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	Sommario/riassunto	These lecture notes provide a self-contained introduction to a wide range of generalizations of Hopf algebras. Multiplication of their modules is described by replacing the category of vector spaces with more general monoidal categories, thereby extending the range of applications. Since Sweedler's work in the 1960s, Hopf algebras have earned a noble place in the garden of mathematical structures. Their use is well accepted in fundamental areas such as algebraic geometry, representation theory, algebraic topology, and combinatorics. Now, similar to having moved from groups to groupoids, it is becoming clear that generalizations of Hopf algebras must also be considered. This book offers a unified description of Hopf algebras and their generalizations from a category theoretical point of view. The author applies the theory of liftings to Eilenberg-Moore categories to translate the axioms of each considered variant of a bialgebra (or Hopf algebra) to a bimonad (or Hopf monad) structure on a suitable functor. Covered structures include bialgebroids over arbitrary algebras, in particular weak bialgebras, and bimonoids in duoidal categories, such as bialgebras over commutative rings, semi-Hopf group algebras, small categories, and categories enriched in coalgebras