The recent lattice QCD calculation on the nuclear forces is reported (the central force in 1S0 and the effective central force in 3S0). The essential features of the nuclear force are reproduced such as the repulsive core at short distance as well as the attraction at the medium/long distance. Since the NN potential is constructed from the NN wave function so as to satisfy the NN Schrödinger equation, the resulting potential is expected to be faithful to those obtained from the NN scattering data. Possible future applications are discussed.