

(RCA-551) Computer Graphics & Animation
ASSIGNMENT

Aim: Write a program to perform Two dimensional transformation (Scalling) on a Traingle.

```
#include<stdio.h>
#include<conio.h>
#include<graphics.h>
int gd=DETECT,gm;
int n ,xs[100],ys[100],i,ty,tx;

void draw();
void translate();

void main()
{
    printf("Enter number of sides of polygon");
    scanf("%d",&n);
    printf("Enter coordinates: x,y for each vertex");
    for(i=0;i<n;i++)
        scanf("%d%d",&xs[i],&ys[i]);
    printf("enter distances for translation (in x and y directions): ");
    scanf("%d%d",&tx,&ty);
    initgraph(&gd,&gm,"C:\\TURBOC3\\BGI\\");
    cleardevice();
    //drawing original polygon in red color
    setcolor(RED);
    draw();
    //doing translation

    translate();
    //drawing translate polygon in blue color
    setcolor(YELLOW);
    draw();
    getch();
}

void draw()
{
    for(i=0;i<n;i++)
        line(xs[i],ys[i],xs[(i+1)%n],ys[(i+1)%n]);
}

void translate()
{
    for(i=0;i<n;i++)
    {
        xs[i]+=tx;
        ys[i]+=ty;
    }
}
```

C:\TURBOC3\BIN>TC

Enter number of sides of polygon3

Enter coordinates: x,y for each vertex60 120

120 192

192 60

enter distances for translation (in x and y directions): 30 20

