Cube Rotation Visualization 🚀

This project is a **Qt-based OpenGL application** that displays a 3D cube with an animated texture (💧 magma block from Minecraft) and provides several interactive features via a menu.

Features 🎨

- **Line Rotation** ✏️

  Rotate the cube about a user-specified line (defined by a point **b** and a direction vector **d**) with a given rotation angle.

- **View Position** ◎

  Set the camera's position and target through a dialog box.

- **Default Position** ⟳

  Reset the cube and camera to their default state (camera at (0,0,3) looking at the origin).

- **Animation** ⏭

  Toggle an automatic cube rotation about the Y-axis.

- **Toggle Gloss** ✦

  Enable or disable a gloss (specular highlight) effect on the bright areas of the texture.

- **Zoom & Manual Rotation** 🔍 🖱

  Use the mouse wheel to zoom in/out and drag the mouse to rotate the cube manually (this disables automatic rotation).

- **Custom Background & Icon** 🎨

  The window has a custom background color (#456990) and a custom icon (mine.png).

Build and Run 🛠

1. **Open the Project**:

   Open the project in Qt Creator.

2. **Resources**:

   Ensure your resource file (e.g., `resources.qrc`) includes the texture (`textures/texture.png`) and icon (`textures/mine.png`).

3. **Build and Run**:

   Build and run the project from Qt Creator.

Feel free to enhance or customize the project further.