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MR-68 **3 Days (21 Hours)**

Description

Who is this training for ?

For whom

Prerequisites

Aucune

Training objectives

Training program

L'émergence de l'approche Objet

- Problems in development projects.
- The emergence of Object concepts and their impact.
- The qualities expected from Object development.

Les concepts de base

- The similarities and differences between the common sense object and the computer object.
- The notions of classes, encapsulation, inheritance, abstraction, polymorphism.
- Objects, properties, operations and bindings.
- The separation of interfaces and implementations.
- The advantages: extensibility, reusability, speed of design, myth or reality?

Analyse et conception par objets, UML

- Reminders about the software life cycle.
- The object and the iterative approach.
- Modeling, development, actors and roles.
- History of Object methods.
- Comparison.
- Need for a universal formalism for representing concepts.
- The genesis of UML.
- The essential characteristics.
- The presentation of the unified process.
- The analysis of the specifications.
- The cases of usage.
- Scenarios and sequence diagrams.
- Domain analysis.
- Class, state-transition and collaboration diagrams.
- Design.
- Algorithmics seen through activity diagrams.
- Production with object languages.
- L 'architecture.
- Component and deployment diagrams.
- A summary comparison between Merise and UML.

Les principes des modélisations réussies

- Reification? Why and when to put information in the form of objects? How to translate business concepts into objects? Objects as autonomous entities.
- Interaction between objects.
- Interfaces.
- Abstraction from analysis.
- Extensibility and adaptability of designs abstract.
- Reuse.
- Production by concrete classes.

L'objet en programmation

- The major object languages.
- Which language to choose? The fundamental characteristics of the languages.
- Comparison: C++, Java, etc.
- The approaches of these object languages.
- The impact of execution modes.
- Development tools, the market, players, categories and trends.
- The characteristics of the Java language.
- The interest of a virtual machine.
- The importance of class libraries.
- The organization of a Java project.
- The "all of Java".
- From the intranet to the smart card, from mobile phones to the workstation.
- Strategies around Java.
- What attitude to adopt?

L'organisation de la réutilisation avec les Design Patterns

- Promote reuse through the industrialization of the design process.
- Implementation of standard reusable solutions: Design Patterns.
- The work of the GOF (Gang Of Four) and the main categories of Design Patterns.

Objets métiers, frameworks

- What is a framework, how to use it? Relationship with software components.
- The pitfalls to avoid when designing frameworks.
- Differences between Design Patterns and frameworks.

Les clients-serveurs à base d'objets

- Distributed object-based architectures.
- CORBA, Microsoft COM-DCOM, Java RMI.
- Contributions and limits.
- Support for technical services in order to move towards an assembly of business objects.

Les objets métiers, serveurs d'applications et architectures n-tiers

- The limits of the 2-tier in terms of modularity, scalability and capacity to support an increase in load.
- The contributions of multilevel architectures.
- Opening up to the Internet.
- Security.
- Business components.
- Offers: JEE, .
- NET, Corba Component Model .
- The JEE standard.
- Extending the notions of JavaBeans components to distributed architectures.
- The players in the JEE server market, from Sun to JBoss.
- Integration.
- Object/relational mapping.
- The different types of EJB: session, entity, message.
- The architecture.
- NET.
- Portability and interoperability.
- Evolution from COM to .
- NET.
- C#, a new component-oriented Object language.
- Comparison with Java.
- The CLR infrastructure.
- The base classes of.
- NET, ADO.
- NET, WebServices.
- The Model Driven Architecture approach.
- The concepts.
- Tooling.
- Profiles and metamodel.

Les infrastructures Web à base d'objets

- Web service-based architectures, operation, constituents.
- SOAP, WSDL, UDDI.
- SOA (Service Oriented Architecture), concepts.
- Business process management standards.
- The offers available.