A12 – Animation and interpolation

In this assignment, you should provide the procedure that creates the transform matrix for an animation of a starship that is experiencing driving issues. The application is contained in `index.html` and the procedure for defining the transform matrix is in file `anim.js`.
The procedure receives as parameter 7 four components arrays, and one interpolation value. The procedure should produce the transform matrix performing Bezier interpolation of both the position and the rotation, according to the interpolation value. The first 3 four components array, namely *cx*, *cy* and *cz*, contain the value to compute the position of the ship. Parameters *qx*, *qy*, *qz* and *qw*, contains the components of four quaternions that needs to be interpolated using Bezier interpolation of quaternion. Last parameter alpha is the interpolation value, 0 <= alpha <= 1, used for the interpolation.

Pressing the spacebar allows to check if the provided solution is correct, by adding a ghost view of the ship with the correct matrix. The proposed solution interpolates quaternions using the *slerp* procedure. However, the solution can also be done using *nlerp* interpolation.