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Sign up

Progress ABL Intro training

3 days (21 hours)

Presentation

Master the essentials of the Progress ABL language with this comprehensive, structured and practice-oriented training course. Intended for developers, analysts and business integrators, it will enable you to efficiently design, maintain and evolve Progress OpenEdge applications in a professional environment.

You'll start with an in-depth introduction to the IDE, object management and PowerScript programming, while respecting good structuring and modularity practices. You'll begin with a gradual introduction to the Progress ecosystem, the OpenEdge Studio development environment, and the syntactic logic specific to ABL, combining procedural rigor with object-oriented capabilities.

The course will then guide you through database manipulation via ABL: queries, transactions, buffers, temp-tables... with a strong emphasis on performance and the proper structuring of data access.

You'll learn how to design efficient user interfaces with AppBuilder, mastering graphical components, event-driven programming and interaction with business data.

Like all our training courses, this one is based on the latest stable version of Progress ABL.

Objectives

- Understand the architecture of the Progress OpenEdge environment, its relational data model and the fundamentals of the ABL language.
- Know how to design, develop and structure procedural ABL programs, applying the best best practices in terms of readability, modularity and maintenance
- master data access and manipulation via ABL statements (FIND, FOR EACH, CREATE...), buffers, transactions and temp-tables

- Create functional user interfaces with AppBuilder, integrating graphical components and event-driven logic.
- Apply best practices in error handling, debugging, code organization and performance optimize performance in a professional application context

Target audience

- Developers
- Analysts

Prerequisites

- Knowledge of relational databases

Progress ABL Intro training program

Introduction to Progress and ABL

- Progress OpenEdge ecosystem
- Role and position of Progress ABL in the company
- What is ABL?
- Positioning between procedural and object-oriented languages
- Areas of use
- OpenEdge Studio vs. other IDEs
- Structure of a Progress project
- Introduction to the AppBuilder interface

ABL syntax and fundamentals

- DEFINE/ MESSAGE/ FOR EACH/ END
- DO / END block and control flow management
- Scalar types: INTEGER, CHARACTER, DECIMAL, DATE...
- Temporary variables and constants
- Type conversion and associated functions
- Arithmetic, logic and comparison operators
- Operation priority

Database management in ABL

- Tables, fields and indexes
- Buffer and record concepts
- FIND, FOR EACH, CAN-FIND
- Using indexes to optimize queries
- CREATE, DELETE, ASSIGN

- Simple transactions: DO TRANSACTION
- Defining and using temp-tables
- Dynamic buffers for complex structures

Procedural programming with ABL

- Defining a procedure
- Passing parameters: INPUT, OUTPUT, INPUT-OUTPUT
- User functions
- Local, global and shared scopes
- Include files (.i)
- .p and .w files
- Calling external procedures

User interfaces with AppBuilder

- AppBuilder overview
- Supported interface types: TTY, GUI, WebClient
- Buttons, fields, labels, frames
- Placement and formatting with AppBuilder
- Standard events
- Event-driven programming in ABL

Error handling and debugging

- CATCH, FINALLY, UNDO, RETURN ERROR blocks
- System variables: ERROR-STATUS, RETURN-VALUE
- Trace ABL (LOG-MANAGER)
- Use of console and log files
- Breakpoint and step-by-step execution in AppBuilder

Best practices and code organization

- Naming conventions
- Code formatting
- Integrated documentation
- Shared libraries
- Functional decomposition
- User input verification
- Optimized database indexing and access
- Avoid "full scan tables

Companies concerned

This training course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced computer technology, or to acquire specific business knowledge or modern methods.

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Positioning on entry to training

Positioning at the start of training complies with Qualiopi quality criteria. As soon as registration is finalized, the learner receives a self-assessment questionnaire which enables us to assess his or her estimated level of proficiency in different types of technology, as well as his or her expectations and personal objectives for the training to come, within the limits imposed by the selected format. This questionnaire also enables us to anticipate any connection or security difficulties within the company (intra-company or virtual classroom) which could be problematic for the follow-up and smooth running of the training session.

Teaching methods

Practical training: 60% hands-on, 40% theory. Training material distributed in digital format to all participants.

Organization

The course alternates theoretical input from the trainer, supported by examples, with brainstorming sessions and group work.

Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

Certification

A certificate will be awarded to each trainee who completes the training course.