

## CSE423 Lab Assignment 2

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gl.glClear(gl.GL_COLOR_BUFFER_BIT)

gl.glColor3f(1,1,1)

gl.glPointSize(1)

DrawLine(0,0,-200,100)

# Let's render something!

gl.glClear(gl.GL_COLOR_BUFFER_BIT)

gl.glColor3f(0.7,0.7,1)

gl.glPointSize(3)

Shifter = 0


DrawLine(-100+Shifter,75,-50+Shifter,75)      #Top -
DrawLine(-100+Shifter,75,-100+Shifter,0)       #LeftTop |
DrawLine(-100+Shifter,0,-50+Shifter,0)         #Middle -
DrawLine(-50+Shifter,0,-50+Shifter,-75)        #BottomRight |
DrawLine(-50+Shifter,-75,-100+Shifter,-75)     #Bottom
DrawLine(-100+Shifter,-75,-100+Shifter,0)      #LeftBottom |
DrawLine(-50+Shifter,75,-50+Shifter,0)         #TopRight |


def idprint(id):

    id = str(id)

    id = id[-2] + id[-1]

    shifter = 0

    for i in id:
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    if i == '1':

        break

def idprint(id):

    gl.glClear(gl.GL_COLOR_BUFFER_BIT)

    gl.glColor3f(0.7,0.7,1)

    gl.glPointSize(5)

    id = str(id)

    # id = id[-2] + id[-1]

    Shifter = -200

    for i in id:

        if i == '1':

            DrawLine(-50+Shifter,0,-50+Shifter,-75)           #BottomRight |

            DrawLine(-50+Shifter,75,-50+Shifter,0)             #TopRight |

        elif i == '2':

            DrawLine(-100+Shifter,75,-50+Shifter,75)           #Top -

            DrawLine(-50+Shifter,75,-50+Shifter,0)             #TopRight |

            DrawLine(-100+Shifter,0,-50+Shifter,0)              #Middle -

            DrawLine(-100+Shifter,-75,-100+Shifter,0)           #LeftBottom |

            DrawLine(-50+Shifter,-75,-100+Shifter,-75)          #Bottom

        elif i == '3':

            DrawLine(-100+Shifter,75,-50+Shifter,75)           #Top -

            DrawLine(-50+Shifter,75,-50+Shifter,0)             #TopRight |

            DrawLine(-100+Shifter,0,-50+Shifter,0)              #Middle -

            DrawLine(-50+Shifter,0,-50+Shifter,-75)            #BottomRight |

            DrawLine(-50+Shifter,-75,-100+Shifter,-75)          #Bottom

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elif i == '4':

    DrawLine(-50+Shifter,75,-50+Shifter,0)           #TopRight |
    DrawLine(-100+Shifter,75,-100+Shifter,0)         #LeftTop |
    DrawLine(-100+Shifter,0,-50+Shifter,0)           #Middle -
    DrawLine(-50+Shifter,0,-50+Shifter,-75)          #BottomRight |

elif i == '5':

    DrawLine(-100+Shifter,75,-50+Shifter,75)         #Top -
    DrawLine(-100+Shifter,75,-100+Shifter,0)         #LeftTop |
    DrawLine(-100+Shifter,0,-50+Shifter,0)           #Middle -
    DrawLine(-50+Shifter,0,-50+Shifter,-75)          #BottomRight |
    DrawLine(-50+Shifter,-75,-100+Shifter,-75)        #Bottom

elif i == '6':

    DrawLine(-100+Shifter,75,-50+Shifter,75)         #Top -
    DrawLine(-100+Shifter,75,-100+Shifter,0)         #LeftTop |
    DrawLine(-100+Shifter,0,-50+Shifter,0)           #Middle -
    DrawLine(-50+Shifter,0,-50+Shifter,-75)          #BottomRight |
    DrawLine(-50+Shifter,-75,-100+Shifter,-75)        #Bottom
    DrawLine(-100+Shifter,-75,-100+Shifter,0)         #LeftBottom |

elif i == '7':

    DrawLine(-100+Shifter,75,-50+Shifter,75)         #Top -
    DrawLine(-50+Shifter,0,-50+Shifter,-75)          #BottomRight |
    DrawLine(-50+Shifter,75,-50+Shifter,0)           #TopRight |

elif i == '8':

    DrawLine(-100+Shifter,75,-50+Shifter,75)         #Top -
    DrawLine(-100+Shifter,75,-100+Shifter,0)         #LeftTop |
    DrawLine(-100+Shifter,0,-50+Shifter,0)           #Middle -
    DrawLine(-50+Shifter,0,-50+Shifter,-75)          #BottomRight |

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        DrawLine(-50+Shifter,-75,-100+Shifter,-75)    #Bottom
        DrawLine(-100+Shifter,-75,-100+Shifter,0)     #LeftBottom |
        DrawLine(-50+Shifter,75,-50+Shifter,0)        #TopRight |

    elif i == '9':
        DrawLine(-100+Shifter,75,-50+Shifter,75)     #Top -
        DrawLine(-100+Shifter,75,-100+Shifter,0)      #LeftTop |
        DrawLine(-100+Shifter,0,-50+Shifter,0)        #Middle -
        DrawLine(-50+Shifter,0,-50+Shifter,-75)       #BottomRight |
        DrawLine(-50+Shifter,-75,-100+Shifter,-75)    #Bottom
        DrawLine(-50+Shifter,75,-50+Shifter,0)        #TopRight |

    elif i == '0':
        DrawLine(-100+Shifter,75,-50+Shifter,75)     #Top -
        DrawLine(-100+Shifter,75,-100+Shifter,0)      #LeftTop |
        DrawLine(-50+Shifter,0,-50+Shifter,-75)       #BottomRight |
        DrawLine(-50+Shifter,-75,-100+Shifter,-75)    #Bottom
        DrawLine(-100+Shifter,-75,-100+Shifter,0)     #LeftBottom |
        DrawLine(-50+Shifter,75,-50+Shifter,0)        #TopRight |

    Shifter += 75

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idprint(56)

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img_buf = gl.glReadPixelsub(0, 0, WIDTH, HEIGHT, gl.GL_RGB,
gl.GL_UNSIGNED_BYTE)

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img = np.frombuffer(img_buf, np.uint8).reshape(HEIGHT, WIDTH, 3)[::-1]

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show.image(img/255.0)

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