**ST. XAVIER’S COLLEGE**

**(Affiliated to Tribhuvan University)**

Maitighar, Kathmandu



**Computer Graphics Lab Asignment**

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**Submitted to:**

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Lecturer

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**Write a program to implement BLA algorithm to draw a line in C++ builder.**

**Source Code:**

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

#include <vcl\vcl.h>

#pragma hdrstop

#include "Unit1.h"

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

#pragma resource "\*.dfm"

TForm1 \*Form1;

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

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

: TForm(Owner)

{

}

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

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

{

int x, y, x1, y1, x2, y2, dx, dy, pk, xEnd;

x1=StrToInt(Edit1->Text);

y1=StrToInt(Edit2->Text);

x2=StrToInt(Edit3->Text);

y2=StrToInt(Edit4->Text);

dx=abs(x2-x1);

dy=abs(y2-y1);

if(x1>x2)

{

x = x2;

y = y2;

xEnd = x1;

}

else

{

x = x1;

y = y1;

xEnd = x2;

}

Image1->Canvas->Pixels[x][y]=RGB(0,0,100);

pk=2\*dy-dx;

while (x<=xEnd)

{

if(pk<0)

{

x=x+1;

y=y;

pk=pk+2\*dy;

}

else

{

x=x+1;

y=y+1;

pk= pk+2\*dy-2\*dx;

}

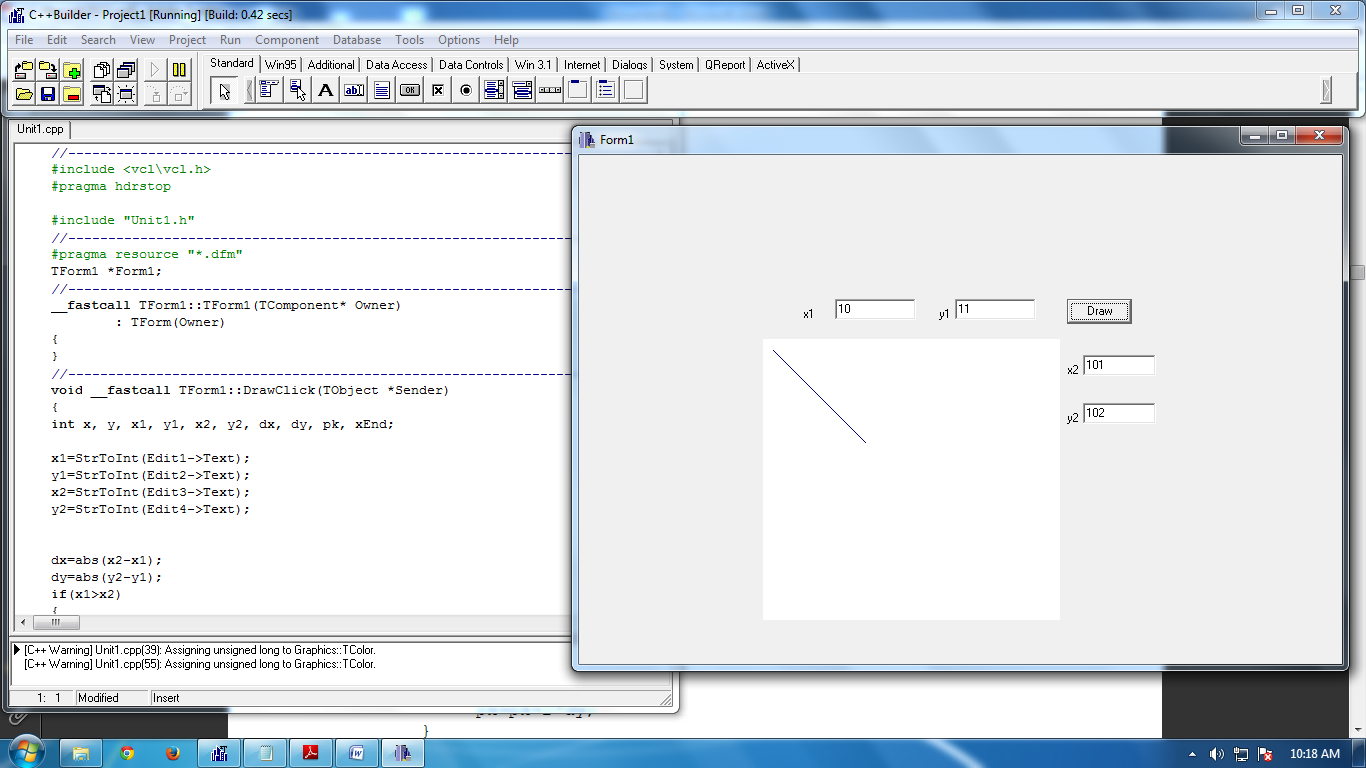
Image1->Canvas->Pixels[x][y]=RGB(0,0,100);

}

}

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

**Output:**

****