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Nota di contenuto	Principles of Quantitative Development; Contents; List of Figures, Tables and Big Pictures; Preface; 1 Introduction; 1.1 What is a trading platform?; 1.1.1 Model archival; 1.1.2 Incremental deployability; 1.1.3 Live data feeds; 1.1.4 Trade persistence; 1.1.5 Regular processing; 1.2 Quants and quantitative developers; 1.3 Need for speed; 1.4 Implementation options; 1.4.1 Outsource to vendor; 1.4.2 Use vendor API; 1.4.3 Develop in-house; 1.4.4 Replace vended systems; 1.5 Current trends; 1.6 Technical and business aspects of platform design; 1.7 Importance of processes 1.8 Objectives and organization Quiz; 2 Overview of Banking; 2.1 The offices; 2.2 Front office; 2.2.1 Economists; 2.2.2 Structurers; 2.2.3 Sales; 2.2.4 Trading desks; 2.2.5 Desk quants; 2.2.6 Platform or quantitative developers; 2.2.7 Desk risk management; 2.3 Middle office; 2.3.1 Product control; 2.3.2 Treasury control unit; 2.3.3 Market risk management; 2.3.4 Credit risk management; 2.3.5 Operational risk management; 2.3.6 Rates management; 2.3.7 Static data management; 2.3.8 Compliance and reporting; 2.3.9 Market risk management

analytics; 2.3.10 Asset and liability management
2.4 Back office
2.5 Supporting units; 2.6 Summary; Quiz; 3 Trade Life Cycle; 3.1 Pre-trade activities; 3.2 Inception; 3.3 Validation; 3.4 Regular processing; 3.5 Life-cycle events; 3.6 Termination and settlement; 3.7 Post-trade Activities; 3.8 Summary; Quiz; 4 Trade Perspectives; 4.1 Trade-centric view; 4.2 Model-centric view; 4.3 Product-centric view; 4.4 Asset-class view; 4.5 Queues and status flags; 4.6 Aggregate views; 4.7 Bottom-line view; 4.8 Other perspectives; 4.9 Summary; Quiz; 5 Programming Languages - Basics and Choices; 5.1 Language choice; 5.2 Basics of computing
5.2.1 Development cycle
5.2.2 Dependencies and Makefiles; 5.2.3 Lexical structure of a programming language; 5.3 Object-oriented languages; 5.3.1 Basics of object-oriented methodology; 5.3.2 Advantages and disadvantages of the object-oriented approach; 5.4 Functional programming; 5.5 Summary; Quiz; 6 Trading Platform Design; 6.1 General design considerations; 6.1.1 Maintainability and documentation; 6.1.2 Scalability and extensibility; 6.1.3 Security and access control; 6.2 Architecture components; 6.2.1 Trade representation; 6.2.2 Market representation; 6.2.3 Static data management
6.2.4 Quant library
6.2.5 Trade transformations and operations; 6.2.6 Settlement triggers or pathways; 6.2.7 Batch processing and grid computing; 6.2.8 Credit replication; 6.2.9 Security and audit model; 6.2.10 Documentation and support model; 6.3 Example architecture; 6.4 Advanced architecture; 6.5 Summary; Quiz; 7 Computing Patterns for Trading; 7.1 Facade pattern; 7.2 Visitor pattern; 7.3 Singleton pattern; 7.4 Factory patterns; 7.5 Component object model; 7.6 Summary; Quiz; 8 Flexible Derivatives Pricing Tool; 8.1 Design scope; 8.2 Design goals and features; 8.2.1 Pricing tool features
8.2.2 Data types support

Sommario/riassunto

Principles of Quantitative Development is a practical guide to designing, building and deploying a trading platform. It is also a lucid and succinct expose on the trade life cycle and the business groups involved in managing it, bringing together the big picture of how a trade flows through the systems, and the role of a quantitative professional in the organization. The book begins by looking at the need and demand for in-house trading platforms, addressing the current trends in the industry.
