

# ISTQB® Certified Tester Foundation Level Certification

**CTFL 4.0** 



#### ISTQB® CTFL 4.0 Course Content

- 1. Fundamentals of Testing
- 2. Testing Throughout the Software Development Lifecycle
- 3. Static Testing
- 4. Test Analysis and Design
- 5. Managing the Test Activities
- 6. Test Tools



### 6. Test Tools



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#### After completion of this chapter the student will learn-

1. to classify tools and to understand the risks and benefits of test automation.



## Chapter 6: Test Tools

#### Agenda

- 6.1 Tool Support for Testing
- 6.2 Benefits and Risks of Test Automation





# 6.1 Tool Support for Testing

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6.1.1 Explain how different types of test tools support testing (K2)





#### 6.1.1 Explain how different types of test tools support testing (K2)

Test tools support and facilitate many test activities:

- Management tools: increase the test process efficiency
- Static testing tools: support the tester in performing reviews and static analysis
- Test design and implementation tools: gen of test cases, data and procedures
- Test execution and coverage tools: auto test execution and coverage measurement
- Non-functional testing tools
- DevOps tools: DevOps CI/CD pipeline, workflow tracking, auto build processes
- Collaboration tools: communication
- Tools supporting scalability and deployment standardization: (e.g., VMs, Docker, Kubernetes)
- Any other tool that assists in testing (e.g., a spreadsheet)



# 6.2 Benefits and Risks of Test Automation



6.2 Benefits and Risks of Test Automation

6.2.1 Recall the benefits and risks of test automation (K1)





#### 6.2.1 Recall the benefits and risks of test automation (K1)

- Simply acquiring a tool does not guarantee success.
- Each new tool will require effort to achieve real and lasting benefits (e.g., for tool introduction, maintenance and training).
- There are also some risks, which need analysis and mitigation.





#### 6.2.1 Recall the benefits and risks of test automation (K1)

Potential benefits of using test automation include:

- Time saved by reducing repetitive manual work (e.g., execute regression tests, re-enter the same test data, compare expected results vs actual results, and check against coding standards)
- Prevention of simple human errors through greater consistency and repeatability (e.g., tests are
  consistently derived from requirements, test data is created in a systematic manner, and tests are
  executed by a tool in the same order with the same frequency)
- More objective assessment (e.g., coverage) and providing measures that are too complicated for humans to derive
- Easier access to information about testing to support test management and test reporting (e.g., statistics, graphs, and aggregated data about test progress, defect rates, and test execution duration)
- Reduced test execution times to provide earlier defect detection, faster feedback and faster time to market
- More time for testers to design new, deeper and more effective tests





#### Thank You