

Agile Design Best Practices

A set of best practices
for an evolutionary design
of information systems

Bart de Best

Edited by
Louis van Hemmen

Colophon

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*Design is a funny word.
Some people think design means how it looks.
But of course, if you dig deeper,
it's really how it works.*

by Steve Jobs

Table of Contents

1	INTRODUCTION	1
1.1	GOAL	1
1.2	TARGET AUDIENCE	1
1.3	BACKGROUND	1
1.4	STRUCTURE	2
1.4.1	CHAPTER 1: BUSINESS VIEW	3
1.4.2	CHAPTER 2: SOLUTION VIEW	3
1.4.3	CHAPTER 3: DESIGN VIEW	3
1.4.4	CHAPTER 4: REQUIREMENT VIEW	4
1.4.5	CHAPTER 5: TEST VIEW	4
1.4.6	CHAPTER 6: CODE VIEW	4
1.4.7	SUMMARY	4
1.5	APPENDICES	4
1.6	READING GUIDELINE	5
2	WHY AN AGILE DESIGN?	7
2.1	THE CHANGE PARADIGM	7
2.1.1	VISION	9
2.1.2	POWER	10
2.1.3	ORGANIZATION	10
2.1.4	RESOURCES	10
3	THE IDEAL DESIGN PYRAMID	11
3.1	WHY AN IDEAL DESIGN PYRAMID?	11
3.2	THE NON-IDEAL DESIGN PYRAMID	12
3.2.1	RELATION CHANGE PARADIGM	12
3.2.2	VISION	13
3.2.3	POWER	13
3.2.4	ORGANIZATION	13
3.2.5	RESOURCES	13
3.3	THE IDEAL DESIGN PYRAMID VERSUS PRODUCT BACKLOG	14
4	BUSINESS VIEW	15
4.1	INTRODUCTION	15
4.2	SYSTEM CONTEXT DIAGRAM	15
4.2.1	GOAL	15
4.2.2	CONTENT	16
4.2.3	QUESTIONS TO BE ANSWERED	16
4.2.4	TEMPLATE	16
4.2.5	TIPS AND TRICKS	17
4.2.6	EXAMPLE	17
4.3	VALUE STREAM CANVAS	18
4.3.1	GOAL	18
4.3.2	CONTENT	18
4.3.3	QUESTIONS TO BE ANSWERED	18
4.3.4	TEMPLATE	18
4.3.5	TIPS AND TRICKS	20
4.3.6	EXAMPLE	20
5	SOLUTION VIEW	23

VIII | Agile Design

5.1	INTRODUCTION	23
5.2	USE CASE DIAGRAM.....	23
5.2.1	GOAL	23
5.2.2	CONTENT.....	24
5.2.3	QUESTIONS TO BE ANSWERED	24
5.2.4	BASIS TEMPLATE	24
5.2.5	TEMPLATE MET INCLUDE USE CASE	24
5.2.6	TEMPLATE WITH THE EXTEND USE CASE.....	25
5.2.7	TIPS AND TRICKS	26
5.2.8	EXAMPLE	26
5.3	SYSTEM BUILDING BLOCKS	27
5.3.1	GOAL	27
5.3.2	CONTENT.....	27
5.3.3	QUESTIONS TO BE ANSWERED	27
5.3.4	TEMPLATE SYSTEM BUILDING BLOCKS – COMMON	28
5.3.5	COMMON TIPS AND TRICKS	28
5.3.6	TEMPLATE SYSTEM BUILDING BLOCKS – INFORMATION	29
5.3.7	TIPS AND TRICKS SBB-I	31
5.3.8	TEMPLATE SYSTEM BUILDING BLOCKS – APPLICATION	32
5.3.9	TIPS AND TRICKS SBB-A.....	33
5.3.10	TEMPLATE SYSTEM BUILDING BLOCKS – TECHNOLOGY	34
5.3.11	TIPS AND TRICKS SBB-T	35
5.3.12	EXAMPLE SBB-I, SBB-A AND SBB-T.....	36
5.4	VALUE STREAM MAPPING.....	38
5.4.1	OBJECTIVE	38
5.4.2	CONTENT.....	38
5.4.3	QUESTIONS TO BE ANSWERED	39
5.4.4	TEMPLATE	39
5.4.5	TIPS AND TRICKS	39
5.4.6	EXAMPLE	39
6	DESIGN VIEW	41
6.1	INTRODUCTION	41
6.2	USE CASE	42
6.2.1	GOAL	42
6.2.2	CONTENT.....	42
6.2.3	QUESTIONS TO BE ANSWERED	43
6.2.4	TEMPLATE USE CASE NARRATIVE	43
6.2.5	TIPS AND TRICKS USE CASE NARRATIVE	44
6.2.6	EXAMPLE USE CASE NARRATIVE	45
6.2.7	TEMPLATE USE CASE SCENARIO.....	47
6.2.8	TIPS AND TRICKS USE CASE SCENARIO	47
6.2.9	EXAMPLE USE CASE SCENARIO	48
7	REQUIREMENT VIEW	49
7.1	INTRODUCTION	49
7.1.1	BEHAVIOR DRIVEN DEVELOPMENT	49
7.1.2	WHAT IS BDD?	50
7.1.3	WHAT IS GHERKIN?.....	50
7.2	BEHAVIOR DRIVEN DEVELOPMENT	50
7.2.1	GOAL	50
7.2.2	CONTENT.....	50

7.2.3	QUESTIONS TO BE ANSWERED	51
7.2.4	TEMPLATE	51
7.2.5	TIPS AND TRICKS	51
7.2.6	EXAMPLE	51
8	TEST VIEW	53
8.1	INTRODUCTION	53
8.2	TEST DRIVEN DEVELOPMENT	54
8.2.1	GOAL	54
8.2.2	CONTENT	54
8.2.3	QUESTIONS TO BE ANSWERED	54
8.2.4	TEMPLATE	54
8.2.5	TIPS AND TRICKS	55
8.2.6	EXAMPLE	55
9	CODE VIEW	57
9.1	INTRODUCTION	57
9.2	CONTINUOUS DOCUMENTATION DEVELOPMENT	58
9.2.1	GOAL	58
9.2.2	CONTENT	58
9.2.3	QUESTIONS TO BE ANSWERED	58
9.2.4	TEMPLATE	59
9.2.5	TIPS AND TRICKS	60
9.2.6	EXAMPLE	60
10	AGILE DESIGN AT ASSURITAS	65
10.1	ASSURITAS	65
10.1.1	THE ORGANIZATION	65
10.1.2	THE VISION	65
10.1.3	THE OBJECTIVE	65
10.1.4	THE STRATEGY	65
10.1.5	THE IST SITUATION	65
10.1.6	THE SOLL SITUATION	66
10.1.7	THE MIGRATION PATH	66
10.2	AGILE DESIGN	67
10.2.1	THE QUESTIONS	67
10.2.2	FSA IMAGING	67
10.2.3	FSA POWER	69
10.2.4	FSA ORGANIZATION	69
10.2.5	FSA RESOURCES	72
	APPENDIX A, LITERATURE LIST	77
	APPENDIX B, GLOSSARY	79
	APPENDIX C, ABBREVIATIONS	85
	APPENDIX D, DEVOPS TOOLS	87
	APPENDIX E, WEBSITES	91
	APPENDIX F, INDEX	93

X

Agile Design

Figures

FIGURE 1-1, SOR SoE, SoI (SOURCE HSO THE RESULT COMPANY).....	2
FIGURE 1-2, IDEAL DESIGN PYRAMID.	3
FIGURE 1-3, AGILE DESIGN PYRAMID WITH DELIVERABLES AND QUESTIONS TO BE ANSWERED.	4
FIGURE 2-1, CHANGE PARADIGM.....	7
FIGURE 2-2, FILLED IN CHANGE PARADIGM.....	9
FIGURE 3-1, AGILE DESIGN PYRAMID WITH DELIVERABLES AND QUESTIONS TO BEANSWER.	11
FIGURE 3-2, NON AGILE DESIGN PYRAMID.....	12
FIGURE 3-3, COMPLETED CHANGE PARADIGM FOR WATERFALL DESIGN CHARACTERISTICS.	13
FIGURE 3-4, IDEAL DESIGN PYRAMID DEPICTED ON THE PRODUCT BACKLOG.....	14
FIGURE 4-1, BUSINESS VIEW.	15
FIGURE 4-2, SYSTEM CONTEXT DIAGRAM TEMPLATE.....	16
FIGURE 4-3, SYSTEM CONTEXT DIAGRAM EXAMPLE.	17
FIGURE 4-4, VALUE STREAM CANVAS TEMPLATE.....	19
FIGURE 4-5, VALUE STREAM CANVAS EXAMPLE.	21
FIGURE 5-1, SOLUTION VIEW.....	23
FIGURE 5-2, USE CASE DIAGRAM BASIS TEMPLATE.	24
FIGURE 5-3, USE CASE DIAGRAM TEMPLATE MET EEN INCLUDE USE CASE.	25
FIGURE 5-4, USE CASE DIAGRAM TEMPLATE WITH THE INCLUDE USE CASE.	25
FIGURE 5-5, 16-CELL MODEL.	26
FIGURE 5-6, VOORBEELD USE CASE DIAGRAM ‘KOFFIESERVICE’.....	27
FIGURE 5-7, TEMPLATE SYSTEM BUILDING BLOCKS – COMMON.	28
FIGURE 5-8, TEMPLATE SYSTEM BUILDING BLOCKS – INFORMATION.	30
FIGURE 5-9, TEMPLATE SYSTEM BUILDING BLOCKS – APPLICATION.	32
FIGURE 5-10, TEMPLATE SYSTEM BUILDING BLOCKS – TECHNOLOGY.....	35
FIGURE 5-11, EXAMPLE OF INFORMATION SYSTEM BUILDING BLOCKS OF A COFFEE SERVICE.	37
FIGURE 5-12, EXAMPLE OF APPLICATION SYSTEM BUILDING BLOCKS OF A COFFEE SERVICE.	37
FIGURE 5-13, EXAMPLE OF TECHNOLOGY SYSTEM BUILDING BLOCKS OF A COFFEE SERVICE.	38
FIGURE 5-14, VALUE STREAM MAPPING TEMPLATE.....	39
FIGURE 5-15, EXAMPLE-1 VALUE STREAM MAPPING COFFEE SERVICE.	40
FIGURE 5-16, EXAMPLE-2 VALUE STREAM MAPPING COFFEE SERVICE.	40
FIGURE 6-1, DESIGN VIEW.	41
FIGURE 6-2, TEMPLATE USE CASE SCENARIO.	47
FIGURE 6-3, EXAMPLE OF TWO USE CASE SCENARIOS.	48
FIGURE 7-1, REQUIREMENT VIEW.	49
FIGURE 8-1, TEST VIEW.	53
FIGURE 9-1, CODE VIEW.	57
FIGURE 10-1, BeMORE FOR AN FSA AT ASSURITAS.	67
FIGURE 10-2, FSA IMAGING AT ASSURITAS.	68
FIGURE 10-3, THE CURRENT AND DESIRED DOCUMENTATION METHOD AT ASSURITAS.....	68
FIGURE 10-4, FSA POWER AT ASSURITAS.	69
FIGURE 10-5, FSA ORGANIZATION AT ASSURITAS.	70
FIGURE 10-6, IMPLEMENTATION AGILE DESIGN AT ASSURITAS.	71
FIGURE 10-7, FSA TEMPLATE.	71
FIGURE 10-8, FSA USAGE IN THE DEVELOPMENT PROCESS.	72
FIGURE 10-9, FSA RESOURCES.	73

Tables

TABLE 1-1, APPENDICES	5
TABLE 2-1, DIFFERENCES BETWEEN A WATERFALL DESIGN AND AN AGILE DESIGN.....	9
TABLE 6-1, USE CASE NARRATIVE TEMPLATE	44
TABLE 6-2, EXAMPLE OF A USE CASE NARRATIVE.....	47
TABLE 7-1, GHERKIN FEATURE FILE EXAMPLE.....	52
TABLE 8-1, PYTHON UNIT TEST TEMPLATE.....	55
TABLE 8-2, PYTHON UNIT TEST EXAMPLE	55
TABLE 9-1, PYTHON HEADER ANNOTATION EXAMPLE.....	62
TABLE 9-2, C++ QT STYLE SCRIPT ANNOTATION EXAMPLE.....	63
TABLE 9-3, APPLICATION DOCUMENTATION GENERATED BY DOXYGEN.....	64

Appendices

APPENDIX A, LITERATURE LIST	77
APPENDIX B, GLOSSARY.....	79
APPENDIX C, ABBREVIATIONS	85
APPENDIX D, DEVOPS TOOLS	87
APPENDIX E, WEBSITES	91
APPENDIX F, INDEX.....	93

Preface

This book has been compiled based on my experiences in designing information systems in an Agile environment. It is a snapshot of the best practices that I now use. Given the speed with which the world of Agile is developing and the need to give you as many images of using an Agile Design with as little text as possible, I have decided to keep this book Agile. This means that it describes very briefly what important insights I have gained during my role as a consultant, trainer, coach and examiner with regard to Agile Design. Where applicable, I refer to sources that I have consulted to further qualify myself. I realize that these best practices will not apply to all information systems and that the approach is a snapshot that may be outdated by the increasing speed of innovation.

I have already shared many of my experiences in the articles on www.ITpedia.nl. I have also translated the knowledge and skills into various training courses that I provide. These can be found at www.dbmetrics.nl.

Hereby I thank the following people for their inspiring contribution to this book and the great cooperation!

- | | |
|-----------------------------------|------------------|
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| • D (Dennis) Wit | ING |

I hope you enjoy reading this book and especially good luck in applying Agile Design within your own organization.

If you have any questions or comments, please do not hesitate to contact me. A great deal of time has been spent on making this book as complete and consistent as possible. If you still find shortcomings, I would appreciate it if you let me know, then these items can be processed in the next edition.

Appendix F, Index

A

acceptance criterion · 79, 80
 acceptance test · 79
 actor · 24, 44, 45, 46
 Agile design · 2
 Agile infrastructure · 79
 alternate path · 79
 Amazon Web Services · *See AWS*
 anti-pattern · 79
 artefact · 79
 automated test · 79

B

bad path · 79
 BDD · 79, 85
 Behavior Driven Development · *See BDD*
 BI · 85
 build · 80
 building block · 27
 Business Intelligence · *See BI*
 business value · 79
 business view · 2

C

C/A · 19, 85
 CAB · 85
 capability · 80
 Change Advisory Board · *See CAB*
 change paradigm · 7, 8, 9, 11
 cloud · 79
 cloud configuration file · 79
 CMMI · 101
 code view · 3
 collaboratie tool · 9
 commit code · 79
 commit stage · 79
 Completeness / Accurateness · *See C/A*
 component · 80, 81, 82, 83
 configuration management · 79
 container · 80
 control · 82
 current state · 18
 cycle time · 80

D

defect · 81
 Definition of Done · *See DoD*
 deployment · 79, 81
 deployment pipeline · 38, 53, 79
 design view · 3

development · 79, 80, 83, 85
 Development & Operations · *See DevOps*
 development process · 100
 DevOps · 85
 DevOps team · 101
 DNS · 85
 DoD · 85
 Domain Name System · *See DNS*

E

Enterprise Resource Planning · *See ERP*
 Epic Solution Approach · *See ESA*
 ERP · 85
 error path · 80
 ESA · 85
 ETL · 85
 event · 81
 Extract Transform & Load · *See ETL*
 eXtreme Programming · *See XP*

F

feature · 51, 80, 83
 Feature Solution Approach · *See FSA*
 feature toggle · 80
 feed forward · 80
 feedback · 9, 80, 82
 flow · 81, 83
 FSA · 68, 69, 85

G

GCC · 85
 General Computer Controls · *See GCC*
 Gherkin · 51
 Given When Then · 80, *See GWT*
 golden plated · 9
 governance · 101
 GWT · 85

H

happy path · 80
 HRM · 85
 Human Resource Management · *See HRM*

I

IaC · 79, 80, 81, 85
 ICT · 85
 ID · 85
 ideal design pyramid · 7, 12

ideal testing pyramid · 82
 IDentifier · *See ID*
 impactanalyse · 17
 Information Communication Technology ·
 See ICT
 information management · 101
 Information Technology · *See IT*
 Information Technology Infrastructure
 Library · *See ITIL*
 Infrastructure as Code · *See IaC*
 infrastructure component · 81
 infrastructure management · 81
 IP address · 80
 IT · 85
 ITIL · 85

K

Kaizen · 81
 Key Performance Indicator · *See KPI*
 KPI · 81, 84, 85

L

latent defect · 81
 LDAP · 85
 Lead Time · *See LT*
 Lean · 81, 83
 Lean tool · 81
 Lightweight Directory Access Protocol · *See*
 LDAP
 log · 81
 loosely coupled · 81
 LT · 19, 81, 85

M

manufacturing process · 83
 meta data · 43
 microservice · 81
 microservice architecture · 81
 Minimal Viable Product · *See MVP*
 monitoring · 81
 MVP · 85

N

NFR · 81, 85
 Non Functional Requirement · *See NFR*

O

operations · 79, 81, 85

P

PAAS · 85
 pattern · 79, 82
 PDCA · 81, 85
 performance · 79, 85
 pipeline · 79, 81, 84
 Plan Do Check Act · *See PDCA*
 Platform AS A Service · *See PAAS*
 post-condition · 43
 power · 8
 pre-condition · 43
 Processing Time · *See PT*
 product backlog · 9
 product owner · 82
 programming paradigm · 82
 PT · 19, 85
 pull request process · 82
 Python · 55, 61

Q

QA · 82, 85, 101
 QC · 85
 Quality Assurance · *See QA*
 Quality Control · *See QC*

R

RBAC · 85
 release · 82
 release pattern · 82
 repository · 79, 82
 requirement · 79, 81, 85
 requirement view · 3
 resource · 8
 risk · 100
 Role-based access control · *See RBAC*
 root cause analyse · 81

S

Sarbanes Oxley · *See SoX*
 SBB · 85
 SBB-A · 85
 SBB-I · 44, 45, 46, 52, 85
 SBB-T · 35, 44, 85
 security · 81, 99
 silo · 83
 SLA · 99
 SMART · 81, 85
 SME · 85
 SoE · 82, 86
 SoI · 86
 solution view · 3
 SoR · 82, 86
 sourcecode · 79, 82, 83
 SoX · 86

Specific, Measurable, Accountable, Realistic, Timely · *See stakeholder* · 80
 story · 8
 Subject Matter Expert · *See SME*
 System Building Block · *See SBB*
 System Building Block Application · *See SBB-A*
 System Building Block Infrastructure · *See SBB-I*
 System Building Block Technology · *See SBB-T*
 system context diagram · 15
 System of Engagement · *See SoE*
 System of Records · *See SoR*
 Systems of Information · *See SoI*

T

TDD · 83, 86
 test
 - case · 79
 Test Driven Development · *See TDD*
 test view · 3
 testcase · 79
 The Agile Manifesto · 83
 the ideal testing automation pyramid · 82
 The Lean movement · 83
 the non-ideal testing automation inverted pyramid · 82
 tool · 89
 tool-assisted code review · 83
 top-down · 83
 trunk · 82

U

UML · 86
 Unified Modeling Language · *See UML*
 unittest · 55, 91
 use case narrative · 43
 use case scenario · 42, 43

V

value stream · 17, 19, 80, 81, 83, 86
 value stream canvas · 17
 Value Stream Mapping · 38, *See VSM*
 velocity · 79
 virtualized environment · 83
 visualization · 83
 VSM · 81, 83, 86

W

waste · 79, 81, 83, 84
 waste reduction · 84
 Way of Working · *See WoW*
 WIP · 84, 86
 Work In Progress · *See WIP*
 WoW · 86

X

XP · 86

Epilogue

My experience is that the ideas that I capture in an article or a book keep evolving. In case you are going to work on a specific topic from this book in your own DevOps organization, I advise you to contact me. There may be additional articles or experiences in this area that I can share with you. This also applies inversely. If you have certain experiences that complement what is described in this book, I invite you to share this with me. You can reach me via my e-mail address bartb@dbmetrics.nl.

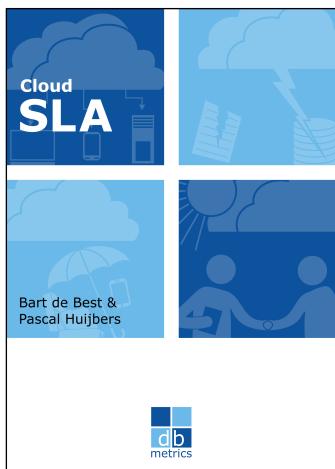
About the author



Drs. Ing. B. de Best RI. has been active in ICT since 1985. He worked primarily with the top 100 of Dutch business and government organizations. He has acquired experience in different roles within all aspects of system development, including operations for 12 years. After that, he focused on the subject of service management.

Currently, as a consultant, he is active in all aspects of the knowledge management cycle of service management, such as training ICT managers and service managers, advising service management organizations, improving service management processes and outsourcing (parts of) service management organizations. He graduated at both the HTS and University level in the management field.

Other books by this author



Cloud SLA

The best practices of cloud service level agreements

More and more organizations choose to replace traditional ICT services by cloud services. Setting up effective SLAs for traditional ICT services is a real challenge for many organizations. With the arrival of cloud services, this seems to be much simpler at first, but soon the hard questions come up like data ownership, information links and security. This book describes what cloud services are. The risks involved in entering into contracts and SLAs are discussed. Based on a long list of risks and countermeasures, this book also provides recommendations for the design and content of the various service level management documents for cloud services. This book first defines cloud and then describes various aspects like cloud patterns and the role of a cloud broker. The core of

the book is the discussion of contract aspects, service documents, service design, risks, SLAs and cloud governance. In order to allow readers to get started with Cloud SLAs, the book also includes checklists of the following documents: Underpinning Contract (UC), Service Level Agreement (SLA), Document Financial Agreements (DFA), Document Agreement and Procedures (DAP), External Spec Sheets (ESS) and Internal Spec Sheets (ISS).

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SLA Templates

A complete set of SLA templates

The most important thing in providing a service is that the customer is satisfied with the delivered performance. With this satisfaction, the supplier gets re-purchasing's, promotions in the market and is the continuity of the company ensured. Perhaps the most important aspect of this customer satisfaction for a supplier is that the employees in question get a drive to further develop their own knowledge and skills to satisfy even more customers. This book describes the templates for Service Level Agreements in order to agree with the customer on the required service levels. This book gives both a template and an explanation for this template for all common service level management documents.

The following templates are included in this book:

- Service Level Agreement (SLA)
- Underpinning Contract (UC)
- Operational Level Agreement (OLA)
- Document Agreement and Procedures (DAP)
- Document Financial Agreements (DFA)
- Service Catalogue
- External Spec Sheet (ESS)
- Internal Spec Sheet (ISS)
- Service Quality Plan (SQP)
- Service Improvement Program (SQP)

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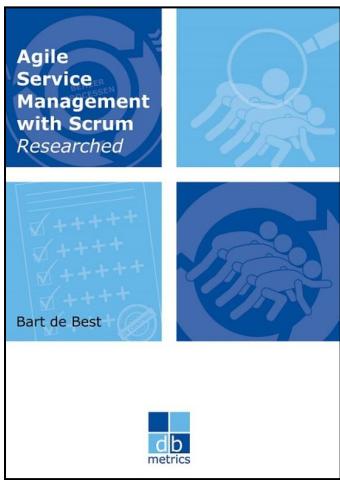
Agile Service Management with Scrum

On the way to a healthy balance between the dynamics of developing and the stability of managing the information provision

Using Agile software development is taking off. The terms Scrum and Kanban are already common to many organizations. Agile software development needs different requirements for the management of software. Many organizations are mastering this new challenge. In particular, the interaction between the Scrum development process and the support of the software that the Scrum development process has produced, is an important aspect. This book specifically discusses this interaction. Examples of topics that are discussed here are the service portfolio, SLAs and the handling of incident and change requests.

This book first defines the risk areas when implementing Scrum and Kanban. Next the various Agile terms and concepts are discussed. The content of Agile service management is described both at the organizational- as the process level. The relevant risks are specified for each of the service management processes. In addition, the implementation of each process within the context of Scrum is indicated.

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Agile Service Management with Scrum Researched

On the way to a healthy balance between the dynamics of developing and the stability of managing the information provisions

Many companies are starting to apply Agile software development using Scrum or Kanban or have already implemented the new development process. Sooner or later the question arises how this development process relates to the service management processes. The book 'Agile Service Management with Scrum' has already addressed this interface and a number of risks per service management process have been identified. Countermeasures that can be taken are also defined. In a research at ten organizations these risks were presented, and they were asked how they deal with these risks. The research included the investigation into which Agile aspects are applied and in particular those of

Scrum or Kanban. Finally, each organization has carried out a maturity assessment for both the Agile development process and the change management process.

This book is the report about the research of the collaboration of Agile software development and service management processes in practice. The target group of this book includes all parties involved in the application of Agile software development and who would like to know how colleagues have shaped this crucial interface for successful service provision. In this book a short description is given of each organization about how the Agile development process has been designed.

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DevOps Best Practices

Best Practices for DevOps

In recent years, many organizations have experienced the benefits of using Agile approaches such as Scrum and Kanban. The software is delivered faster whilst quality increases and costs decrease. The fact that many organisations that applied the Agile approach did not take into account the traditional service management techniques, in terms of information management, application management and infrastructure management, is a major disadvantage. The solution to this problem has been found in the Dev (Development) Ops (Operations) approach. Both worlds are merged into one team, thus sharing the knowledge and skills. This book is about sharing knowledge on how DevOps teams work together.

For each aspect of the DevOps process best practices are given in 30 separate articles. The covered aspects are: Plan, Code, Build, Test, Release, Deploy, Operate and Monitor. Each article starts with the definition of the specifically used terms and one or more concepts. The body of each article is kept simple, short and easy to read.

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DevOps Assessments

A handy tool for DevOps teams to improve their skills

DevOps teams organise themselves and improve the Development (Dev) and Operations (Ops) aspects that are still underexposed. On the other hand, DevOps teams share knowledge and skills with other DevOps teams so that they reinforce each other.

This book provides a tool to make the DevOps teams aware of where they stand in terms of maturity and the next steps they can take to develop. To this end, this book offers two assessments. The first assessment is the DevOps Cube assessment based on 'The Three Ways' by Gene Kim. The second assessment is based on Continuous Everything whereby all aspects of DevOps are measured using the CMMI model.

The DevOps Cube assessment is based on the idea that DevOps can be viewed from six different perspectives. Each gives a specific picture of the design of the DevOps philosophy. The fronts of the cube are based on 'The Three Ways': 'Flow', 'Feedback' and 'Continuous learning', the back of the cube include: 'Governance', 'Pipeline' and 'QA'.

The Continuous Everything assessment comprises six list of questions that make the DevOps maturity measurable on five levels. The following dimensions are included: 'Continuous Integration', 'Continuous Delivery', 'Continuous Testing', 'Continuous Monitoring', 'Continuous Documentation', and 'Continuous Learning'. This assessment book is an excellent mirror for every DevOps team that wants to quickly obtain a complete picture of the DevOps best practices to be addressed.

Author	: Bart de Best
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ISBN (NL)	: 978 90 71501 814
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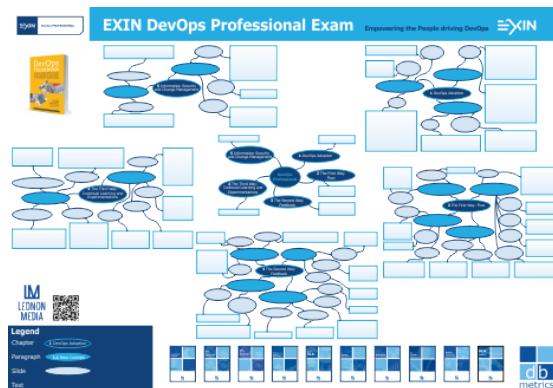
DevOps Architecture

DevOps Architecture Best Practices

The world of system development is changing at a rapid pace. Development (Dev) and Operations (Ops) are being integrated more and more so that solutions can be offered to customers faster and with better quality. The question is how within this new view of DevOps there is room for Agile architecture. This book provides an answer to this question by giving many examples of architectural principles and models that give direction to the design and operation of a DevOps organization. Throughout the book an explanation is given as much as possible per paragraph based on an imaginary Assuritas company. This book consists of various parts, which makes the book modular. So, it does not have to be read from A to Z.

After the brief outline of the case company an explanation of how to construct the DevOps organization from an architectural perspective is given. The DevOps service management is then discussed. Both aspects are made clear on the basis of the case company. After explaining how the Dev and Ops roles can be integrated, two useful assessment tools to determine the maturity of DevOps are described. The book concludes with a case in which the choice for an Agile documentation is made based on architectural principles and models. This work on DevOps architecture is an indispensable tool in the design and implementation of a DevOps service organization.

Author	: Bart de Best
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DevOps Poster

DevOps Professional Exam Poster

This poster lists all the DevOps terms that a student must learn in order to pass the exam of DevOps Professional of Exin. This poster can be ordered at info@leonon.nl.

The subjects on the poster are based on the basic training material of Exin. Since there are many terms to be learned, this poster will help to learn them by reviewing them all at once daily.

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