



Online training
by Piotr Zuk



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(English / Polish)



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What **will you find** in this course?

01

How to administrate and properly use RabbitMQ. Avoid reinventing the wheel.

02

How to form a cluster and scale it, install plugins, design valid RabbitMQ architecture

03

How to use AMQP features (including details of the AMQP), different types of queues, exchanges, virtual hosts, security features etc.

04

How to use typical RabbitMQ patterns like work queues, publish subscribe, RPC, DLX – dead letter exchanges, delayed scheduling etc.

05

How to optimize cluster's performance and analyze memory usage, run valid performance tests, simulate failures, like partitions, and how to fix them and properly protect your cluster

06

How to build highly available and fault-tolerant clusters in the easy way, without spending hours reading manuals

What is included in this course?



9 hours video materials

56 lectures (9 hours of video) that will take you step by step through the RabbitMQ product



9 sections

Lectures are grouped into sections to simplify navigation and help you focus on the things that interest you most



Scripts and Source Code

Scripts and source are always included into Hands-On lectures – download and focus on instructions on the screen

Section 1

Introduction

A smooth introduction to the world of queues and RabbitMQ

- Queues,
- RabbitMQ and Similar Products,
- AMQP protocol.

Section 2

Getting starting with RabbitMQ

Prepare environment, install and configure single RabbitMQ node, change default user password and cover core RabbitMQ terms and architecture

- Prerequisites,
- Basic configuration and Installation Hands On,
- Configuration,
- Configuration file Hands On,
- Plugins,
- Plugins - Web Admin Hands On,
- Web Admin Overview and Default User Password,
- RabbitMQ RESTful API,
- Exchanges, Queues, Bindings, Routing Keys,
- First Queue and First Consumption Hands On.

Section 3

RabbitMQ patterns

How to use typical RabbitMQ patterns

- Common Patterns
- Patterns: Simple Queue Hands On
- Patterns: Work Queues / Task Queues Hands On
- Patterns: Publish / Subscribe (fanout) Hands On
- Patterns: Publish / Subscribe based on Routing Hands On
- Patterns: Publish / Subscribe based on Topics Hands On
- Patterns: Publish / Subscribe based on Headers Hands On
- Patterns: RPC - Remote Procedure Call Hands On

Section 4

RabbitMQ advance Hands On

More advanced RabbitMQ patterns, deep dive into RabbitMQ and AMQP protocol features

- Custom Exchanges - Consistent Hash Exchange
- Dead Letter Exchange (DLX)
- Delay Schedule, Delay Publication Model
- Data safety - Transactions & Publisher Confirms
- Vhosts
- Policies
- Lazy queues - memory optimization
- Priority Queues
- NT service

Section 5

Distributed brokers

How to scale cluster to build highly available and fault tolerant clusters

- Overview
- Cluster Scale-Out Hands On
- Cluster Scale-In Hands On
- Shovels Hands On
- Federated Exchange Hands On
- Federated Queue Hands On
- Cluster, Federation, Shovel Summary
- Highly Available (Mirrored) Queues Hands On
- Quorum Queues Hands On
- Partitions Hands On

Section 6

Performance testing

How to optimize and measure cluster performance

- Tools overview
- PerfTest Hands On

Section 7

Monitoring Hands On

How to monitor and what should be monitored in RabbitMQ cluster. Deep dive into RabbitMQ memory model

- Monitoring overview
- Collecting metrics
- Memory model
- Alarms overview

Section 8

Security

How the security model in RabbitMQ is built and how to protect your cluster

- Overview
- Security - Permissions
- Security Hands On

Section 9

Maintenance

Tips to maintain your RabbitMQ cluster in an easy way

- Reliable system
- Backup & Restore
- Backup & Restore Hands On
- Upgrades
- Upgrades Hands On
- Tuning

Who is the **trainer** ?



I'm a Software Engineer with over 24 years of experience. Since 2013 I've been working with BigData systems which process hundreds of terabytes of various data on a daily basis. Among others, I spent those years mostly with RabbitMQ, Elasticsearch and AWS services.

Thanks to the many projects I have participated in and many projects I started to be responsible for, I've become a professional in the RabbitMQ and Elasticsearch domains. People started asking Me for a help with their clusters, architectures and to audit existing configurations and system architectures. In this way, I become a consultant and trainer.

*I continue my professional career as a Software Engineer and Development Manager in many international companies, but I'm more than happy when I can meet with people to share experience and good practices on both technologies which brought me here: **RabbitMQ and Elasticsearch.***

I strongly believe in learning by doing, so start training yourself, start adopting practical skills through hands-on lectures and examples so that you can start working effectively right after the end of the course. Be a true professional in the RabbitMQ community.

This course is for you when you:

- Started your work with RabbitMQ but you are not sure that things you do are done in the correct way
- Want to summarize and ground RabbitMQ knowledge
- Wish to learn how to build advanced highly-available, fault tolerant and reliable architectures based on RabbitMQ
- Want to know how to don't reinvent the wheel

This course may not be for you when you:

- You spent many years with RabbitMQ and you need help only in very specific and complex usecases

If that the case, **consider contacting with Me**, so we can try to solve your problems together on a face-to-face meeting



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