

#1 Certified Mainframe Modernization Expert (CMME)

COURSE ABSTRACT

Course Code

» 018

DELIVERY METHOD

» Web-based Training (WBT)

COURSE DURATION

» 31 hours

PREREQUISITES

» Any
Mainframe
Software
Engineer

RECOMMENDED TRAININGS

» None (Beginner-friendly)

Course Overview

1. Intent of this training is to equip professionals with the knowledge and tools necessary to transform and revitalize their legacy mainframe systems in the modern digital age
2. Learn the usage of different Tools & available Techniques in modernizing

Target Audience

1. Mainframe Engineers who are currently working in Modernization Projects
2. Mainframe Engineers who are looking for Role/Job change in Modernization Projects
3. Mainframe Engineers who wanted to upgrade their knowledge and become future ready professional in evolving IT Industry

COURSE ACTIVITIES

- Learn & Experience the use of modern AI Tools and Prompt engineering used in the Modernization program
- Learn the state-of-the-art migration and optimization strategies used in Mainframe Modernization
- All Basic to Advanced concepts required for industry is covered in the course to make you Future Ready

CERTIFICATION PATH

- » This course is a part of the ez-learn.global Certification Path for all roles.

DISCOUNT OPTIONS

- » Have multiple students? Contact us to discuss hosting a private class for your organization
- » **Contact us for additional information Email: contactus@ez-learn.global**

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Course Curriculum - July 2026

Day	Module	Topics	Duration
Architecture-Level Modernization			
1	Mainframe Modernization Overview	Mainframe Modernization Introduction	2 hours
		Understanding Mainframes in today's scenario: Z-OS Hardware, Software and sub-systems USS	
		Why Modernize, Case for Modernization, Benefits and Risks	
		Scenario Based Tools Overview and R's of Modernization: Re-Hosting, Re-Platforming, Re-Factoring, Re-Architecting	
		Approaches/Patterns to Modernization, Hybrid Cloud Model.	
2	Enterprise Architecture Transformation	Legacy architecture patterns	2 hours
		Modern enterprise architecture	
		Monolithic vs Micro services	
		Service-Oriented Architecture (SOA)	
		Event-Driven Architecture (EDA)	
		Exposing COBOL/CICS as APIs	
		REST APIs	
		SOAP Services	
		OpenAPI Specifications	
		API Gateway concepts	
		API Security	
3	Cloud Integration	Mainframe to Cloud connectivity	2 hours
		Cloud-native architectures	
		Containerization concepts	
		Kubernetes basics	
		Modern deployment models	
		Lab: AWS Transform	

Application-Level Modernization			
4	Legacy Application Assessment	Understanding legacy portfolios	2 hours
		Application inventory	
		Dependency analysis	
		Complexity assessment	
		Business criticality analysis	
		Lab : ADDI	

5	COBOL Modernization Strategies	COBOL application decomposition	2 hours
		Business rule extraction	
		Service enablement	
		Refactoring COBOL code	
		Identifying reusable components	
		Lab: IBM Watsonx Code Assistant for Z	
6	CICS Modernization Strategies	Modernizing CICS applications	2 hours
		CICS Web Services	
		RESTful CICS Services	
		JSON processing	
		Channels and Containers	
		z/OS Connect	
7	UI Modernization	Lab : CICS Web Services	2 hours
		Green screen transformation	
		3270 modernization	
		Web front-end integration	
		Mobile enablement	
		React/Angular front ends	
8	Mainframe Integration Patterns	Lab : CICS Web Services	2 hours
		CICS-MQ Integration	
		REST Integration	
		SOAP Integration	
		External API Consumption	
		Event-based integration	
9	Legacy Data Landscape	Lab : CICS + MQ Integration	2 hours
		VSAM modernization	
		IMS databases	
		DB2 modernization	
		Data classification	
10	Database Modernization	DB2 modernization approaches	2 hours
		Relational to relational migration	
		Mainframe to cloud database migration	
		Data transformation techniques	
		LAB: DB2 to AWS RDS	

Database and Data-Level Modernization			
9	Legacy Data Landscape	VSAM modernization	1 hour
		IMS databases	
		DB2 modernization	
		Data classification	
10	Database Modernization	DB2 modernization approaches	2 hours
		Relational to relational migration	
		Mainframe to cloud database migration	
		Data transformation techniques	
		LAB: DB2 to AWS RDS	

11	Data Lake and Analytics	Mainframe data extraction	2 hours
		Data Lake architecture	
		Data Warehousing	
		Analytics modernization	
		LAB: Data lake and Analytics	
12	IMS DB Data Migration	Architectural Overview of IMS	1 hour
		Conversion Ideas	
		Data Sweep concepts	
		Analytics modernization	

Operations & Platform Modernization

13	Mainframe DevOps	DevOps principles	1 hour
		Traditional SDLC vs DevOps	
		Continuous Integration	
		Continuous Delivery	
		Release automation	
14	CI/CD for Mainframe	Fundamentals of Cloud Technology with focus on AWS.	2 hours
		Concept of Virtualization,	
		Concept of Containers in Cloud	
		GIT and GITHUB as SCM	
		LAB: Create Linux VM's and static webpage in AWS. GIT, GITHUB, VS CODE setup/configs	
15	Devops Tools	Cobol Upgrade Advisor	2 hours
		DBB	
		WAZI Deploy workflow	
		Test Accelerator for Z (TAZ)	

AI Powered Modernization

16	Prompt Engineering Concepts	Prompt Techniques	2 hours
		Use Cases for Cobol, DB2 and CICS	
		Prompts to convert code from Language to another	
		LAB: Hands on Exercises using Different CLAUDE Prompts	
17	GitHub Copilot	AI-Assisted Code Generation and Development.	2 hours
		Automated Test Case Creation and Validation	
		Defect Analysis, Debugging, and Resolution Support.	
		Code Refactoring and Optimization.	
		Automated Documentation and Knowledge Extraction.	
		Productivity Enhancement	
		LAB: Hands on Exercises using GitHub Copilot	