# General Guidelines for Presentation

- Slides should not be too heavy with content.  Better to create point wise.
- If you require more than one slide for any point, right click on that point slide then select duplicate slide and modify the duplicated slide.
- Diagrams must be aligned at centre and clearly visible with caption.
- All the mentioned fonts, font size, title content, etc should not change and strictly as per the given format and guidelines.


PARSHVANATH CHARITABLE TRUST'S

A.P. SHAH INSTITUTE OF TECHNOLOGY

Department of Computer Science and Engineering

Data Science

# SOLAR SYSTEM

**Rohan Waghodhe 21107008**
**Sumit Samanta 21107003**
**Harsh Shelke 21107022**
**Sonal Sonarghare 21107033**

**Project Guide**
**Ms. Poonam Pangarkar**

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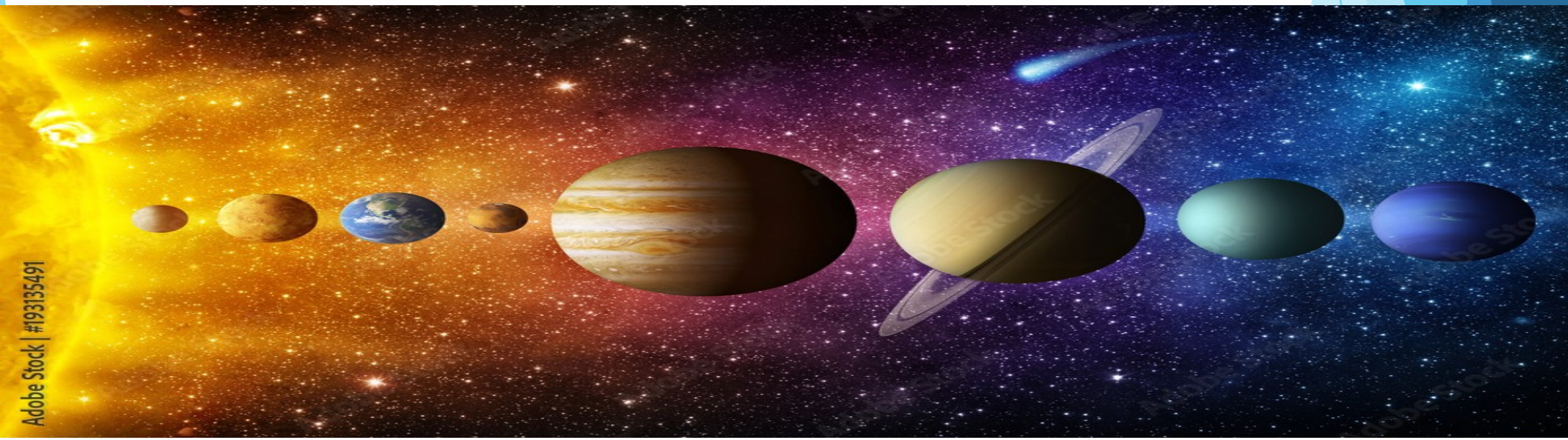
# 1. Introduction

- Computer graphics is the process of making the design, images, 2D and 3D animation of an object.
- Computer graphics can do many things, including modeling, simulation and visualization of an object or a problem.
- Solar system is a set of celestial bodies bound by gravitational forces. The movement of celestial bodies like the sun, stars, planets and the other will be more easily understood if taught through visualization movement through computer animation.
- This visualization shows the solar system planetary motion.



# 2. Objectives

1. To implement features of graphics.
2. To interface the application of graphics to the real world.
3. To create a visualization of the solar system using CG.
4. To enhance teaching method.
5. To build a user friendly interface.
6. To become familiarized with Graphics and its logical coding

# 3. Features

1. **EDUCATIONAL:**

   The use of technology in education can be implemented with a visualization on a subject of study .Using the visualization of objects in the solar system would facilitate teachers for the delivery of content.

2. **REALIABILTY:**

   To function adequately and operate in a defined environment without failure.

3. **EFFICIENCY:**

   To execute efficiently without loss of time.

4. **BENEFICIAL:**

   In order to be used as a reference to learn about the solar system and to facilitate teachers and students for better visualization.

# 3. Built in functions

1. getmaxx():

   getmaxx is a library function of graphics.c in c programming language which returns the maximum X coordinate for current graphics mode and driver.

   Syntax: int getmaxx();

2. setcolor():

   setcolor() is a library function of graphics.c in c programming language which is used to set the current drawing color to the new color.

   Syntax: void setcolor(int color);

# 4. Built in functions

3. setfillstyle():

setfillstyle() is a library function of graphics.c in c programming language which sets the current fill pattern and fill color.

Syntax: void setfillstyle(int pattern,int color);

4. floodfill():

floodfill() is a library function of graphics.c in c programming language function is used to fill an enclosed area.

Syntax: void floodfill(int x, int y, int border_color);

# 4. Built in functions

5. outtextxy():

outtextxy() is a library function of graphics.c in c programming language which is used to display the text or string at a specified point (x, y) on the screen.

Syntax: void outtextxy(int x, int y, char *string);

6. circle():

circle() is a library function of graphics.c in c programming language which draws a circle with center at (x, y) and given radius.

Syntax: circle(x, y, radius);

# 4. Built in functions

7. pieslice():

pieslice() is a library function of graphics.c in c language that draws and fills a pie slice with center at (x, y) and given radius r. The slice travels from s_angle to e_angle which are starting and ending angles for the pie slice. The angles for pie-slice are given in degrees and are measured counterclockwise.

Syntax: void pieslice(int x, int y, int s_angle, int e_angle, int r);

8. ellipse():

ellipse() is a library function of graphics.c in c programming language which is used to draw a ellipse.

Syntax: void ellipse(int x, int y, int start_angle, int end_angle, int x_radius, int y_radius;

# 4. Built in functions

9. cleardevice():

cleardevice() is a library function of graphics.c in c programming language which clears the screen in graphics mode and sets the current position to (0,0).

Syntax: void cleardevice();

10. delay ():

delay() is a library function of dos.h in c language that is used to suspend execution of a program for a particular time.

Syntax: void delay(unsigned int);

# 4. Built in functions

OTHER HEADER FILE USED:

1. **<stdio.h>**

The header file stdio.h stands for Standard Input Output. It has the information related to input/output functions.

stdio.h Functions used in our project:

- If/else

2. **<conio.h>**

conio.h header used in c programming contains functions for console input/output. Some of the most commonly used functions of conio.h are clrscr,getch,kbhit etc.

Conio.h functions used in our project:

- clrscr
- getch
- kbhit

# 4. Built in functions

OTHER HEADER FILE USED:

1. **<math.h>**

   Math.h header file (<math.h>) of c programming language contains con-stants and functions to perform mathematical operations.

   math.h Functions used in our project:

- cos
- sin

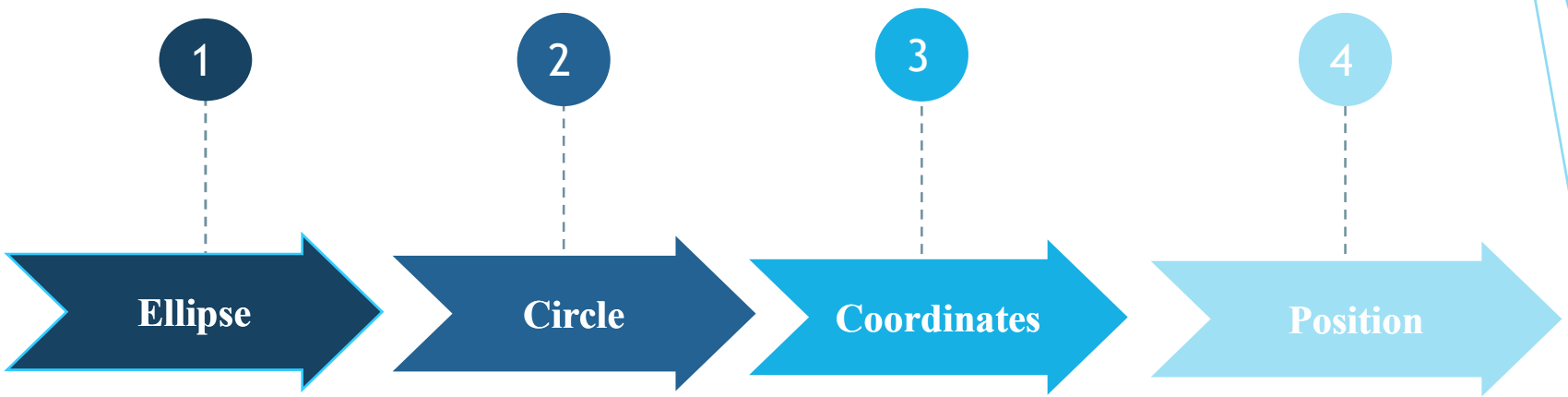
2. **<dos.h>**

   dos.h header file of c language contains functions for handling interrupts, producing sound, date and time functions.

   dos.h functions used in our project:

- delay

# 7. Flow diagram



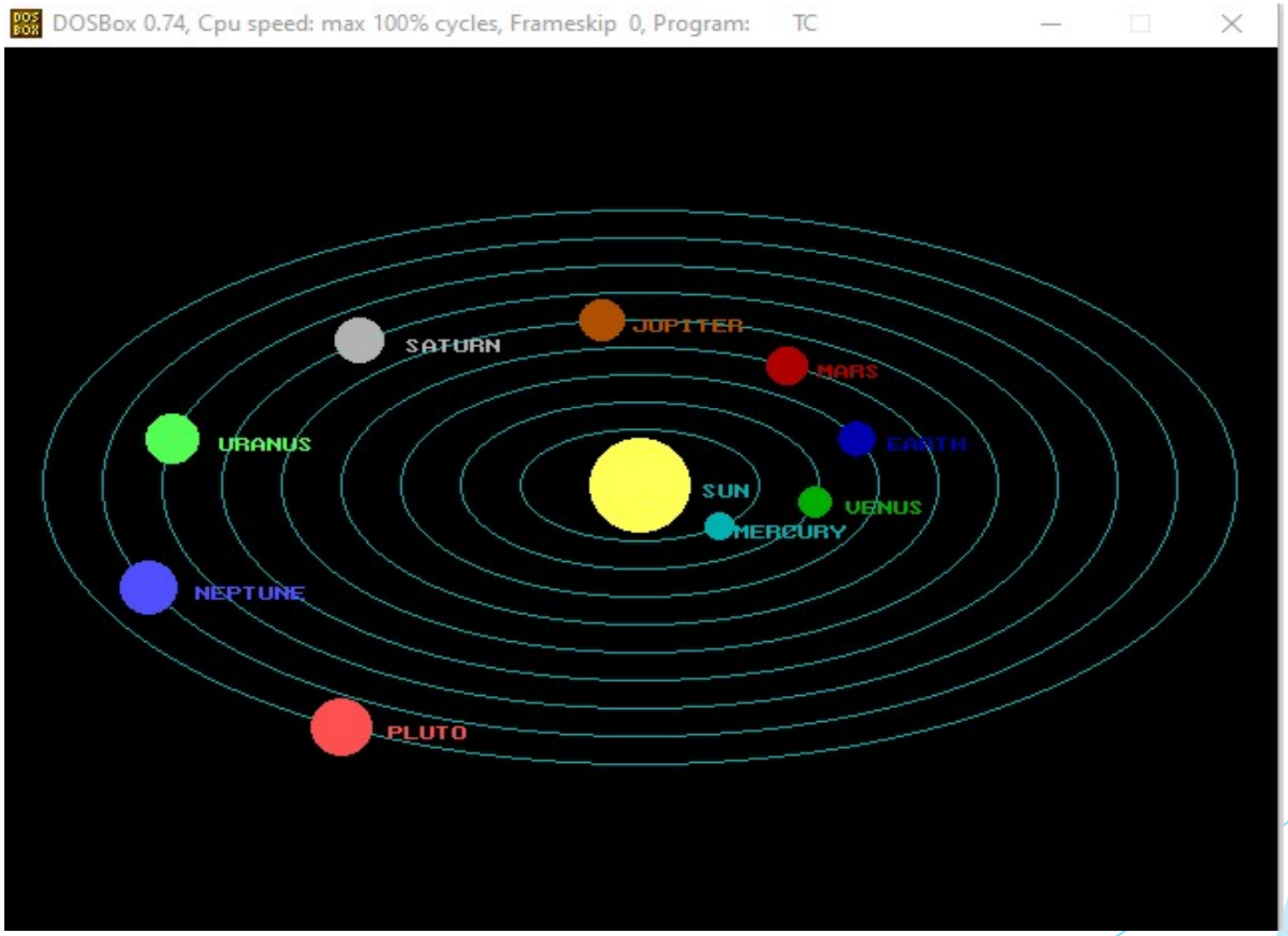

To draw a solar system, start with a concentric Ellipse because all the planet's path are elliptical

Make a circle in the center of the ellipse and fill it with yellow color to Represent the sun.

Draw different circles, fill them with different colors and Then choose the correct coordinates to place all of these in the ellipse's path

Change the positions of all the planets so that they appear to be moving on an ellipse.

# 5. Output of Project



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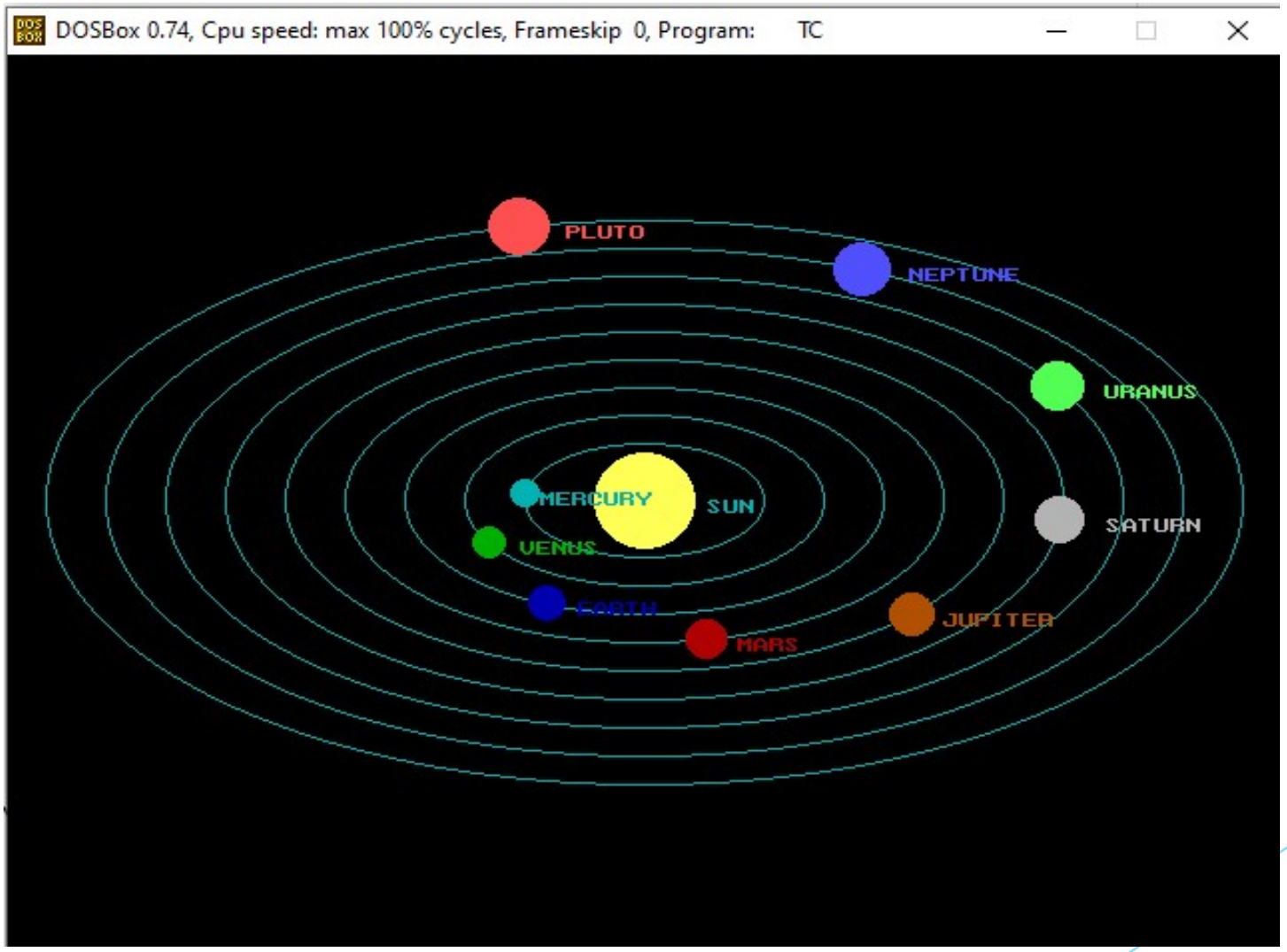

Thank You...!!