

## Bring your mainframe to the center of API economy!

**COURSE DATE: November 2018**

The z/OS Connect course is based on “Blended Learning” concept developed by European Mainframe Academy. The concept includes learning, communication, information, knowledge management – independent of time and place, combined with the exchange of experience and face-to-face teaching sessions.

During each course week, theoretical video units and lab exercises will be followed with live virtual classes in order to give student an opportunity to ask questions and get the answer from engaged and competent lecturer. Students will also be able to communicate with the lecturer through an eLearning platform.

The course is designed for z/OS system programmers, middleware on z/OS system programmers, CICS system programmers, IMS system programmers and developers who want to get deep knowledge about z/OS connect as one of key enablers for API Economy on z/OS platform.

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**1<sup>st</sup> week, November 26<sup>th</sup> – November 30<sup>th</sup>**

- INTRODUCTION
- SUBMODULE 1 API ECONOMY INTRODUCTION
  - What is API and API usage
  - What is API Economy?
  - Microservices
  - SOA Concept
  - API Economy vs. SOA
  - Quizzes
- SUBMODULE 2 Z/OS CONNECT INTRODUCTION
  - z/OS Connect terminology, concepts and tools
  - z/OS Connect EE server
  - z/OS Connect change history and scenarios
  - Quizzes

- SUBMODULE 3 Z/OS CONNECT ARCHITECTURE
  - z/OS Connect architecture overview and deep dive
  - z/OS Connect EE server technical deep dive
  - z/OS connect services purpose and principle of work
  - CICS service provider purpose and principle of work
  - WOLA service provider purpose and principle of work
  - IMS service provider purpose and principle of work
  - What is interceptor purpose and principle of work
  - What is API requester purpose and principle of work
  - z/OS Connect data transformer purpose and principle of work
  - How z/OS connect works and interact with other systems
  - z/OS Connect High Availability introduction and details
  - Quizzes

During first week, course attendees will hear major facts around API economy and acquire basic knowledge about z/OS Connect as a tool which makes z/OS environment eligible for API management and expose it to outside world through the most common protocol today, REST.

Besides that, they will become comfortable with z/OS Connect architecture and principle of work which is excellent preparation for further lessons. Without hearing first course week, it will be hard to understand what follows.

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## 2<sup>nd</sup> week, December 3<sup>rd</sup> – December 7<sup>th</sup>

- SUBMODULE 4 Z/OS CONNECT SYSTEM ADMINISTRATION
  - z/OS Connect EE installation
  - z/OS Connect migration and upgrade
  - Configuring z/OS Connect EE server and services
  - Configuring z/OS Connect CICS service provider
  - Configuring z/OS Connect WOLA service provider
  - Configuring REST client services
  - Configuring z/OS Connect interceptors, Data Transformers, service archives and API requesters
  - Operating z/OS connect
  - Labs, Quizzes and Virtual Classroom
- SUBMODULE 5 EXPOSING Z/OS ASSEST AS REST API
  - Creating service providers and z/OS Connect service
  - Designing and building APIs

- Administering services and APIs
- Labs, Quizzes and Virtual Classroom

Second course week intent is to present more practical views of z/OS Connect such as installation, configuration and management of z/OS Connect and its components. Theoretical units will be followed by lab exercises in order to give student a chance to practically try what she/he has learned from lecturer so far.

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### **3<sup>rd</sup> week, December 10<sup>th</sup> – December 14<sup>th</sup>**

- SUBMODULE 6 CALLING RESTFUL APIS FROM Z/OS
  - Creating and deploying API requesters
  - Generating artifacts for API requester
  - Calling RESTful API from z/OS
  - Administering API requester
  - Error handling and testing
  - Labs, Quizzes and Virtual Classroom
- SUBMODULE 7 SECURING AND AUDITING Z/OS CONNECT
  - Overview of z/OS Connect Security
  - Configuring z/OS Connect security
  - Configuring WOLA
  - Labs, Quizzes and Virtual Classroom

By learning and practicing through lab exercises about how to reach outside world from within z/OS or expose z/OS asset using z/OS Connect third course week will give student deep knowledge about two most common scenarios of z/OS Connect usage.

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### **4<sup>th</sup> week, December 17<sup>th</sup> – December 21<sup>th</sup>**

- SUBMODULE 8 Z/OS CONNECT USE CASES
  - How z/OS Connect can be used in practice
  - Quiz and Virtual Classroom

During fourth course week learner will be taught and practically trained on how to secure and audit API calls as well as how to build resilience and highly available z/OS Connect. At the end business cases for z/OS Connect usage will be presented hoping that students will recognize any potential reason improving their business by adopting API economy principles and involving z/OS Connect in their infrastructure.

## TIME TABLE OF THE COURSE\*

\*EMA reserves the right to change the order of items on the agenda. All times are approximate.

1 <sup>st</sup> week	Number of	Timing
Virtual Class units	4	2:30:00
Video units	40	4:45:00
Quizzes	12	0:24:00
Lab exercises	0	0

2 <sup>nd</sup> week	Number of	Timing
Virtual Class units	2	1:30:00
Video units	28	3:30:00
Quizzes	10	0:20:00
Lab exercises	3	2:15:00

3 <sup>rd</sup> week	Number of	Timing
Virtual Class units	3	2:45:00
Video units	28	3:19:00
Quizzes	7	0:14:00
Lab exercises	7	4:00:00

4 <sup>th</sup> week	Number of	Timing
Virtual Class units	1	1:00:00
Video units	10	2:03:00
Quizzes	2	0:04:00
Lab exercises	2	1:30:00

For all inquiries regarding education, please contact us at [info@mainframe-academy.eu](mailto:info@mainframe-academy.eu).