TOGAF 10 / 9.2

Course on TOGAF Certification

About

About the Faculty
About the Course
About the Certification

Faculty

N. Ramakrishnan (Ramki)

This Course Material makes sense only when it is referred during or after our course. It is not designed to provide value to those who have not attended the course conducted by the above Faculty.

To make the best of this Course:

Listen, do not miss any portion

Interact – will appreciate many a questions and interaction from you, today and every day

Certification

my aim



After Course session, today itself: **Read Part 1** in the Modules covered

Try some questions at least in Part 2 in the Modules covered

After last day of course:

Spend 25 to 40 hours in study before appearing for Certification

You will then do very well in the Exams

Understanding TOGAF in depth is my aim



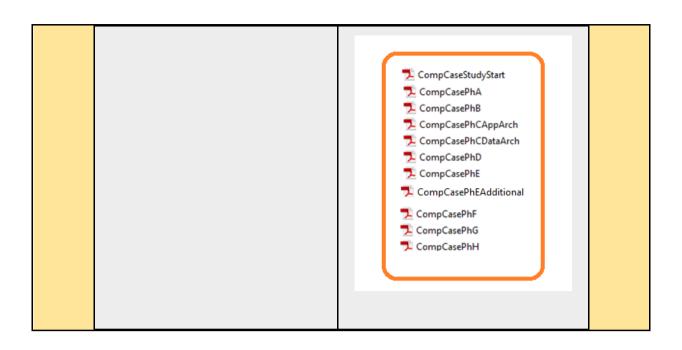
Read Part 1 in the Modules covered

Read Part 3 in the Modules at own leisure

Total understanding of TOGAF for practical purposes takes more time.

Read Part 3 Compressive Case Study spread over many files

Practice them in your Enterprise whenever and wherever possible to the extent it is appropriate





ABOUT ME

NAME: Ramakrishnan N

Call me as: RAMKI

email ID: mramkiz@gmail.com

45+ Years in IT industry

Involved in Enterprise Architecture,

Solution Architecture,

Design & Code Review of

Large Enterprise Computing To

PC based Computing

Language Competence:

C++ VC++ VB 6.0

C# VB.NET, VB 6.0 Java Ada

PASCAL COBOL FORTRAN

JavaScript TypeScript GOLang Kotlin

Python and few Web / AI / Other Languages

Technology & Architectural Competence:

.Net Architecture : CLR, CTS

AppDomain – Assembly- GAC

ASP.Net ADO.Net Remoting Web Services

WPF-Presentation Foundation

WCF-Communication Foundation

WWF-WorkFlow Foundation

LINQ, EF

More innovative Dot Net 5

Dot Net Core 6 C# 10.0

Windows 10 App Arch; Windows UWP App Arch

Or legacy:

COM+: Enterprise Architecture

Activation – Tranasactions- Queued Components

MTS MSMQ COM-DCOM Threading Models

Interop: CLR to COM; CLR to Win Rt

Or the Modern:

Azure: On Cloud, Hybrid, Service Bus, Azure Connect, Storage

Models, Migration, Green Field Cloud projects

Java Architecture:

Involvement from JDK 0.1 to the current

JDK right till Java 18

RMI JDBC JDO

Java Enterprise Java EE (Jakarta EE 9.0 / 10.0)

Servlet & JSP EJB 1.0 to 3.x JPA 3.0

Struts, JSF, Spring, Tiles

JINI JMS and all Java Enterprise systems

Android App Arch: till Android – 12

SOA – Traditional

Microservices - Modern, State of Art

Sync, Async, On-Prim, Hybrid, Cloud

Container, Cloud Native,;

(Kubernetes, Docker, Other equivalants

Kafka and many Event Managing systems)

Service Design, API Management; CD / CI Pipelines, ,,,

Architecture behind No-SQL, DWH, Data Lake, ,,,

CORBA Distributed Enterprise Systems

e-Commerce Technologies

Embedded Systems RealTime Systems

Security Systems

All with Architectural Involvement

Enterprise Architecture

Involved with TOGAF Empowerment

TOGAF Certification Training,

Courses on Zachman and other EA Frameworks

And guidance provider on multiple Horizontals and Verticals

BFSI, Healthcare, Telecom & Managed Services, ...

Finance, SCM, CRM and other multiple domains

Certified in TOGAF



This is to certify that

Ramakrishnan Natarajan

has successfully met the requirements of the TOGAF 9 Certification for People program at the TOGAF 9 Certified level.

> Date registered: 13 March 2015 Registration Number: 94129

Allen Brown

Allen Brown, President and CEO, The Open Group

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Member, AEA: Association of Enterprise Architects

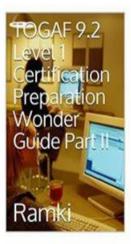
Association of Enterprise Architects Mr Ramakrishnan Natarajan Membership #: 33516716 Member Type: Individual Member - \$75 Member - Expires: March 13, 2018

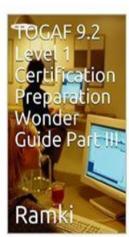
CMA: Cost and Management accountant

Engineer: Experienced in Software field for over 40 Years

Books authored by this Faculty







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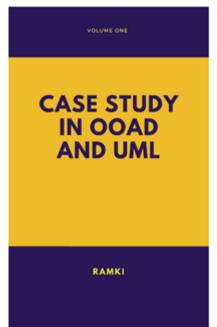


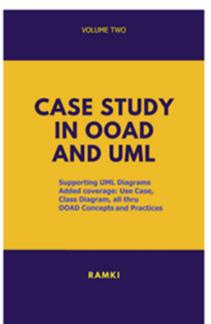
TOGAF is NOT TOUGH

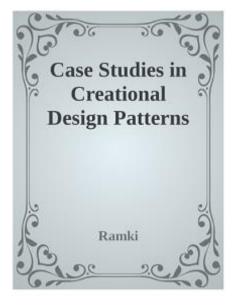
Ramki

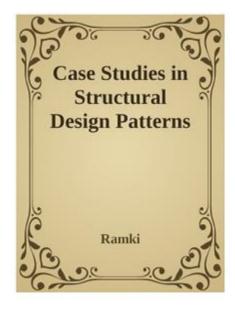
Case Studies in Design Patterns

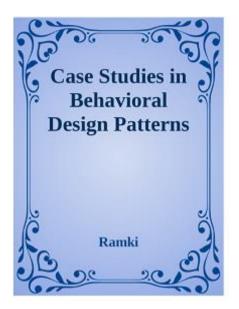
Ramki











WonderGuide Java SE 11 Exam 1 Volume 1

Ramki

What do I do?

Specialized Authoring

High-End Education,

Mentoring many state-of-art Projects

: Architectural Selection

: Design Review

: Code & Performance Review Project Mentoring:

Helping in

Architecture

OOAD:

Analysis

Design

SOA Move

Digital Move

Code Review

About the Course

Aim:

Aim 1: Steering those participants to get sufficient skill and knowledge to appear for TOGAF Level 1 (Foundation) and Level 2 (Practioneer) Certification Examinations

However even with the same syllabus, Level 1 and Level 2 Certifications expect **different skill set and approach strategy** for each level differently. It needs learning with an approach and strategy to face the Certification Examination.

Note that currently the Certification remains to be based ONLY on TOGAF 9.2 and it is expected that it will remain so during the major portion of 2022. The Exam focus in this course will shift to TOGAF 10 only when the certainty of Exam focus switch over to TOGAF 10 is clearly known.

Aim 2: This course aims at making the participants getting generally knowledgeable with the components of TOGAF 10 as an Enterprise Architecture Framework. It will relate the existing Architectural experiences of the Participants with those which should be part of TOGAF 10, the latest version that is released in April, 2022. Further it may conceptually clarify those portions of TOGAF which might not have formed of their experience set.

Those who are expecting a more in depth coverage TOGAF for practical use in their Enterprise and for larger real-life projects as a dedicated Enterprise Architecture practice should rather opt for our expanded offering, extending to 40 to 50 hour duration and not this content. However we advise them to just go through this Exam focus course right now, get the certification in hand and then only think of expanded understanding. That understanding can also be attempted by going through our extensive course material and Cass Study files which is suppled along with this course itself, without opting for the expanded course.

Towards this objective, this Course will also provide hundreds of examples of Level 1 Multiple choice portions and Level 2 Scenarios based portions (with appropriate explanation for Level 1 questions and appropriate reasoning out portion for Level 2)

Who can fit in:

This course can be taken with persons from Business background of software as well as those from Technology and Platform backgrounds. TOGAF being an Enterprise Architecture Framework, expects the participants to be involved in **Architecture (Business, Application, Data, Infrastructure – a combination thereof)** activities one way or other.

Duration: Five Days

Course material in pdf format for each Module is already shared with the participants in advance. These are specially authored with on-line mode in mind and has been handcrafted by the same Expert faculty.

A Comprehensive Case Study is also made available in the form of ten pdf files.

Three Reasons to focus on Certification:

Understand TOGAF for practical use: Certification has same aim

Can go for Certification Exam when the Course is over, and when the subject is hot in mind

Certification has ever lasting value. Respect in the field goes up by a few notches

If going for Certification: A minimum of 25 hour of your own study time is advised after last day of course.

Ideally it should be 40 hours of preparation time.

TOGAF version 9.2 was released in April, 2018.

TOGAF Standard, Version 9.1 was published in December 2011

Your Certificate will only carry "TOGAF 9" in it. Not minor version

It has no time validity. Valid for ever

And TOGAF 10 has just been announced on April 25, 2022

TOGAF 10 will NOT BE part of Certification for many more months.

All Certifications will be based on TOGAF 9.2 only

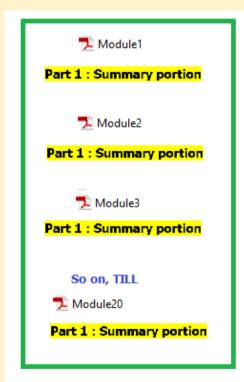
End portion of Module 20 provides some idea about differences and enhancements in TOGAF 10

Many of the TOGAF 10 documentation points which are equally relevant for TOGAF 9.2 are appearing in almost every Module of this courseware set. This is something you can never get it in other competing online courses, internet sources on TOGAF 9.2 and other ones you may chance to refer to.

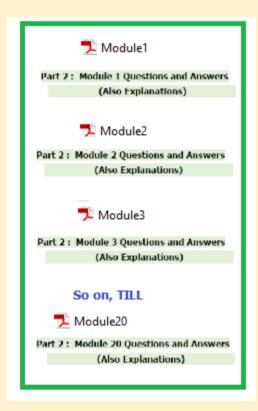
What to read for Certification?

Twenty pdf files, just Part 1 : Summary portion ONLY

When to read: Preferably after every Course EVERY DAY and then after the Course till Certification day.



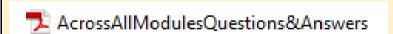
What to practice module wise towards Certification?



When to practice: Preferably after every Course EVERY DAY and then after the Course till Certification day

What to practice for real Certification feel:

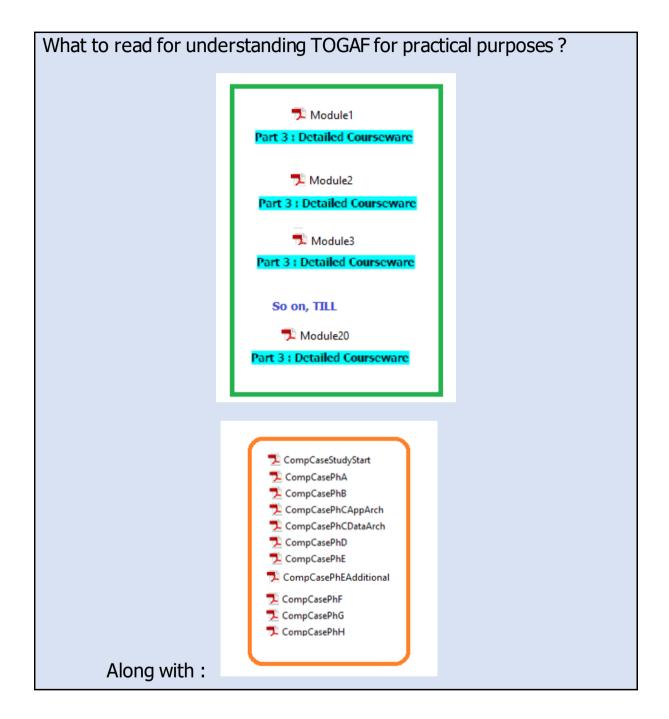
From above twenty files and one more file:

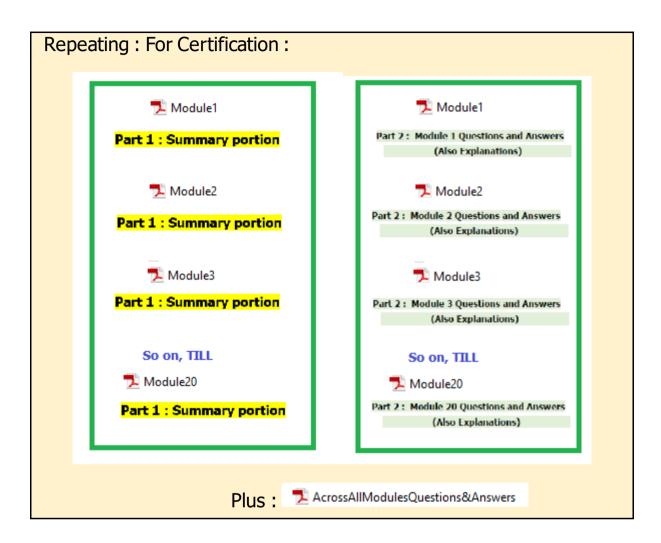


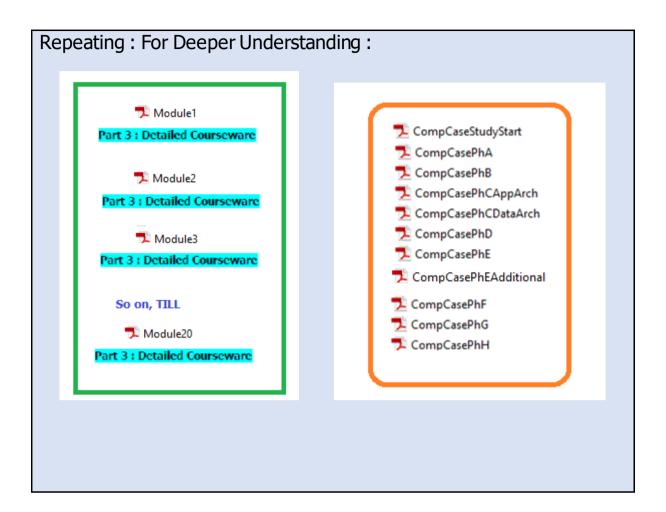
Also mock exams available in internet sites

https://learnfundas.com/best-free-mock-exams-for-togaf-9-2/

No need to read or refer to anything else







Also watch TOGAF Videos given as links in Part 3 of most modules.

What we **should not be doing** during this course

Passing Judgments on TOGAF being right or wrong

- Not nice to do so in Certification Courses

Challenge and improvise TOGAF

- You can do it after Certification, not before

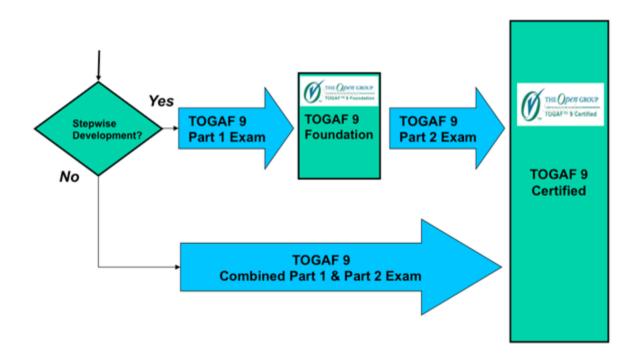
Comparing what we are doing currently AGAINST

what TOGAF expects an Enterprise Architect to do

- Such a validation might not help, but may lead us to confusion



On TOGAF Certification



Level 1: (Foundation Level)

Pass mark 55% (22 or more points out of a maximum of 40)

40 questions / 60 minutes

This exam comprises 40 questions in simple multiple choice format, covering the Level 1 learning outcomes

Level 2 : (**Practitioner Level**)

Pass mark 60% (24 or more points out of a maximum of 40)

8 questions / 90 minutes

This exam comprises 8 complex scenario questions, with gradient scoring. This exam is open book and covers the complete Level 2 learning outcomes.

The best answer scores 5 points,

The second best answer 3 points,

The third best answer 1 point.

The distracter scores zero points.

Syllabus (Content) for Level 1 and Level 2 is the SAME

It is sensible to take both Levels of Certification in a single sitting, especially when your preparation time is precious

Module wise Content:

Note: The would-be adjustment of content within the days to suit the target audience.

As an enhancement towards TOGAF 10, additional focus on the following topics are added to the course content appropriately in all its 20 modules:

- Digital Enterprise and Digital Technology Adoption: Digital Business Reference Model (DBRM)
- Information Mapping and Organization Mapping
- Customer Master Data Management (C-MDM)
- TOGAF ADM using Agile Sprints

Day 1: Theme: Appreciating EA and TOGAF

Module 1: Basic Concepts: Intro to EA:

Key responsibilities of an Architect. Path towards becoming a successful Enterprise Architect. Value of EA.

What is TOGAF? How does it help an Enterprise Architect.

A high-level view of TOGAF, Enterprise Architecture, and the contents and key concepts of TOGAF.

Architecture Development Method (ADM)

Definitions and distinction: Design, Architecture, Framework.

Architecture design principles, architecture development cycle.

Module 2: Preliminary Phase of ADM

Preliminary Phase in TOGAF and strategic plans.

Getting everyone on board. Setting up of Governance Framework. Defining Principles, Goals.

Module 3: Requirement Management: Central Phase of ADM

Requirement Management: Architecture Requirements Management: Understanding the process of managing architecture requirements throughout the ADM cycle. Concept of Requirements and their short comings in Architectural Context.

During Day 1: Case Study, Mock Exercises and practice in remembering key points for Level 1 and Level 2 Examinations

D2: Theme: Key points of ADM

Key techniques and deliverables of the ADM cycle.

Module 4: Phase A: Architectural Vision

Defining scope; creating vision.

Stakeholder Analysis: Stakeholder Identification, Stakeholder Grid and Stakeholder Map.

Module 5: Business Architecture

Business Architecture: Full process of developing one. Ways to analyze the business motivations for any singular business strategy and the way to develop a total business solution that balances costs, benefits, risks, sustainability and enterprise constraints. Architecture Definition for Business, Information , Data, Application, Infrastructure , Security , Performance Metrics and Organization Change Management.

• Gap Analysis Techniques

Module 6: Understanding View, Viewpoints

Stakeholder Analysis: Stakeholder Identification, Stakeholder Analysis, Stakeholder Grid and Stakeholder Map.

Architectural and non-Architectural Constraints.

Architecture Views and Viewpoints: IEEE standard 1471 to describe a meta model for Views and Viewpoints.

During Day 2: Case Study, Mock Exercises and practice in remembering key points for Level 1 & 2 Examinations

D3: Theme: Empowering TOGAF knowledge in practice and with TRM

More on Application Architecture

Application Architecture: Contextual, Conceptual, Logical and Physical.

Architectural Qualities and their impact across the architectural domain.

Module 7: Application Architecture

Application Architecture. Iterative Architecture Development Concepts Patterns, Component Architecture.

NFR – Non-Functional Requirements

Architectural Qualities and their impact across the architectural domain.

Module 8: Foundation & higher Arch and TRM

TOGAF Reference Models, the TOGAF Foundation (and higher) Architecture and the Integrated Information Infrastructure Reference Model (III-RM)

• Technical Reference Model and III-RM. Boundary less Information Flow.

Integrated Information Infrastructure Reference Model: Concepts, Overview and Taxonomy

Foundation Architecture: Technical Reference Model: Taxonomy, Graphical and visual representation etc.,

Standards Information Base

Module 9: Arch Repository or Assets

The six Modules of Architecture Repository

Importance of Architecture Meta Model, Architecture Capability, Governance Log

Role of Architecture Landscape, SIB, Reference Library

Module 10: Indexed View of Arch Assets

Introduction to the Enterprise Continuum: How it is used with the ADM to develop enterprise architecture.

Architecture Continuum in Detail: Establishing a functional framework for architecture re-use

Module 11: Data Architecture

Information System Architectures: Develop Data Architecture over Applications Architectures.

During Day 3: Case Study, Mock Exercises and practice in remembering key points for Level 1 & 2 Examinations

D4: Theme: Matured look at TOGAF

Module 12: Technology Architecture

Technology Architecture and infrastructure, hosting software decisions at Enterprise Level

Module 13: Architecture Partitioning

Architecture Scoping, Partitioning and Security: concepts such as partitioning, segmentation and the use of architecture domains.

Module 14: Solutions and Opportunities that arise when Domain Architectures for Requirements mature

Solution opportunity: Applying the Checkpoints on suitability for implementation.

Consolidation, Pointers to fixing priority of projects and Transition Architectures.

Routing of Requirements which are yet to reach ideal solutions stage

Module 15: More on Enterprise Continuum

On Solutions Continuum

More on Enterprise Continuum

During Day 4: Case Study, Mock Exercises and practice in remembering key points for Level 1 Examination. Scenario based exercises with open book mode for Level 2 Examination.

D5: Theme: Consolidating towards Certification and Practice proficiency

Module 16 : Final Planning and Decision steps : Before Development / Procurement / Installation

Migration Planning: Prioritizing works and tasks; Arriving at major work packages; Developing a migration plan. Migration Planning Techniques including: Implementation Factor Assessment and Deduction Matrix, the Consolidated Gaps, Solutions and Dependencies Matrix, the Architecture Definition Increments table, the Enterprise Architecture State Evolution Table and the Business Value Assessment Technique.

Module 17: A Phase to coordinate and oversee Implementation agencies

Implementation Governance: How to provide architectural oversight of the implementation

Pre-Development and post-Development Reviews

Module 18: Architecture Content Framework

All the types of building blocks that may exist within an architecture, with practical examples showing how these building blocks can be described and related to one another.

Meta Model and physical Model of an EA Repository.

Content Meta model as a way of using Architecture to describe Architecture. A detailed view of the Content Meta model entities and their relationships.

Module 19: A Phase that manages post-implementation Changes of simple to complex kinds

Architecture Change Management: Establish procedures for managing change to new architecture or in parts of current architecture

Module 20 : Governance over Architecture Activity : ADM Leading to Capability improvement

Architecture Governance:

Architecture Board: Guidelines for establishing and operating an enterprise Architecture Board

Architecture Compliance: Guidelines for ensuring project compliance to architecture

Architecture Contracts: Guidelines for defining and using architecture contracts

Architecture Governance: Framework and guidelines for Architecture Governance: role of an Architecture Board, Architecture Contracts and Compliance Reviews

The course will definitely focus on making the participants understand and appreciate TOGAF as a practice for the Enterprise Architecture of their organization.

The course in its entirety covers **nearly 650 questions for Level 1 Examination and more than 50 Case Study based scenario analysis for Level 2 Examination.** The course material will be so exhaustive that the participants will not need any other material for the Certification preparation. However adequate time spend is needed by every individual, after this course before actual certification day.

A Note:

There are only 10 Phases in TOGAF ADM, but we have 20 Modules.

Because there is much beyond Phases in TOGAF

Only following Modules are Phase centric:

Module No	Phase
Module 2	Preliminary Phase of ADM
Module 3	Requirement Management: Central Phase of ADM
Module 4	Phase A: Architectural Vision
Module 5	Phase B: Business Architecture
Module 7	Phase C: Application Architecture
Module 11	Phase C: Data Architecture
Module 12	Phase D: Technology Architecture
Module 14	Phase E: Solutions and Opportunities
Module 16	Phase F: Migration Planning
Module 17	Phase G: Implementation Governance
Module 19:	Phase H: Change Management

Sample Level 1 Question



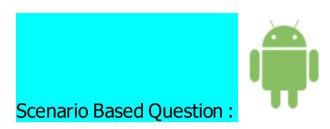


101 Which one of the following best describes TOGAF?

- A. A framework and method for architecture development
- B. An architecture pattern
- C. A business model
- D. A method for developing Technology Architectures
- E. A method for IT Governance

Answer: A

Sample Level 2 Question



Scenario is based on: ____ (not given so in exam. We have given here

for your knowledge): Developing an Enterprise Security View

Context of Scenario

Hurricane Clothing Company is known for western clothing for men teenagers and children. It has over 100 stores in 10 countries and as of now employees 10,000 people.

It carries a rank of 15 among global clothing retailers. The Design team in their headquarters at Milano, Italy controls the process steps for preparing the merchandise from its raw material, as also the design and specification and the task of outsourcing of production and all such needs.

This Enterprise is in the process of acquiring three similar fashion chains in order to increase revenue substantially. They are planning to phase in the acquisitions over a period of 3 years.

This Hurricane Clothing Company has a mature Enterprise Architecture team. They have been putting TOGAF into practice for over 4 years. However it is the first time that this architecture team is facing merger of a new entity into the existing enterprise. Main concern of the stakeholders is about their own Security Architecture and its integration with the new acquisitions from different countries and each of which may carry different regulations. Given this situation, the EA team wants to ensure that level of importance and scrutiny on the security portion is adequate.

Find the best answer, as per TOGAF documentation:

Always Four Answer Choices

A. Consolidate the companies Information Systems into a single domain in order to reduce the task of security policy development within manageable size. Information objects should be transformed within the information domain in accordance with established rules, conditions and procedures as expressed in the security policy in the domain.

Analyze the minimum security requirement to ensure that the absolute protection will be achieved for the information domain across Communications. Security-Critical functions will be isolated into relatively small modules that are related in well-defined ways. The Operating System will isolate security context from each other using hardware protection features. Untrusted software will use end-system resources only by invoking Security-Critical functions through the separate kernel. Create security association to form as interactive distributed security context. Standardize security management functions, data structures and protocols.

B. Break down the company's Information Systems down into domains to reduce the task of security policy development within manageable size. Information objects should be transferred between two information domains in accordance with established rules, conditions and procedures expressed in the security policy of each information domain.

Analyze the minimum security requirement to ensure that the absolute protection will be achieved for the information domain across Communications. Security-Critical functions will be isolated into relatively small modules that are related in well-defined ways. The Operating System will isolate security context from each other using hardware protection features. Untrusted software will use end-system resources only by invoking Security-Critical functions through the separate kernel. Create security association to form an interactive distributed security context. Standardize security management functions, data structures and protocols.

C. Consolidate the company's Information Systems into a single domain in order to reduce the task of security policy development within manageable size. Hardware should be transferred within the technology domain in accordance with established rules, conditions and procedures expressed in the security and data transfer policies in the domain.

Analyze the minimum security requirement to ensure that the absolute protection will be achieved for the information domain across Communications. Hardware-Critical functions will be isolated into relatively small modules that are related in well-defined ways. The Operating System will isolate security context from each other using hardware protection features. Untrusted software will use end-system resources only by invoking Security-Critical functions through the separate kernel. Create communication associations to form an interactive distributed security context. Standardize security management functions, data structures and protocols.

D. Conduct a risk assessment to classify and identify potential security risks and produce a Risk identification and Mitigation Assessment Worksheet. Initiate an iteration of Requirements Management and based on the updated security requirements, produce and announce new official security policy. Create a Codified Data / Information Asset Ownership and Custody Catalogue.

Conduct an iteration of Phase H to revise Change Management guidelines using the resulting documentation and the Data Classification Policy Catalogue. Gain a complete understanding of the business security requirements; find the pain point of the stakeholders for security considerations; get a clear understanding of what assets need to be protected, from whom they need to be protected, who has authorization to access them and to what level of security they need; document security forensics, perform a threat analysis; assess the impact of new security measures and its side effects; determine "what can go wrong?"

Best answer: B (5 marks)

Next Best: (3 marks only)

A: Note that reducing the task of security policy development in provided not by consolidating domains but by breaking them down into many smaller domains.

Third Best: C: (Just one mark only) Contains references not related to security

Worst Answer: D: (Zero mark for this selection) It goes into points which are way out. Also such Artifacts are not seen anywhere in TOGAF

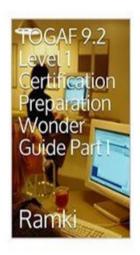
Certification logistics such as voucher for Exam is an internal matter for individual companies and the Trainer has **no say in this**.

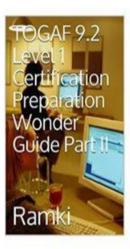
However those who want to find out general information can visit: https://www.opengroup.org/certifications/take-exam-pearson-vue

Wish you all the Best.

You may read Books by Faculty, after completion of this course.

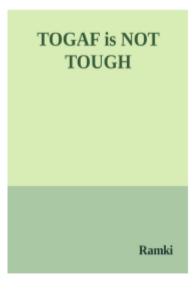
TOGAF books happen to be:



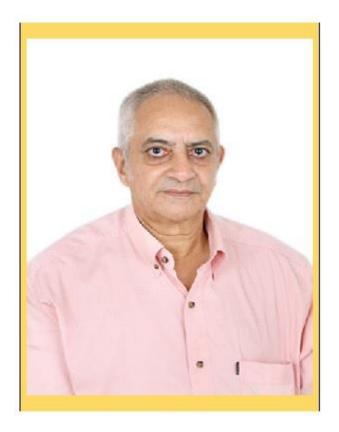








Author & Expert Faculty: Ramakrishnan N (Ramki)



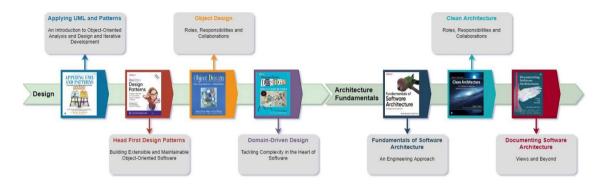
Discover other titles by Author name of Ramki

Friend me on Facebook:

https://www.facebook.com/Ramki-the-Author-and-High-end-Trainer-111831590403513/?modal=admin_todo_tour

Reachable through: mramkiz@gmail.com

While plenty of Reference Materials are indicated in the respective Modules, the following books are among a large list that are worth having in a library (Architecture Repository of the Enterprise) which the Architect has access to:



Head First Design Patterns, by Freeman

Object Design: Roles, Responsibilities and Collaboration, by Ivar

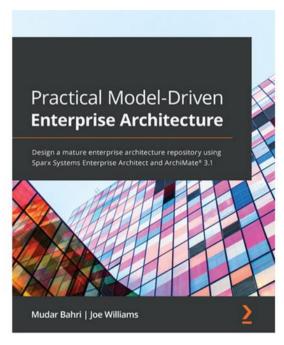
Domain-Driven Design Tackling Complexity in the Heart of Software, by Eric

Fundamentals of Software Architecture, by Mark Richards

Clean Architecture, by Robert Martin

Documenting Software Architecture, by Paul Clements

From the excellent Book, from which a few points are quoted in this course :



And most important, not just to Architects but to all to those connected with DevOps / Infrastructure and Deployment:

