Manual Testing Course Content

Chapter 1 : Introduction

➢ Software Testing introduction
➢ Verification and Validation
➢ Application types
  • Console Desktop
  • Windows application or Desktop Application – Standalone and Client/Server applications
  • Web application – 3-tier or N-tier application
  • Web Portals
  • Mobile Applications.
➢ Difference between desktop application and web applications
➢ Web application vs Web Portals
➢ Mobile application testing and its introduction

Chapter 2: SDLC Models

➢ Need of SDLC and its Phases introduction
➢ Waterfall Model
➢ Prototype Model
➢ Spiral Model
➢ V- Model
➢ Analysis of traditional sdlc model and current model
➢ Incremental Model – Agile and Scrum Framework
➢ Agile Manifesto
➢ Importance of Agile and its different framework
➢ Scrum roles and responsibilities
➢ Scrum user story splitting and estimation techniques
➢ Pros and cons of Scrum framework

Chapter 3 : STLC– Software Testing Life Cycle

➢ Difference between Use cases, Test cases and Scenarios
➢ Difference between Test plan and Strategy
➢ How to prepare test report?
➢ Concept about Error, bug, defect and failure.
➢ Preparing Bug report
➢ Bug life Cycle
➢ Entry and Exit Criteria
➢ Priority and severity
➢ Introduction to test management tool
➢ Exercises with test management tools like bug tracker

Chapter 4: Jira – Project Management Tool

➢ Creating Project
➢ Adding User stories to Back log
➢ Creating Sprint
➢ Practical execution of all sprint activities and following ceremonies
➢ Creating defects in Jira and following bug life cycle
➢ Reports in Burn down charts

Chapter 5: Principles of testing

➢ Seven Principles of testing - Importance
➢ Real time examples for below principles
  • Exhaustive testing is impossible
  • Defect Clustering
  • Pesticide Paradox
  • None of the application is bug free
  • Testing is context dependent of the application
  • Intension of application is to identify flaws in an application
  • Importance of avoiding late testing

Chapter 6: Types of testing

➢ Static and Dynamic testing
➢ Functional and Non Functional testing

Chapter 7: Non functional testing

➢ Black Box testing and its types –
  • BVA (Boundary Value Analysis)
  • Equivalence partitioning,
  • Decision tables
  • Graph based methods – State transition diagram
  • All Pairs testing
➢ White box testing and its nature
➢ Statement coverage
➢ Path coverage
➢ Branch coverage
➢ How to calculate the complexity of the program
➢ SIT - System Integration testing
➢ UAT – User Acceptance testing
➢ Adhoc testing
➢ Regression testing
➢ Progression testing
➢ Alpha and beta testing
➢ Positive and Negative testing
➢ Integration – Big Bang approach and Incremental approach
➢ Top Down and Bottom up integration approach
➢ Importance of Integration testing and its test case preparation

Chapter 8 : Non functional testing

➢ Importance of Non-functional testing
➢ Types of Non-Functional testing

  • Performance testing (Stress and Load)
  • Volume
  • Security
  • Compatibility
  • Configuration testing
  • Comparison
  • Scalability

➢ Requirement traceability matrix – Requirement mapping
➢ Test Coverage or Requirement Mapping

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