**End-to-End Software Test Automation Process:**

Here’s a high-level overview of the end-to-end software test automation process in bullet points:

**Assignment of Testing Task:**

* Complete Test Automation intake questionnaire.
* Understand the scope and objectives of testing requirements.

**Test Planning:**

* Define test automation selection criteria.
* Select appropriate automation tools and frameworks.
* Receive and review selected regression test cases assignment.
* Compile outline of test cases and automation scripts to be developed.

**Environment Setup:**

* Prepare test environment with necessary hardware and software in local workstation and LAB machines.
* Configure automation framework and any dependencies.

**Test Development:**

* Develop automated test scripts based on the test plan.
* Implement data-driven, keyword-driven, or Hybrid frameworks as needed.
* Perform peer reviews of scripts for initial feedback.

**Test Execution:**

* Receive & Review Automation Execution Request.
* Run / Re-run automated scripts in test environment as per request.
* Monitor execution and log any failures or issues.

**Results Analysis:**

* Analyze results of test runs.
* Identify defects, report to QA team, and log them in defect tracking system.

**Defect Management:**

* Triage reported defects with development & QA team.
* Prioritize defects for fixes based on severity and impact.

**Script Maintenance:**

* Update and maintain test scripts to accommodate changes in the application.
* Optimize scripts for efficiency and reliability.

**Continuous Integration:**

* Integrate automation scripts into continuous integration (CI) pipeline or Test Management Tool.
* Ensure tests are triggered with each build or at scheduled intervals.

**Reporting:**

* Generate test reports summarizing test outcomes.
* Provide insights on test coverage, defect density, and other key metrics.

**Review and Improvement:**

* Conduct retrospective review of Test Cases and testing process.
* Identify areas for improvement and implement changes for future cycles.

**Script Revision:**

* Periodically review and revise scripts to ensure they are up-to-date with the application and updated technology.

**Stakeholder Communication:**

* Keep stakeholders informed throughout the process with regular updates and reports.

**Briefly:**

* **Manual Test Case Writing**:
  + The QA Team drafts detailed regression test cases.
* **Test Case Selection for Automation**:
  + The QA and Test Automation team members select test cases based on the test automation selection criteria.
* **Test Data Preparation**:
  + The Test Automation resource collaborates with the QA team to prepare the necessary test data for automation.
* **Script Development**:
  + The Test Automation resource develops scripts, adhering to each step outlined in the test case.
  + A code review and walkthrough are conducted by the Automation and QA teams after a certain percentage of scripts are completed (e.g., 25%, 50%).
* **Script Execution**:
  + The QA Team runs the scripts as needed or according to the plan.
* **Script Maintenance**:
  + The Test Automation resource maintains the scripts, making adjustments for any changes in test cases or the GUI.