ST. XAVIER’S COLLEGE

**(Affiliated to Tribhuvan University)**

Maitighar, Kathmandu



COMPUTER GRAPHICS

Lab Assignment #8

**Submitted by:**

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**Submitted to:**

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**STATEMENT: WAP IN C++ BUILDER TO ILUSTRATE THE PROCESS OF REFLECTION.**

**SOURCE CODE:**

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

#include <vcl\vcl.h>

#pragma hdrstop

#include "Reflection.h"

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

#pragma resource "\*.dfm"

TForm1 \*Form1;

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

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

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

: TForm(Owner)

{

}

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

void \_\_fastcall TForm1::Reflection\_about\_originClick(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::Reflection\_about\_X\_axisClick(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::Reflection\_about\_Y\_axisClick(TObject \*Sender)

{

x=Image1->Height;

y=Image1->Width;

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

{

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

{

a=-i;

b=-j;

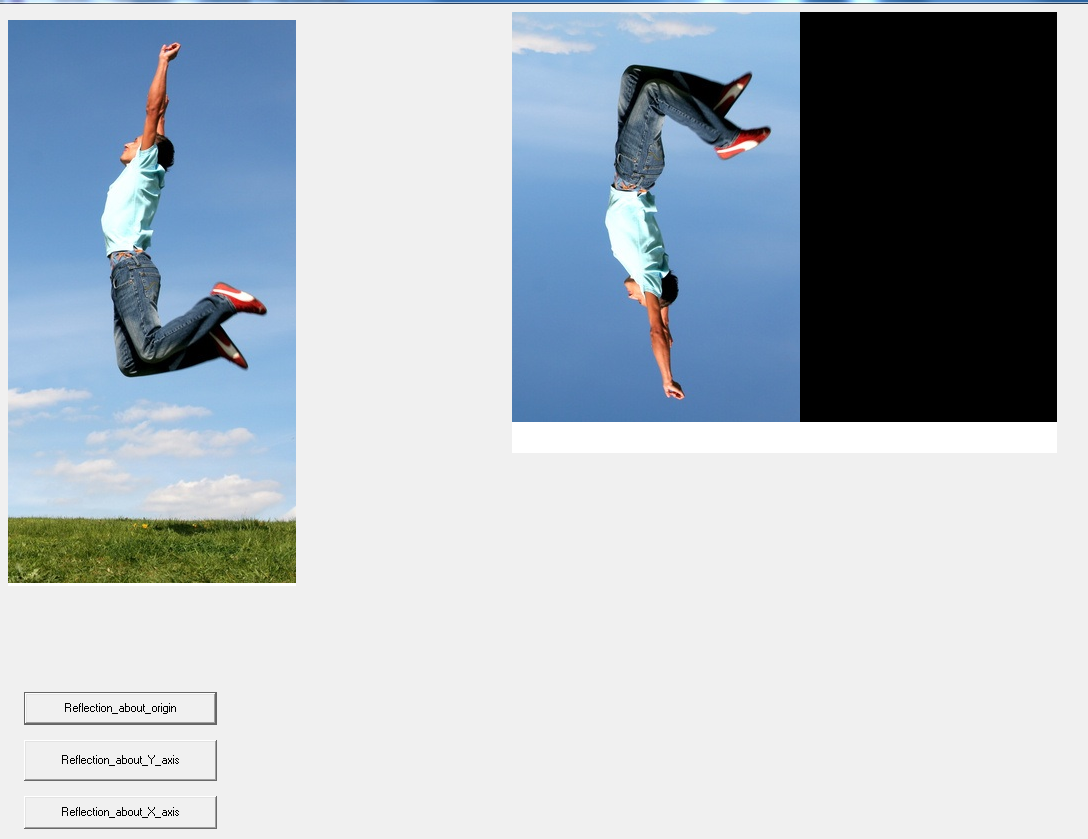
a=a+x;

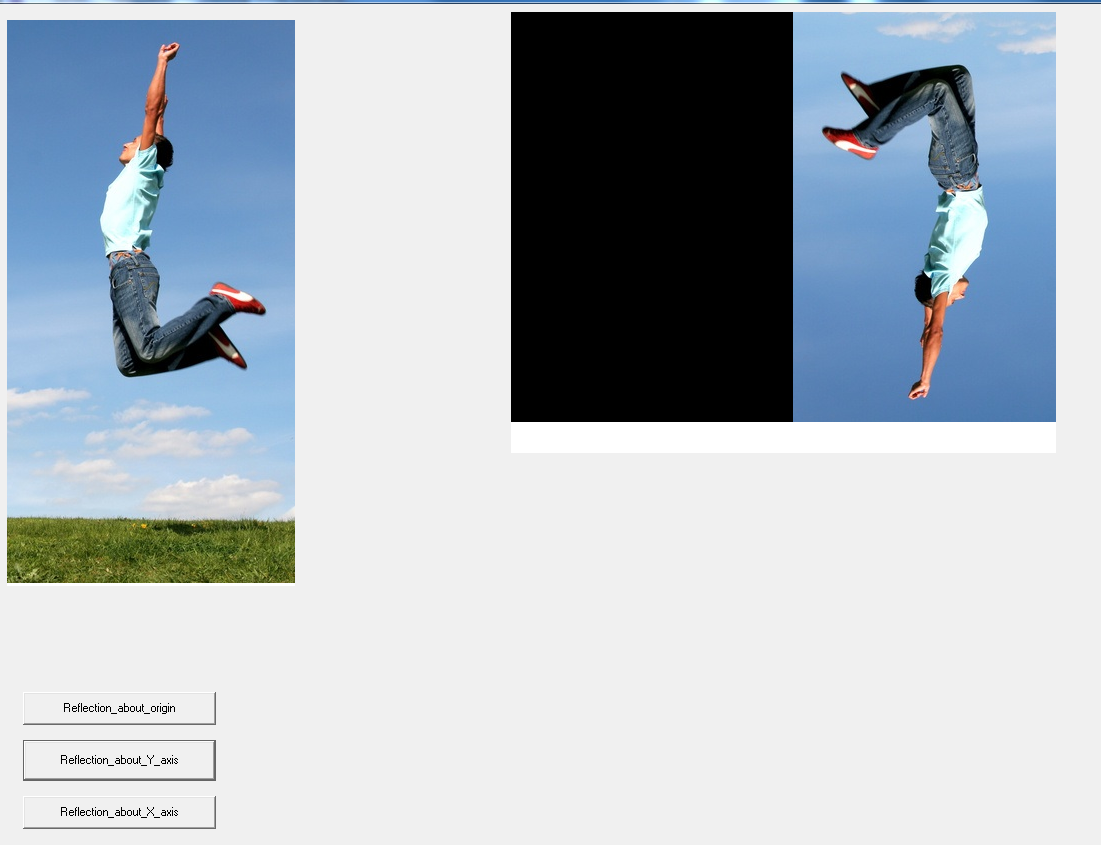
b=b+y;

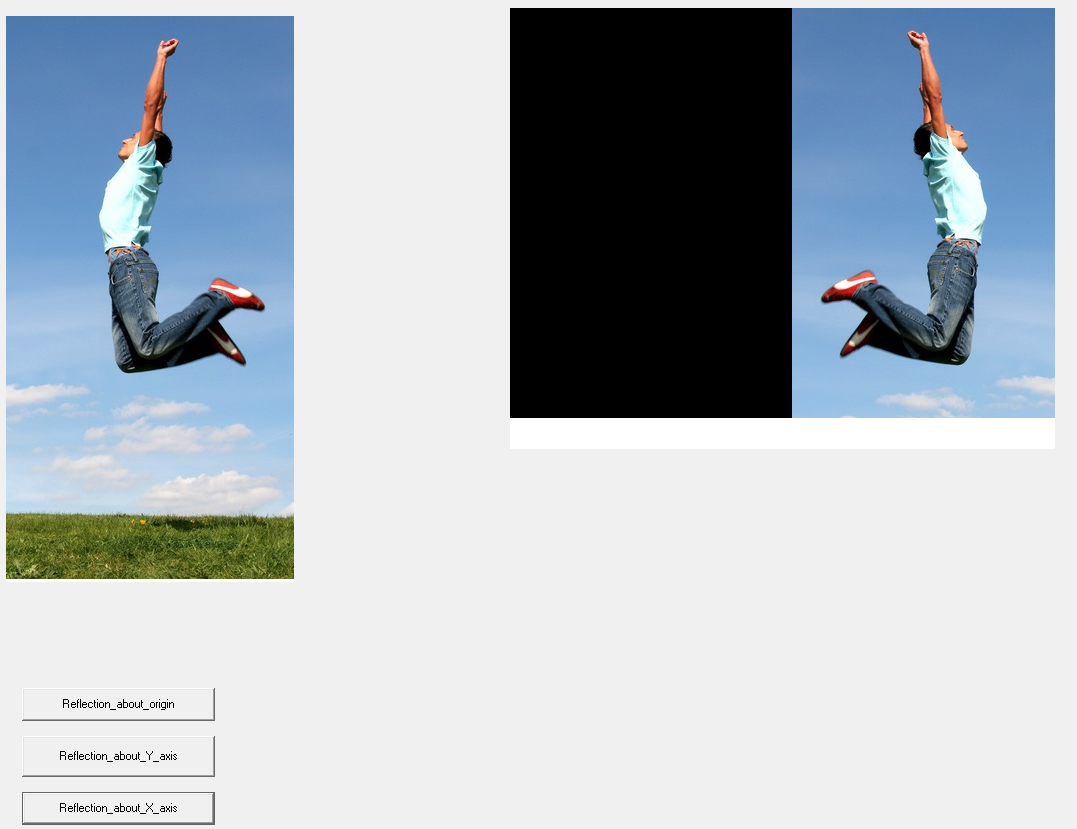
Image2->Canvas->Pixels[a][b]=Image1->Canvas->Pixels[i][j];

}

**OUTPUT:**







**CONCLUSION:**

Hence, we were able to illustrate the reflection phenomenon of refection along the origin, X-axis and Y-axis.

**REFERENCE:**

[1] <http://www.mathsisfun.com/geometry/reflection.html>