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**ABSTRACT**

This project deals with the demonstration of the ‘N-Queen problem’. In this project , a solution is proposed for N-Queen problem. The N-queen problem is basically a generalized form of 4-Queen problem. In 4-Queen problem, the goal is to place 4 Queens such that no queen can kill the other using standard chess queen moves. Development of opengl program which shows 3D demonstration of N-Queen problem mapping to solid objects transformations is one of the important applications in computer graphics. It means Rotation, Scaling, Transformation of 3-Dimensional objects, like sphere, torus, cone, cube and octahedron. It also includes change of Queen color and rotation, including the 3 ways, like of x-axis, y-axis, and z-axis. The above operation can be done using mouse and keyboard interface. The animation which makes application more interesting, with the arrow keys move the Queens front and back, number keys move the camera. Mouse buttons control the changing of colors, queen size, theme, reset of camera and queens including exit option.

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