

```
#include"graphics.h"
```

```
#include<string>
```

```
#include<iostream>
```

```
using namespace std;
```

```
int first_x = 0;
```

```
int first_y = 0;
```

```
class shapes
```

```
{
```

```
public:
```

```
    int* points = new int[100];
```

```
    virtual void Draw() = 0;
```

```
    //    virtual void Delete() = 0;
```

```
};
```

```
class colours
```

```
{
```

```
private:
```

```
    int selected_colour;
```

```
    bool bucket_enable;
```

```
public:
```

```
int bucket_x, bucket_y;
```

```
void check_colour(int x1, int y1, char ch)
```

```
{
```

```
    if ((x1 >= 5 && x1 <= 50) && (y1 >= 14 && y1 <= 49))
```

```
    {
```

```
        selected_colour = 15;
```

```
    }
```

```
    else if ((x1 >= 65 && x1 <= 109) && (y1 >= 14 && y1 <= 49))
```

```
    {
```

```
        selected_colour = 11;
```

```
    }
```

```
    //////////////////////////////////////
```

```
    else if ((x1 >= 5 && x1 <= 50) && (y1 >= 54 && y1 <= 89))
```

```
    {
```

```
        selected_colour = 14;
```

```
    }
```

```
    else if ((x1 >= 65 && x1 <= 108) && (y1 >= 54 && y1 <= 89))
```

```

{

    selected_colour = 6;

}

////////////////////////////////////
else if ((x1 >= 5 && x1 <= 50) && (y1 >= 95 && y1 <= 128))
{

    selected_colour = 4;

}
else if ((x1 >= 65 && x1 <= 108) && (y1 >= 95 && y1 <= 128))
{

    selected_colour = 3;

}
////////////////////////////////////
else if ((x1 >= 5 && x1 <= 50) && (y1 >= 136 && y1 <= 169))
{

    selected_colour = 10;

}
else if ((x1 >= 65 && x1 <= 108) && (y1 >= 136 && y1 <= 169))
{

    selected_colour = 1;

```

```

}

////////////////////////////////////////

else if ((x1 >= 5 && x1 <= 50) && (y1 >= 175 && y1 <= 210))
{

    selected_colour = 7;

}

else if ((x1 >= 65 && x1 <= 110) && (y1 >= 175 && y1 <= 209))
{

    selected_colour = 0;

}


if (ch == 'M')
{
    while (!ismouseclick(WM_LBUTTONDOWN))
    {
    }

    getmouseclick(WM_LBUTTONDOWN, bucket_x, bucket_y);

    isbucket_enable(bucket_x, bucket_y, 'M');
}

```

```
}
```

```
void isbucket_enable(int x, int y, char ch)
```

```
{
```

```
    if ((x >= 1 && x <= 60) && (y >= 575 && y <= 635))
```

```
    {
```

```
        bucket_enable = 1;
```

```
    }
```

```
    else
```

```
        bucket_enable = 0;
```

```
    if (bucket_enable == 1)
```

```
    {
```

```
        if (ch == 'M')
```

```
        {
```

```
            fill_shape(selected_colour, bucket_enable);
```

```
        }
```

```
    }
```

```
}
```

```
bool get_bucket_Status()
```

```
{
```

```
    return bucket_enable;
```

```
}
```

```
int get_Selectedcolour()
```

```
{
```

```
    return selected_colour;
```

```
}
```

```
void fill_shape(int colour, bool bucket)
```

```
{
```

```
    if (bucket == 1)
```

```
    {
```

```
        int colr_x1 = 0; int colr_y1 = 0;
```

```
        while (!ismouseclick(WM_LBUTTONDOWN))
```

```
        {
```

```
        }
```

```
        getmouseclick(WM_LBUTTONDOWN, colr_x1, colr_y1);
```

```
        setcolor(BLACK);
```

```
        // circle(x1, y1, radius);
```

```
        setfillstyle(SOLID_FILL, colour);
```

```

        floodfill(colr_x1, colr_y1, BLACK);

    }

}

};

class Circle :public shapes, public colours
{

private:
    int circle_colour;
    int circle_bucket;
    int radius;
public:

    void Draw()

    {

        int x1 = 0, y1 = 0, x2 = 0, y2 = 0;
        float distance_1 = 0, distance_2 = 0, distance_3 = 0;
        int selected_colour;
        int color_x, color_y, bucket_x, bucket_y;


        while (!ismouseclick(WM_LBUTTONDOWN))
        {

        }

        getmouseclick(WM_LBUTTONDOWN, x1, y1);
    }
}

```

```
cout << x1 << " , ";
cout << y1 << endl;
clearmouseclick(WM_LBUTTONDOWN);

while (!ismouseclick(WM_LBUTTONDOWN))
{
}
getmouseclick(WM_LBUTTONDOWN, x2, y2);

cout << x2 << " , ";
cout << y2 << endl;

clearmouseclick(WM_LBUTTONDOWN);

distance_1 = (x2 - x1);
distance_1 = pow(distance_1, 2);

distance_2 = (y2 - y1);
distance_2 = pow(distance_2, 2);

distance_3 = distance_1 + distance_2;
distance_3 = pow(distance_3, 0.5);

radius = distance_3;

setcolor(BLACK);
```



```
circle(x1, y1, radius);
```

```
while (!ismouseclick(WM_LBUTTONDOWN))
```

```
{
```

```
}
```

```
getmouseclick(WM_LBUTTONDOWN, color_x, color_y);
```

```
if (color_y >= 0 && color_y <= 223)
```

```
{
```

```
    check_colour(color_x, color_y, 'c');
```

```
    selected_colour = get_Selectedcolour();
```

```
while (!ismouseclick(WM_LBUTTONDOWN))
```

```
{
```

```
}
```

```
getmouseclick(WM_LBUTTONDOWN, bucket_x, bucket_y);
```

```
isbucket_enable(bucket_x, bucket_y, 'c');
```

```
circle_bucket = get_bucket_Status();
```

```
fill_shape(selected_colour, circle_bucket);
```

```
}
```

```
}
```

```
};
```

```
class RectAngle :public shapes, public colours
```

```
{
```

```
private:
```

```
int selected_colour;
```

```
bool Rectangle_bucket;
```

```
public:
```

```
void Draw()
```

```
{
```

```
int x1 = 0, y1 = 0, x2 = 0, y2 = 0;
```

```
int color_x, color_y, bucket_x, bucket_y;
```

```
float distance_1 = 0, distance_2 = 0, distance_3 = 0;
```

```
while (!ismouseclick(WM_LBUTTONDOWN))
```

```
{  
}
```

```
getmouseclick(WM_LBUTTONDOWN, x1, y1);
```

```
cout << x1 << " , ";
```

```
cout << y1 << endl;
```

```
clearmouseclick(WM_LBUTTONDOWN);
```

```
while (!ismouseclick(WM_LBUTTONDOWN))
```

```
{  
}
```

```
getmouseclick(WM_LBUTTONDOWN, x2, y2);
```

```
cout << x2 << " , ";
```

```
cout << y2 << endl;
```

```
clearmouseclick(WM_LBUTTONDOWN);
```

```
setcolor(BLACK);
```

```
rectangle(x1, y1, x2, y2);
```

```
rectangle(x2, y2, x1, y1);
```

```
while (!ismouseclick(WM_LBUTTONDOWN))
```

```
{
```

```
}  
getmouseclick(WM_LBUTTONDOWN, color_x, color_y);  
  
if (color_y >= 0 && color_y <= 223)  
{  
  
    check_colour(color_x, color_y, 'r');  
  
    selected_colour = get_Selectedcolour();  
  
  
    while (!ismouseclick(WM_LBUTTONDOWN))  
    {  
    }  
  
    getmouseclick(WM_LBUTTONDOWN, bucket_x, bucket_y);  
  
  
    isbucket_enable(bucket_x, bucket_y, 'r');  
    Rectangle_bucket = get_bucket_Status();  
  
    fill_shape(selected_colour, Rectangle_bucket);  
  
}
```

```
}
```

```
};
```

```
class polygon :public shapes, public colours
```

```
{
```

```
private:
```

```
    int selected_colour;
```

```
    bool Square_bucket;
```

```
public:
```

```
    int color_x, color_y, bucket_x, bucket_y;
```

```
    void Draw()
```

```
{
```

```
    int x1 = 0, y1;
```

```
    int count = 0;
```

```
    int arr[20];
```

```
    int i = 0;
```

```
    while (!ismouseclick(WM_LBUTTONDOWNBLCLK))
```

```
{
```

```
        while (!ismouseclick(WM_LBUTTONDOWNDOWN))
```

```
{
```

```
}
```

```
getmouseclick(WM_LBUTTONDOWN, x1, y1);
```

```
cout << x1 << " , ";
```

```
cout << y1 << endl;
```

```
clearmouseclick(WM_LBUTTONDOWN);
```

```
while (!ismouseclick(WM_LBUTTONDOWN))
```

```
{
```

```
}
```

```
arr[i] = x1;
```

```
arr[i + 1] = y1;
```

```
if (count == 0)
```

```
{
```

```
    first_x = x1;
```

```
    first_y = y1;
```

```
}
```

```
i++;
```

```
count++;
```

```
if ((ismouseclick(WM_LBUTTONDOWN)))
```

```
{
```

```
        arr[count] = first_x;
        arr[count + 1] = first_y;

        break;
    }
}
```

```
    clearmouseclick(WM_RBUTTONDOWN);
}
```

```
while (!ismouseclick(WM_LBUTTONDOWN))
{
}

getmouseclick(WM_LBUTTONDOWN, color_x, color_y);
```

```
if (color_y >= 0 && color_y <= 223)
{
```

```
    check_colour(color_x, color_y, 'e');
```

```
    selected_colour = get_Selectedcolour();
```

```
while (!ismouseclick(WM_LBUTTONDOWN))
{
}
```

```
getmouseclick(WM_LBUTTONDOWN, bucket_x, bucket_y);
```

```
isbucket_enable(bucket_x, bucket_y, 'e');
```

```
Square_bucket = get_bucket_Status();
```

```
fill_shape(selected_colour, Square_bucket);
```

```
}
```

```
}
```

```
};
```

```
class EllipsE :public shapes, public colours
```

```
{
```

```
private:
```

```
    int selected_colour;
```

```
    bool ellipse_bucket;
```

```
public:
```

```
    void Draw()
```

```
{
```

```
    int center_x = 0, center_y = 0, radius_x1 = 0, radius_x2 = 0, radius_y1 = 0, radius_y2 = 0;
```

```
    float distance_1 = 0, distance_2 = 0, distance_3 = 0;
```



```
int color_x, color_y, bucket_x, bucket_y;
```

```
while (!ismouseclick(WM_LBUTTONDOWN))
```

```
{
```

```
}
```

```
getmouseclick(WM_LBUTTONDOWN, center_x, center_y);
```

```
clearmouseclick(WM_LBUTTONDOWN);
```

```
////////////////////////////////////
```

```
while (!ismouseclick(WM_LBUTTONDOWN))
```

```
{
```

```
}
```

```
getmouseclick(WM_LBUTTONDOWN, radius_x1, radius_x2);
```

```
clearmouseclick(WM_LBUTTONDOWN);
```

```
////////////////////////////////////
```

```
while (!ismouseclick(WM_LBUTTONDOWN))
```

```
{
```

```
}
```

```
getmouseclick(WM_LBUTTONDOWN, radius_y1, radius_y2);
```

```
clearmouseclick(WM_LBUTTONDOWN);
```

```
setcolor(BLACK);
```

```
ellipse(center_x, center_y, 0, 360, radius_x1 / 10, radius_y2 / 10);
```

```
while (!ismouseclick(WM_LBUTTONDOWN))  
{  
}  
getmouseclick(WM_LBUTTONDOWN, color_x, color_y);
```

```
if (color_y >= 0 && color_y <= 223)  
{
```

```
    check_colour(color_x, color_y, 'e');
```

```
    selected_colour = get_Selectedcolour();
```

```
while (!ismouseclick(WM_LBUTTONDOWN))  
{  
}
```

```
getmouseclick(WM_LBUTTONDOWN, bucket_x, bucket_y);
```

```
isbucket_enable(bucket_x, bucket_y, 'e');
```

```
ellipse_bucket = get_bucket_Status();
```

```
fill_shape(selected_colour, ellipse_bucket);
```

```
}
```

```
}
```

```
};
```

```
class LinE :public shapes, public colours
```

```
{
```

```
private:
```

```
    int selected_colour;
```

```
    bool line_bucket;
```

```
public:
```

```
    int color_x, color_y, bucket_x, bucket_y;
```

```
    void Draw()
```

```
{
```

```
    int x1 = 0, y1 = 0, x2 = 0, y2 = 0;
```

```
while (!ismouseclick(WM_LBUTTONDOWN))  
{  
}
```

```
getmouseclick(WM_LBUTTONDOWN, x1, y1);  
clearmouseclick(WM_LBUTTONDOWN);
```

```
while (!ismouseclick(WM_LBUTTONDOWN))  
{  
}
```

```
getmouseclick(WM_LBUTTONDOWN, x2, y2);  
clearmouseclick(WM_LBUTTONDOWN);
```

```
setcolor(BLACK);  
line(x1, y1, x2, y2);
```

```
while (!ismouseclick(WM_LBUTTONDOWN))  
{  
}  
  
getmouseclick(WM_LBUTTONDOWN, color_x, color_y);
```

```

if (color_y >= 0 && color_y <= 223)
{

    check_colour(color_x, color_y, 'l');

    selected_colour = get_Selectedcolour();


    while (!ismouseclick(WM_LBUTTONDOWN))
    {

    }

    getmouseclick(WM_LBUTTONDOWN, bucket_x, bucket_y);


    isbucket_enable(bucket_x, bucket_y, 'l');
    line_bucket = get_bucket_Status();


    fill_shape(selected_colour, line_bucket);

}

}

```

```
};
```

```
class Triangle :public shapes, public colours
```

```
{
```

```
private:
```

```
    int selected_colour;
```

```
    bool Triangle_bucket;
```

```
public:
```

```
    int color_x, color_y, bucket_x, bucket_y;
```

```
    void Draw()
```

```
    {
```

```
        int point1_x1 = 0, point1_y1 = 0, point2_x1 = 0, point2_y1 = 0, point3_x1 = 0, point3_y1  
= 0;
```

```
        while (!ismouseclick(WM_LBUTTONDOWN))
```

```
        {
```

```
        }
```

```
        getmouseclick(WM_LBUTTONDOWN, point1_x1, point1_y1);
```

```
        clearmouseclick(WM_LBUTTONDOWN);
```

```
////////////////////////////////////
```

```
while (!ismouseclick(WM_LBUTTONDOWN))
{
}

getmouseclick(WM_LBUTTONDOWN, point2_x1, point2_y1);
clearmouseclick(WM_LBUTTONDOWN);
```

```
////////////////////////////////////
```

```
while (!ismouseclick(WM_LBUTTONDOWN))
{
}

getmouseclick(WM_LBUTTONDOWN, point3_x1, point3_y1);
clearmouseclick(WM_LBUTTONDOWN);
```

```
setcolor(BLACK);
line(point1_x1, point1_y1, point2_x1, point2_y1);
setcolor(BLACK);
line(point2_x1, point2_y1, point3_x1, point3_y1);
setcolor(BLACK);
line(point3_x1, point3_y1, point1_x1, point1_y1);
```

```
while (!ismouseclick(WM_LBUTTONDOWN))
{
}

getmouseclick(WM_LBUTTONDOWN, color_x, color_y);
```

```
if (color_y >= 0 && color_y <= 223)
{

    check_colour(color_x, color_y, 't');

    selected_colour = get_Selectedcolour();


    while (!ismouseclick(WM_LBUTTONDOWN))
    {

    }

    getmouseclick(WM_LBUTTONDOWN, bucket_x, bucket_y);


    isbucket_enable(bucket_x, bucket_y, 't');
    Triangle_bucket = get_bucket_Status();


    fill_shape(selected_colour, Triangle_bucket);

}
```



```
}
```

```
};
```

```
class pencil :public shapes
```

```
{
```

```
public:
```

```
void Draw()
```

```
{
```

```
int x1, y1;
```

```
while (!ismouseclick(WM_LBUTTONDOWN))
```

```
{
```

```
}
```

```
clearmouseclick(WM_LBUTTONDOWN);
```

```
setcolor(0);
```

```
while (1)
```

```
{
```

```
if (ismouseclick(WM_LBUTTONDOWN))
```

```
{
```

```
clearmouseclick(WM_LBUTTONDOWN);
```

```

        break;
        cout << "OK";
    }

    while (ismouseclick(WM_LBUTTONDOWN))
    {
        while (ismouseclick(WM_MOUSEMOVE))
        {
            getmouseclick(WM_MOUSEMOVE, x1, y1);
            clearmouseclick(WM_MOUSEMOVE);
            setfillstyle(11, 0);
            bar(x1, y1, x1 + 5, y1 + 5);
        }
    }
}

};

```

```

class Eraser :public shapes
{

public:
    void Draw()
    {

        int x1, y1;

```

```
while (!ismouseclick(WM_LBUTTONDOWN))  
{  
}
```

```
clearmouseclick(WM_LBUTTONDOWN);
```

```
setcolor(15);
```

```
while (1)
```

```
{  
    setcolor(15);
```

```
    if (ismouseclick(WM_LBUTTONDOWN))
```

```
    {  
        clearmouseclick(WM_LBUTTONDBLCLK);  
        break;  
        cout << "OK";  
    }
```

```
    while (ismouseclick(WM_LBUTTONUP))
```

```
    {  
        while (ismouseclick(WM_MOUSEMOVE))  
        {
```

```
            getmouseclick(WM_MOUSEMOVE, x1, y1);
```

```
            clearmouseclick(WM_MOUSEMOVE);
```

```
            setfillstyle(1, 15);
```

```
            bar(x1, y1, x1 + 10, y1 + 10);
```

```
        }  
    }  
  
}
```



```
};
```

```
class FileOperation :public colours  
{
```

```
public:
```

```
    void save_file()  
    {  
  
        writeimagefile("paint.bmp", 200, 0, 1400, 750, 0, (HWND)0);  
  
    }
```

```
    void Loading_file()  
    {  
  
        readimagefile("paint.bmp", 200, 0, 1400, 750);  
  
    }
```

```
};
```

```
void display()
```

```
{
```

```
    //    floodfill(0,0,2);
```

```
    setbkcolor(MAGENTA);
```

```
    //setcolor(GREEN);
```

```
    //setfillstyle(1, GREEN);
```

```
    //bar(0,0,200,1000);
```

```
    // selection panel
```

```
        setcolor(MAGENTA);
```

```
        setfillstyle(SOLID_FILL, MAGENTA);
```

```
        rectangle(0, 0, 200, 1000);
```

```
        floodfill(20, 50, MAGENTA);
```

```
//First Row:
```

```
setcolor(WHITE);
```

```
setfillstyle(SOLID_FILL, WHITE);
```

```
rectangle(5, 15, 50, 50);
```

```
floodfill(21, 31, WHITE);
```

```
setcolor(WHITE);
```

```
setfillstyle(SOLID_FILL, LIGHTCYAN);
```

```
rectangle(110, 15, 65, 50);
```

```
floodfill(86, 36, WHITE);
```

```
setcolor(WHITE);
```

```
setfillstyle(SOLID_FILL, WHITE);
```

```
rectangle(201, 1, 1355, 736);
```

```
floodfill(530, 258, WHITE);
```

```
//Second Row:
```

```
setcolor(WHITE);
```

```
setfillstyle(SOLID_FILL, YELLOW);
```

```
rectangle(5, 90, 50, 54);  
floodfill(10, 60, WHITE);
```

```
setcolor(WHITE);  
setfillstyle(SOLID_FILL, BROWN);  
rectangle(110, 90, 65, 54);  
floodfill(93, 72, WHITE);
```

```
//Third Row:
```

```
setcolor(WHITE);  
setfillstyle(SOLID_FILL, RED);  
rectangle(5, 130, 50, 95);  
floodfill(21, 117, WHITE);
```

```
setcolor(WHITE);  
setfillstyle(SOLID_FILL, CYAN);  
rectangle(110, 130, 65, 95);  
floodfill(93, 110, WHITE);
```

```
//Fourth Row:
```

```
setcolor(WHITE);  
setfillstyle(SOLID_FILL, 10);  
rectangle(5, 170, 50, 135);
```

```
floodfill(29, 149, WHITE);
```

```
setcolor(WHITE);
```

```
setfillstyle(SOLID_FILL, BLUE);
```

```
rectangle(110, 170, 65, 135);
```

```
floodfill(91, 159, WHITE);
```

```
//Fifth Row:
```

```
setcolor(WHITE);
```

```
setfillstyle(SOLID_FILL, LIGHTGRAY);
```

```
rectangle(5, 210, 50, 175);
```

```
floodfill(23, 198, WHITE);
```

```
setcolor(WHITE);
```

```
setfillstyle(SOLID_FILL, BLACK);
```

```
rectangle(110, 210, 65, 175);
```

```
floodfill(75, 198, WHITE);
```

```
//Sixth Row:
```

```
circle(25, 250, 25);
```

```
setfillstyle(SOLID_FILL, LIGHTCYAN);
```

```
floodfill(25, 250, 15);
```

```
outtextxy(6, 292, "Circle:");
```

```
setcolor(WHITE);
```



```
setfillstyle(SOLID_FILL, LIGHTCYAN);  
rectangle(85, 231, 186, 272);  
floodfill(127, 253, WHITE);  
outtextxy(98, 294, "Rectangle:");
```

```
//Seventh Row:
```

```
int arr[] = { 44, 323, 1, 379, 91, 379, 44, 323 };
```

```
setcolor(WHITE);  
drawpoly(4, arr);  
fillpoly(4, arr);  
setfillstyle(SOLID_FILL, LIGHTCYAN);  
floodfill(25, 250, WHITE);  
outtextxy(17, 386, "Triangle:");
```

```
setcolor(WHITE);  
setfillstyle(SOLID_FILL, LIGHTCYAN);  
int Arr[] = { 113,345, 113,380, 180,380, 180,342, 149,317, 113,345 };  
drawpoly(6, Arr);  
//rectangle(114, 325, 181, 372);  
floodfill(144, 347, WHITE);  
outtextxy(119, 389, "polygon:");
```

```
setcolor(WHITE);  
setfillstyle(SOLID_FILL, LIGHTCYAN);  
ellipse(81, 466, 0, 360, 80, 40);  
fillellipse(81, 466, 80, 40);  
outtextxy(16, 510, "Ellipse:");
```

```
setcolor(WHITE);  
setfillstyle(SOLID_FILL, LIGHTCYAN);  
rectangle(12, 536, 154, 540);  
floodfill(75, 538, WHITE);  
outtextxy(14, 546, "Line:");
```

```
/*  
    outtextxy(14, 608, "Bucket:");  
    outtextxy(136, 609, "Delete:");  
    outtextxy(15, 646, "Save:");  
    outtextxy(135, 649, "Undo:");  
    outtextxy(75, 677, "Redo:");
```

```
*/
```

```
setcolor(BLACKNESS);
```

```
readimagefile("bucket.jpg", 1, 575, 60, 635);  
readimagefile("erase.jpg", 68, 575, 127, 635);
```

```
readimagefile("pen.jpg", 135, 575, 194, 635);
```

```
readimagefile("save.jpg", 1, 644, 60, 704);
```

```
readimagefile("load.jpg", 68, 644, 127, 704);
```

```
readimagefile("redo.jpg", 135, 644, 194, 704);
```

```
//fillellipse(130, 450, 30, 20);
```

```
//line(60, 350, 90, 300);
```

```
//Eighth Row:
```

```
/*
```

```
int Arr[] = { 20, 500 ,   70, 500,   30,400, 40,450,   60,350,20,500 };
```

```
drawpoly(4, Arr);
```

```
fillpoly(4, Arr);
```

```
ellipse(130, 450, 0, 360, 30, 20);
```

```
fillellipse(130, 450, 30, 20);
```

```
outtextxy(20, 550, "Delete");
```

```
outtextxy(20, 600, "Bucket");
```

```
*/
```

```
/*
```

```
int x1 = 0, y1 = 0, x2 = 0, y2 = 0;
```

```
while (!ismouseclick(WM_RBUTTONDOWN))
```

```
{
```

```
    while (!ismouseclick(WM_LBUTTONDOWN))
```

```
    {
```

```
    }
```

```
    ismouseclick(ismouseclick(WM_LBUTTONDOWN));
```

```
    getmouseclick(WM_LBUTTONDOWN, x1, y1);
```

```
    cout << x1 << " , ";
```

```
    cout << y1 << endl;
```

```
    clearmouseclick(WM_LBUTTONDOWN);
```

```

while (!ismouseclick(WM_LBUTTONDOWN))
{
}

getmouseclick(WM_LBUTTONDOWN, x2, y2);

cout << x2 << ", ";
cout << y2 << endl;

clearmouseclick(WM_LBUTTONDOWN);
}

*/
}

int main()
{
    initwindow(1400, 750, "PAINT");

    display();

    shapes* drawing[7];
    int x1 = 0, y1 = 0, x2 = 0, y2 = 0;

    while (!ismouseclick(WM_RBUTTONDOWN))
    {

```

```
clearmouseclick(WM_LBUTTONDBLCLK);  
clearmouseclick(WM_LBUTTONDOWN);  
clearmouseclick(WM_LBUTTONUP);  
clearmouseclick(WM_RBUTTONDOWN);  
clearmouseclick(WM_RBUTTONUP);
```

```
while (!ismouseclick(WM_LBUTTONDOWN))  
{  
}
```

```
getmouseclick(WM_LBUTTONDOWN, x1, y1);
```

```
cout << x1 << " , ";  
cout << y1 << endl;
```

```
clearmouseclick(WM_LBUTTONDOWN);
```

```
if ((x1 >= 1 && x1 <= 49) && (y1 >= 225 && y1 <= 274))  
{
```

```
    setcolor(BLACK);  
    setfillstyle(SOLID_FILL, GREEN);  
    circle(25, 230, 4);  
    floodfill(25, 230, BLACK);
```

```

        drawing[0] = new CircleE;
        drawing[0]->Draw();
    }

    else if ((x1 >= 85 && x1 <= 186) && (y1 >= 231 && y1 <= 271))

    {

        setcolor(BLACK);
        setfillstyle(SOLID_FILL, GREEN);
        circle(100, 250, 4);
        floodfill(100, 250, BLACK);

        drawing[1] = new RectAngle;

        drawing[1]->Draw();

    }

    else if ((x1 >= 114 && x1 <= 181) && (y1 >= 325 && y1 <= 372))

    {

        setcolor(BLACK);
        setfillstyle(SOLID_FILL, GREEN);
        circle(150, 360, 4);
        floodfill(150, 360, BLACK);
    }

```

```

        drawing[2] = new polygon;
        drawing[2]->Draw();
    }

    else if ((x1 >= 0 && x1 <= 160) && (y1 >= 426 && y1 <= 505))

    {

        setcolor(BLACK);
        setfillstyle(SOLID_FILL, GREEN);
        circle(100, 450, 4);
        floodfill(100, 450, BLACK);

        drawing[3] = new Ellipse;
        drawing[3]->Draw();
    }

    else if ((x1 >= 18 && x1 <= 165) && (y1 >= 560 && y1 <= 568))

    {

        setcolor(BLACK);
        setfillstyle(SOLID_FILL, GREEN);
        circle(100, 563, 4);
        floodfill(100, 563, BLACK);

        drawing[4] = new Line;
        drawing[4]->Draw();
    }

```



```
else if (((x1 >= 0 && x1 <= 91) || ((x1 >= 23 && x1 <= 68) || (x1 >= 33 && x1 <= 56))) &&
(y1 >= 324 && y1 <= 378))
```

```
{
    setcolor(BLACK);
    setfillstyle(SOLID_FILL, GREEN);
    circle(50, 350, 4);
    floodfill(50, 350, BLACK);

    drawing[5] = new TriangleE;
    drawing[5]->Draw();
}
```

```
else if (y1 >= 0 && y1 <= 223)
```

```
{

    colours colr;
    colr.check_colour(x1, y1, 'M');

}
```

```
else if ((x1 >= 135 && x1 <= 194) && (y1 >= 575 && y1 <= 635))
```

```
{
    setcolor(BLACK);
    setfillstyle(SOLID_FILL, GREEN);
```

```
circle(150, 600, 4);  
floodfill(150, 600, BLACK);
```

```
pencil pen;  
pen.Draw();
```

```
}
```

```
else if ((x1 >= 68 && x1 <= 127) && (y1 >= 574 && y1 <= 634))  
{
```

```
setcolor(BLACK);  
setfillstyle(SOLID_FILL, GREEN);  
circle(100, 600, 4);  
floodfill(100, 600, BLACK);
```

```
Eraser e;  
e.Draw();
```

```
}
```

```
else if ((x1 >= 1 && x1 <= 60) && (y1 >= 644 && y1 <= 700))  
{
```

```
setcolor(BLACK);  
setfillstyle(SOLID_FILL, GREEN);  
circle(50, 650, 4);  
floodfill(50, 650, BLACK);
```

```
FileOperation S;
```

```
S.save_file();
```

```
}
```

```
else if ((x1 >= 67 && x1 <= 127) && (y1 >= 644 && y1 <= 700))
```

```
{
```

```
    setcolor(BLACK);
```

```
    setfillstyle(SOLID_FILL, GREEN);
```

```
    circle(100, 650, 4);
```

```
    floodfill(100, 650, BLACK);
```

```
    FileOperation Load;
```

```
    Load.Loading_file();
```

```
}
```

```
else if ((x1 >= 134 && x1 <= 194) && (y1 >= 644 && y1 <= 700))
```

```
{
```

```
    setcolor(BLACK);
```

```
    setfillstyle(SOLID_FILL, GREEN);
```

```
    circle(100, 650, 4);
```

```
    floodfill(100, 650, BLACK);
```

```
    FileOperation undo;
```

```
    undo.Loading_file();
```

```
}
```

```
}
```

```
system("pause");
```

```
}
```