Quantum algorithms rely on an algebraic property of composite quantum systems called entanglement. Currently, there is no complete classification of quantum states by their entanglement types. By exploiting local unitary stabilizer subgroups and properties of Lie algebras, we obtain results classifying the set of quantum states which are invariant under particle interchange, called symmetric states. These states are of particular interest in experimental quantum information due to their relative computational simplicity. For symmetric states whose local unitary stabilizers have a positive number of continuous degrees of freedom, the classification is exhaustive. This talk will focus on these states, as well as give some interesting examples of symmetric states with discrete stabilizers. (Received July 28, 2010)