

Software Testing Basics Course

SYLLABUS

| | Topic | Concepts |
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| 1 | Product Quality Model | <ul style="list-style-type: none">▪ What is quality?▪ Quality attributes: functionality, performance, compatibility, usability, reliability, security/safety, GUI▪ What is testing? |
| 2 | Functional Requirements | <ul style="list-style-type: none">▪ Levels of requirements▪ Requirements source▪ Requirements quality▪ Requirements testing▪ Requirements documentation▪ Requirements tracing |
| 3 | Requirements-based Testing | <ul style="list-style-type: none">▪ Test coverage▪ Categories of test design techniques▪ Specification-based test design techniques |
| 4 | Defects | <ul style="list-style-type: none">▪ Defect attributes▪ Common approach in describing defects▪ Defects investigation and isolation▪ Defects management |
| 5 | Defects Description: How-To (most popular mistakes) | <ul style="list-style-type: none">▪ Summary field▪ Attachment fullness▪ Unambiguous steps▪ Severity |
| 6 | Defects Lifecycle | <ul style="list-style-type: none">▪ What happens to a defect after its submitting to the bug-tracking system (general lifecycle)▪ Lifecycle in JIRA▪ Lifecycle customization▪ Defect validation |
| 7 | Bug or Feature? | <ul style="list-style-type: none">▪ That's not a bug, that's a feature! — typical functions that can be counted as defects. |

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| 8 | Tests Types. Checklist for testing web, standalone and mobile applications | <ul style="list-style-type: none"> ▪ Functional tests ▪ Non-functional tests (overview) ▪ Checklist for web apps ▪ Checklist for typical standalone apps ▪ Checklist for mobile applications |
| 9 | Types of Technical Testing | <ul style="list-style-type: none"> ▪ Test automation ▪ Performance ▪ Scalability ▪ Reliability ▪ Security/Safety |
| 10 | Project Lifecycle. Test Coverage | <p>Development models and testing in them</p> <ul style="list-style-type: none"> ▪ When does testing start? ▪ Testing activities in a build lifecycle |
| 11 | Testing Process | Testing process for every build: live example |
| 12 | Test Documentation and Reporting | <ul style="list-style-type: none"> ▪ Test documentation levels ▪ Reporting: inner and outer ▪ Quality report structure ▪ Quality evaluation and analytics |
| 13 | Testing Tools | <ul style="list-style-type: none"> ▪ Bug and task tracking tool JIRA ▪ Test management tools: JIRA+Zephyr, TestRail ▪ Testing tools: Firebug (or analogues) ▪ Screenshooters |
| 14 | Test Planning. Test Estimation | <ul style="list-style-type: none"> ▪ Test planning: how, what and when ▪ Test estimation techniques |
| 15 | Quality Control | <ul style="list-style-type: none"> ▪ Differences between QA/QC/testing ▪ What to measure (metrics) ▪ How to measure (live examples) ▪ Objective scoring of quality |
| 16 | Testing Outsourcing as-a-Service | <ul style="list-style-type: none"> ▪ Common difficulties in independent testing ▪ Advantages of independent testing ▪ Communication rules |