Ans1:-

#include<graphics.h>

#include<stdio.h>

int main()

{

int P[2] = {30, 40}; // coordinates of point

int T[] = {5, 5}; // translation factor

int gd = DETECT, gm;

initgraph (&gd, &gm, "");

putpixel (P[0], P[1],YELLOW);

P[0] = P[0] + T[0];

P[1] = P[1] + T[1];

putpixel (P[0], P[1],GREEN);

getch();

closegraph();

return 0;

}

Graphical user interface, application

Description automatically generated

Ans2:-

#include<stdio.h>

#include<graphics.h>

void findNewCoordinate(int s[][2], int p[][1])

{

int temp[2][1] = { 0 };

for (int i = 0; i < 2; i++)

for (int j = 0; j < 1; j++)

for (int k = 0; k < 2; k++)

temp[i][j] += (s[i][k] \* p[k][j]);

p[0][0] = temp[0][0];

p[1][0] = temp[1][0];

}

void scale(int x[], int y[], int sx, int sy)

{

line(x[0], y[0], x[1], y[1]);

line(x[1], y[1], x[2], y[2]);

line(x[2], y[2], x[0], y[0]);

int s[2][2] = { sx, 0, 0, sy };

int p[2][1];

for (int i = 0; i < 3; i++)

{

p[0][0] = x[i];

p[1][0] = y[i];

findNewCoordinate(s, p);

x[i] = p[0][0];

y[i] = p[1][0];

}

line(x[0], y[0], x[1], y[1]);

line(x[1], y[1], x[2], y[2]);

line(x[2], y[2], x[0], y[0]);

}

int main()

{

int x[] = { 100, 200, 300 };

int y[] = { 200, 100, 200 };

int sx = 2, sy = 2;

int gd, gm;

detectgraph(&gd, &gm);

initgraph(&gd, &gm," ");

scale(x, y, sx,sy);

getch();

return 0;

}

Shape

Description automatically generated