

Case Study – 11

(20 points)

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(10 pts) For the Book Exchange Project, describe what will need to be tested at each level (250 words minimum)

- unit tests
- integration tests
- system tests

The Book Exchange Project will need testing in quite a few areas both individually and as a whole to ensure the reliability of the application. Starting with unit testing as a means of ensuring smaller modules means testing the functionality of modules such as book donations and forum posting. One area that may prove to show difficulties is the account verification module. Users should not be allowed to donate and receive books or post on the forum if their account does not have the proper verifications. Sample accounts should be used with different settings to make sure this feature works as intended. Another important module would be the forum posting. Users should not be allowed to post without the proper account options and any post that infringes on the language b locker or is inappropriate needs to be flagged appropriately. For integration testing, book donations and receptions should be tested alongside one another as both are dependent of the user's profile and their personal information. The system needs to make sure addresses and profile information are stored correctly so there are no issues with donations sending or books received at the wrong place. Honestly, integration testing can be done with each aspect of the user's account once it is verified that the account system works as intended, as almost every aspect of the application relies on a user's account being set up properly. Lastly, once every individual aspect is "confirmed" as working, an alpha version of the application should be sent out to early testers or employees to test the complete functionality of every feature. Testers will create accounts, donate books to get the warehouse started, and attempt to receive books. Once this is done, testers will utilize the forum system by reviewing books and starting conversations.

(10 pts) What types of documentation and training will the Book Exchange Project need (250 words minimum)?

To begin, the Book Exchange software will make use of a few forms of documentation. The first essential form of documentation will be defect tracking software, or bug tracking software, to help take note of and eliminate any of the smaller bugs that always exists with large-scale coding projects. Program documentation will be necessary for keeping track of which inputs and outputs are necessary for specific actions among the application. Alongside these forms, since the application will be run mainly behind a centralized server, operations documentation will be required for any IT users so that all information for the program, system identification, input files, special forms, and error messages can be acquired online as much as possible. The final and most important piece of documentation is

the user documentation outlining the processes for a user controlling the system. If possible, fully online access to the user documentation and a link to it in the application will help users understand how to access and utilize the system as a whole. There should be limited training available to any Book Exchange Project employees or administrators. At a minimum, they should be taught on how to moderate the forums system for inappropriate content or users. Also, administrators should be taught how to moderate the process of book donations and receptions, making sure books are checked in and out, time limits and book limits are not reached, and users are making use of the system properly. The user documentation and moderator training will be essential parts of the application running smoothly. Documentation should be able to be accessed online and moderator training should take no longer than a few days to go over everything that is necessary.