Nguyễn Quang Hiển – 20120077

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

***Why***

* *Automated Testing Saves Time and Money*
  + Manually repeating these tests is costly and time consuming. Once created, automated tests can be run over and over again at no additional cost and they are much faster than manual tests.
  + Automated software testing can reduce the time to run repetitive tests from days to hours.
  + A time savings that translates directly into cost savings.
* *Testing Improves Accuracy*
  + Automated tests perform the same steps precisely every time they are executed and never forget to record detailed results.
  + Testers freed from repetitive manual tests have more time to create new automated software tests and deal with complex features.
* *Vastly Increases Your Test Coverage*
  + Automated software testing can increase the depth and scope of tests to help improve software quality.
  + Test automation can easily execute thousands of different complex test cases during every test run providing coverage that is impossible with manual tests.

***When***

* Critical components
* High-risk cases
* Performance or load testing
* Complex and/or time consuming tasks
* Impossible or difficult to run manually tests
* Repetitive tasks
* Tests run frequently
* Cross-platform testing