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Batch : G-4 Assignment - 11

- Problem statement :-
  Write a C++ / java program to draw 3-D cube & perform a) scaling b) Translation c) Rotation

- Objective :-
  To implement 3D object transformation using open GL

- Outcome :-
  students will learn to implement 3-D transformations, scaling, rotation using Open GL

- S/W & H/W :- 64 bit Fedora, Qt creator

- Theory :-
  OpenGL : Open Graphics Library is a cross language Cross platform application programming interface for reducing 3-D & 2-D vector graphics. The OpenGL specification describes an abstract API for drawing 2D & 3-D graphics. The earliest versions of OpenGL are residing with a companion library called OpenGL utility library.
  It provided simple, powerful feature which were unlikely to be supported in contemporary hardware such as a generating maps

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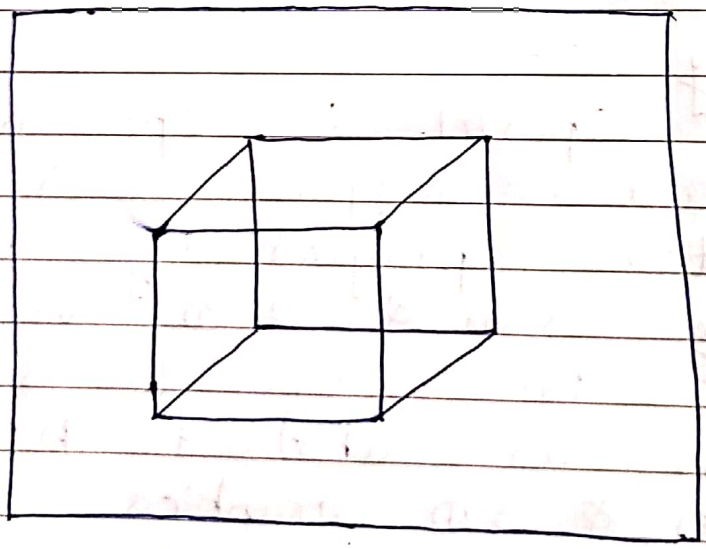
and shapes.

- Algorithm :-

1. START
2. Initialise GLUT
3. Create a window
4. Call translate function
5. Call rotate function for x, y, z axes
6. Call the scale function
7. STOP.

Output :

Cube rotating @ an axis



- Conclusion :-

We implemented all 3-D transformations like translation, scaling & rotation in OpenGL library.

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