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Nota di contenuto	1. Introduction to AMMs -- 2. Uniswap v2 -- 3. Balancer -- 4. Curve Finance -- 5. Uniswap v3. .
Sommario/riassunto	Explore Automated Market Makers (AMMs), the underlying protocols used by decentralized exchanges (DEX) to allow users to perform trades of cryptocurrencies in a decentralized way with no middlemen. This book provides a thorough study and a clear-cut exposition of the principal AMMs (Uniswap v2 and v3, Balancer, and Curve). You'll receive a detailed description of how these AMMs work, unveiling the mathematics behind them and showing plenty of examples as well as novel proofs for several interesting facts. Each chapter describes an AMM's core idea and derives the mathematical formulas used in the

code, giving careful explanations of the logical thinking involved and detailing the steps needed to reach those formulas. All these explanations are complemented with thoughtfully chosen examples which further help to enlighten the readers on how the formulae work. In addition, the relevant parts of the codes of the AMMs are shown after explaining each formula so that the actual implementation of the formulae can be seen. In a traditional trading market a buy order has to be matched with a sell order to achieve a trade. However, for an AMM, users trade against the protocol itself, a smart contract, or a community pool of funds. In simple terms this is an open source computer program in which mathematical formulas define prices. Automated Market Makers examines this critical point revealing that no banks or intermediaries are necessary, giving crucial financial access to a much larger crowd, regardless of who they are with less barriers to access. You will: Understand the principals of decentralized finance (DeFi) Grasp mathematical formulae that underpin decentralized exchanges Work with Solidity programming language Review current industry best practices .

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