



Experiment No. 10

Aim: To develop programs for making animations

Objective:

Draw an object and apply various transformation techniques to this object. Translation, scaling and rotation is applied to object to perform animation.

Theory:

- For moving any object, we incrementally calculate the object coordinates and redraw the picture to give a feel of animation by using for loop.
- Suppose if we want to move a circle from left to right means, we have to shift the position of circle along x-direction continuously in regular intervals.
- The below programs illustrate the movement of objects by using for loop and also using transformations like rotation, translation etc.
- For windmill rotation, we use 2D rotation concept and formulas.

Program:

```
#include <stdio.h>
#include <conio.h>
#include <graphics.h>
#include <dos.h>

void main() {
    clrscr();
    int gd = DETECT, gm, i;
    initgraph(&gd, &gm, "C:\\\\TURBOC3\\\\BGI");

    for (i = 0; i <= 100; i++) {
        // Clear screen to avoid overlapping
        cleardevice();

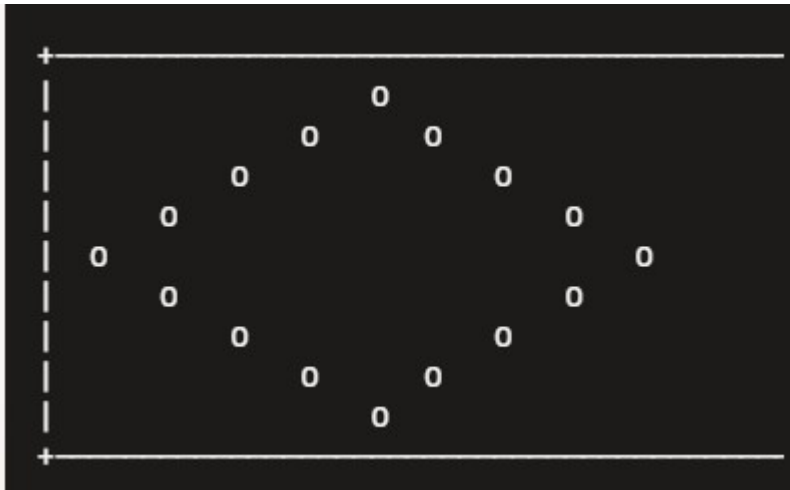
        // Draw expanding circles
        circle(319, 219 - i, 20 + i);
        circle(319, 219 + i, 20 + i);
        circle(299 - i, 239, 20 + i);
        circle(339 + i, 239, 20 + i);

        // Delay to create animation effect
        delay(100);
    }
}
```



```
}  
  
getch();  
closegraph();  
}
```

Output:



Conclusion - Comment on :

1. Importance of story building

Story building is crucial for a number of reasons:

- **Engagement:** A well-built story captivates the audience, holding their interest from start to finish.
- **Relatability:** Stories help convey messages, emotions, and experiences in a way that people can understand and relate to.
- **Memory:** Narratives make information more memorable by organizing it into a structured format.
- **Connection:** Stories foster a connection between the audience and the characters, creating empathy and investment in the outcome.

2. Defining the basic character of story



The basic character, or protagonist, is the heart of any story. Key aspects include:

- **Background:** The character's history, upbringing, and personal experiences.
- **Personality:** Traits, behaviors, and attitudes that define the character.
- **Goals:** What the character wants to achieve, which drives the plot.
- **Flaws:** Imperfections that make the character relatable and human.
- **Growth:** How the character evolves through the story's challenges.

3. Apply techniques to these characters

Creating compelling characters involves several techniques:

- **Show, Don't Tell:** Reveal character traits through actions, dialogue, and interactions rather than an exposition.
- **Conflict:** Place characters in challenging situations that force them to grow and change.
- **Dialogue:** Use dialogue to reveal personality, motivations, and relationships.
- **Depth:** Create multi-dimensional characters with complex emotions and motivations.
- **Consistency:** Maintain character consistency unless deliberate growth or change is part of the story arc.
- **Internal Struggle:** Highlight internal conflicts that reflect deeper psychological or emotional struggles.