

## Practical 6

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Aim: a) Write a program to display “hello window” in user defined window

b) Write a program for free hand drawing

a)

```
#include <tchar.h>
#include <windows.h>
int flag =0;

LRESULT CALLBACK WindowProcedure (HWND, UINT, WPARAM, LPARAM);

TCHAR szClassName[ ] = _T("CodeBlocksWindowsApp");
int WINAPI WinMain (HINSTANCE hThisInstance,
HINSTANCE hPrevInstance,
LPSTR lpszArgument,
int nCmdShow)
{
    HWND hwnd;
    MSG messages;
    WNDCLASSEX wincl;

    wincl.hInstance = hThisInstance;
    wincl.lpszClassName = szClassName;
    wincl.lpfnWndProc = WindowProcedure;

    wincl.style = CS_DBLCLKS;
    wincl.cbSize = sizeof (WNDCLASSEX);

    wincl.hIcon = LoadIcon (NULL, IDI_APPLICATION);
    wincl.hIconSm = LoadIcon (NULL, IDI_APPLICATION);
    wincl.hCursor = LoadCursor (NULL, IDC_ARROW);
    wincl.lpszMenuName = NULL;
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wincl.cbClsExtra = 0;
wincl.cbWndExtra = 0;

wincl.hbrBackground = (HBRUSH) COLOR_BACKGROUND;
if (!RegisterClassEx (&wincl))
    return 0;
hwnd = CreateWindowEx (0, szClassName, _T("Code::Blocks
Template Windows App"), WS_OVERLAPPEDWINDOW, CW_USEDEFAULT,
CW_USEDEFAULT, 544, 375, HWND_DESKTOP, NULL, hThisInstance,
NULL);

ShowWindow (hwnd, nCmdShow);

while (GetMessage (&messages, NULL, 0, 0))
{
    TranslateMessage(&messages);
    DispatchMessage(&messages);
}
return messages.wParam;
}

LRESULT CALLBACK WindowProcedure (HWND hwnd, UINT message,
WPARAM wParam, LPARAM lParam){
    RECT rect;
    PAINTSTRUCT ps;
    HDC hdc;
    switch (message)
    {
    case WM_DESTROY:
        PostQuitMessage (0);
        break;
    case WM_PAINT:
        hdc = BeginPaint(hwnd, &ps);
        GetClientRect(hwnd, &rect);
        DrawText(hdc, "hello window", -1, &rect, DT_LEFT);
        EndPaint(hwnd, &ps);
    case WM_MOUSEMOVE:
        if(flag==1){
            int x2 = LOWORD(lParam);
            int y2 = HIWORD(lParam);
            hdc = GetDC(hwnd);

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        SetPixel(hdc, x2, y2, RGB(0,0,255));
        ReleaseDC(hwnd, hdc);
    }
    break;
case WM_LBUTTONDOWN:
    flag = 1;
    break;
case WM_LBUTTONUP:
    flag = 0;
    break;
default:
    return DefWindowProc (hwnd, message, wParam, lParam);
}
return 0;
}

```



