**TESTING:**

1. Functional Testing.
2. Non-Functional Testing.

**Functional Testing Tools:**

1. Selenium
2. QTP(Quick Test Professional) / UFT(Unified Functional Testing)
3. Silk Test
4. Win Runner
5. Rational Functional Tester
6. Test Partner

**Performance Testing Tools:**

1. Load Runner
2. Silk Performer
3. Rational performance Testing (RPT)
4. J Meter

**Test Management Tools** (Test Cases, Test Scenarios, Test Execution, Defect Tracking)**:**

1. QC (Quality Center) / ALM (Application Lifecycle Management)
2. Silk Central
3. Test Manager
4. JIRA

**Bug Tracking Tolls** (Meant Only for Managing Defects)**:**

1. QC (Quality Center) / ALM (Application Lifecycle Management)
2. Bugzilla
3. PR Tracker
4. Mantis

**Parameters to Consider for Choosing an Automation Tool:**

1. Licensing Cost
2. Features Offered
3. Performance
4. Technology and Environment support
5. Portability and Maintainability
6. Vendor Support

**Difference between Selenium and QTP:**

|  |  |
| --- | --- |
| **Selenium** | **HP UFT (QTP)** |
| It’s an open source testing tool hence it does not require license and is free | It is commercial tool by Micro Focus and hence it requires a license and is expensive |
| Using Selenium only web applications can be automated | It is used for testing client-server applications. It can test web- based as well as desktop applications |
| Selenium has the option of using wide range of IDEs like Eclipse, Visual Studio, NetBeans | QTP  tests can only be developed in[QTP](https://www.guru99.com/quick-test-professional-qtp-tutorial.html)IDE |
| Selenium supports JAVA, .NET, Ruby, Perl, PHP, and many other programming languages | HP UFT only supports VB script |
| Selenium does not  have such built in object repository, but object can be managed by using UI element user extension | HP UFT comes with built in object repository.  Object repository development and maintenance is quite easy in HP ALM |
| There is no such tool that integrates with Selenium | HP UFT integrates with test management tool like HP Quality Center |
| It supports dialog box partially | All types of dialog box is supported by it |
| It supports addition of plug-ins to include features that are not provided by core Selenium | It supports different environments like SAP, Oracle, .NET  but user need to purchase add-on license for them |
| Web automation testing with Selenium incurs less cost | Automation testing is expensive due to licensing cost |
| It has no official support, since it is an open source | HP QTP offers very good technical support |
| Selenium supports mature Object Oriented Language like Java | HP QTP supports only[VBScript](https://www.guru99.com/vbscript-tutorials-for-beginners.html). Hence Object Oriented Approach to Test Automation becomes challenging |
| It is a low level tool with less functionality. Script requires more time to develop and maintain | HP QTP is more users friendly and scripts are developed quickly. |
| With new Selenium release the API changes. So Test Scripts need to be updated | Backward compatibility is powerful. Latest version of HP ALM supports code that was developed 5 years back |