Agile Testing Competence Framework

- 1. Me
- 2. My Environment
- 3. My Team
- 4. My Company
- 5. My first project

Me	Test Planning	Test Analysis	Test Design	Test Implementation	Execution	Test Closure	Test Monitoring & Control
Topics	Fundamentals of Testing - Definition and terms - Testing principles - Verification vs Validation Test Levels	Requirements & Specifications	Why design?	Functional vs Nonfunctional testing Introduction Test Automation	Mindset - tester role - management (self-organization) - emotional intelligence Testing Quality	Lessons Learned (implicit)	Test Management
Goal	M.P As a prospective tester I can reproduce the fundamental terms of testing, definitions and I can name the test levels to further build on this knowledge during the Test Academy.	M.A As a prospective tester I can define the term requirements and explain their importance to develop tests in accordance with the costumers needs.	M.D As a prospective tester I can explain why test design matters to stay motivated to design suitable and innovative tests.	M.Ia As a prospective tester i can describe the difference between functional and nonfunctional testing to correctly assign quality features and therefore improve my daily work. M.Ib As a prospective tester I can explain the Basics of Test Automation in order to stay on the pulse of the times of testing.	M.E As a prospective tester I can describe the mindset and the inherence of testing and integrate it into my everyday work so that I do not loose sight of what to focus on when working as a tester.	M.C As a prospective tester reflected on my performance and can adapt learnings from former situations in order to further develop my skills.	M.M As a prospective tester I can explain Test Management and its phases to always have the bigger picture in mind when working on one step in the testing process.
Outcome & Methods	□ M.P.1: I can define testing in my own words and I discussed this definition with my learning coach or my learning group. □ M.P.2: I can explain the difference between verification and validation. □ M.P.3: I can name the four main levels of testing and explain them in a short sentence each.	□ M.A.1: I have completed EX.M.A._Intro. □ M.A.2: I can explain the term requirement. □ M.A.3: I can give at least two arguments stating the importance of requirements engineering. □ M.A.4: I can name the difference between a requirement and a specification.	□ M.D.1: I can explain the importance of test design.	□ M.Ia.1: I can define functional and nonfunctional testing in my own words. □ M.Ia.2: I can name the difference between functional and nonfunctional testing. □ M.Ia.3: I can assign functional and/or nonfunctional tests to requirements. □ M.Ib.1: I can explain the term test automation. □ M.Ib.2: I can name 3 advantages and 3 risks of test automation.	□ M.E.1: I can explain the tester's role in a development team and wrote down my definition consisting of 1-3 sentences. □ M.E.2: I can name 3 skills a good tester should have in my opinion and wrote them down. Furthermore, I reflected which of these skills I already have and which I want to develop. □ M.E.3: I can name 3 methods for self-organization and I wrote them down. □ M.E.4: I tried one new method for self-organizing my work and discussed my experiences with the learning coach. □ M.E.5: I can define the term emotional intelligence in my own words and wrote my definition down. □ M.E.6: I can give a personal as well as an official definition of quality.	□ M.C.1: I formulated at least 3 lessons learned for a self-reflection task, where I tested the influence of a self-organization method.	□ M.M.1: I can name 3 advantages of test management. □ M.M.2: I can name the phases of test management and describe each in a short sentence.

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Topics	Fundamentals of Testing - Why testing? - When do I test? - Quality assurance general overview test types types and causes of defects	User Stories Test Basis & Test Objects	Test cases	Exploratory Test	Bugs Testing vs. Debugging	Documentation (implicit in form of recession)	Product Risks & Project Risks
Goal	E.P As a prospective tester I can describe the role of testing during the development process as well as the different test types and types of defects to make well-founded decisions in my role as a tester.	E.Aa As a prospective tester I can use User Stories to be able to present requirements in a comprehensible and clear manner. E.Ab As a prospective tester I can describe test basis and test objects in order to make well-founded decisions in my role as a tester.	E.D As a prospective tester I can write test cases to create the basis for good documentation.	E.I As a prospective tester I can apply exploratory testing to real life problems to enhance my creativity and encourage myself to take unusual paths.	E.E As a prospective tester I can explain the term bug in order to identify bugs correctly.	E.C As a prospective tester I can create understandable documentations to make cooperation as well as handovers as convenient as possible.	E.M As a prospective tester I can identify product and project risks in order to develop stategies to prevent and avoid them.
Outcome & Methods	□ E.P1: I can explain when testing should take place during the development process. □ E.P2: I can name 7 test types. □ E.P3: I can name 3 categories for classifying defects. □ E.P4: I can name 5 potential causes for defects.	(□ E.Aa.1. I formulated requirements for a particular process.) E.Aa.2: I can explain why to use User Stories. □ E.Aa.3: I can write a User Story for an example project using Jira. □ E.Ab.1: I can define the term test object in my own words.	□ E.D.1.: I wrote test cases for an example project. □ E.D.2: I can define test case in own words. □ E.D.3: I reviewed a test case written by a colleauge.	□ E.I.1: I can apply exploratory testing to a familiar product. □ E.I.2: I discussed my experiences with exploratory testing with my learning coach. □ E.I.3: I can define exploratory testing in my own words.	□ E.E.1: I can define the term bug in my own words. □ E.E.2: I can name the difference between testing and debugging.	□ E.C.1: I can name 3 benefits of neat documentation. □ E.C.2: I can write a documentation that is perceived as understandable and implement the feedback of my learning coach or group.	□ E.M.1: I can name 4 examples for product risks and 4 project risks each and give a proposal each how to avoid them.

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My team	Test Planning	Test Analysis	Test Design	Test Implementation	Execution	Test Closure	Test Monitoring & Control
Topics	Test Objectives Test Types Test Techniques (When to use which one?) - Black-box - White-box - experienced based	Test Techniques (long distribution of conditions) - Black-box - White-box - experienced based	How to design? Test Techniques (developing test cases) - Black-box - White-box - experienced based Test data	Testsuites	Bug reporting communication - feedback - active listening - teamwork	documentation Lessons learned	exit criteria change request
Goal	T.P As a prospective tester I can sum up the most important goals of testing and can correctly assign testing techniques to problems in order to perform targeted and well-founded testing.	T.A As a prospective tester I can name important test techniques so that I expand my testing vocabulary to build on this knowledge in furture projects. Black box: •Equivalence partitioning •Boundary value analysis •Decision table testing •State transition testing •Use case testing White box: •Statement testing •Decision testing Experience based:According •Error guessing •Exploratory testing •Checklist based T.A.o As a prospective tester I can correctly argue when to use which techniques to be able to make my choices understandable to my teammates and clients.	T.D As a prospective tester I can perform test design based on a well-founded choice of test cases in order to test exhaustively but not excessively.	T.I As a prospective tester I can explain the use of testsuites in order to fall back on them when necessary and helpful.	T.E As a prospective tester I can communicate attentive and effective in order to improve team work and work results.	T.C As a prospective tester I can explain the importance of documentation in order to maintain the motivation for the implementation of continious documentation.	T.M As a prospective tester I can explain when a testing process is ended and how to formulate change requests in order to complete testing cleanly.
Outcome & Methods	☐ T.P.1: I wrote down the 5 most important objectives in testing. ☐ T.P.2: I can explain the different test types in my own words and got feedback on my definitions from my learning coach. ☐ T.P.3: I can correctly assign situational tasks to the corresponding test types. ☐ T.P.4: I can assign the corresponding test techniques to example situations/ problems.	☐ T.A.1: I can name the most important test techniques (insert choice). ☐ T.A.2: I can describe one test technique in detail in my own words. ☐ T.Ao.1: I can choose one or more appropriate test techniques and argue why to choose it/them. I discussed this with my learning coach. ☐ T.Ao.2: I can assign test techniques appropriately to requirements.	☐ T.D.1: I can explain the process of test design. ☐ T.D.2: I can explain the number of test cases needed and name the respective reasons. ☐ T.D.3: I can explain the term test data.	☐ T.I.1: I can define the term testsuites in my own words. ☐ T.I.2: I can explain when and why to use testsuites. ☐ T.I.3: I can explain how to use testsuites.	☐ T.E.1: I can name 5 aspects of successful teamwork. ☐ T.E.2: I explained what active listening means and wrote a short summary in my own words. ☐ T.E.3: I came up with 3 initiatives I could take to improve teamwork in my team. ☐ T.E.4: I wrote a bug report which is perceived as understandable and shared it with my Learning Coach via Jira. ☐ T.E.5: I named 3 benefits of the continual use of feedback. ☐ T.E.6: I gave constructive feedback to a colleague.	☐ T.C.1: I named 5 aspects that are important for a good documentation.	☐ T.M.1: I defined the term exit criteria. ☐ T.M.2: I formulated a change request.

My company	Test Planning	Test Analysis	Test Design	Test Implementation	Execution	Test Closure	Test Monitoring & Control
Topics	Software Development Lifecycle Models (Waterfall vs. Agile) Planning Test Environments: Which possible options? Characteristics? Infrastructure (meetings, flipchart, tools, …)	Test conditions	Tools (Infrastructure)	examples test automation	Specific Test Techniques Test Protocols (ensuring safety for testers)	Test Improvement Archiving/ Handover	Test Monitoring Metrics Testing Risks
Goal	C.P As a prospective tester I can explain different Software Development Lifecycles and their benefits and disadvantages to make a well-founded choice which model to rely on.	C.A As a prospective tester I can explain test conditions to dereive the right conditions for testing problems I encounter during my projects.	C.D As a prospective tester I can name the tools my company is working with to get a first insight into important programmes that I might encounter as a tester.	C.I As a prospective tester I can distinguish test automation from manuell testing in order to make the right choices about procedures in furture projects.	C.E As a prospective tester I can explain how to use different test techniques and explain the importance of test protocools in order to perform targeted and repeatable tests.	C.C As a prospective tester I can list techniques that further improve testing as well as the documentation to continuously develop myself as a tester.	C.M As a prospective tester I can name critical testing risks and I can apply appropriate test monitoring metrics in order to make the testing process effective.
Outcome & Methods	□ C.P.1: I can explain what the Software Development Lifecycle is. □ C.P.2: I can name two sequential modells of software development/testing. □ C.P.3: I can explain the waterfall model in my own words. □ C.P.4: I can name 3 benefits and 3 disadvantages of the waterfall model. □ C.P.5: I can explain agile Software Development. □ C.P.6: I can name 3 benefits and 3 disadvantages of the agile approach. □ C.P.7: I can name at least 6 different approaches I could use while planning test environments.	□ C.A .1: I can define the term test conditions in my own words. □ C.A .2: I can derive conditions for my work environment.	□ C.D.1: I can name the tools my company is using for test management, test automation, bugtracking requirements engineering (JIRA; TestRail, Confluence + Automation: Jenkins, VM, Dockers, Mobile Farm)	□ C.I.1: I can distinguish example situations that should be solved using automation from examples that do not involve automation.	□ C.E.1: I can apply specific test techniques to a problem. □ C.E.2: I can explain the importance of test protocols.	□ C.C.1: I can name at least 3 measures to improve test processes (like mobtesting, testmeetings, CoP Tester, …). □ C.C.2: I can name at least 3 documentation methods (like exploratory testing charta, Mind Maps, Testing Touren).	□ C.M.1: I can select an approriate test monitoring metric for a particular example case. □ C.M.2: I can name the most critical testing risks and give a proposal each how to avoid them.
	Test Planning	Test Analysis	Test Design	Test Implementation	Execution	Test Closure	Test Monitoring & Control

My project	Test Planning	Test Analysis	Test Design	Test Implementation	Execution	Test Closure	Test Monitoring & Control
Topics	Test strategy and Test Plans Maps & Models: Strategic & Planning (Risk Storming)	Test Conditions Maps & Models: Technical Overview	Tools	setup Test Environments setup Infrastructure Test Procedures	Defect Management Specific Test Techniques	Archiving/ Handover	Project Management Exit Criteria (Definition of Done of Testing)
Goal	P.P As a prospective tester I can practically apply my knowledge about test strategy and plans in order to gain certainty for future projects.	P.A As a prospective tester I can define the term test conditions and can practically apply my skills to create test cases, so that I have a professional basis for further projects to build on.	P.D As a prospective tester I can name the most important tools my company uses and describe their basic functionalities to build on this knowledge during furture projects.	P.I As a prospective tester I can define requirements and use corresponding test techniques in order to build on this knowledge during future projects.		P.C As a prospective tester I can apply my knowledge to create a good handover so that I can improve the team work in my future project teams.	P.M As a prospective tester I can give an overview over the whole testing process so that I always keep in mind the bigger picture.
Outcome &Methods	□ P.P.1: I can apply my knowledge about test strategy and plans to an example project. □ P.P.2: I performed a risk storming and showed the results to my learning coach. □ P.P.3 I can build a test plan using TestRail	□ P.A.1: I can define the term test condition in my own words. □ P.A.2: I can create test cases based on a UML picture for one special rule or path in the software.	□ P.D.1: I can use my company's testing tools to solve one example project. □ P.D.2: I can write test cases for the example project using TestRail.	□ P.I.1: I can define the requirements for a test environment in my project. □ P.I.2: I can apply test procedures which are required in the example project.	□ P.Ie.1: I can name the most important aspects of sucessful defect management. □ P.Ie.2: I can apply test techniques according to the requirements of an example project.	□ P.C.1: I can explain 3 aspects that make a good handover. □ P.C.2: I can compile documents for a sucessful handover. □ P.C.3: I can create a template for an end-of-testing checklist.	□ P.M.1: I can use project management skills to organize an example case. □ P.M.2: I can apply exit criteria during my testing process.