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## Cisco® Developing Applications Using Cisco® Core Platforms and APIs v1.0 (DEVCOR)

### Overview

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In this course, you will learn how to implement network applications using Cisco® platforms as a base, from initial software design to diverse system integration, as well as testing and deployment automation. The course gives you hands-on experience solving real world problems using Cisco Application Programming Interfaces (APIs) and modern development tools.

**This course helps you prepare for Cisco DevNet Professional certification and for professional-level network automation engineer roles.**

### Target Audience

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To fully benefit from this course, you should have three to five years of experience designing and implementing applications that are built on top of Cisco platforms.

This course is appropriate for:

Network engineers expanding their skill-base to include software and automation

Developers expanding expertise in automation and DevOps

Solution architects moving to the Cisco ecosystem

Infrastructure developers designing hardened production environments

The job roles best suited to the material in this course are:

Senior network automation engineer

Senior software developer

Senior system integration programmer

Additional job roles that could find this course useful are:

Senior infrastructure architect

Senior network designer

Senior test development engineer

Students preparing for Cisco Certified DevNet Professional and Cisco Certified DevNet Specialist - Core certification will also find this material useful.

### Course Objectives

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After taking this course, you should be able to:

Describe the architectural traits and patterns that improve application maintainability

Describe the architectural traits and patterns that improve application serviceability

Identify steps to design and build a ChatOps application

Implement robust Representational State Transfer (REST) API integrations with network error handling, pagination, and error flow control

Describe the necessary steps for securing user and system data in applications

Describe the necessary steps for securing applications

Identify common tasks in automated application release process

Describe best practices for application deployment

Describe methodologies for designing distributed systems

Describe the concepts of infrastructure configuration management and device automation

Utilize Yet Another Next Generation (YANG) data models to describe network configurations and telemetry

Compare various relational and nonrelational database types and how to select the appropriate type based on requirements

### Course Outline

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## 1 - COURSE OUTLINE

DESIGNING FOR MAINTAINABILITY (SELF-STUDY)  
DESIGNING FOR SERVICEABILITY (SELF-STUDY)  
IMPLEMENTING CHATOPS APPLICATION  
DESCRIBING ADVANCED REST API INTEGRATION  
SECURING APPLICATION DATA (SELF-STUDY)  
SECURING WEB AND MOBILE APPLICATIONS (SELF-STUDY)  
AUTOMATING APPLICATION-RELEASE  
DEPLOYING APPLICATIONS  
UNDERSTANDING DISTRIBUTED SYSTEMS  
ORCHESTRATING NETWORK AND INFRASTRUCTURE  
MODELING DATA WITH YANG  
USING RELATIONAL AND NON-RELATIONAL DATABASES (SELF-STUDY)

PLEASE NOTE: This class includes lecture sections and self-study sections. In instructor-led classes, lectures are delivered in real-time, either in person or via video conferencing. In e-learning courses, the lectures are on recorded videos. In both versions, you will need to review self-study sections on your own before taking the certification exam.