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Abstract: We give a characterization of a finite-dimensional commuting square of C^* -algebras that produces a hyperfinite type II_1 subfactor of finite index and finite depth in terms of Morita equivalent unitary fusion categories. This type of commuting squares were studied by N. Sato, and we show that a slight generalization of his construction covers the fully general case of such commuting squares. We also give a characterization of such a commuting square that produces a given hyperfinite type II_1 subfactor of finite index and finite depth. These results also give a characterization of certain 4-tensors that appear in recent studies of matrix product operators in 2-dimensional topological order.