

## Course Description

### P1DV-300 Revision A

Ping Training

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## Getting Started With PingOne DaVinci

### Description

This course provides an in-depth understanding of identity orchestration development within PingOne DaVinci (DaVinci). Users are taken through the process of designing and building automated workflows for identity and access management, and integrating those flows into web applications. This course consists of lectures and hands-on lab exercises. Each student is required to provide their own laptop.

### Target Audiences

The target audiences for this course include:

- DaVinci Administrators
- Technical users new to DaVinci and other PingOne products

### Objectives

Upon completion of this course, you should be able to:

- Build basic user interactions with DaVinci flows
- Integrate a DaVinci flow into an application
- Integrate PingOne single sign-on (SSO) and identities in DaVinci flows
- Build an authentication flow in DaVinci
- Provide custom analytics in a DaVinci flow

## Prerequisites

The following are the prerequisites for successfully completing this course:

- Basic understanding of JavaScript and PingOne

## Duration

3 Days

## Course Contents

### Chapter 1: Building Basic User Interactions With DaVinci Flows

Build basic user interactions with DaVinci flows.

#### Lesson 1: Define the Basic Flow and Interaction Steps

Define the basic flow and provide an introduction to the foundational concepts of DaVinci:

- Access and launch the DaVinci admin console
- Build basic user interaction in a flow
- Display entered information
- Collect user age information

#### Lesson 2: Using Functions and API Calls

Define the basic flow and provide an introduction to the foundational concepts of DaVinci:

- Verify the age of the user
- Collect the user's email and password
- Implement a robot check
- Document the flow

#### Lesson 3: Improving the User Experience

Use more advanced concepts in DaVinci to implement your flows:

- Converting user interactions to use HTML templates
- Test the complete flow

## **Lesson 4: Using Variables and Form Validation**

Expand further the functionality of your existing flow by using flow variables and improving interaction with the user:

- Using flow variables and form validation
- Improving form validation inputs

## **Lesson 5: Using Subflows to Manage Complexity**

Externalize functionality that is often reused or complex to its own flow; for example, if the flow needed to connect to an API that isn't available as a native connector, CRUD operations could be built in a new flow that could be leveraged by many:

- Design base requirements of the subflow
- Implement the subflow
- Implement a test flow for the subflow
- Replace the API call with the subflow

# **Chapter 2: Integrating a DaVinci Flow Into an Application**

Integrate a DaVinci flow into an application.

## **Lesson 1: Integrating an application to launch a flow**

Integrate the flow into a web application which allows the application to provide the CSS (look and feel). Other flows can also be integrated to enable a richer user experience:

- Define the application in DaVinci
- Create your own version of the application
- Customize the application

## **Lesson 2: Using a CSS in flows vs applications**

Review how CSS is leveraged in a flow vs an application, and determine the advantages of leaving the presentation layer controlled by your application rather than using a CSS in your flow:

- Determine how a custom CSS in a flow is embedded with a web application
- Leave the styling in your web application

### **Lesson 3: Adding a flow to an existing application**

Take the flow and integrate it into a web application:

- Import the DaVinci JavaScript library
- Create a `div` container
- Create a JavaScript method to call the flow
- Render the flow method

### **Lesson 4: Integrating non-UI flows**

Explore how DaVinci can accelerate development when integrating with backend services and APIs, enriching the overall user experience:

- Register for an IP service
- Build out your flow
- Test the flow
- Integrate the flow

### **Lesson 5: Passing data into a flow from an application**

Run through the process of passing data into a flow, whether it has user interaction or not:

- Create a DaVinci subflow
- Change the existing registration flow
- Integrate the flow
- Test the flow and application code

### **Lesson 6: Performing A/B testing**

Define a flow that deals with age first, instead of name, during registration:

- Define a new flow
- Create a test flow
- Build out a flow policy
- Change the web application to invoke the new policy

## **Chapter 3: Integrating PingOne SSO and Identities in DaVinci Flows**

Integrate PingOne SSO and identities in DaVinci flows.

### **Lesson 1: Setting up parallel processing**

Set up a flow that has two paths that execute in parallel and then come to their own conclusion:

- Leverage the PingOne Notification service
- Test your changes

## **Lesson 2: Creating registered accounts**

Take the information collected during the registration process and create a user account in PingOne, which is the first step to expanding the capabilities of the application to support authentication:

- Review email service options
- Review your PingOne setup
- Build out a new registration flow
- Build out a false branch
- Verify if an account already exists
- Include field validation
- Send a welcome email

## **Lesson 3: Verifying an email address**

Establish a process to verify the email address of the user:

- Create an email verification subflow
- Verify the code
- Complete the subflow
- Add the subflow to the registration flow
- Test the subflow

# **Chapter 4: Building an Authentication Flow in DaVinci**

Build an authentication flow in DaVinci.

## **Lesson 1: Handling authentication**

Handle authentication for the application:

- Lay out a logical structure for the flow
- Find a user in PingOne
- Capture and verify the user's password
- Add password validation to the flow
- Prevent a disabled account
- Check that the email is verified

## **Lesson 2: Handling forgotten passwords**

Handle forgotten password in the authentication flow:

- Build out the user interaction
- Finalize the password reset

### **Lesson 3: Adding an authentication method**

Add another method of authentication, an email magic link, for the users of the application:

- Add a magic link authentication method
- Define the magic link email process
- Complete polling

## **Chapter 5: Providing Custom Analytics in a DaVinci Flow**

Provide custom analytics in a DaVinci flow.

### **Lesson 1: Leveraging analytics to monitor flow usage**

Leverage analytics to monitor flow usage:

- Add login analytics
- Add password authentication analysis