



Inspiring Excellence

BRAC UNIVERSITY

CSE 423: Computer Graphics

Group project

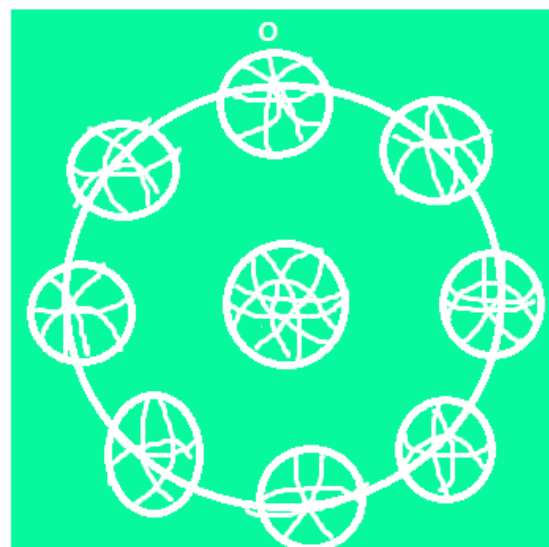
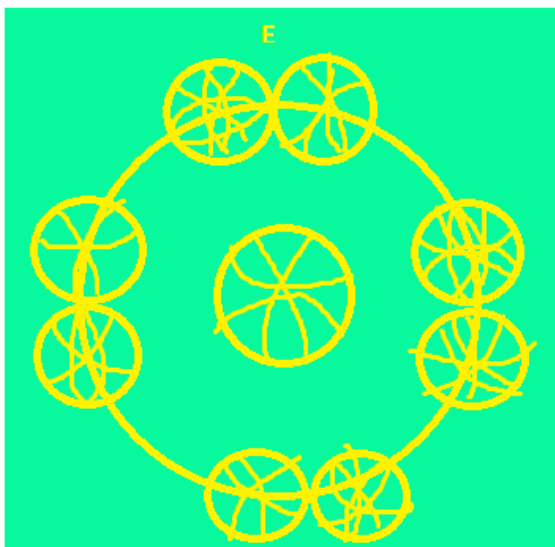
Group no: 5

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Objective:

Our plan is to create a visualization of even and odd checkers. By taking the input of an even number a display of a yellow colored circle will be shown and by taking the input of an odd number display of white colored circle will be shown.

An abstract representation of the idea is given below:

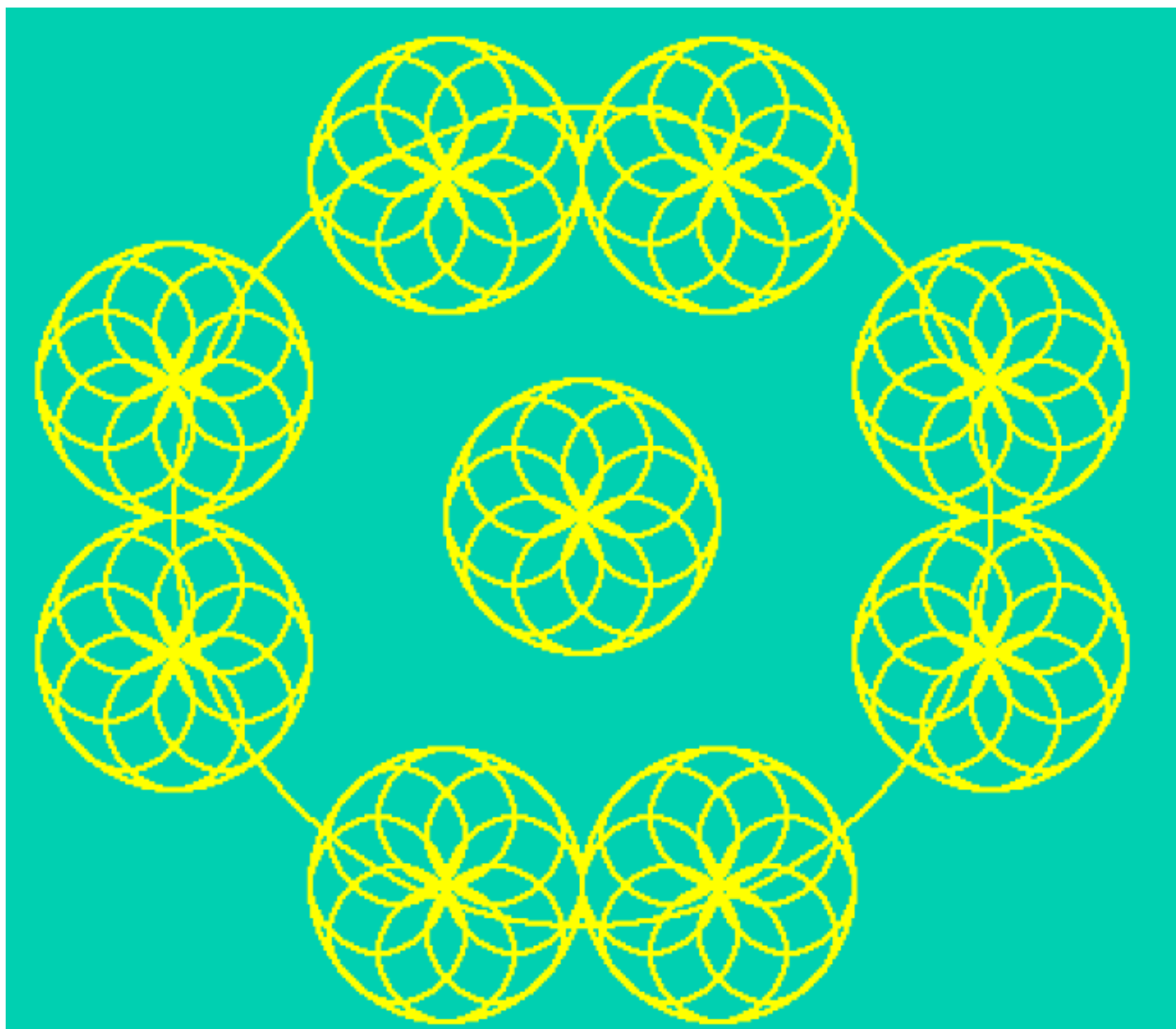


Algorithms Used:

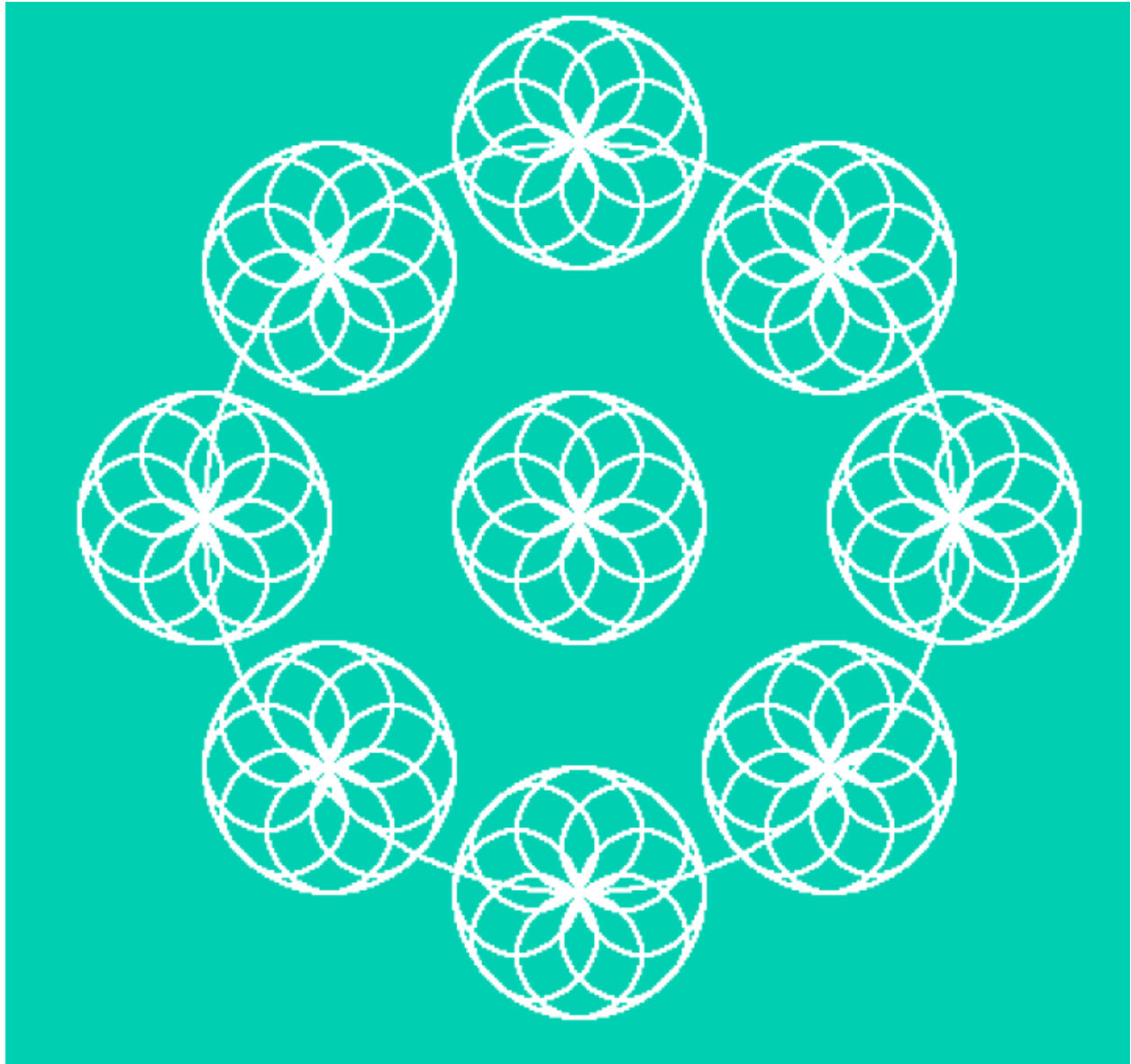
- Gl Shapes:
 1. Circle
 2. Lines
 3. Points
- Midpoint Line
- Midpoint Circle
- 8-way Symmetry
- Transformation:
 1. Reflection (x and y axis)

Design:

This is the template of what we have implemented. We used GL to create two separate functions (showscreen) for printing the design for even number and (showscreen1) for printing the design for odd numbers. For drawing the circles we used a midpoint circle algorithm and for drawing the letter “E” and “O” we used a midpoint line algorithm.



For even numbers input



For odd numbers input

Implementation:

It has been created using midpoint line algorithm, midpoint circle algorithm and the basis of transformation algorithm. Basically, we will see even and odd transitions here to showcase our implementation.

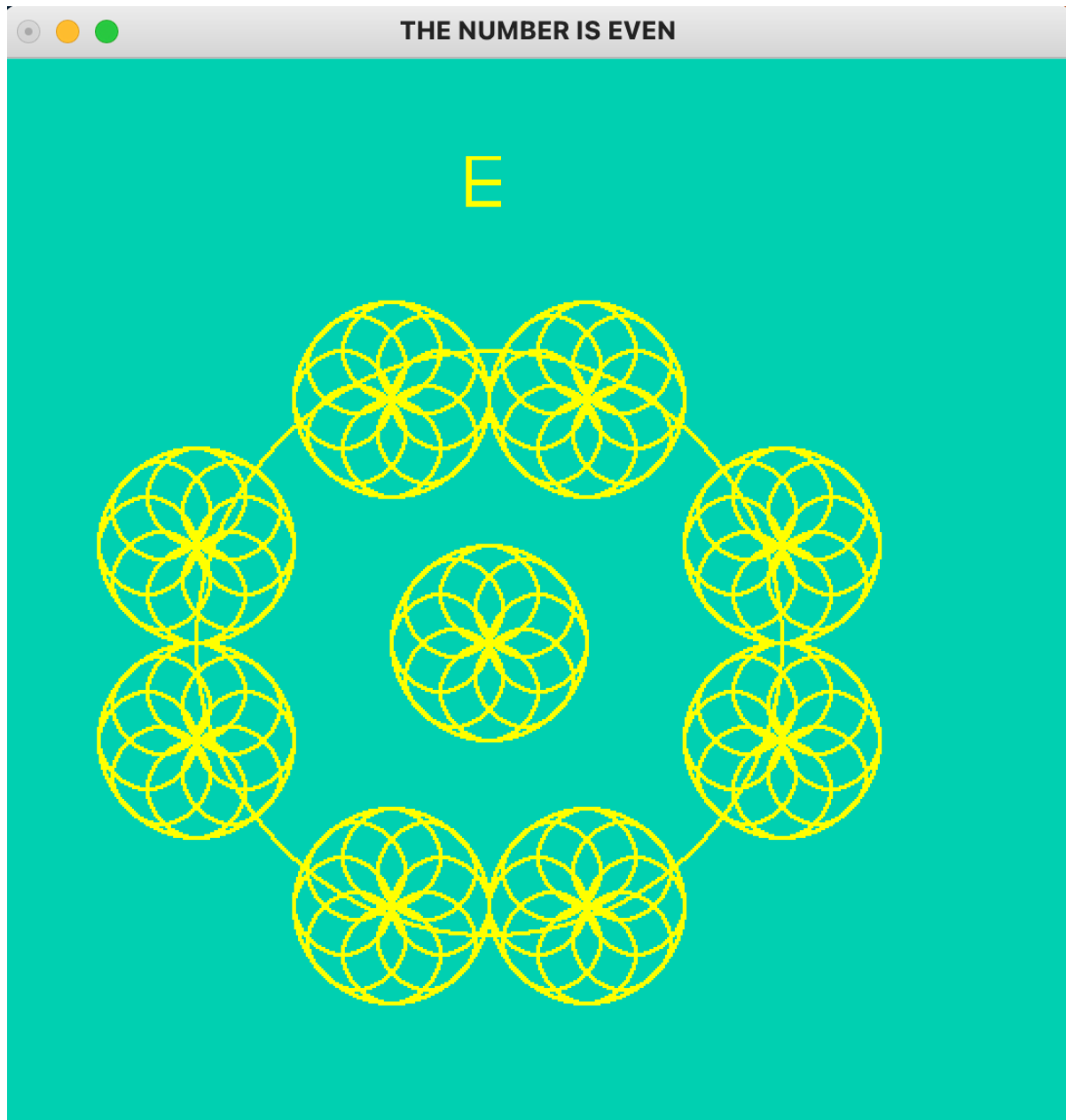


Figure even

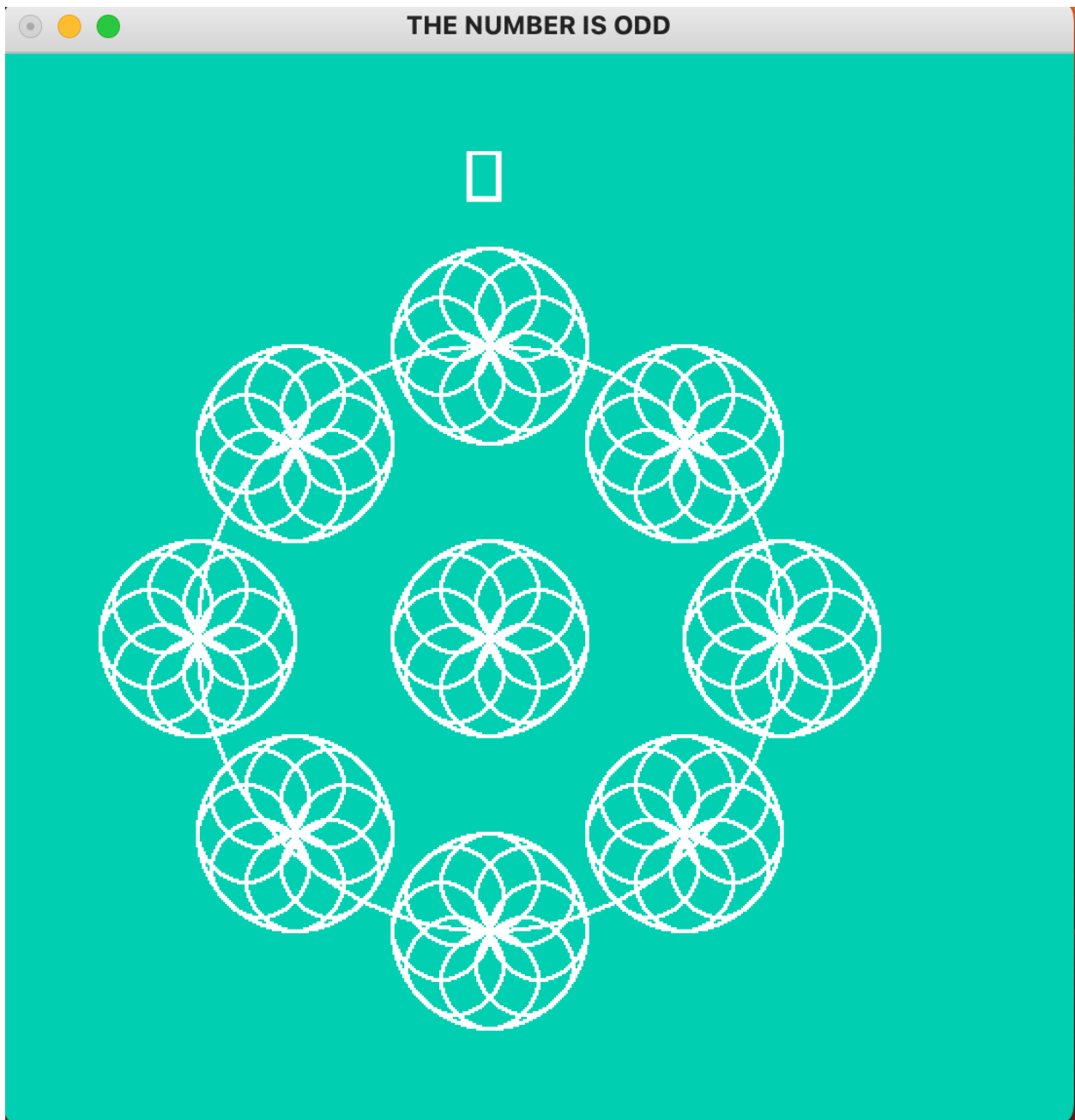


Figure odd

When we input an even number, such as $=2$ then the display comes and shows the image figure even. Then we input an odd number such as $=5$, the display comes and shows the image figure odd.