

Certified Embedded Associate AUTOSAR Adaptive (CEA.A)

Agenda VectorAcademy

Delivery Format:	Exam (E-Learning Test)
Duration:	Exam: 45 Minutes, individual preparation time
Target Group:	Project Leader, AUTOSAR ECU Developer and User
Prerequisites:	Knowledge of the contents taught in the AUTOSAR Adaptive Platform course (see agenda)
Goal:	Obtain certification that verifies your knowledge in the topics listed here

1. Overview and Objectives

- > Motivation and aims
- > Organization and schedule

2. Methodology

- > Overview and data exchange formats

3. AUTOSAR Adaptive Application

- > Basic principles and technical concepts
- > AUTOSAR design elements

4. Execution Managements

- > Adaptive AUTOSAR startup behavior
- > Function groups and the machine states

5. Exercise 1: Create your first Adaptive Application

6. Service Oriented Communication

- > Service oriented communication principles
- > Service Discovery

7. Communication Management

- > Architecture

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8. Manifest

- > Methodology workflow
- > AUTOSAR Manifest file types

9. Exercise 2.1: Add ara::com Provider to Application

10. Exercise 2.2: Add ara::com Consumer to Application

11. Persistency

- > Key value storage
- > Files value storage

12. Exercise 3: Add ara::per to Application

13. Security

- > Secure communication
- > Cryptography

14. Functional Safety

- > General introduction
- > Safety concepts and features

15. Diagnostics Management

- > Unified Diagnostic Services

16. Exercise 4.1: Configuration of Diagnostic Manager

17. Exercise 4.2: Create and configure a DID

18. Update and Config Management

- > Software package
- > Software component