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**Why and when do we use test automation?**

1. *Why?*

We use test automation because test automation speeds up the process of testing compared to manual testing. Also, test automation is less cost consuming. Thus, we can cover more aspects of the product to test using automated testing, and ensure the product is ready to the market earlier. Furthermore, we can reuse the test by using test automation. Firstly, we create a test script in many ways depending on the tool we choose to use (when I test the search book function, I can record the process of sample testing to create a test script, then modify the script). By specifying input data and running the test script, we can test anytime with any data. It is also more consistent and accurate compared to us as humans. Therefore, the testing can be done fully and more frequently. Some automation test tools such as Katalon provide the feature of test reporting, which is very convenient to verify, validate the product. Using test automation shortens the process of doing the statistical analysis on test results, which is much more reliable than manual reporting.

1. *When?*

We should use test automation when the test cases are repeated such as regression testing and analyze the results to make a suitable change to the code (for example: fix bugs, optimize the code). Also, the test on performance, security, and load can be done easily using automated testing. Moreover, some test cases require a lot of work and are difficult to test manually. With the help of automation tests, we can write scripts, specify the data to test and test more test cases much faster. Finally, automation testing works well with high risk, business critical test cases.

**Important note:**

***1. Screenshots of front end by Kỳ (Homepage, Search book, View book detail, Borrow book):***

<https://github.com/dinhmyky/CS300-Group10-OurBookplus/tree/main/src/src/screenshotFrontendKy>

***2. Steps to run code front end by Kỳ (Homepage, Search book, View book detail, Borrow book):***

Step 1: After downloading zip code file from github, extract file

Step 2: Open Node.js command prompt and type in these commands:

cd pathToExtractedCodeFolder

(Example: cd C:\Users\dinhm\Downloads\CS300-Group10-OurBookplus-main)

cd src

npm install

npm start