Buzzword Cards

Note: Cards are organized by the topic under which were discussed and are further subdivided by the source from which they were obtained. Sources can be "Book" which refers to Pressman's text *Software Engineering: A Practitioner's Approach 8th Edition* or "Notes" which references course notes from CS690 as taught by Dr. Wayne Zage.

Managing Software Projects - Book:

- 1) {'Resources': ['Human', 'Software', 'Environmental', 'Hardware']} : pg. 732
- 2) {'Decomposition': ['Break', 'Parts', 'Smaller', 'Problem']} : pg. 734

<u>User Interface Design</u> - Book:

3) {'Analysis': ['Design', 'Implementation', 'Document', 'Critical']} : pg. 317

Process Models - Book:

- 4) {'Prescriptive Model': ['Structure', 'Order', 'Sequential', 'Process']}: pg. 41
- 5) {'Process Model': ['Activity', 'Action', 'Flow', 'Software']}: pg. 41
- 6) {'Prototyping': ['Software', 'Requirement', 'Model', 'Evolutionary']}: pg. 45

Risk Management - Book:

- 7) {'Performance Risk': ['Requirements', 'Uncertainty', 'Cost', 'Support']} : pg. 782
- 8) ('Cost Risk': ['Budget', 'Maintain', 'Price', 'Uncertainty']) : pg. 782
- 9) ('Support Risk': ['Uncertainty', 'Correct', 'Help', 'Enhance']): pg. 782
- 10) ('Schedule Risk': ['Uncertainty', 'Project', 'Time', 'Deliver']) : pg. 782
- 11) {'Risk Estimation': ['Projection', 'Likelihood', 'Impact', 'Determine']}: pg. 782
- 12) {'RMMM': ['Plan', 'Probability', 'Strategy', 'Minimize']} : pg. 785
- 13) {'Cutoff Line': ['Risk', 'Terminate', 'Estimate', 'Identification']}: pg. 784
- 14) {'Fire-fighting': ['Crisis', 'Panic', 'Project', 'Problem']}: pg. 778
- 15) {'Uncertainty': ['Unknown', 'Unsure', 'Minimize', 'Risk']} : pg. 778

Product Metrics - Book:

- 16) ('External Inputs': ['User', 'Outside', 'Function', 'Output']): pg. 659
- 17) {'External Outputs': ['User', 'Information', 'Report', 'Input']} : pg. 659
- 18) {'Measure': ['Size', 'Dimension', 'Extent', 'Capacity']}: pg. 655

Software Engineering - Book:

19) {'Mongolian Horde': ['Add', 'Behind', 'Mythical Man Month', 'Schedule', 'Productivity']} : pg. 24

Modeling - Book:

- 20) {'Requirements Engineering': ['Communication', 'Needs', 'Process', 'Project']}: pg. 132
- 21) {'Inception': ['Start', 'Beginning', 'Product', 'Idea']} : pg. 133
- 22) {'Ubiquitous Computing': ['Processors', 'Distributed', 'Everywhere', 'Commonplace']} : pg. 133
- 23) {'Elicitation': ['Ask', 'Objective', 'Accomplish', 'Use']}: pg. 134
- 24) {'Problem of Scope': ['Boundary', 'Space', 'Domain', 'Context']} : pg. 134
- 25) {'Problem of Understanding': ['Unsure', 'Limitations', 'Communication', 'Partial']} : pg. 134
- 26) {'Problem of Volatility': ['Requirements', 'Change', 'Time', 'Quickly']}: pg. 134
- 27) ('Goal-Oriented': ['Long-Term', 'Purpose', 'Achieve', 'Requirements']) : pg. 134
- 28) {'Elaboration': ['Expand', 'Elicitation', 'Inception', 'Refined']} : pg. 134
- 29) ('User Scenario': ['Describe', 'Actors', 'Scene', 'Workflow']) : pg. 135
- 30) {'Negotiation': ['Compromise', 'Reconcile', 'Argue', 'Requirements']}: pg 135
- 31) {'Iterative Approach': ['Sequential', 'Technique', 'Systematic', 'Requirements']}: pg 135
- 32) ('Specification': ['Document', 'Model', 'Prototype', 'Description']) : pg. 135
- 33) {'Validation': ['Verify', 'Assess', 'Quality', 'Review']}: pg. 136
- 34) {'Requirements Managment': ['Activities', 'Life Cycle', 'System', 'Track']} : pg. 138
- 35) {'Software Engineer': ['Design', 'Manage', 'System', 'Programmer']}: pg. 138
- 36) ('Collaboration': ['Together', 'Group', 'Coordinate', 'Work']) : pg. 140
- 37) {'Questions': ['Ask', 'Gather', 'Query', 'Inquire']} : pg. 140
- 38) ('Business Need': ['Identify', 'Recognize', 'Project', 'Inception']): pg. 133
- 39) {'Task Analysis': ['Perform', 'Circumstance', 'Sequence', 'Workflow']} : pg. 326
- 40) {'Task Elaboration': ['Function', 'List', 'Breakdown', 'Design']}: pg. 328
- 41) {'Workflow Analysis': ['Multiple', 'Process', 'User', 'Technique']}: pg. 328
- 42) {'Swimlane': ['Diagram', 'Pool', 'Water', 'Users']}: pg. 329
- 43) {'Design Pattern': ['Abstraction', 'Solution', 'Interface', 'Common']}: pg. 334
- 44) {'Response Time': ['Delay', 'Lag', 'Bad', 'Variable']} : pg. 335
- 45) {'Accessibility': ['Impaired', 'Disability', 'Usable', 'Guidelines']}: pg. 336

The Nature Of Software - Book:

- 46) {'Embedded Software': ['Firmware', 'Hardware', 'Controller', 'Processor', 'PROM']}: pg. 7
- 47) {'Cloud Computing': ['Internet', 'Remote', 'Resource', 'Azure/Google/AWS']} : pg. 10
- 48) {'Process Pattern': ['Solution', 'Resolution', 'Template', 'Planning']}: pg. 35
- 49) {'Modeling': ['Sketch', 'Mock-up', 'Miniature', 'Scale']}: pg. 17
- 50) {'Customer': ['Request', 'Pay', 'Requirements', 'Person']}: pg. 17
- 51) {'Obsolete': ['Outdated', 'Expired', 'Extinct', 'Deprecated']} : pg. 22
- 52) {'HTML': ['Hypertext', 'HTTP', 'Protocol', 'Browser']} : pg. 10
- 53) {'Algorithm': ['Code', 'Program', 'Processor', 'Computer']}: pg. 21

54) {'Compiler': ['Assemble', 'Execute', 'Program', 'Code']}: pg. 7

Understanding Requirements - Book:

55) {'requirement': ['Customer', 'Model', 'Change', 'Design']} : pg. 131

<u>Software Testing Strategies</u> - Book:

56) {'Independent Test Group': ['Separate', 'Complete', 'Procedure', 'Correct']}: pg. 469

Software Quality Assurance - Book:

- 57) {'Standards': ['Ensure', 'Conform', 'Voluntary', 'SQA']}: pg. 450
- 58) {'Audit': ['Review', 'Conformity', 'Quality', 'Certification']} : pg. 450
- 59) {'Six Sigma': ['Standard', 'High', 'Define', 'Measure']}: pg. 458
- 60) {'Failures-in-time': ['Statistical', 'Measure', 'Reliability', 'Billion']} : pg. 460
- 61) {'Mean-time-to-failure': ['Average', 'Duration', 'Program', 'Crash']} : pg. 450

Software Process Structure - Book:

- 62) {'Software Engineering': ['Process Management', 'System', 'Development', 'Discipline']} : pg. 15
- 63) {'Process Flow': ['Iterative', 'Linear', 'Parallel', 'Umbrella']} : pg. 31
- 64) {'Umbrella Activities': ['tracking', 'risk', 'quality', 'configuration', 'technical']}: pg. 31
- 65) ('Communication': ['Talk', 'Speak', 'Telephone', 'Internet']) : pg. 34

Process and Project Metrics - Book:

66) {'Defect': ['Error', 'Bug', 'Crash', 'Failure']} : pg. 450

Quality Managementt - Book:

67) {'Quality of Conformance': ['Degree', 'Requirements', 'End-user', 'Comply']}: pg. 414

Project Management Concepts - Book:

- 68) ('Steakholders': ['Managers', 'Practitioners', 'Customers', 'End User']) : pg. 687
- 69) ('Organizational Paradigms': ['Closed', 'Random', 'Open', 'Synchronous']): pg. 690
- 70) {'Agile': ['Satisfaction', 'Incremental', 'Informal', 'Simplicity']}: pg. 691
- 71) {'Software Scope': ['Context', 'Information', 'Function', 'Features']} : pg. 694

Quality Management - Book:

- 72) {'User Interface': ['Input', 'Output', 'Keyboard', 'Screen', 'Website']} : pg. 672
- 73) {'Cyclomatic Complexity': ['Linear', 'Independent', 'Metric', 'Testing']} : pg. 455
- 74) {'Validation Testing': ['Requirements', 'Software', 'Verify', 'Develop']}: pg. 484
- 75) {'System Testing': ['Mesh', 'Integrate', 'High', 'Performance']} : pg. 471
- 76) ('Smoke Testing': ['Integration', 'Development', 'Time-critical', 'Assessment']) : pg. 479
- 77) {'Alpha Tests': ['Developer', 'End-User', 'Process', 'Integrated']} : pg. 485
- 78) {'Beta Test': ['End-user', 'Developer', 'Live', 'Environment']}: pg. 485
- 79) {'Stress Testing': ['Load', 'Volume', 'Resources', 'Demand']} : pg. 487

- 80) {'Configuration Testing': ['Environment', 'Deployment', 'Documentation', 'Installed']} : pg 487
- 81) {'Security Testing': ['Penetration', 'Vulnerability', 'Attack', 'Hack']}: pg. 486
- 82) {'Recovery Testing': ['Failure', 'Automatic', 'Human-intervention', 'Resilience']}: pg. 486

Design Concepts - Book:

83) {'Pseudocode': ['Design', 'Program', 'Flow', 'Language']}: pg. 247

Use Case-based Requirements - Notes:

- 84) {'Use case': ['Object Oriented', 'Actors', 'Actions', 'Oval']} : pg. 2
- 85) {'Scenario': ['Use case', 'Actions', 'Sequence', 'Behavior']}: pg. 2
- 86) {'Actor': ['User', 'Use Case', 'Information', 'Stick']} : pg. 3
- 87) {'Use Case Diagram': ['Use Case', 'Actors', 'Visual', 'Picture']} : pg. 5
- 88) {'Preconditions': ['Main Flow', 'Use Case', 'Before', 'Start']} : pg. 6
- 89) {'Main Flow': ['Use Case', 'Actor', 'Steps', 'Sub flow']} : pg. 6
- 90) {'extend relationship': ['condition', 'optional behavior', 'scenario', 'exceptional']} : pg. 9

Object-Oriented Analysis and Design - Notes:

- 91) {'OO Analysis': ['investigation', 'describe', 'concept', 'problem domain']} : pg. 1
- 92) ('OO Design': ['define ', 'logical software objects', 'implement', 'Object']) : pg. 1
- 93) ('Conceptual model': ['abstract', 'object', 'block', 'attributes']) : pg. 2
- 94) {'collaboration diagram': ['message', 'data flow', 'illustrating', 'function']} : pg. 2
- 95) {'class diagrams': ['components', 'object block', 'combined model', 'function and attribute']} : pg. 3
- 96) {'UML': ['object-oriented analysis', 'methodology', 'visualizing', 'development life cycle']} : pg. 3
- 97) {'multiplicity': ['relationship', 'interaction', 'objects', 'number']} : pg. 8
- 98) {'navigation': ['direction', 'multiplicity', 'arrow', 'association']} : pg. 8
- 99) ('inheritance': ['relationship', 'super-class', 'sub-class', 'common attributes']) : pg. 8
- 100) {'include relationship': ['function', 'reuse', 'use case', 'consequence']} : pg. 8
- 101) {'misuse case': ['privacy and security', 'hostile', 'hacker', 'threat']} : pg. 10
- 102) {'actors': ['interact', 'system', 'player', 'relationship']} : pg. 5
- 103) {'attributes': ['class', 'definition', 'requirement', 'variable']} : pg. 7
- 104) {'operations': ['function', 'interaction', 'behavior', 'parameters']} : pg. 7
- 105) {'class': ['Types', 'Primitives', 'Inheritance', 'School']} : pg. 4

Risk Management - Notes:

- 106) {'Risk Strategy': ['Reactive', 'Proactive', 'Plan', 'Minimize']}: pg. 1
- 107) {'Software Risks': ['Project', 'Technical', 'Business', 'Categories']}: pg. 2
- 108) {'Risk Identification': ['Size', 'Impact', 'Probability', 'Quantify']}: pg. 2

What is project planning - Notes:

- 109) {'Planning': ['Task', 'Organization', 'Design', 'Dependency']}: pg. 1
- 110) {'Metrics': ['Models', 'Predicts', 'Measures', 'System']}: pg. 2

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111) {'Critical Path': ['Plan', 'Complete', 'Longest', 'Project']}: pg. 2
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- 112) {'Function Points': ['Measure', 'Compute', 'LOC', 'Cost']}: pg. 4
- 113) {'Empirical Validation': ['Analyze', 'Data Collection', 'Proof', 'Experiment ']}: pg. 2
- 114) {'Effort': ['Cost', 'Duration', 'Work time', 'Measure']}: pg. 2
- 115) {'Risk': ['Avoid', 'Estimate', 'Evaluate', 'Analyze']} : pg. 1
- 116) {'Estimates': ['Approximation', 'Calculation', 'Guess', 'Analyze']}: pg. 3
- 117) {'Size Metrics': ['Operators', 'Operands', 'Occurrences', 'LOC']} : pg. 3
- 118) {'Macro-Model': ['Scale', 'Productivity', 'Big', 'Size']}: pg. 4
- 119) {'Early Planning': ['Estimate', 'Schedule', 'Tasks', 'Dependency']} : pg. 1
- 120) {'Emperical': ['Verified', 'Science', 'Theoretical', 'Data']}: pg. 2
- 121) {'Code Metric': ['Code', 'Data structure', 'Complexity ', 'Logic']}: pg. 3
- 122) {'Effort estimation': ['Past experience ', 'Data', 'Formal model', 'Average methods']} : pg. 4
- 123) {'Total effort': ['Development cost', 'Theoretical', 'Statistical', 'Mathematical']} : pg. 4
- 124) {'Criteria': ['Validity', 'Judge', 'Model', 'Objectivity']}: pg. 5
- 125) {'COCOMO': ['Tool', 'Estimate', 'Schedule', 'Cost']} : pg. 5
- 126) {'Product Attributes': ['Software Reliability', 'Data base', 'Complexity ', 'Cost driver']} : pg. 6
- 127) {'Personnel Attributes': ['Analyst Capability', 'Application Experience', 'Programmer Capability', 'Programming Language ']}: pg. 6
- 128) {'Computer Attributes': ['Execution Time', 'Storage Constraint', 'Turnaround time', 'Virtual Machine']}: pg. 6
- 129) {'Estimating Techniques': ['Algorithmic', 'Top-Down', 'Bottom-Up', 'Expert Judgment', 'Analogy']} : pg. 8

Software Quality Assurance - Notes:

- 130) {'Reliability': ['Crash', 'Intended', 'Test', 'Quality']} : pg. 1
- 131) {'Process Specific Activities': ['KPA', 'Maturity', 'Levels', 'Testing']}: pg. 3
- 132) {'Quality Assurance': ['Review', 'Methods', 'Procedures', 'Guaratee']} : pg. 3
- 133) {'Prevention Costs': ['Quality', 'Planning', 'Reviews', 'Training']} : pg. 2
- 134) {'Failure Cost': ['Analysis', 'Project', 'Retest', 'Postmortem']} : pg. 2

<u>Introduction to software engineer:</u> - Notes:

135) {'Confidentiality': ['Employer', 'Secret', 'Respect ', 'Leak']} : pg. 8

What is Project Planning - Notes:

136) {'BRAK': ['Code', 'Requirements', 'Estimation', 'Volatility']}: pg. 7

<u>Design Techniques</u> - Notes:

- 137) {'Data Flow Oriented Design': ['process', 'DFD', 'structure', 'program']} : pg. 1
- 138) {'Top-Down Function Design': ['function', 'module', 'software', 'information driven']} : pg. 1

Notes on software testing - Notes:

- 139) {'Path Testing': ['Input', 'Output', 'Execution', 'Follow']}: pg. 11
- 140) ('Symbolic Evaluation': ['Methods', 'Dynamic', 'Global', 'Testing']) : pg. 10

The Structured Specification - Notes:

- 141) {'Data Dictionary': ['Document', 'Meaning', 'Description', 'Terms']}: pg. 3
- 142) {'DFD': ['Design', 'Data', 'Diagram', 'Flow']} : pg. 1
- 143) {'Functional Specification': ['Analyst', 'Requirements', 'User', 'Document']} : pg. 1
- 144) {'Data Store': ['DFD', 'Keep', 'Diagram', 'Design']} : pg. 1
- 145) {'Terminators': ['DFD', 'External', 'Sources', 'Sinks']}: pg. 1
- 146) {'Contextual Level': ['DFD', 'Zero', 'Top', 'Design']} : pg. 2
- 147) {'Decision Trees': ['Design', 'Diagram', 'Branch', 'Picture']}: pg. 4
- 148) {'ERDs': ['Entity', 'Diagram', 'Design', 'Data']} : pg. 4
- 149) {'Functional Primitive': ['DFD', 'Last', 'Design', 'Break']} : pg. 4
- 150) ('Structured Specification': ['functional specification', 'readings', 'user', 'document']) : pg. 1
- 151) {'Terminator': ['DFD', 'external data sources', 'diagrams', 'destinations']} : pg. 1
- 152) {'Component Variations': ['flow type', 'process', 'store', 'operations']} : pg. 2

<u>Design Principles</u> - Notes:

- 153) {'Abstraction': ['Module', 'Object', 'Class', 'Design']} : pg. 1
- 154) {'Software Design': ['Computer Science', 'Structure', 'System', 'Analysis']}: pg. 1
- 155) {'Fan-out': ['Module', 'Fan-in', 'Call', 'Number']} : pg. 3
- 156) {'Fan-in': ['Module', 'Fan-out', 'Number', 'Call']} : pg. 3
- 157) {'Cohesion': ['Module', 'Association', 'Function', 'Coupling']} : pg. 3
- 158) ('Coupling': ['Module', 'Class', 'Interdependence', 'Cohesion']) : pg. 3
- 159) {'Functional Cohesion': ['Module', 'All', 'Task', 'Function']}: pg. 4
- 160) ('Sequential Cohesion': ['Module', 'Input', 'Output', 'Function']) : pg. 4
- 161) {'Communication Cohesion': ['Input', 'Output', 'Same', 'Function']}: pg. 4
- 162) ('Procedural Cohesion': ['Different', 'Control', 'Function', 'Unrelated']) : pg. 4
- 163) {'Temporal Cohesion': ['Function', 'Time', 'Module', 'Permanent']} : pg. 4
- 164) {'Logical Cohesion': ['Function', 'Outside', 'Flag', 'Execute']} : pg. 4
- 165) {'Coincidental Cohesion': ['Function', 'Random', 'Accidental', 'Unexpected']} : pg. 4

<u>Introduction to software engineer</u> - Notes:

166) {'Reuse Model': ['Refine', 'Object', 'Copy', 'Extract']}: pg. 5

What is project planning: - Notes:

167) ('Code Modification': ['Change', 'Reuse', 'Modify software', 'Assessment']) : pg. 6

<u>Introduction to Software Engineering</u> - Notes:

168) {'Waterfall Model': ['Feedback Loops', 'Documentation-driven', 'Easier Maintenance', 'Lacking Client Feedback', 'Tiered']}: pg. 2

Notes on Software Testing - Notes:

- 169) {'Black Box Testing': ['Specifications', 'API', 'Inputs', 'Outputs']}: pg. ?
- 170) {'White Box Testing': ['Method', 'Known', 'Source', 'Inside']}: pg. ?
- 171) {'Naive Testing': ['Simplistic', 'Execution', 'Cases', 'Guessing']} : pg. ?

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172) {'Exhaustive Path': ['Brute', 'All', 'Combinations', 'Traverse']}: pg. ?
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- 173) {'Test Plan': ['Management', 'Coverage', 'Verify', 'Box']}: pg. 3
- 174) {'Random Input Testing': ['Bad', 'Poor', 'Stochastic', 'Noise']}: pg. 4
- 175) {'Equivalence Partition': ['Sets', 'Intersection', 'Union', 'Divide']}: pg. 4
- 176) ('Boundary Value Analysis': ['One', 'Limits', 'Ranges', 'Condition']) : pg. 4
- 177) {'Error Guessing': ['Experience', 'Analysis', 'Intuition', 'Knowledge']}: pg. 4
- 178) {'Logic Coverage': ['Statement ', 'Path', 'Branch ', 'Condition']} : pg. 11
- 179) {'Infeasible Path': ['Unreachable', 'Traversal', 'Execution', 'Impossible']} : pg. 12
- 180) {'Statement Coverage': ['Verify', 'Once', 'Logic', 'Strategy']} : pg. 12
- 181) {'Path Coverage': ['Potential', 'Conditions', 'All', 'Combinations']}: pg. 13
- 182) ('Condition Coverage': ['Test', 'Each', 'Logical', 'Boolean']) : pg. 14
- 183) {'Defect Density Model': ['Testing', 'Time', 'Effort', 'Minimized']} : pg. 18
- 184) {'Saturation Effect': ['False', 'Reliability', 'Estimates', 'Misled']}: pg. 18

Introduction to software engineering - Notes:

- 185) {'Extreme Programming': ['Stories', 'Features', 'Builds', 'Test Cases', 'Pair', 'Continuous']} : pg. 3
- 186) {'Synchronize and Stabilize': ['Microsoft', 'Requirements', 'Specifications', 'End of day']} : pg. 4
- 187) {'Fountain Model': ['Waterfall', 'Cycles', 'Serial', 'Dependency']}: pg. 4
- 188) {'Spiral Model': ['Risk', 'Precede', 'Evaluate', 'Plan']} : pg. 4
- 189) ('Object Oriented Programming': ['Class', 'Object', 'Inheritance', 'Encapsulation']): pg. 4
- 190) {'Unit test': ['Program', 'Part', 'Code', 'Function']}: pg. 2
- 191) {'Maintenance': ['Cost', 'Time', 'During', 'Bug']} : pg. 2
- 192) {'Documentation': ['Text', 'Customer', 'Tutorial', 'Guideline ']}: pg. 6
- 193) {'Maintainability': ['Needs', 'Software', 'Technical support', 'Time']}: pg. 7
- 194) {'Dependability': ['Reliable', 'Robust', 'Availability', 'System']}: pg. 7
- 195) {'Efficiency': ['Trustworthy', 'Unused resources', 'Efficient', 'Useful output']}: pg. 7
- 196) {'Usability': ['Discover-able', 'Usable', 'Satisfaction', 'Errors']}: pg. 7

Evaluating Software Models - Notes:

- 197) {'relative error': ['actual development effort', 'estimated development effort', 'software model', 'predictive value']} : pg. 1
- 198) {'mean relative error': ['mean', 'sum', 'predict', 'criteria']} : pg. 1
- 199) ('magnitude of the relative error': ['bias', 'absolute', 'adjust', 'magnitude']) : pg. 1
- 200) {'Mean magnitude of relative error': ['mean', 'effort estimation', 'average', 'acceptable']} : pg. 1