**ST.XAVIER’S COLLEGE**

MAITIGHAR, KATHMANDU



**Computer Graphics Assignment #9**

**Shear an image**

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**STATEMENT**

Write a program to Shear an image.

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**SOURCE CODE**

//---------------------------------------------------------------------------

#include <vcl\vcl.h>

#pragma hdrstop

#include "Unit1.h"

//---------------------------------------------------------------------------

#pragma resource "\*.dfm"

TShearing \*Shearing;

//---------------------------------------------------------------------------

\_\_fastcall TShearing::TShearing(TComponent\* Owner)

: TForm(Owner)

{

}

//---------------------------------------------------------------------------

void \_\_fastcall TShearing::shearClick(TObject \*Sender)

{

int height = drawArea->Height;

int width = drawArea->Width;

int heightHlf = height/2;

TCanvas \* sourceImg = source->Canvas;

TCanvas \* destination = drawArea->Canvas;

destination->FillRect(ClientRect);

float xSh;

float ySh;

try {

xSh = StrToFloat(shearX->Text);

} catch (EConvertError &e) {

xSh=0;

}

try {

ySh = StrToFloat(shearY->Text);

} catch (EConvertError &e) {

ySh=0;

}

for(int y=0;y<height;++y) {

for(int x=0;x<width;++x) {

int \_x = x+xSh\*y;

int \_y = y+ySh\*x;

destination->Pixels[\_x][\_y]=sourceImg->Pixels[x][y];

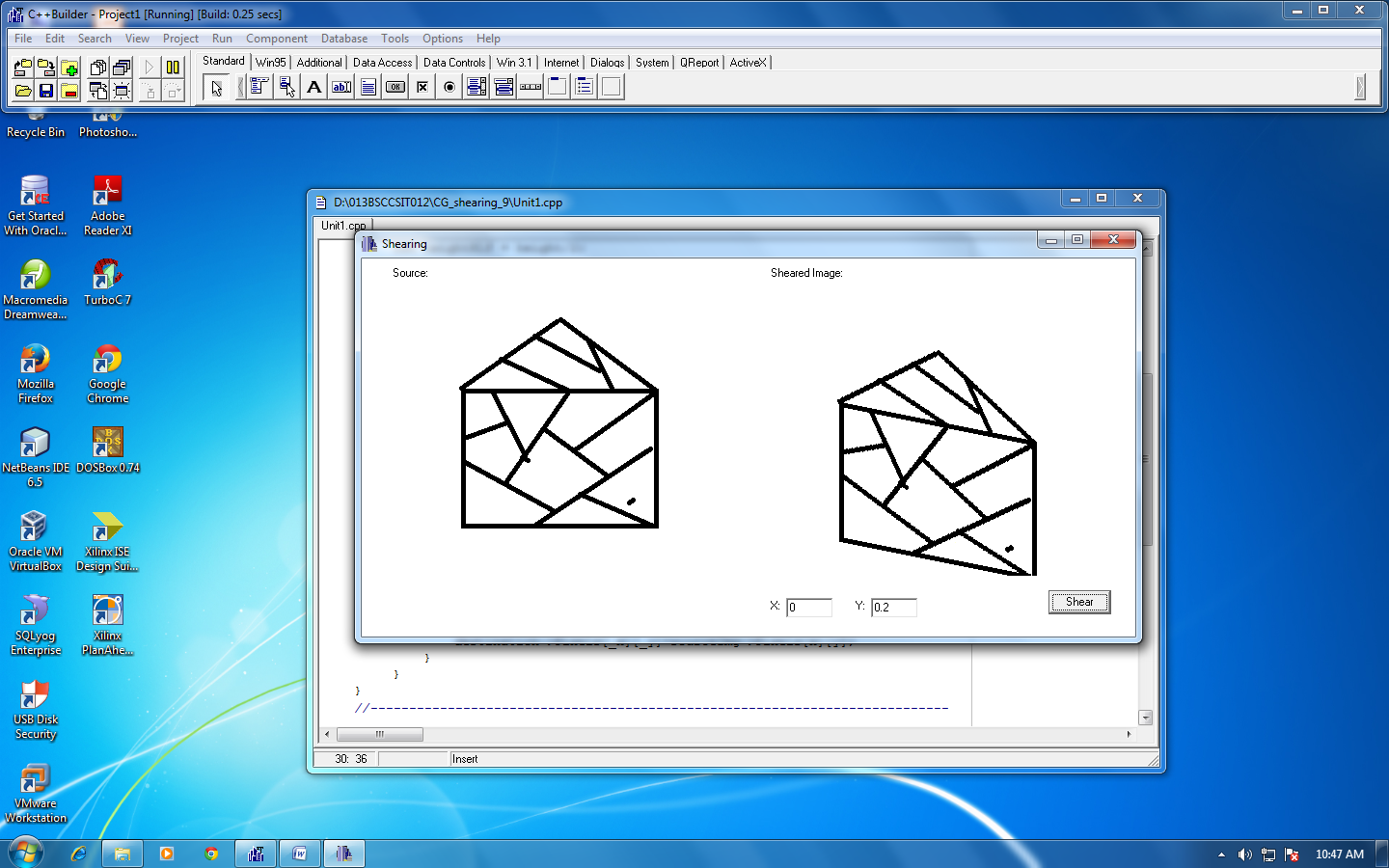
}

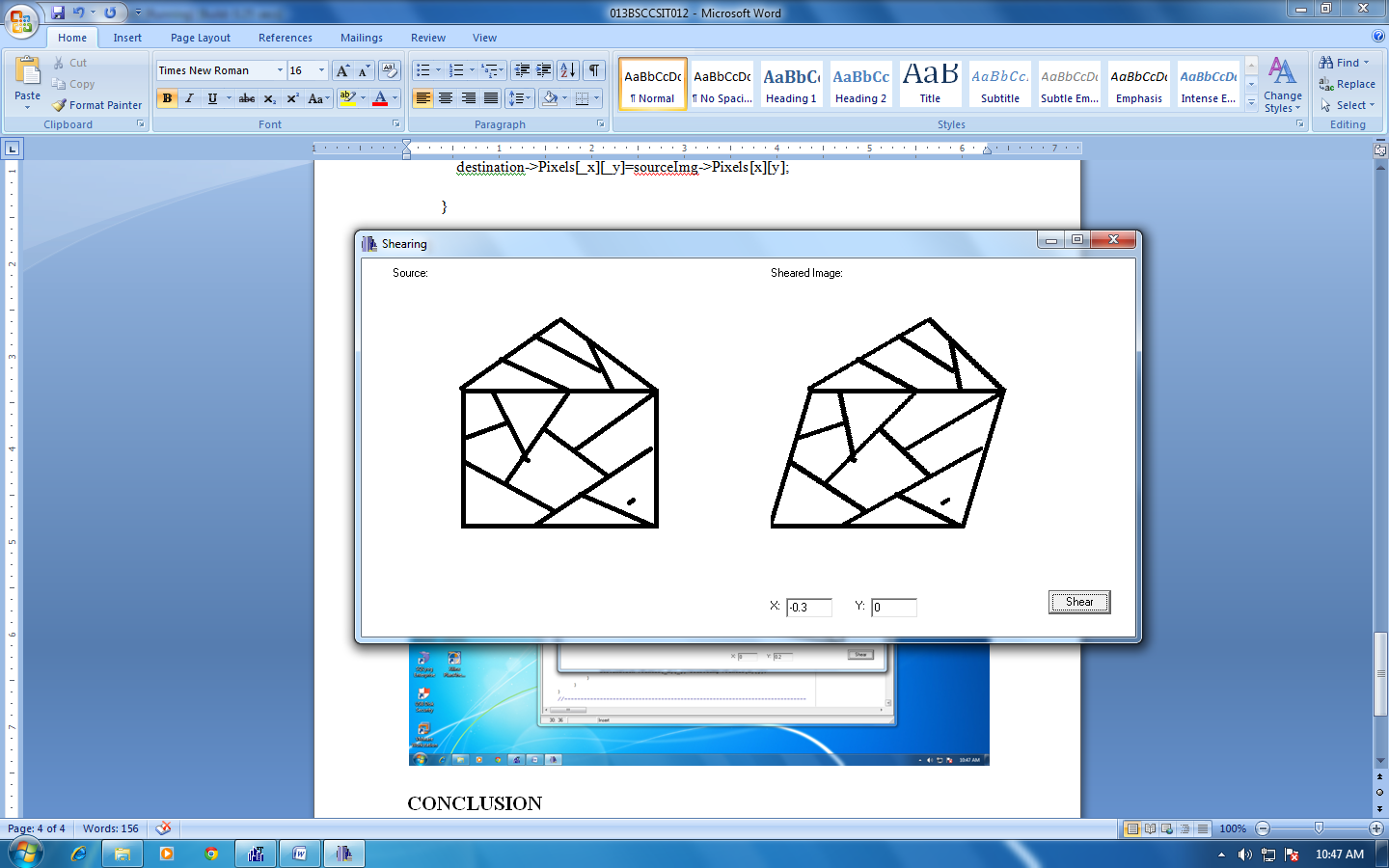
}

}

//---------------------------------------------------------------------------

**OUTPUT:**

****

****

**CONCLUSION**

Hence, a program to shear an image was implemented by using C++ with C++Builder.