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Department of MCA

Topic: Selecting tools - requirements - tool market

COURSE

19CAE712

STQA

UNIT - IV

TOOLS TO
AUTOMATE TESTING

CLASS

III Semester /
II MCA

SELECTING A TEST TOOL

- Broad categories for classifying the criteria. are

1. Meeting requirements
2. Technology expectations
3. Training/skills and
4. Management aspects.

1.Meeting requirements

- a) There are many tools available in the market today but rarely do they meet all the requirements of given product or a given organization. Evaluating different tools for different requirements involves lot of effort, money and time. Huge delay is involved in selecting and implanting test tools.

- b) Test tools may not provide backward or forward compatibility with the product-under-test (PUT).

- c) Test tools may not go through the same amount of evaluation for new requirements.

- d) A number of test tools cannot distinguish between a product failure and a test failure. This increases analysis time and manual testing. The test tools may not provide the required amount of trouble-shooting/debug/ error messages to help in analysis.

2) Technology Expectations

- a) In general, test tools may not allow test developers to extend / modify the functionality of the framework.

- So, it involves going back to the tool vendor with additional cost and effort.

- Very few tools available in market provide source code for extending functionality or fixing some problems.

- Extensibility and customization are important expectations of a test tool.

- b) A good number of test tools require their libraries to be linked with product binaries.

- When these libraries are linked with the source code of the product, it is called as the "instrumented code".

c) Finally, test tools are not 100% cross-platform. They are supported only on some O.S. platforms and the scripts generated from these tools may not be compatible on other platforms.

3) Training Skills

- Test tools require plenty of training, but very few vendors provide the training to the required level.
- Organization-level training is needed to deploy the test tools, as the users of the test suite are not only the test team but also the development team and other areas like SCM (Software Configuration Management).
- Test tools expect the users to learn new language/scripts and may not use standard languages/scripts.
- This increases skill requirements for automation and increases the need for a learning curve inside the organization.

4) Management Aspects

- When selecting the test tool, it is important to note the system requirements and the cost involved in upgrading the software and hardware needs to be included with the cost of the tool.

- Migrating from one test tool to another may be difficult and requires a lot of effort.

- Not only is this difficult, as the test suite that is written cannot be used with other test tools but also because of the cost involved.

- As the tools are expensive and unless the management feels that the returns on investment (ROI) are justified, changing tools are generally not permitted.

- Following are the seven steps to select and deploy a test tool in an organization.

- **Step - 1:** Identify your test suite requirements among the generic requirements discussed. Add other requirements, if any.

- **Step - 2:** Make sure experiences discussed in previous sections are taken care of.

- **Step - 3:** Collect the experiences of other organizations, which used similar test tools.

- **Step - 4:** Keep a checklist of questions to be asked to the vendors or cost / effort / support.

- **Step - 5:** Identify list of tools that meet the above requirements and give priority for the tool, which is available with the source code.

- **Step - 6:** Evaluate and shortlist one / set of tools and train all test developers on the tool.

- **Step - 7:** Deploy the tool across test teams after training all potential users of the tool.

Thank You