Supercapacitors have been playing crucial role as one of the energy storage systems, used in various applications. Significant efforts have been made to develop highly efficient supercapacitors. Un-doped porous carbons have been commonly used as electrodes in supercapacitors because of their low cost, good processability, and high stability. Recently, it was found that nitrogen-doped carbons exhibit superior electrochemical performance as an electrode material due to its altered chemical structure and additional pseudo-faradaic charge transfer. Current state of the art synthesis methods such as chemical vapor deposition (CVD), arc discharge, and thermal treatment with ammonia gas suffer from poor composition control and surface area which plays a vital role in achieving high performance. Furthermore, in these methods, additional treatment or special equipment are required to produce nitrogen-doped carbons. We will present our results on controlled synthesis and electrochemical studies of hierarchical nitrogen-doped nanoporous carbon by one-step carbonization. The nitrogen content (3.3-7 at%) and Brunauer-Emmett-Teller (BET) surface areas (391-553 m$^2$ g$^{-1}$) of the synthesized nitrogen-doped porous carbons could be precisely controlled, exhibited improved specific capacitance (239 F g$^{-1}$) due to enhanced electrolyte-electrode interaction and additional pseudocapacitance.