

Guided learning - bpm'online platform development

Target audience: This guided learning is intended for beginner bpm'online platform developers who require practical platform development skills and methods for configuring design solutions.

What to expect: This guided learning will help participants gain the necessary skills to start developing a configuration. We will take a look at fine-tuning the development environment, integration with the version control system and developing in the file system. The participants will learn how to set up configurations on the bpm'online platform, create new objects, lookups, pages, sections, details, as well as program custom and server logic. Additionally, business processes development, standard customizations, implementation of web services and integrations will be covered.

The participant must successfully complete the required e-learning courses before starting their guided learning.

| Time | Topic | Required e-learning courses |
|--------------------|---|--|
| Day 1. First steps | | |
| 40 minutes | Deploying a local development environment. | DEVELOPER ENVIRONMENT SETUP |
| 40 minutes | Creating a package for development. Setting up dependencies. Committing a package to a repository. Base version control system (SVN) operations. File system development mode. Outline of system capabilities in this mode. | BPM'ONLINE ARCHITECTURE WORKING WITH PACKAGES |
| 2 hours | Customizing the system using a section wizard. Creating a new section. Customizing an existing section. Creating lookups. Binding data. Transferring changes between systems using packages. Typical setup errors. | WORKING WITH OBJECT SCHEMAS |
| 20 minutes | Q&A. | |

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| Day 2. User interface customization basics | | |
| 90 minutes | Typical setup - adding buttons, actions. Implementing calculated fields. Setting up field validation. Highlighting list records. | |
| 1 hour | Working with modules. Examples of methods. Principles of replacing methods. Custom code debugging. Console output. Using external JavaScript code editors. Using business rules. | |
| 1 hour | Configuring filters in lookup fields. Programming access to lookup field columns. Setting up default values. Setting up the record auto-numbering. | |
| 20 minutes | Q&A. | |

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| Day 3. Developing server logic | | |
| 1 hour | Object model. Working with the EntitySchemaQuery class ESQ server implementation. Examples of ESQ use. | |
| 20 minutes | Work with an external C# code editor. Class development example. Integration with Visual Studio. Debugging server code. | |
| 1 hour | Processing object events in the event sub-process and event layer. Processing object events using business process signals. | |
| 1 hour | Programming server logic in business processes. Using script-tasks and process methods. Applying custom UserTask elements. Interaction with the client part of business processes. Sending messages to the client part. Development and business processes execution specifics. | |
| 20 minutes | Q&A. | |
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| Day 4. Development of web services, integration mechanisms and reports | | |
| 90 minutes | Web services development. Creating a web service class. Calling service methods. Code debugging. Service call authentication. Working with user session data. Authentication examples from third-party applications. Anonymous services. | INTERGRATIONS. CALLING EXTERNAL WEB SERVICES FROM A PROGRAM CODE |
| 20 minutes | Working with standard integration tools. Examples of OData calls. | DATA INTEGRATION, WORKING WITH ODATA/DATASERVICE |
| 40 minutes | An example of setting up an MS Word printable with macros programming. | |
| 1 hour | Developing a report using the report designer. | |
| 20 minutes | Q&A. | |