# **DevOps Engineering**

## **DevOps Engineering: Reference-1**

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| 10 | Design for DevOps Pillar |
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| 13 | Elastic Infrastructure (EI) Pillar |
| 14 | Continuous Monitoring (CM) Pillar |
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| 41 | **Version Management – 1/3** |
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| 104 | Dark Launching Release Strategy… |
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## **DevOps Engineering: Reference-2**

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| 05 | Implementing CI/CD and Continuous Deployment – Topics 4 |
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| 28 | Configuring Terraform for Azure – Topics 3 |
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| 40 | Terraform Command Lines and Life Cycle – Topics 5 |
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|  | **Using Ansible for Configuring IaaS Infrastructure** |
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| 52 | Creating an Inventory for Targeting Ansible Host – Topics 3 |
| 55 | Wrting the First Playbook – Topics 3 |
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|  | **Optimizing Infrastructure Deployment with Packer** |
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| 85 | Summary |
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| 151 | First Example of Kubernetes Application Deployment |
| 152 | Using HELM as a Package Manger |
| 155 | Using AKS – Topics 3 |
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| 223 | Using Travis CI for Continuous Integration |
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## **DevOps Engineering: Reference-3**

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# **Probability and Statistics for Engineers**

## **Probability and Statistics: Reference-1**

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| 14 | Normal Data Sets |
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| 16 | The Lorenz Curve and Gini Index |
| 17 | Using R |
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| 21 | Axioms of Probability |
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| 23 | Basic Principle of Counting |
| 24 | Notation and Terminology |
| 25 | Conditional Probability |
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| 29 | Types of Random Variables |
| 31 | Jointly Distributed Random Variables – Topics 2 |
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## **Probability and Statistics: Reference-2**

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| 24 | Discrete Uniform Distribution |
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| 26 | Geometric and Negative Binomial Distributions |
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| 35 | Exponential Distribution |
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| 50 | Stem-and-Leaf Diagrams |
| 51 | Frequency Distributions and Histograms |
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| 95 | Contingency Table Tests |
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| 167 | Addition of Center Points to a 2k Design |
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|  | **Schaum’s Outlines Probability and Statistics** |

# **Software Testing**

## **Software Testing: Reference-1**

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| 02 | Evolution of Software Testing |
| 03 | Software Testing – Myths and Facts |
| 04 | Goals of Software Testing |
| 05 | Psychology for Software Testing |
| 06 | Software Testing Definitions |
| 07 | Model for Software Testing |
| 08 | Effective Software Testing vs. Exhaustive Software Testing |
| 09 | Effective Testing is Hard |
| 10 | Software Testing as a Process |
| 11 | Schools of Software Testing |
| 12 | Software Failure Case Studies |
|  | **Software Testing Terminology and Methodology** |
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| 14 | Software Testing Life Cycle (STLC) |
| 15 | Software Testing Methodology |
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| 17 | Verification |
| 18 | Verification of Requirements |
| 19 | Verification of High-Level Design |
| 20 | Verification of Low-Level Design |
| 21 | How to Verify Code |
| 22 | Validation |
|  | **Testing Techniques** |
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|  | **Dynamic Testing: White-Box Testing Techniques** |
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| 33 | Loop Testing |
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| 35 | Mutation Testing |
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| 48 | When is Regression Testing Done? |
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| 59 | Entities to be Measured |
| 60 | Size Metrics |
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| 61 | Measurement Objectives for Testing |
| 62 | Attributes and Corresponding Metrics in Software Testing |
| 63 | Attributes |
| 64 | Estimation Models for Estimating Testing Efforts |
| 65 | Architectural Design Metric Used for Testing |
| 66 | Information Flow Metrics Used for Testing |
| 67 | Cyclomatic Complexity Measures for Testing |
| 68 | Function Point Metrics for Testing |
| 69 | Test Point Analysis (TPA) |
| 70 | Some Testing Metrics |
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| 72 | Minimizing the Test Suite and its Benefits |
| 73 | Defining Test Suite Minimization Problem |
| 74 | Test Suite Prioritization |
| 75 | Types of Test Case Prioritization |
| 76 | Prioritization Techniques |
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| 80 | Quality Cost |
| 81 | Benefits of Investment on Quality |
| 82 | Quality Control and Quality Assurance |
| 83 | Quality Management (QM) |
| 84 | QM and Project Management |
| 85 | Quality Factors |
| 86 | Methods of Quality Management |
| 87 | Software Quality Metrics |
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| 90 | Measurement and Improvement of a Test Process |
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| 96 | Guidelines for Automated Testing |
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| 11 | The Agile Testing Mind-Set |
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# **Software Metrics**

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| 15 | The Scope of Software Metrics – Topics 10 |
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|  | **The Basics of Measurement** |
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| 55 | Applying the Framework – Topics 11 |
| 57 | Software Measurement Validation – Topics 2 |
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|  | **Empirical Investigation** |
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|  | **Software-Metrics Data Collection** |
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| 103 | How to Collect Data – Topics 4 |
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| 106 | How to Store and Extract Data – Topics 2 |
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|  | **Software-Engineering Measurement** |
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|  | **Measuring Internal Product Attributes: Structure** |
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| 302 | The Software Reliability Problem – Topics 2 |
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| 317 | The Importance of the Operational Environment |
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| 320 | Productivity of What? |
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| 332 | Cost Estimation: Problems and Approaches – Topics 3 |
| 340 | Models of Effort and Cost – Topics 8 |
| 343 | Problems with Existing Modeling Methods – Topics 3 |
| 348 | Dealing with Problems of Current Estimation Methods – 5 |
| 349 | Implications for Process Prediction |
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| 357 | Where and When: Mapping Measures to Activities |
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|  | **Measurement in Practice** |
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| 07 | Extension to GQM: Metrics Mechanism |
| 08 | What to Measure is a Function of Time |
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| 10 | The Challenge of Measurement |
| 15 | Measurement Models – Topics 5 |
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|  | **Measuring Size** |
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| 72 | Software Estimation Methodologies and Models – Topics 20 |
| 73 | Combining Estimates |
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| 77 | Estimating Early and Often |
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|  | **In Praise of Defects: Defects and Defect Metrics** |
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| 120 | But When Do I Ship?? |
| 121 | System Configurations: Probability and Reliability |
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|  | **Response Time and Availability** |
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