System Testing

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RAC

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# Introduction

This document is going to go over various test cases among different types of system testing. It will begin by covering functional test cases, then usability, followed by compatibility, security, and finally business cycle tests. The purpose of this is to come up with various different black box tests to execute again the RAC system to ensure that the system is behaving exactly as it should and as we are expecting it to.

# Functional Tests

|  |  |  |
| --- | --- | --- |
| Test ID | Purpose | Expected result |
| FN01 | Verify that the RAC Advisor and the candidate can interact appropriately through the exchange of documents | When a RAC Advisor uploads a document to a user, the user will have a notification for the document being uploaded, they can see it and download it. |
| FN02 | Make sure that either type of user can upload any document that is less than 10MB and is within the allocated file size. | Candidates or RAC advisors can drop in documents from any of the supported file types (anything from .docx to .txt to .jpg) and anything less than or equal to 10MB. These documents will be dropped in an uploaded to the profile. |
| FN03 | Make sure that all words are separated and not put into UpperCamelCase | All types of user data that are written in UpperCame2lCase and projected to the front end have been separated and properly capitalized. |
| FN04 | Ensure that inactive programs can’t be modified the way active ones can. | Once a program is listed as inactive you can no longer modify its competencies, elements or courses. The only thing you can do is set it as active *if* another program with the same name/code doesn’t currently exist. |
| FN05 | Once a user has been deleted, they can only be *seen* by RAC advisors but otherwise can’t be touched. | The user can no longer log into their account if it’s been deleted. A change password request cannot be sent to that email. A user can make a new account under the same email address. A candidate or potential candidate cannot find out that account existed. |

# Usability Tests

|  |  |  |
| --- | --- | --- |
| Test ID | Purpose | Expected Result |
| US01 | Menu items only have separators if there’s multiple items in the menu. | All vertical bars separating menu items disappear when there’s only one item showing |
| US02 | All actions have the same styling across all pages as like actions. | Primary actions appear the same, action links appear the same, drop down menus appear the same, etc. |
| US03 | All popups appear the same. | Any popup in the system uses the same custom one that we made. |
| US04 | Dates appear under the same format throughout the system. | All dates appear in the same format, using the international ISO standard of yyyy-mm-dd |
| US05 | Ensure that there are no major typos in headers. | The system has no typos in any of the headers on any pages. |

# Compatibility Tests

|  |  |  |
| --- | --- | --- |
| Test ID | Purpose | Expected Result |
| CO01 | Make sure the system works on different operating system | The system works on windows/OSX/UNIX |
| CO02 | Make sure the system works on different browsers | The system works on Chrome/Firefox/Safari/IE/etc |
| CO03 | Make sure the system works on various screen sizes | The system works on desktops/laptops/tablets/phones |
| CO04 | Make sure the system works on all types of networks | The system works using Ethernet/wifi/3G/LTE |
| CO05 | The system works on all used web-server protocols | The system works using either HTTP/HTTPS |

# Security Tests

|  |  |  |
| --- | --- | --- |
| Test ID | Purpose | Expected Result |
| SE01 | Make sure that the directories underneath files cannot be accessed. | When you try concatenating the URL you will be redirected somewhere appropriate and will never see into a directory. |
| SE02 | Make sure that you cannot access other user’s pages by modifying the URL. | When you’re not logged in, you can’t navigate directly to RAC advisor or Candidate pages. When you’re logged in as a candidate, you can’t access RAC Advisor pages. When you’re logged in as a RAC Advisor, you can’t see Candidate pages. |
| SE03 | You can only create an account if you’ve checked the captcha. | If you haven’t checked the captcha when registering for a new account, you cannot create an account. |
| SE04 | Verify that SQL injection is not possible on our system. | Make sure SQL cannot be entered into any textboxes and if it is, it will not be executed on the database. |
| SE05 | Ensure that XSS cannot be entered in our system. | Make sure that no valid HTML, CSS or JavaScript can be input into text boxes, and if it is, it will not be executed on the client or server. |

# Business Cycle Tests

|  |  |  |
| --- | --- | --- |
| Test ID | Purpose | Expected Result |
| BC01 | Make sure a user is able to upload documents to the server and they will be saved in the database. | When a user drops a document into the field it is uploaded to the server and saved to the database. |
| BC02 | Verify that a user is able to save progress throughout a self-evaluation and then submit it. | When a user leaves the page or clicks to save their RAC request, their progress will be saved until they return. When they submit their request, their self-evaluation will be set to view-only and marked as submitted. |
| BC03 | Ensure that when a Candidate deletes their account, that email address is opened up for others to use to make an account. | When a candidate deletes their account, another user is able to go and reuse that email address to make a new account. |
| BC04 | Make sure that when you modify an active program, proper steps are followed to not modify and existing RAC requests. | When a RAC advisor modifies a program in the system, the existing program is going to be set as inactive and the current one will be set as the active program with the changes and future RAC requests will be made to that program. |
| BC05 | When you set an inactive program as active, any active program(s) with the same name will be set as inactive to ensure that only a single program with a given name can be active at a time. | The system will only allow one active program with a given name and will enforce this to make sure that any time a program with the same name is added to the active pool, all others will be pushed to the inactive. |

# Conclusion

N/A