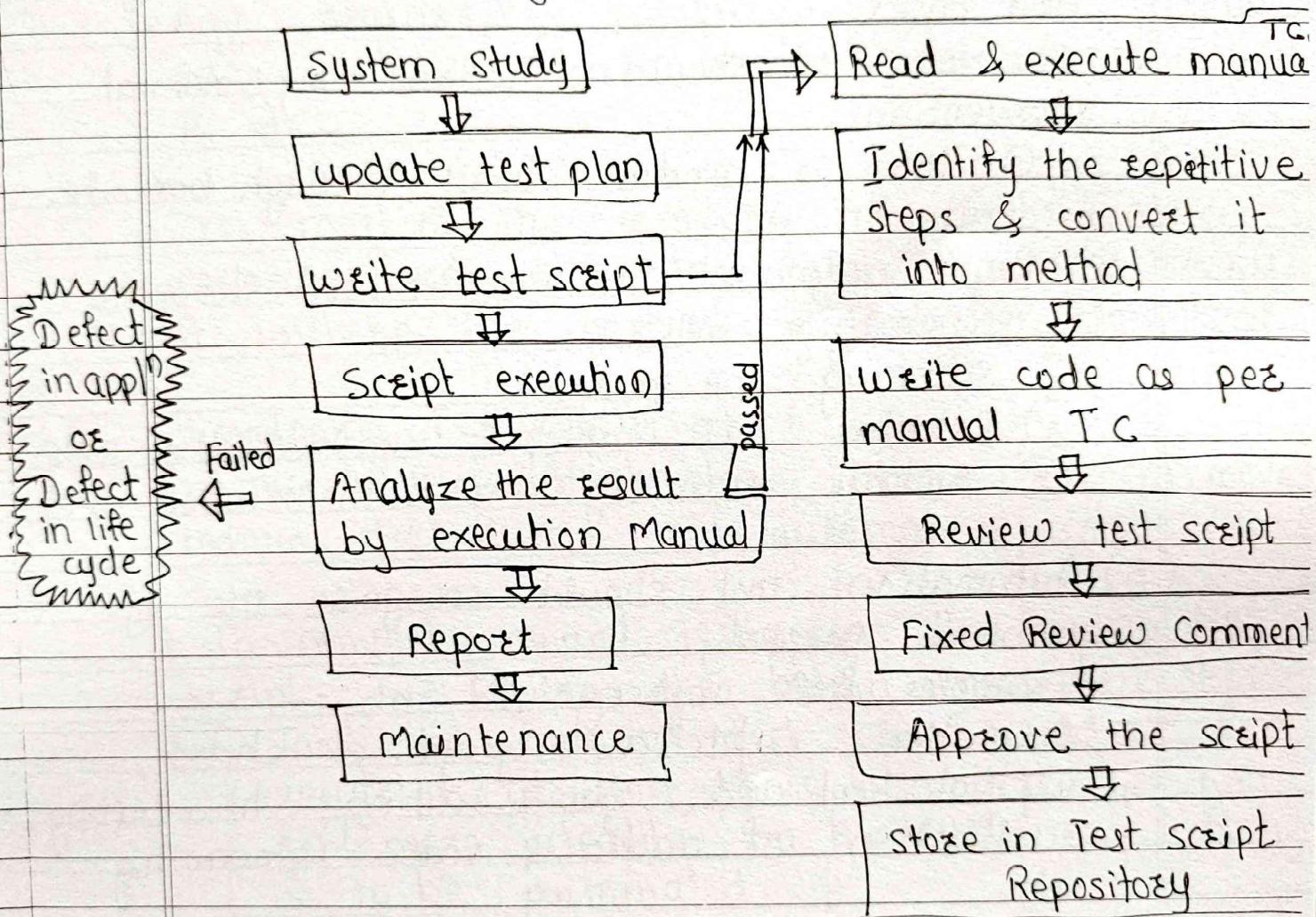


* Automation test life cycle :-

It is a standard process which is to be followed to automate testing of any software application. It has following stages:



① System study:-

It is an initial phase which is also called as ~~fea~~ feasibility study. In this phase, we will understand the application by directly referring the manual test cases (To save time).

we also select test cases for the automation based on following criteria:-

- ① It should be part of egression test suite.
- ② This inform' will be provided by manual testees & we don't automate non-evection test cases.

- ② The test case should not contain any manual interventions.

e.g. ① getting a product detail through barcode
② scanning

② Paying amount thru credit card shopping.

③ Generating bills.

④ Scanning the images

⑤ Entering OTP which is received thru sms.

⑥ Biometric scanning for authentication & etc.

- ③ Automation tool should recognise the obj. problems properly.

Examples for unrecognised obj:-

- Animation, captcha, graphical chart, virtual keyboard, game testing, blur testing, verification of audio & video streaming, etc.

Note:-

Because of all the above reasons 100% automation is not possible, go to 80%. automation coverage is considered as good automation coverage.



② Automation plan:-

- After identifying the test cases for automation, we will capture the detail process of automation such as tool used for automation, framework used for automation, no. of automation engg required, responsibility of each automation engg., starting & ending date of automation & etc.
- In most of the company they don't create a separate automation test plan document because it will be the part of manual test plan itself.

③ Developing Test Scripts:-

- This is the actual stage where we can convert manual test cases into automation script.
- To convert manual test cases into automation script, we follow the below mentioned steps:-
 - ① Take the manual test case, read it & execute it at least once so that we will get more clarity on the test case which is to be automated.
 - ② Identify the repetitive steps & convert them into reusable function.
 - ③ Write a code as per manual test case steps
 - ④ Execute it & ensure that it is working fine.

(5) Send it for review & fix the review comment.

Note:-

All the above activities will be done inside a local machine which contains automation tool as well as stable build.

Note (2):-

While reviewing test script we should consider following points:-

- Script executes without any error.
- Each step of manual test case is converted into automation script or not.
- Repetitive ~~fun~~ steps are converted into funs or not.
- Coding standard is followed or not.

Note (3)- Performing review by other engg in the same team is known as internal review or peer review.

If it is done by outside the team such as client then it is called as external review.

(4) Script Execution:-

After reviewing the script it will be sent for approval. Once it is approved, it will be stored into test script repository such as LAN machine which contains automation tool & all the approved test script.

As soon as we get a new build, we will install in local machine then we will execute the script.

When the scripts are getting executed in the lab machine we will continue our work i.e. automating the test cases in the local machine.

⑤ Analysing the result & publishing the result:-

After executing the script we check the status of script. If it is failed then we take a responding test case & execute it manually. If the manual test case is failed then it indicates that there is defect in the appli. In such cases, we report the defect & follow the defect life cycle.

If manual test case is passed then it indicates that there is problem with the code in such cases we will debug our code - send it for review, again send it for approval & store the updated script in the script repository.

Then we prepare script execution report & publish it to the specified team such as development team, manual testing team, manager & client throug email.

⑥ Maintenance:-

After converting all the test cases into automation scripts, we just run the script whenever we get a new build. In this phase we will not involved in too much of coding as compared to any of the previous stage.

This phase is called as maintenance if required all the automation script will be handed over to the client.

So that they can continue the maintenance.

* Automation Framework:-

~~Under~~ Automation framework is a standard guideline & the set of processes which is to be followed to convert manual test cases into automation script.

We have following types of automation framework in selenium:-

- ① Linear automation framework
- ② Method driven -||-
- ③ Module driven -||-
- ④ Keyword driven -||-
- ⑤ Data driven -||-
- ⑥ Hybrid framework

{ on Facebook group
Frameworks.pdf. }

* Keyword Driven Framework:-

The process of converting keywords into present in the excel sheet into respective webdriver code & executing them is called as keyword driven automation framework.

or

In the keyword driven automation framework, we create various keywords & associate different action or function with each of the keywords, then we create a funⁿ library that contains the logic to read the keywords & call the associated action.