Week 8: Assignment 8

The due date for submitting the assignment is 2021-09-22, 23:59 IST.

In this assignment, you are required to implement the following approach:

1. If there is a data point with its 2D coordinates (x, y) and its 3D coordinates (x, y, z), transform the 2D coordinates into 3D coordinates using the following equation:
   \[ z = k \times \sqrt{x^2 + y^2} \]

2. If there is a data point with its 2D coordinates (x, y) and its 3D coordinates (x, y, z), transform the 3D coordinates into 2D coordinates using the following equation:
   \[ x = \frac{z}{ \sqrt{x^2 + y^2} } \]

3. If there is a data point with its 2D coordinates (x, y) and its 3D coordinates (x, y, z), transform the 2D coordinates into 3D coordinates using the following equation:
   \[ y = \frac{z}{ \sqrt{x^2 + y^2} } \]

4. If there is a data point with its 2D coordinates (x, y) and its 3D coordinates (x, y, z), transform the 3D coordinates into 2D coordinates using the following equation:
   \[ x = \frac{z}{ \sqrt{x^2 + y^2} } \]

5. If there is a data point with its 2D coordinates (x, y) and its 3D coordinates (x, y, z), transform the 2D coordinates into 3D coordinates using the following equation:
   \[ y = \frac{z}{ \sqrt{x^2 + y^2} } \]

6. If there is a data point with its 2D coordinates (x, y) and its 3D coordinates (x, y, z), transform the 3D coordinates into 2D coordinates using the following equation:
   \[ x = \frac{z}{ \sqrt{x^2 + y^2} } \]

7. If there is a data point with its 2D coordinates (x, y) and its 3D coordinates (x, y, z), transform the 2D coordinates into 3D coordinates using the following equation:
   \[ y = \frac{z}{ \sqrt{x^2 + y^2} } \]

8. If there is a data point with its 2D coordinates (x, y) and its 3D coordinates (x, y, z), transform the 3D coordinates into 2D coordinates using the following equation:
   \[ x = \frac{z}{ \sqrt{x^2 + y^2} } \]

9. If there is a data point with its 2D coordinates (x, y) and its 3D coordinates (x, y, z), transform the 2D coordinates into 3D coordinates using the following equation:
   \[ y = \frac{z}{ \sqrt{x^2 + y^2} } \]

10. If there is a data point with its 2D coordinates (x, y) and its 3D coordinates (x, y, z), transform the 2D coordinates into 3D coordinates using the following equation:
    \[ z = \frac{z}{ \sqrt{x^2 + y^2} } \]

11. If there is a data point with its 2D coordinates (x, y) and its 3D coordinates (x, y, z), transform the 2D coordinates into 3D coordinates using the following equation:
    \[ y = \frac{z}{ \sqrt{x^2 + y^2} } \]

12. If there is a data point with its 2D coordinates (x, y) and its 3D coordinates (x, y, z), transform the 2D coordinates into 3D coordinates using the following equation:
    \[ z = \frac{z}{ \sqrt{x^2 + y^2} } \]

13. If there is a data point with its 2D coordinates (x, y) and its 3D coordinates (x, y, z), transform the 2D coordinates into 3D coordinates using the following equation:
    \[ y = \frac{z}{ \sqrt{x^2 + y^2} } \]

14. If there is a data point with its 2D coordinates (x, y) and its 3D coordinates (x, y, z), transform the 2D coordinates into 3D coordinates using the following equation:
    \[ z = \frac{z}{ \sqrt{x^2 + y^2} } \]

15. If there is a data point with its 2D coordinates (x, y) and its 3D coordinates (x, y, z), transform the 2D coordinates into 3D coordinates using the following equation:
    \[ y = \frac{z}{ \sqrt{x^2 + y^2} } \]

16. If there is a data point with its 2D coordinates (x, y) and its 3D coordinates (x, y, z), transform the 2D coordinates into 3D coordinates using the following equation:
    \[ z = \frac{z}{ \sqrt{x^2 + y^2} } \]

17. If there is a data point with its 2D coordinates (x, y) and its 3D coordinates (x, y, z), transform the 2D coordinates into 3D coordinates using the following equation:
    \[ y = \frac{z}{ \sqrt{x^2 + y^2} } \]

18. If there is a data point with its 2D coordinates (x, y) and its 3D coordinates (x, y, z), transform the 2D coordinates into 3D coordinates using the following equation:
    \[ z = \frac{z}{ \sqrt{x^2 + y^2} } \]