ST. XAVIER’S COLLEGE

**(Affiliated to Tribhuvan University)**

Maitighar, Kathmandu



**Computer Graphics Lab Assignment #8**

**Reflection**

**Submitted by:**

Hemanchal Joshi

013BSCCSIT021

**Submitted to:**

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| **Er. Anil Sah**  **Lecturer Department of Computer Science** |  |

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**WRITE A PROGRAM TO ILLUSTRATE THE PROCESS OF REFLECTION ALONG ORIGIN, X-AXIS AND Y-AXIS**

**SOURCE CODE:**

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

#include <vcl\vcl.h>

#pragma hdrstop

#include "reflect.h"

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

#pragma resource "\*.dfm"

TForm1 \*Form1;

int x,y,a,b,i,j;

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

\_\_fastcall TForm1::TForm1(TComponent\* Owner)

: TForm(Owner)

{

}

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

void \_\_fastcall TForm1::Button1Click(TObject \*Sender)

{

x=Image1->Height;

y=Image1->Width;

for (i=0;i<=x;i++)

{

for (j=0;j<=y;j++)

{

a=i;

b=-j;

b=b+y;

Image2->Canvas->Pixels[a][b]=Image1->Canvas->Pixels[i][j];

}

}

}

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

void \_\_fastcall TForm1::Button2Click(TObject \*Sender)

{

x=Image1->Height;

y=Image1->Width;

for (i=0;i<=x;i++)

{

for (j=0;j<=y;j++)

{

a=-i;

b=j;

a=a+x;

Image2->Canvas->Pixels[a][b]=Image1->Canvas->Pixels[i][j];

}

}

}

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

void \_\_fastcall TForm1::Button3Click(TObject \*Sender)

{

x=Image1->Height;

y=Image1->Width;

for (i=0;i<=x;i++)

{

for (j=0;j<=y;j++)

{

a=-i;

b=-j;

a=a+x;

b=b+y;

Image2->Canvas->Pixels[a][b]=Image1->Canvas->Pixels[i][j];

}

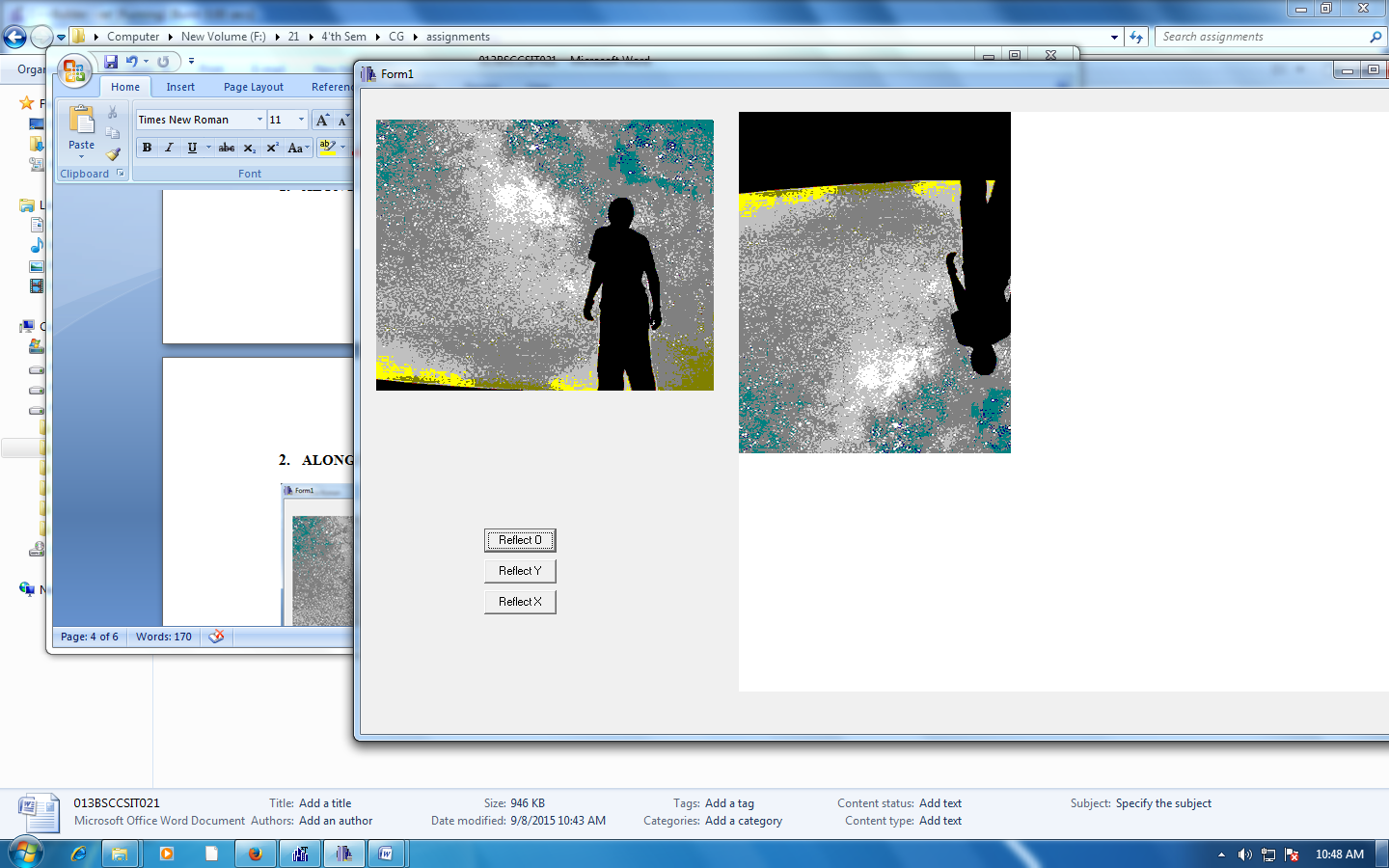
}

}

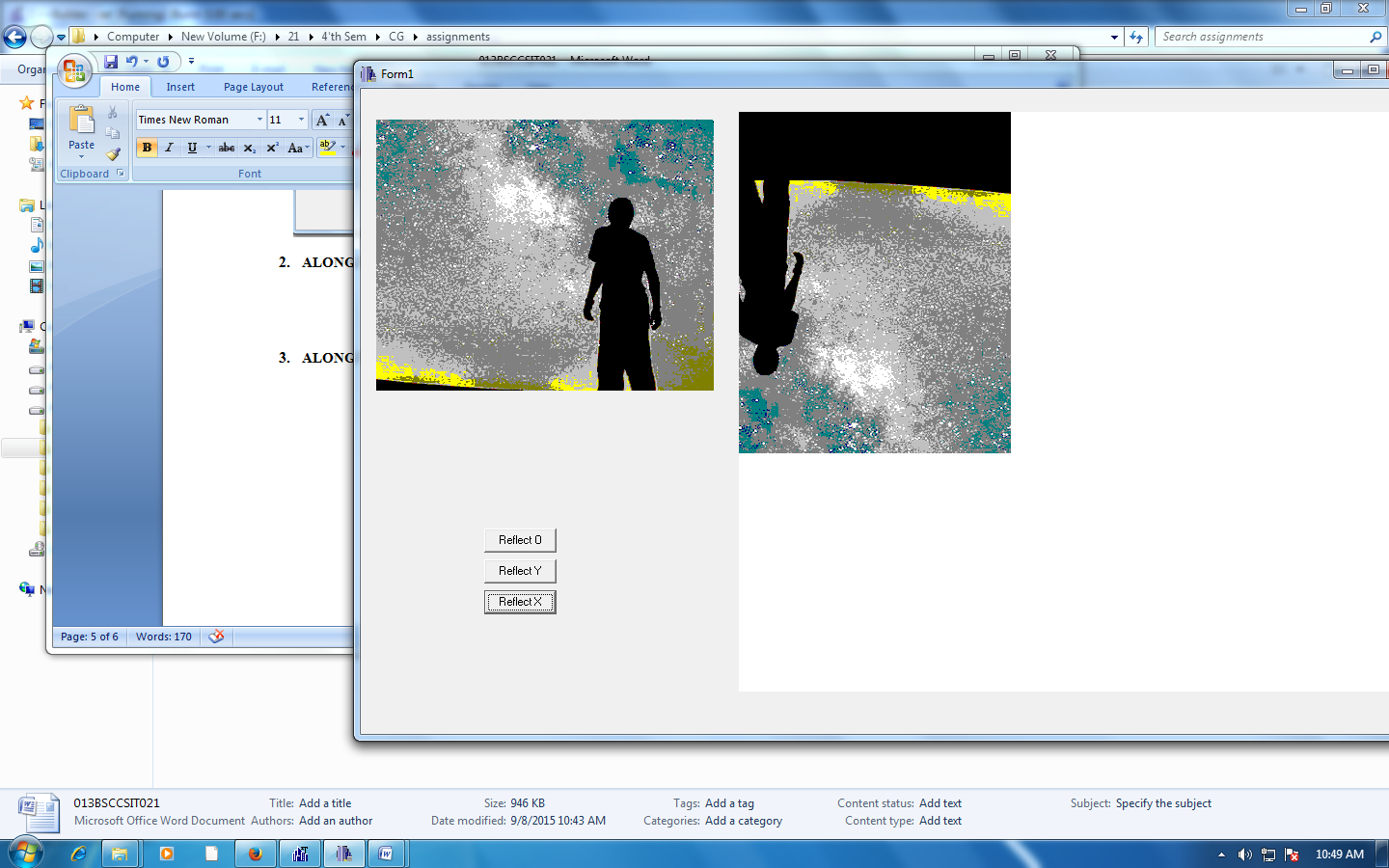
//---------------------------------------------------------------------------

**OUTPUT SCREEN:**

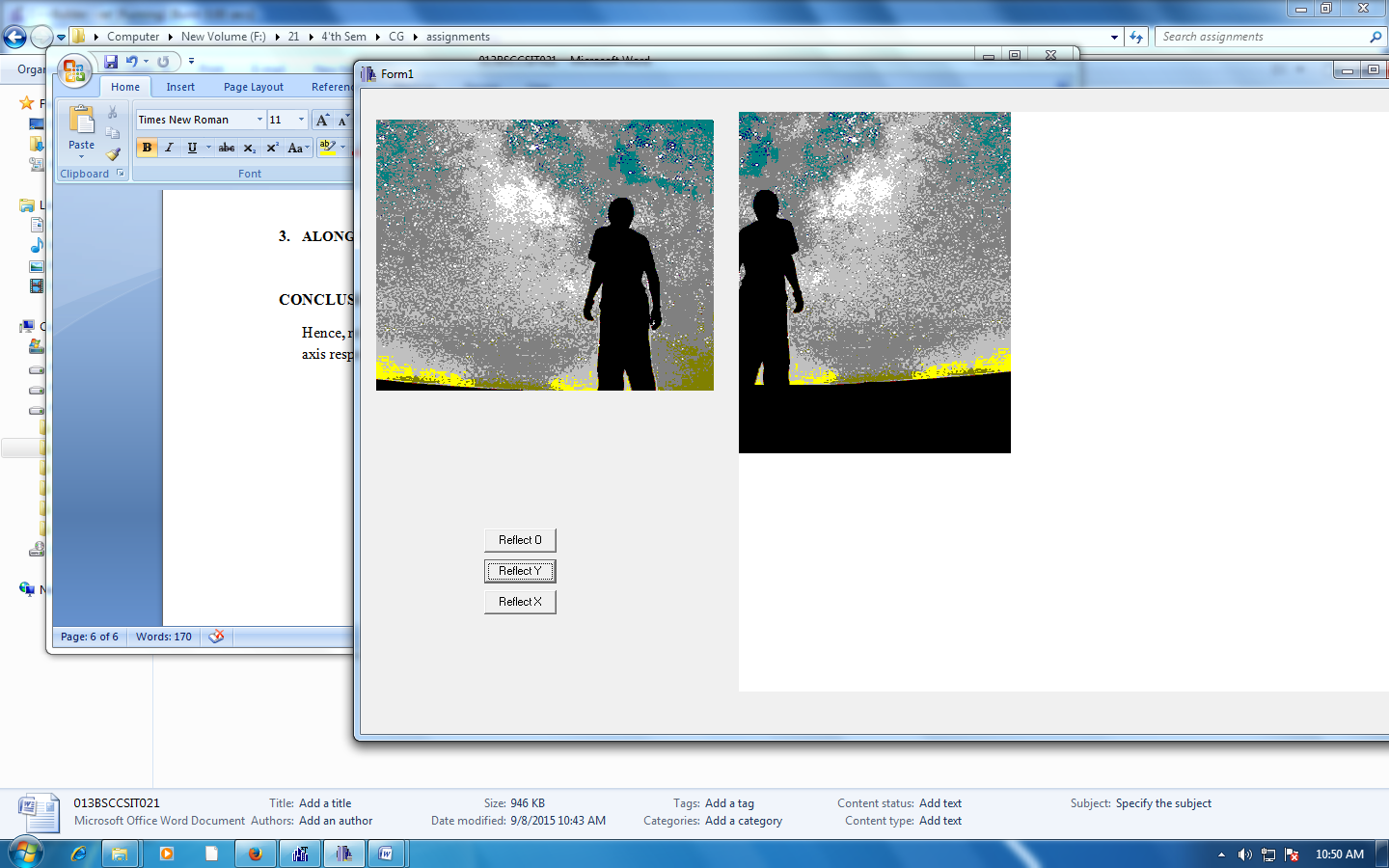
1. **ALONG ORIGIN**



1. **ALONG X-AXIS**

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1. **ALONG Y-AXIS**

****

**CONCLUSION:**

Hence**,** reflection was conducted with respect to the origin as well as the y-axis and x- axis respectively.