

KOENIG SOLUTIONS · COURSE OUTLINE

PL-400 Exam Prep

Learn to design, build, secure and extend Power Platform solutions with custom code, integrations, and automation.

7

MODULES

90

TOPICS

COURSE OVERVIEW

This course covers creating a technical design, including validating requirements, designing solution components, and describing Power Platform extensibility points. It then addresses configuring Common Data Service, covering security, entities and fields, and application lifecycle management, followed by creating and configuring Power Apps through model-driven apps, canvas apps, and app troubleshooting. The course continues with configuring business process automation using Power Automate and processes, extending the user experience with client scripting, PCF components, and command buttons, and extending the platform through plug-ins, custom connectors, platform APIs, and workload processing. It concludes with developing integrations by publishing and consuming events and implementing data synchronization.

WHO THIS COURSE IS FOR

Candidates for this exam design, develop, secure, and troubleshoot Power Platform solutions. Candidates implement components of a solution that include application enhancements, custom user experience, system integrations, data conversions, custom process automation, and custom visualizations.

Candidates must have strong applied knowledge of Power Platform services, including in-depth understanding of capabilities, boundaries, and constraints. Candidates should have a basic understanding of DevOps practices for Power Platform.

Candidates should have development experience that includes Power Platform services, JavaScript, JSON, TypeScript, C#, HTML, .NET, Microsoft Azure, Microsoft 365, RESTful Web Services, ASP.NET, and Power BI

LEARNING OBJECTIVES

- Design technical architecture and authentication for solutions
- Design data models, reusable components, and custom connectors
- Configure security, entities, fields, and relationships in CDS
- Implement ALM including solutions, packaging, and source control
- Configure model-driven apps, canvas apps, and troubleshoot app issues
- Configure Power Automate flows and business process automation
- Apply client scripting and build PCF components
- Develop plug-ins, custom connectors, and platform API integrations

7 Modules, 90 Topics

01

10-15%

Create a Technical Design

VALIDATE REQUIREMENTS AND DESIGN TECHNICAL ARCHITECTURE

- design and validate the technical architecture for a solution
- design authentication and authorization strategy
- determine whether you can meet requirements with out-of-the-box functionality
- determine when to use Logic Apps versus Power Automate flows
- determine when to use serverless computing, plug-ins, or Power Automate
- determine when to build a virtual entity data source provider and when to use connectors

DESIGN SOLUTION COMPONENTS

- design a data model
- design Power Apps reusable components
- design custom connectors
- design server-side components

DESCRIBE POWER PLATFORM EXTENSIBILITY POINTS

- describe Power Virtual Agents extensibility points including Bot Framework skills and Power Automate flows
- describe Power BI extensibility points including Power BI APIs, custom visuals, and embedding Power BI apps in websites and other applications
- describe Power Apps portal extensibility points including CRUD APIs and custom styling

02

15-20%

Configure Common Data Service

CONFIGURE SECURITY TO SUPPORT DEVELOPMENT

- troubleshoot operational security issues
- create or update security roles and field-level security profiles
- configure business units and teams

IMPLEMENT ENTITIES AND FIELDS

- configure entity and entity options
- configure fields
- configure relationships and types of behaviors

IMPLEMENT APPLICATION LIFECYCLE MANAGEMENT (ALM)

- create solutions and manage solution components
- import and export solutions
- manage solution dependencies
- create a package for deployment
- automate deployments
- implement source control for projects including solutions and code assets

03**15-20%**

Create and Configure Power Apps

CREATE MODEL-DRIVEN APPS

- configure a model-driven app
- configure forms
- configure views
- configure visualizations

CREATE CANVAS APPS

- create and configure a canvas app
- implement complex formulas to manage control events and properties
- analyze app usage by using App Insights
- build reusable component libraries

MANAGE AND TROUBLESHOOT APPS

- troubleshoot app issues by using Monitor and other browser-based debugging tools
- interpret results from App Checker and Solution Checker
- identify and resolve connector and API errors
- optimize app performance including pre-loading data and query delegation

04**5-10%**

Configure Business Process Automation

CONFIGURE POWER AUTOMATE

- create and configure a flow
- configure steps to use Common Data Service connector actions and triggers
- implement complex expressions in flow steps
- implement error handling
- troubleshoot flows by analyzing JSON responses from connectors

IMPLEMENT PROCESSES

- create and configure business process flows
- create and configure business rules
- create, manage, and interact with business process flows by using server-side and client-side code
- troubleshoot processes

Extend the User Experience

APPLY BUSINESS LOGIC USING CLIENT SCRIPTING

- create JavaScript or Typescript code that targets the XRM API
- register an event handler
- create client-side scripts that target the Common Data Service Web API

CREATE A POWER APPS COMPONENT FRAMEWORK (PCF) COMPONENT

- describe the PCF component lifecycle
- initialize a new PCF component
- configure a PCF component manifest
- implement the component interfaces
- package, deploy, and consume the component
- configure and use PCF Device, Utility, and WebAPI features
- test and debug PCF components by using the local test harness

CREATE A COMMAND BUTTON FUNCTION

- create the command function
- design command button rules and actions
- edit the command bar by using the Ribbon Workbench
- manage dependencies between JavaScript libraries

Extend the Platform

CREATE A PLUG-IN

- describe the plug-in execution pipeline
- design and develop a plug-in
- debug and troubleshoot a plug-in
- implement business logic by using pre and post images
- perform operations on data by using the Organization service API
- optimize plug-in performance
- register custom assemblies by using the Plug-in Registration Tool
- develop a plug-in that targets a custom action message

CREATE CUSTOM CONNECTORS

- create a definition for the API
- configure API security
- use policy templates to modify connector behavior at runtime
- expose Azure Functions as custom connectors
- create custom connectors for public APIs by using Postman

Extend the Platform (continued)

USE PLATFORM APIS

- interact with data and processes by using the Common Data Service Web API or the Organization Service
- implement API limit retry policies
- optimize for performance, concurrency, transactions, and batching
- query the Discovery service to discover the URL and other information for an organization
- perform entity metadata operations with the Web API
- perform authentication by using OAuth

PROCESS WORKLOADS

- process long-running operations by using Azure Functions
- configure scheduled and event-driven function triggers in Azure Functions
- authenticate to the Power Platform by using managed identities

07

5-10%

Develop Integrations

PUBLISH AND CONSUME EVENTS

- publish an event by using the API
- publish an event by using the Plug-in Registration Tool
- register service endpoints including webhooks, Azure Service Bus, and Azure Event Hub
- implement a Common Data Service listener for an Azure solution
- create an Azure Function that interacts with Power Platform

IMPLEMENT DATA SYNCHRONIZATION

- configure entity change tracking
- read entity change records by using platform APIs
- create and use alternate keys

NOTES

- The bullets that appear below each of the skills measured are intended to illustrate how we are assessing that skill. This list is not definitive or exhaustive.
- In most cases, exams do NOT cover preview features, and some features will only be added to an exam when they are GA (General Availability).

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

FLEXIBLE DELIVERY

Learn the Way That Suits You

Classroom Training

Live Online Classes (ILO)

Fly-Me-A-Trainer (FMAT)

Flexi (Self-Paced)

1-on-1 Training

Ready to Get Started?

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