Software Testing 605 Chapter topics Covered in class

Chapter 2- All topics were covered

- 2.1 Software Testing Terminology
  - 2.1.1 Definition
  - 2.1.2 Life Cycle of a Bug
  - 2.1.3 States of a Bug
  - 2.1.4 Why Do Bug Occur
  - 2.1.5 Bugs Affect Economics of Software Testing
  - 2.1.6 Bug Classification Based On Criticality
  - 2.1.7 Bug Classification Based On SDLC
  - 2.1.8 Testing Principles
- 2.2 Software Testing Life Cycle (STLC)
- 2.3 Software Testing Methodology
  - 2.3.1 Software Testing Strategy
  - 2.3.2 Test Strategy Matrix
  - 2.3.3 Development of Test Strategy
  - 2.3.4 Testing Life Cycle Model
  - 2.3.5 Validation Activities
  - 2.3.6 Testing Tactics
  - 2.3.7 Considerations in Developing Testing Methodologies

Chapter 4 – 4.3, 4.5, 4.6 were left out

- 4.1 Boundary Value Analysis (BVA)
  - 4.1.1 Boundary Value Checking (BVC)
  - 4.1.2 Robustness Testing Method
  - 4.1.3 Worst-Case Testing Method
- 4.2 Equivalence Class Testing
  - 4.2.1 Identification of Equivalent Classes
  - 4.2.2 Identifying the Test Cases
- 4.4 Decision Table-Based Testing
  - 4.4.1 Formation of Decision Table
  - 4.4.2 Test Case Design Using Decision Table
  - 4.4.3 Expanding the Immaterial Cases in Decision Table

Chapter 5 – 5.6.5, 5.6.6 were left out

- 5.1 Need of White-Box Testing
- 5.2 Logic Coverage Criteria
- 5.3 Basis Path Testing
  - 5.3.1 Control Flow Graph
  - 5.3.2 Flow Graph Notations for Different Programming
  - 5.3.3 Path Testing Terminology
  - 5.3.4 Cyclomatic Complexity
  - 5.3.5 Applications of Path Testing

5.4 Graph Matrices
5.5 Loop Testing
5.6 Data Flow Testing
5.6.1 State Of A Data Object
5.6.2 Data-Flow Anomalies
5.6.3 Terminology Used In Data Flow Testing
5.6.4 Static Data Flow Testing
5.7 Mutation Testing

Chapter 8 – All topics were covered
8.1 Progressive vs. Regressive Testing
8.2 Regression Testing Produces Quality Software
8.3 Regression Testability
8.4 Objectives of Regression Testing
8.5 When Is Regression Testing Done?
8.6 Regression Testing Types
8.7 Defining Regression Test Problem
8.8 Regression Testing Techniques

Chapter 10 (Presentation topic)
10.1 Need of Software Measurement
10.2 Definition of Software Metrics
10.3 Classification of Software Metrics
10.4 Entities to Be Measured
10.5 Size Metrics
10.5.1 Line of Code (LOC)
10.5.2 Token Count (Halstead Product Metrics)
10.5.3 Function Point Analysis (FPA)

Note: Functional Point Analysis and Lines of code were given importance

Chapter 12 – Slide was provided
12.1 Why Does A Test Suite Grow?
12.2 Minimizing the Test Suite and Its Benefits
12.3 Defining Test Suite Minimization Problem
12.4 Test Suite Prioritization
12.5 Types of Test Case Prioritization
12.6 Prioritization Techniques
12.7 Measuring the Effectiveness of a Prioritized Test Suite

Note: 12.7 were given importance

Chapter 13 (Presentation topic)
13.1 Software Quality
13.2 Broadening the Concept of Quality
13.3 Quality Cost
13.4 Benefits of Investment on Quality

13.5 Quality Control and Quality Assurance
13.6 Quality Management (QM)
13.7 QM and Project Management
13.8 Quality Factors
13.9.1 Procedural Approach to QM
13.9.2 Quantitative Approach to QM
13.10 Software Quality Metrics
13.11 SQA Models
    13.11.1 ISO 9126
    13.11.2 Capability Maturity Model (CMM)
    13.11.3 Software Total Quality Management (STQM)
    13.11.4 Six Sigma

Note: CMM and Six Sigma were given importance