana Smatova  Vlad Dargel | Minsk, Belarus | 2 days |
|  | Checklist creation | 28 may 2018 | 03 june 2018 | Anton Myshlennik  Nadya Lozitskaya  Tatiana Smatova  Vlad Dargel | Minsk, Belarus | 7 days |
|  | Test cases creation | 04 june 2018 | 10 june 2018 | Anton Myshlennik  Nadya Lozitskaya  Tatiana Smatova  Vlad Dargel | Minsk, Belarus | 7 days |
|  | Test execution | 11 june 2018 | 17 june 2018 | Anton Myshlennik  Nadya Lozitskaya  Tatiana Smatova  Vlad Dargel | Minsk, Belarus | 7 days |
|  | Final test result report | 18 june 2018 | 24 june 2018 | Anton Myshlennik  Nadya Lozitskaya  Tatiana Smatova  Vlad Dargel | Minsk, Belarus | 7 days |

| Revision history | | | | | |
| --- | --- | --- | --- | --- | --- |
| Ver. | Description of Change | Author | Date | Approved | |
| Name | Effective Date |
| 1.0 | Test plan creation | Tatiana Smatova | 28-May-2018 | Lidziya Smirnova |  |
|  |  |  |  |  |  |