PROPOSAL FOR ASSIGNMENT 6

Cars and the games related to them are always fascinating. They are sometimes also useful in designing the models of cars by automobile companies. In this assignment we intend to accomplish the visualisation of a car model. We also aim to incorporate some animation and user interactions in it.

The model would be rendered in 3D. The overall functionality would involve a car model which can be rotated, translated or scaled by user interactions using various button. We also intend on providing colour options for the car model. There will also be background change option. After the user has set all these parameters, there will be a button to move the car. For this the rotation of wheels and translation of the car body in synchronisation with the wheels will be modelled. The background will also seem to be moving. The complete visualisation will be game-like.

In addition to this there will also be camera movements. The user can move camera to see the top view of the track or the sideways view of the track. The camera rotations will also be done using touch interactions. This can also be done using gestures if time permits. We also intend on demonstrating our understanding of lighting and material by implementing various sources of illumination and changing the texture of car body. This would enhance the look of the model.

All the implementation will be done keeping iOS as the target platform. Our future aim is to program something similar to a generic racing game. This will be done by giving the user an option to replace the object with a variety of other objects and implementing motion of those objects. It can be further extended to involve riders if the object is vehicle or some other kind of props if the object is a living thing.