5 Days

C/Side Solution Development in Microsoft Dynamics NAV 2013

This five-day instructor-led course leads participants through a simulated implementation project, where their goal is customize Microsoft Dynamics NAV 2013 to meet customer needs.

Course Details

Course Outline

Module 1: Data and Process Model This module explains the standard application functionality in Microsoft Dynamics NAV 2013 and it discusses the importance of following the same standards in all customizations. Lessons Table Types and Characteristics Standard Data Model Standard Process Model After completing this module, students will be able to: Explain the different table types and their characteristics. Present the standard data model and introduce the data-related business logic. Present the standard process model that governs the transactions in Microsoft Dynamics NAV 2013.

Module 2: Master Tables and Pages This module explains what is involved in solution development to meet customer requirements. Lessons Prerequisite Knowledge Participants Instructors and Rooms Seminars Lab : Customize Resource Tables and Pages Customize Resource Table Customize Resource Card Customize Resource List Lab : Creating Seminar Tables and Pages Append the Table Name Option in the Comment Line table Create the Seminar Tables Create the Seminar Pages After completing this module, students will be able to: Explain the master table and page standards. Work with table event triggers. Work with complex data types and their member functions. Explain the multilanguage functionality. Define the strategy for implementing Customers and Participants. Create the tables to manage the seminar rooms. Create instructor data management. Create seminar data management.

Module 3: Documents This module explains the purpose and benefits in using documents to enter transactions in Microsoft Dynamics NAV 2013. Lessons Prerequisite Knowledge Registrations Reviewing the Table Code Lab : Importing, Reviewing, and Completing the Seminar Registration Tables Import the Starter Objects Review the Seminar Registration Header Table Lab : Create Seminar Registration Pages Import and Review the Pages Completing the Document Pages After completing this module, students will be able to: Import and export objects as text files. Support multilanguage functionality. Use document pages. Use virtual tables. Use temporary tables. Review the various types of tables. Review different page and table C/AL functions. Create additional tables and pages to maintain registrations.

Module 4: Posting This module explains the posting routine. Lessons Prerequisite Knowledge Posting Seminar Registrations Lab : Reviewing and Completing the Journal and Ledger Tables Reviewing the Import File Contents and Importing the Objects Reviewing the Seminar Journal Line Table Reviewing Other Tables Customize the Source Code Setup Table and Page Lab : Creating Codeunits and Pages for Seminar Journal Posting Create the Seminar Jnl.-Check Line Codeunit Create the Seminar Jnl.-Post Line Codeunit Create the Seminar Ledger Entries Page Create the Seminar Reg.-Show Ledger Codeunit Create the Seminar Registers Page Lab : Creating the Tables and Pages for Posted Registration Information Create the Posted Registration Tables Import the Posted Registration Pages Lab : Modifying Tables, Pages, and Codeunits for Resource Posting Modify the Objects Lab : Creating the Codeunits for Document Posting Complete the Seminar-Post Codeunit Enable Posting from the Seminar Registration Pages After completing this module, students will be able to: Explain the working and posting tables. Explain the posting routines and their relationships. Create journal posting routines. Create document posting routines. Present the best practices for documenting changes to existing objects. Program for minimum effect on the application.

Module 5: Feature Integration This module explains the integration of custom features into standard functionality to provide a seamless and familiar experience to the users. Lessons Prerequisite Knowledge Seminar Feature Integration Navigate Integration Lab : Integrating Seminar Features Customize Seminar Registration Master Pages Lab : Changing Objects to Integrate with Navigate Customize Tables Customize the Navigate Page Customize Pages After completing this module, students will be able to: Integrate previously created Seminar Management module features with one another. Explain the architecture of the Navigate feature. Extend the Navigate functionality to enable finding posted seminar information. Enable easier searching for information by adding Navigate functionality to Seminar Management pages. Enable looking up Seminar Management information from standard application areas.

Module 6: Reporting This module explains reporting principles. Lessons Prerequisite Knowledge Reporting Lab Overview Participant List Reporting Invoice Posting Batch Job Lab : Creating the Seminar Participant List Part A: The Report Dataset Part B: The Report Layout Part C: Report Selections Table and Page Part D: Testing Lab : Creating the Invoice Posting Batch Job

Module 7: Statistics This module explains the different types of statistics in the standard application. Lessons Prerequisite Knowledge Seminar Statistics Lab : Creating FlowFields for Sums Implement FlowFields for sums in the Seminar solution Lab : Creating the Seminar Statistics Page Implement a Statistics Page After completing this module, students will be able to: Create a page that calculates price sums efficiently. Make the page

available from the Seminar pages. Use FlowFilters to easily calculate statistics for different time periods.

Module 8: Dimensions This module explains the importance of dimensions and their use throughout the standard application and accompany all transactional data and process. Lessons Prerequisite Knowledge Integrating Seminar Management with Dimensions Lab : Integrating with Dimension Management Extending Master Data with Dimensions Extending Documents with Dimensions Extending Ledger Entries and Posting Process with Dimensions After completing this module, students will be able to: Describe Global, Shortcut, and Budget dimension types and their functions. List the basic rules of Dimension Setup. Present the dimension management data and process models. Implement dimensions on the master record level.

Module 9: Role Tailoring This module explains the importance of user roles and profiles in Microsoft Dynamics NAV 2013. Lessons Prerequisite Knowledge Seminar Manager Role Center MenuSuite Object Type Seminar Management Department Page Lab : Create the Seminar Manager Role Center Seminar Activity Page My Seminars Page The Role Center Page Lab : Create Seminar Management Department Page Create and Design the MenuSuite After completing this module, students will be able to: Define the components of the RoleTailored user interface. Explain the structure, purpose, and functionality of a Role Center-type page. Create the Seminar Manager Role Center page. Describe the functionality of the Departments page and the MenuSuite object type. Integrate the Seminar Management department into the Departments page.

Module 10: Interfaces This module explains how interfacing with features or applications outside Microsoft Dynamics NAV is a frequent requirement. It also describes the different types of interfacing features that are present in Microsoft Dynamics NAV. Lessons Prerequisite Knowledge Email Confirmation Lab : Create Email Confirmations Import the Setup Table and Page Verify the Configuration Create the Codeunit After completing this module, students will be able to: Explain how to use Automation and OCX to perform tasks with other applications. Describe file handling functions to import or export data. Design and implement email capability.

Module 11: Web Services This module explains what web services are and how they are used in Microsoft Dynamics NAV 2013. Lessons Prerequisite Knowledge Registration Web Service Lab : Creating a Web Service Customize the Objects Configure and Test the Web Service Extend the ScheduledSeminar Web Service with an Extension Codeunit Lab : Create a Windows Forms Application to Test the Web Service Create a new Windows Forms Application After completing this module, students will be able to: Describe Microsoft Dynamics NAV 2013 Web services architecture. Explain the protocols that Microsoft Dynamics NAV 2013 uses for Web services. Evaluate the benefits of Web services over other integration options in Microsoft Dynamics NAV. Explain how to expose codeunit, page, and query objects as Web services. Consume Web services from external applications.

Module 12: Testing and Debugging This module explains testing practices and presents the test-driven development (TDD) approach followed by Microsoft. Lessons Prerequisite Knowledge Testing Seminar Management Debugging Lab : Create Seminar Management Unit Tests Import the Testing Framework Create the Unit Tests Run Unit Tests After completing this module, students will be able to: Demonstrate the testing features of Microsoft Dynamics NAV 2013. Explain the test codeunits, test functions, and handler functions. Describe how to automate user interface testing. Explain the functionality and purpose of test runner codeunits. Develop a unit testing framework for the Seminar Management solution. Describe the Debugger functionality and features. Demonstrate the debugging process.

Module 13: Optimizing for SQL Server This module explains the SQL Server for Microsoft Dynamics NAV 2013. Lessons SQL Server for Microsoft Dynamics NAV Representation of Microsoft Dynamics NAV Tables and Indexes in SQL Server Collation Options SQL Server Query Optimizer Optimizing a Microsoft Dynamics NAV Application Data Access Redesign C/AL Database Functions and Performance on SQL Server Bulk Inserts Locking, Blocking, and Deadlocks SIFT Data Storage in SQL Server SQL Server Profiler Lab : Analyze Index Usage Use the Index Information Query to identify and disable unused indexes Lab : Optimize C/AL Code Analyze and improve the C/AL code and corresponding SQL statements After completing this module, students will be able to: Explain the advantages of SQL Server for Microsoft Dynamics NAV 2013. Work with tables and indexes. Use collation options and descriptions. Explain SQL Server Query Optimizer. Explain the areas within Microsoft Dynamics NAV that can be optimized. Explain how the Microsoft Dynamics NAV database driver enables the Microsoft Dynamics NAV clients to communicate with SQL Server. Understand the performance effect of locking, blocking and deadlocks. Understand how SIFT data is stored in SQL Server.

Module 14: Appendix This module contains reference information about the case study that is implemented throughout the course. Lessons CRONUS International Ltd. Functional Requirements Content Structure Lab : Function Testing Function Testing: Master Tables and Pages Function Testing: Documents Function Testing: Posting Function Testing: Feature Integration Function Testing: Dimensions Function Testing: RoleTailoring After completing this module, students will be able to: Present the case study for the CRONUS International Ltd. implementation project. Provide test scripts for function testing of customized functionality

Who Should Attend

This course is intended for a partner that sells and implements the C/SIDE Solution Development module to customers. The typical partner has an ERP background.

Pre Requisite

Before attending this course, students must have: knowledge of Microsoft Dynamics NAV 2013 completed course 80436A C/SIDE Introduction in Microsoft Dynamics NAV 2013

Exams

Microsoft Certified Professional (MCP) []

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