**Current Observation:**

Agile Projects present their own challenges to the Automation team; Unclear project scope, Multiple iterations, Minimal documentation, early and frequent Automation needs and active stakeholder involvement all demand lot of challenges from the Automation Team. As we are moving towards “Test First” than “Test Last” environment. Following are the areas where we have to focus on:

**Some of these challenges are:**

**Challenge 1: Requirement Phase**  
Test Automation developer captures requirements in the form of “user stories”, which are brief descriptions of customer-relevant functionality.

Each requirement has to be prioritized as follows:

**High:** These are mission critical requirements that absolutely have to be done in the first release  
**Medium:** These are requirements that are important but can be worked around until implemented.  
**Low:** These are requirements that are nice-to-have but not critical to the operation of the software.

Once priories are established, the release “iterations” are planned. Normally, each agile release iteration takes between 1 to 3 months to deliver. Customers/software folks take liberty to make too many changes to the requirements. Sometimes, these changes are so volatile that the iterations are bumped off. These changes are greater challenges in implementing Agile Automation testing process.

**Challenge 2: Selecting the Right Tools**

Design framework to adept agile method of evolutions. It should be robust enough and maintainable also developing quality test scripts here means, ensuring that the test scripts meet the below mentioned criteria: correctness, maintainability, versioning, integrity, portability, performance.

**Challenge 3: Script Development Phase**

As functionality grows with each iteration, regression testing must be performed to ensure that existing functionality has not been impacted by the introduction of new functionality in each iteration cycle. The scale of the regression testing grows with each sprint and ensures that this remains a manageable task the test team use the test automation for the regression suite.

**Challenge 4: Resource Management**

The Agile approach requires a mixture of testing skills, that is, test resource will be required to define unclear scenarios and test cases, conduct manual testing alongside developers, write automated regression tests and execute the automated regression packages. As the project progresses, specialist skills will also be required to cover further test areas that might include integration and performance testing. There should be an appropriate mix of domain specialist who plan and gather requirements. The challenging part in the Resource management is to find out test resources with multiple skills and  
allocate them.

**Challenge 5: Communication**

Good communication must exist among Automation testing team, developers, business analysts and stake holders. There must be highly collaborative interaction between client and the delivery teams. More client involvement implies more suggestions or changes from the client. It implies more bandwidth for communication. The key challenge is that the process should be able to capture and effectively implement all the changes and data integrity needs to be retained. In traditional testing, developers and testers are like oil and water, but in agile environment, the challenging task is that they both must work together to achieve the target.

**Challenge 6: Daily Sync up Meeting**

Daily Scrum Meeting is one of the key activities in Agile Process. Teams do meet for 15 minutes stand up sessions. What is the effectiveness of these meetings? How far these meetings help Automation practice Developers?

**Challenge 7: Release Phase**

The aim of Agile project is to deliver a basic working product as quickly as possible and then to go through a process of continual improvement. This means that there is no single release phase for a product. The challenging part lies in integration testing and acceptance testing of the product.