**Practical No. 5**

**Aim:** Write a C graphics program to perform 2D Shearing Transformation in Geometrical Transformation.

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**Shearing of a Triangle along X-axis**

#include<stdio.h>

#include<conio.h>

#include<graphics.h>

main()

{

int gd=DETECT,gm;

int x,y,x1,y1,x2,y2 ,shear\_f;

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

printf("/n Please enter first coordinate= ");

scanf("%d%d",&x,&y);

printf("/n PLease enter second coordinate= ");

scanf("%d%d",&x1,&y1);

printf("/n PLease enter Third coordinate= ");

scanf("%d%d",&x2,&y2);

printf("/n Please enter shearing factor x= ");

scanf("%d",&shear\_f);

cleardevice();

line(x,y,x1,y1);

line(x1,y1,x2,y2);

line(x2,y2,x,y);

setcolor(RED);

x=x+y\*shear\_f;

x1=x1+y1\*shear\_f;

x2=x2+y2\*shear\_f;

line(x,y,x1,y1);

line(x1,y1,x2,y2);

line(x2,y2,x,y);

getch();

closegraph();

}

Output:

