

# FormaMentis

## *DELPHI TRAINING (3 WEEKS)*

- DELPHI OVERVIEW
  - The Delphi environment
  - Environment configuration
- PROJECT FILES
  - Project file
  - Msbuild project file
  - Units
  - Forms
  - Compiling and linking
- CONSOLE APPLICATIONS
- THE OBJECT PASCAL LANGUAGE
  - Language basics
    - Fundamental control elements
    - Data types
    - Data structures
    - Program structure and scoping
    - Program structure and syntax
    - Unit structure and syntax
    - Using the debugger
  - Object-oriented programming in Delphi
    - Classes
    - Inheritance
    - Methods overriding
  - Exceptions
    - Run-time error handling
    - Exception syntax
    - Try...except
    - User defined exceptions
- RUN TIME LIBRARY
  - Overview
  - Strings handling
  - I/o
  - Streams
  - Data type conversions
  - Typcasting
- ADVANCED OBJECT PASCAL LANGUAGE
  - Generics
  - Anonimous methods
  - Extended RTTI

- VCL
  - VCL architecture
  - VCL components
  - Working with components
  - Using events
  - Types of events
  - The order of events
  - Programming event handlers
  - Opening forms
- FORM DESIGNER
  - Overview
  - Visual user interface design
  - Configuring the form designer
  - Component types
  - Naming conventions
  - Creating a simple form
  - Using the object inspector to set properties
  - Programming events
  - Running a form
- COMPONENT SAMPLER
  - View management
  - Creating a file system interface
  - Summary
  - Overview
  - Pagecontrols
  - Dialog components
- MENUS
  - Common menu characteristics
- FIREMONKEY
  - Crossplatform development
  - General fmx concepts
  - FMX vs VCL
  - Owning and parenting
- MOBILE DEVELOPMENT
  - Overview
  - General concepts
  - Desktop vs mobile development
  - UI guidelines
  - Platform specific features
  - Android services
- ACCESSING DATA
  - Overview
  - TDATASET and TDATASOURCE
  - Choosing a data access technology
  
- FIREDAC

- Creating database applications
- Connecting to databases in Delphi
- Creating a simple database form
- Adding more data-aware controls
- **USING TFIELD OBJECTS**
  - Field properties and the TFIELD component
  - Formatting fields with edit masks
  - Lookup fields
  - Validations
- **MANIPULATING DATASETS**
  - Transaction processing
  - Cached updates
  - Multi-dataset updates with cached updates
  - Using tupdatesql components
  - The dataset state property
  - Using record pointers
  - Limiting record sets
  - Searching for records
  - Bookmarking records
  - Providing default values
  - Using TFDQUERY components
  - TFDQUERY parameters
  - Editing records
  - Locating records in queries
  - Open vs. Execsql
- **LIVEBINDING**
  - Overview
  - Using livebinding in mobile apps
- **PACKAGES**
  - Using packages
  - Creating a package
- **THREADING**
  - Introduction
  - Creating thread objects
  - Setting thread priorities
  - Tcriticalsection
  - Tmonitor
- **RUN-TIME COMPONENT CREATION**
  - Uses for run-time component creation
  - Basing components on information available only at run-time
  
- **SERVER SIDE DEVELOPMENT OVERVIEW**
  - Sockets
  - Indy

- WEBBROKER
- DMVCFRAMEWORK
- DELPHI FEATURES
  - Refactoring
  - Symbol rename
  - Extract method
  - Declare variable and declare field
  - Sync edit mode
- UNIT TESTING
  - Dunitx

## **2g – Modellazione di applicazioni web con architettura a servizi (1 settimana)**

- ARCHITETTURA 2G, MODELLAZIONE E SCHEMA DI DEPLOYMENT
- APPLICAZIONI 2G, INTERFACCIA UTENTE E CONFIGURAZIONE
- GBUILDER, ELEMENTI E MODELLAZIONE APPLICATIVA
  - Entity e VirtualSet
  - Interfacce
  - Action
  - Processor
  - Report
- MODELLAZIONE DATABASE, RESOLUTION SOFTWARE XCASE
- PROTOCOLLO SOAP, IMPLEMENTAZIONE 2G
- METODI DI SISTEMA E CLASSI DINAMICHE
- SVILUPPO CLASSI CUSTOM IN DELPHI
  - Processor
  - Provider
- CURSOR E DESCRIPTOR
- ACE REPORTER E SERVIZIO DI STAMPA
- INTEGRAZIONE CON MS REPORTING SERVICES
- CONFIGURAZIONE, LOG E ANALISI PRESTAZIONALE DEI SISTEMI