Isogeometric analysis (IGA) is a numerical method for solving partial differential equations (PDE). In this master thesis we explain a concept of IGA with special emphasis on problems on closed domains created by a single NURBS patch. For them we show a process how to modify the NURBS basis to ensure the highest possible continuity of the function space. Then we solve the minimal surface problem using two different Newton type methods. The first one is based on the classical approach using PDE, in the second one we use unique advantages of IGA to directly minimize the area functional.