Basic Development Training

Course Guide

v2.50

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I. Course Summary

The objective of Basic Development Training is to give partners and developers the chance to learn the fundamental technical knowledge required to perform a basic Openbravo ERP implementation. The goal is for students to be able to:

* Design and configure an Openbravo ERP application.
* Explain the fundamentals of the Openbravo ERP architecture.
* Define and generate a basic application.
* Understand the limitation of generation and need for manual code.
* Create reports and embed them into your Openbravo ERP application.

This course does not include the review of the functional knowledge and basic customization required to complete an implementation which is given during the 5-day Basic Functional Training.

II. Requirements

II.I Target Audience

Basic Development training is designed for potential and current and potential partners, functional and technical consultants, developers, and any trainee looking for a concrete understanding of the Openbravo ERP development methodology and architecture.

II.II Prerequisites

There are no mandatory prerequisites for Basic Development training. However, the following will prove a great help to the student during the class.

- a background in enterprise business software either as a consultant or developer.
- basic understanding of web applications.
- relational database design and basic sql.
- system administration and configuration experience.

II.III Minimum Labtop Requirments

• dual core processor

• 2Gb RAM

• Operating System = Either Linux/Windows (We advise against MacOS for this class)

• A virtual Openbravo ERP appliance will be provided for the course – Alternatively, if you arrive in class with the latest Openbravo ERP community edition preconfigured on your labtop then you will be able to use that. A Postgres database should be used since all materials and solutions are based on it.

III. Class Schedule

<table>
<tr><th></th><th>Day 1</th><th>Day 2</th><th>Day 3</th><th>Day 4</th><th>Day 5</th></tr>
<tr><td>9:00</td><td rowspan="2">Arrival
Check – In</td><td>Review</td><td>Review</td><td>Review</td><td>Review</td></tr>
<tr><td>10:00</td><td>Architectural Foundation</td><td>Application Dictionary Development</td><td>Architectural Components</td><td>Alerts And Background Processes</td></tr>
<tr><td>11:00</td><td>Welcome and Introduction</td><td>Short Break</td><td>Short Break</td><td>Short Break</td><td>Short Break</td></tr>
<tr><td>12:00</td><td>Openbravo Usability</td><td rowspan="2">Modularity</td><td rowspan="2">Continued</td><td rowspan="2">Building Application Reports</td><td>Q&A Session</td></tr>
<tr><td>13:00</td><td>Lunch Break</td><td>Lunch Break</td><td>Lunch Break</td><td>Lunch Break</td><td rowspan="2">Final Exercise</td></tr>
<tr><td>14:00</td><td rowspan="2">Technical Setup</td><td rowspan="2">Modularity (cont)</td><td rowspan="4">Application Dictionary Development (Continued)</td><td rowspan="4">Building Application Reports (Continued)</td><td rowspan="4"></td></tr>
<tr><td>15:00</td></tr>
<tr><td>16:00</td><td rowspan="3">Configuration Design And Implementation</td><td rowspan="3">The Application Dictionary</td></tr>
<tr><td>17:00</td></tr>
<tr><td>18:00</td></tr>
</table>

The chapters of the class are delivered according to the following approximate schedule. The class will start at 1100 on the first day and then a 900 for the remainder of the week. Typically the class will run to 1800-1900 daily. Depending on the class location and request of each class a 1 or 2 hour lunch break will be taken.

IV. Chapter Description

00 - Introduction

The objectives of the course are defined and many of the terms using the class are introduced. Openbravo, ERP and the Opensource movement are described at a

high level. The Openbravo development process is introduced. The schedule is described for the week and students have an opportunity to introduce themselves.

01 - Openbravo Interface

The chapter gives the student a good understanding of how to navigate around the Openbravo interface.

02 - Configuration Design and Implementation

After installation of Openbravo the first thing you will need to do is to design and implement your configuration. This chapter examines and shows you how to do that is terms of:

* Clients and Organizations
* Roles, Users and Privileges
* Data Partitioning
* Master Data
* Import of Legacy Data

03 - Architectural Foundation

To understand Openbravo ERP you have to understand it's architecture. This is true for both a consultant and developer alike. The openbravo ERP architecture can be viewed in 2 ways.

* The working application - Once the ERP is developed what are it's constituent components and how do they work together.

* The Development Process - How you can design and develop you application from the requeirments stage to the generating the code.

04 - Modularity

Modularity is a new concept in release 2.50. This chapter will introduce you the the reason and requirements for a modular approach to development in terms bacic modules, module packs and module templates. The chapter will also show you how you can easily integrate pre-existing modules into your own application effortlessly. Stategies for working with modules will be explored.

05 - The Application Dictionary

The application dictionary is the heart of Openbravo ERP development. This chapter shows you how to design and define the application you are developing

declaritively in the application dictionary before generating it into source code. The chapter also examines the limitations of code generation v manual coding and shows how the two can co-exist in Openbravo.

06 - Application Dictionary Development

The Application Dictionary is examined in more detail in this chapter. All new development must be done within the context of a new module. Therefore this chapter reincorporates and expands on the previous 2 chapters. The application dictionary consists of many deifferent elemnts: table and column definitions, windows, tabs and fields, references, reports and processes, forms and messages. This chapter examines how you can develop all of these elements through the Openbravo declaritive interface.

07 - Architectural Components

In a previous chapter the concepts of the Openbravo ERP working application were examined at a high level. This subject is returned to in this chapter and examines at a more granular and detailed level. Subjects include: XMLEngine, SqlC, Data Access Layer, HTTPSecureAppServlet, HTTPBaseServlet. The federation of products you can use in association with Openbravo is also introduced.

08 - Building Application Reports

Openbravo uses a third part reporting tool for most new reports development. Development using the Jasper Report library and the iReport wisiwig editor is examined in this chapter. Students will be able to develop a report and the embed that report into their openbravo ERP application.

09 - Alerts and background Processes

Alerts are the way Openbravo ERP informs users about virtually any event that happens in the system. You will use the System Administrator to define an alert rule, who it applies to and when an alert should be prompted. The second part of the chapter shows you how to setup a background process to monitor when the conditions are met and the alert fires.

10 - Basic Development Exercises

The majority of chapters in the class conclude with exercises that allows you to practice the knowledge you will have gained during the lecture. You will build a real implementation with a fictitious end-client, an eco-friendly car manufacturer; The EcoCar Company. You will specify it's functional and data requirements which will

serve as the starting point. With the help of the instructor you will then continue to execute this implementation throughout the course as you are learning the corresponding elements of Openbravo. By the end of the course you will have implemented a simple but complete instance of an Openbravo ERP.

Materials

Each student will be given a USB key with electronic materials and required applications on it. All written materials are only available in English.

V. Language

Training Classes are delivered in English or Spanish depending on the audience and location of the class.

VI. Other

For all other detail please consult the following link:

www.openbravo.com/services/training/

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Openbravo reserves the right to change the timing of sessions throughout the training days, as well as the order in which material is presented. Openbravo also reserves the right to cancel or move the dates of the training session prior to the start date.