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Jose A. Velez-Marulanda* (jvelezma@math.uiowa.edu), University of Iowa, Department of Mathematics, 14 MLH, Iowa City, IA 52242. *A combinatorial approach to the description of endomorphism rings*. Preliminary report.

Quivers, which are directed graphs, play an important role in the representation theory of finite dimensional algebras. If k is an algebraically closed field, then every finite dimensional k -algebra can be realized as a quotient algebra of the path algebra kQ of a certain quiver Q . We concentrate on a specific quiver Q in which each vertex is the starting point (respectively the end point) of exactly two arrows. We consider a particular quotient $\Lambda = kQ/I$ of the path algebra kQ such that all finitely generated Λ -modules can be described combinatorially by using certain words in Λ , called strings and bands. We determine all the Λ -modules associated to strings whose stable endomorphism ring is isomorphic to k . (Received September 22, 2009)