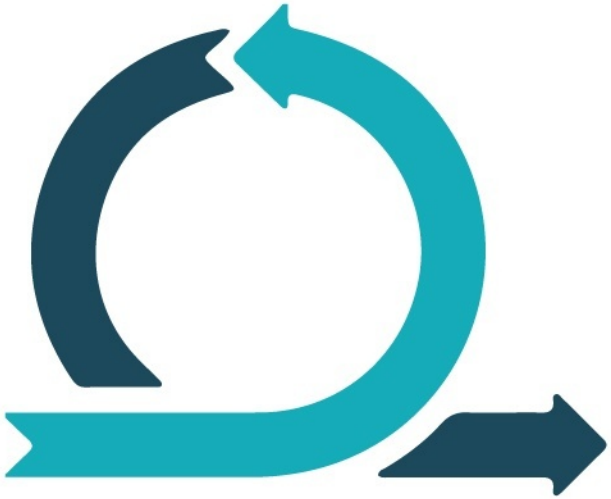
Agile Testing and the Role of Agile Tester

Bharathi Jayanthi
Sangeetha Immani
Anwar Mohammed



FedCASIC Conference

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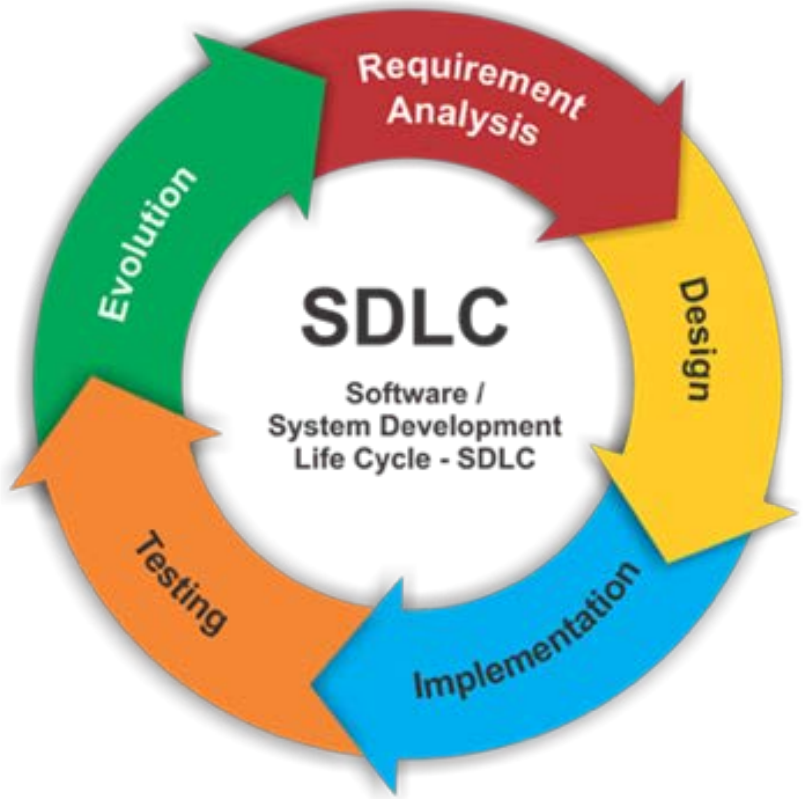
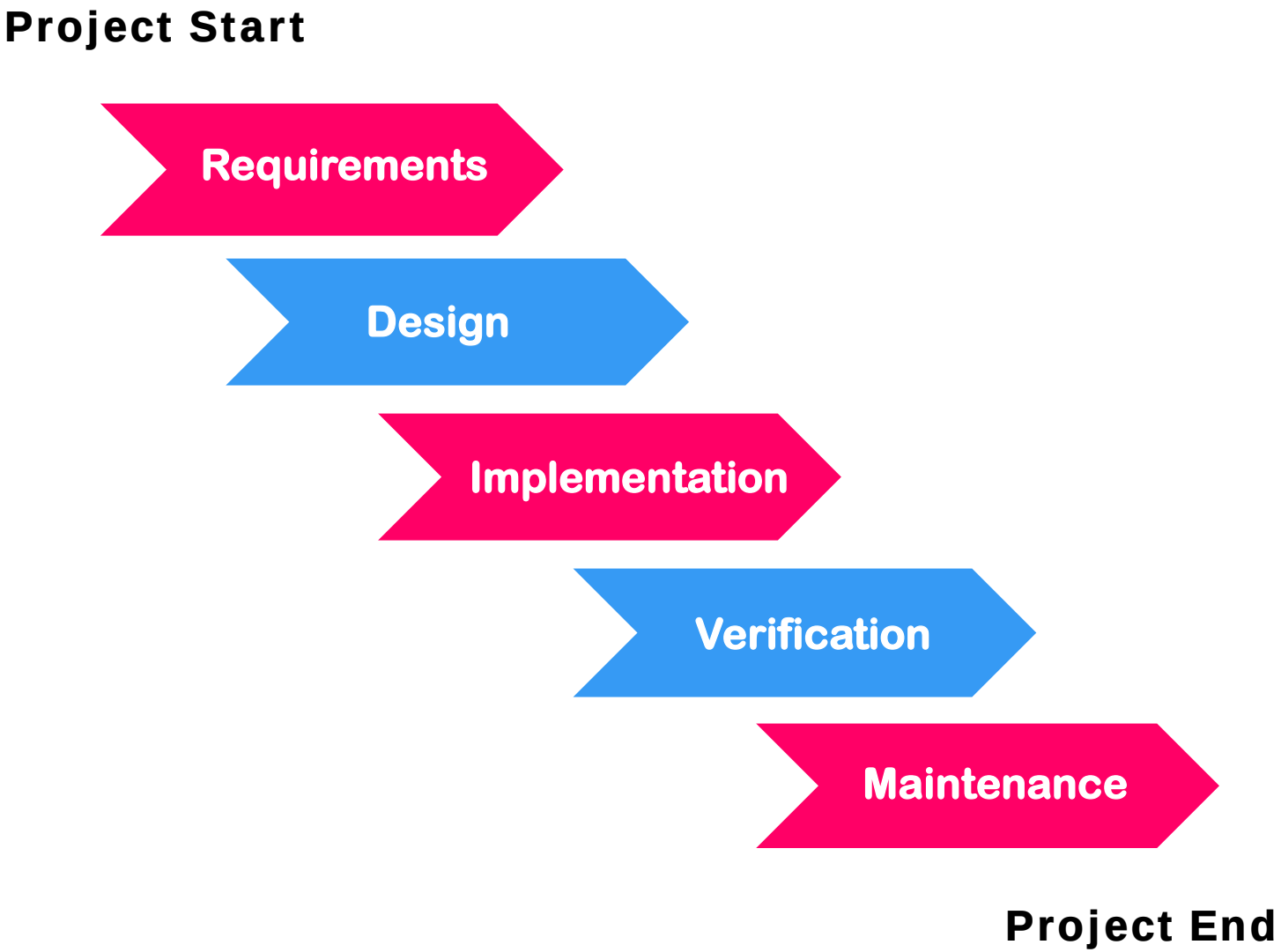
SDLC


Requirement Analysis
Design
Implementation
Testing
Evolution
SDLC
Software / System Development Life Cycle - SDLC

SDLC Methodologies - Waterfall

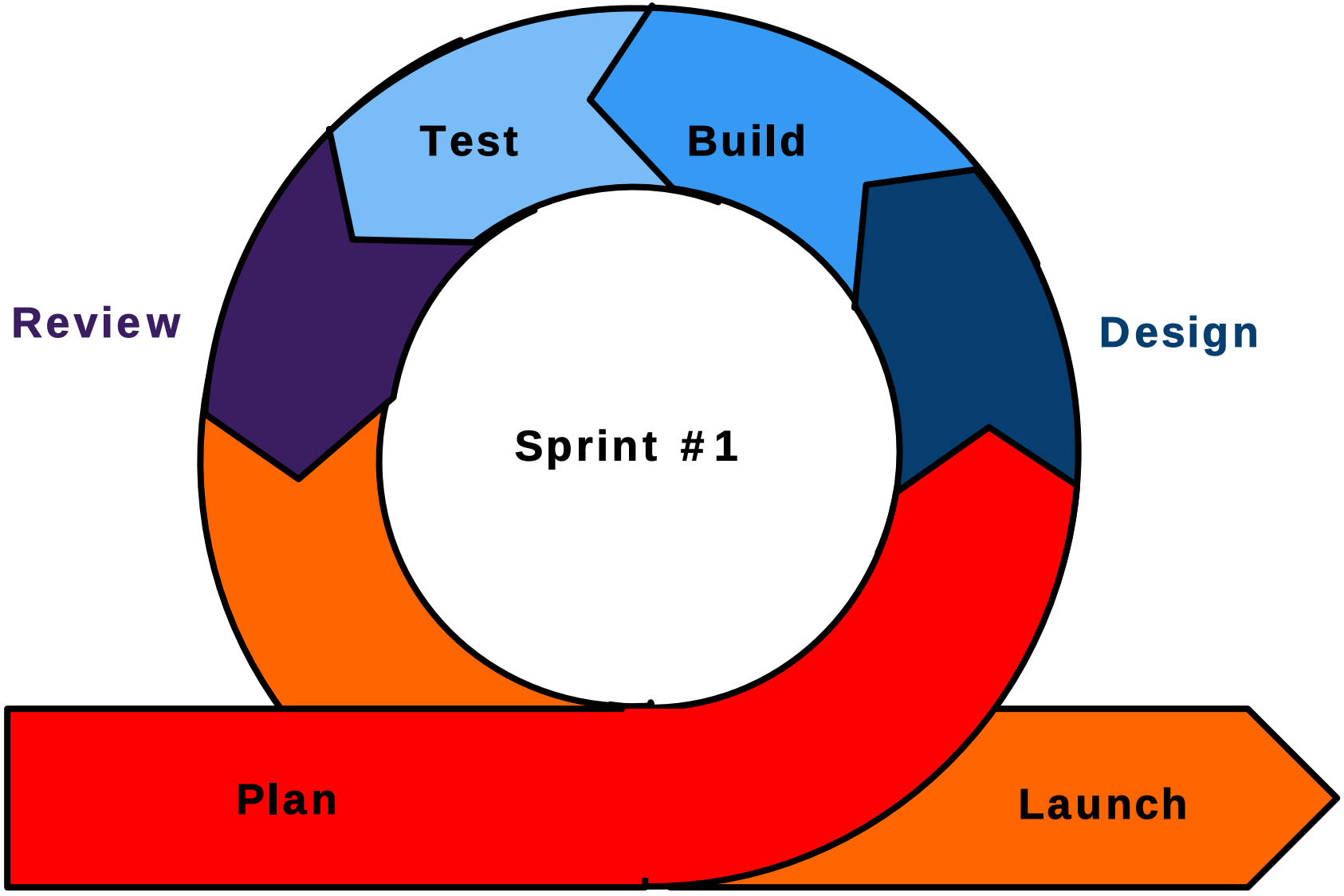


What is Agile?

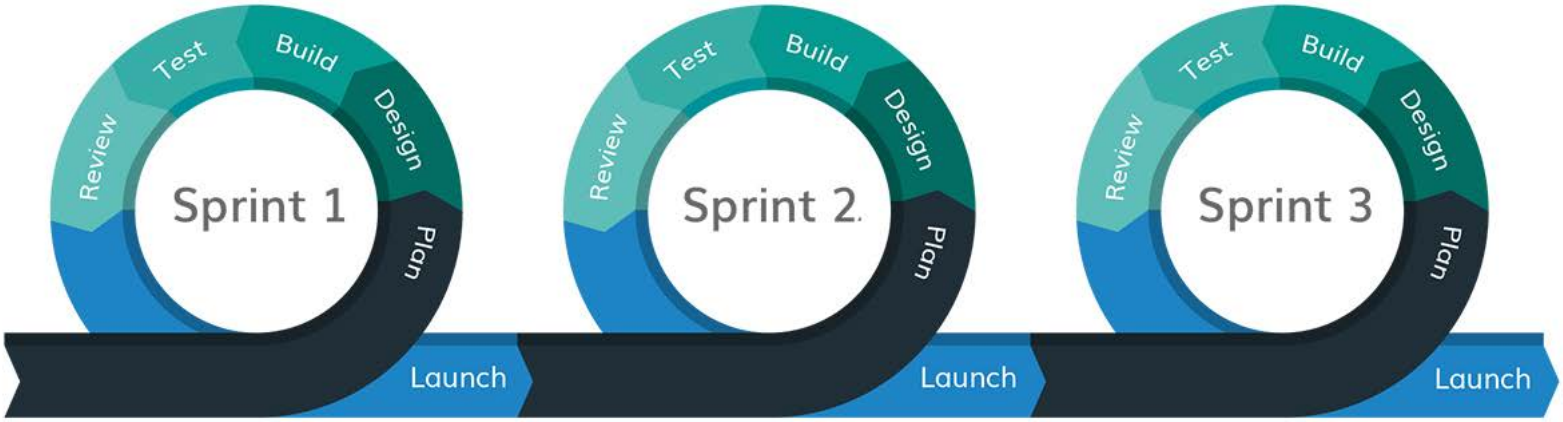
Agile is a term used to describe approaches to software development emphasizing

- Incremental Delivery
- Team Collaboration
- Continual Planning and
- Continual Learning

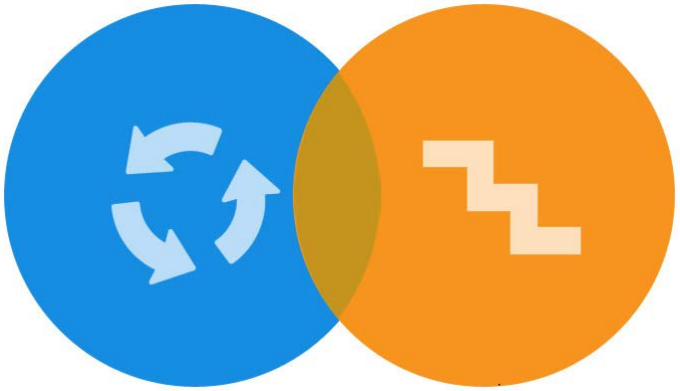
Agile Life Cycle



Agile Life Cycle



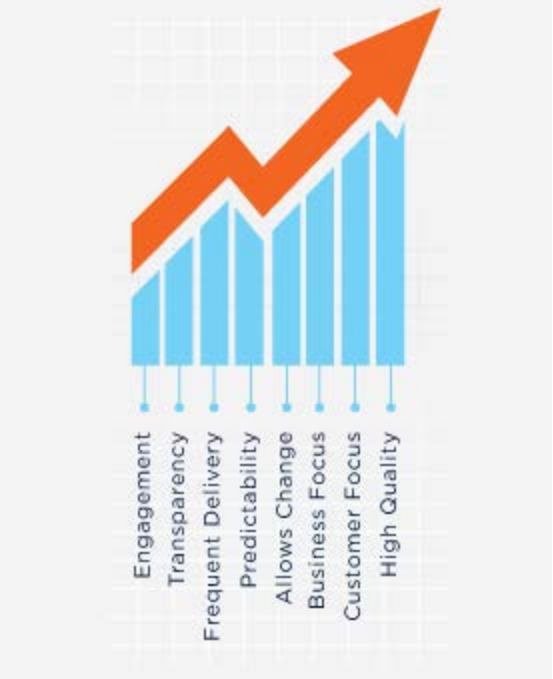
Agile Vs Waterfall



Agile	Waterfall
Multiple Releases	Single Release
Days/Weeks for deployment	Months for deployment
Frequent customer involvement	Occasional customer involvement
Change is expected	Resistant to change
Product Backlog, Plan for Sprint. Priorities shift based on new data.	Start-to-finish Project Plan

Advantages of Agile Development

- Stakeholder Engagement
- Transparency
- Early and Predictable Delivery
- Predictable Costs and Schedule
- Allows for Change
- Focuses on Business Value
- Focuses on Users
- Improves Quality



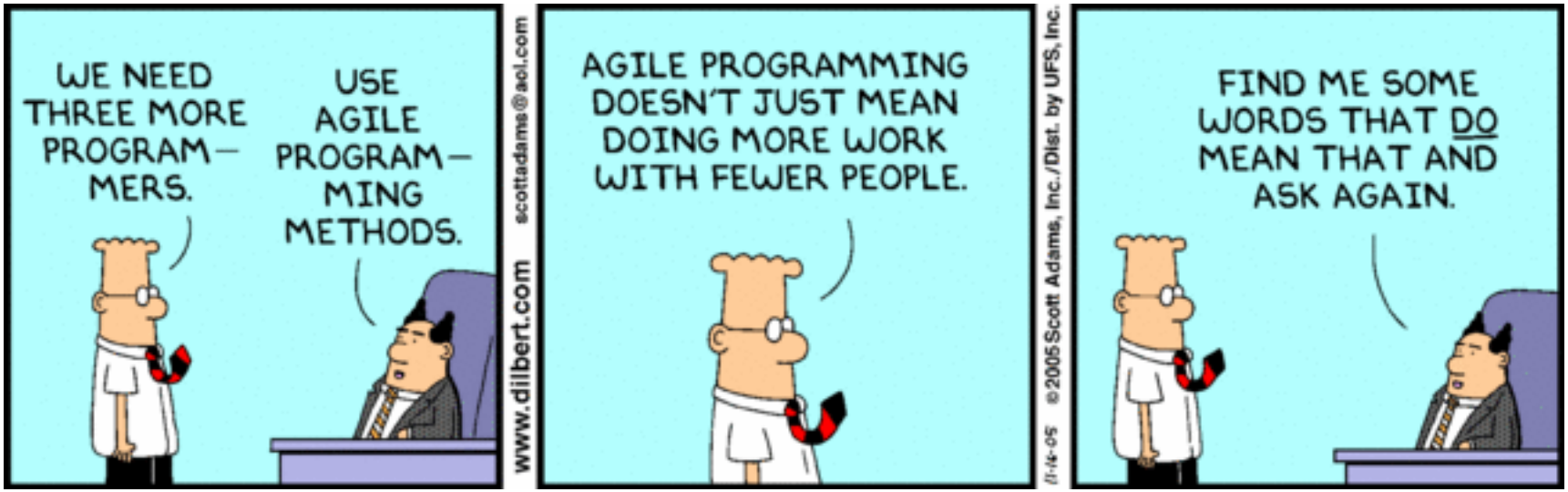
Agile Team Roles

- Team lead
- Team Member
  - Business Analyst
  - Developer
  - Quality Assurance (QA) Tester (Agile Tester)
- Product owner
- Stakeholder

Agile Tester

- Builds quality into the product in the plan or design phase
- Goes beyond just testing and logging bugs
- Works as part of a development team
- Works closely with the product owner
- Works with everyone in the team to improve quality
- Conducts skilled, thoughtful, and analytical testing

Agile is not…



If you think Agile means cowboy programmers doing whatever they want with no requirements, no rules, no documentation, and no testing…

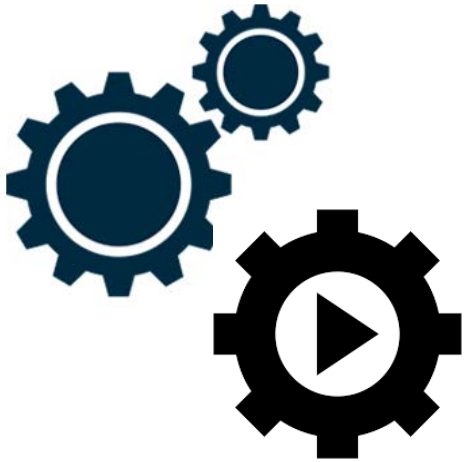
you are reading too much Dilbert!

Required Skills for an Agile Tester

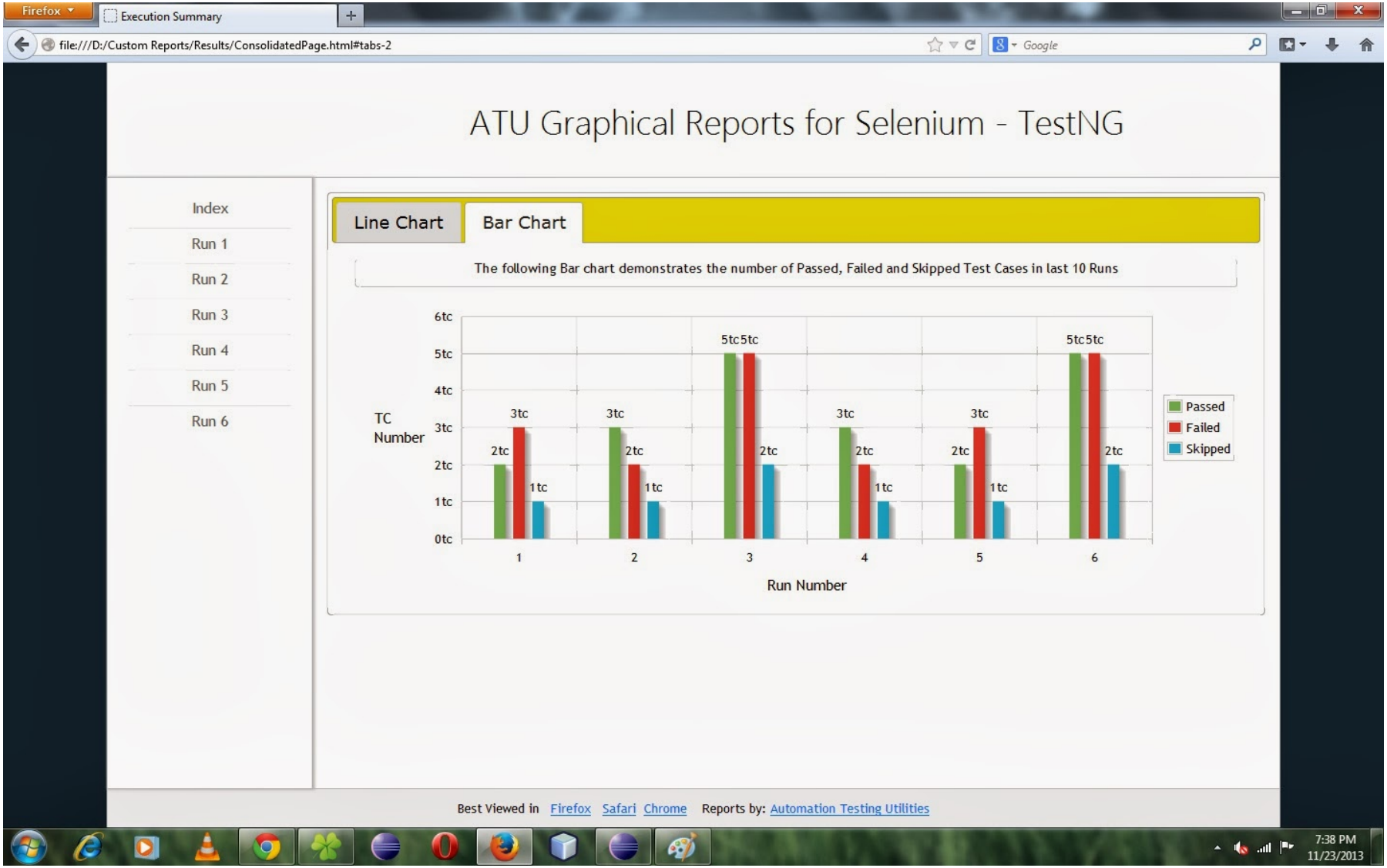
- Communication:
  - Frequent (verbal and written), with technical and laymen members of the project
- Technical:
  - Gathers requirements and grooms user stories
  - Helps programmers interpret specs correctly
  - Ensures product owners understand the needs of the stakeholder
  - Conducts code review as needed
- Team Engagement:
  - Need to work effectively with different personality types
  - Adapt to varying skill level of team members
  - Uncover issues even before testing begins
  - Help describe the features through story boarding and dev demos

Required Skills for an Agile Tester (continued)

- Automation:
  - Turn user stories to automation test scenarios
  - Create automated test scripts
  - Help programmers build their testing skills
  - Use state of the art tools (Selenium, Fitnesse, Cucumber, Jenkins)
  - Apply continuous Integration techniques



Tools – Continuous Integration – Selenium



Conclusion - Agile

- Iterative software development
  - Each Iteration takes two-four weeks
  - Independent working module is built in each iteration
- Suitable for development on a tight schedule
- Good fit for changing environments/specs
- Automated testing in agile is helpful

Conclusion - Agile Tester

- Increased engagement and interaction with team
- Effective communication
- Identify and mitigate risks
- Automation skills
- Continuous feedback

Questions?

Bharathi Jayanthi Golla

919-541-7254

jayanthi@rti.org

Anwar Mohammed

919-541-7308

amohammed@rti.org