CPSC 335-02

Project 1 – Cella Rule 150

Team: NET

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BigO of functions:

**createCanvas( ):** this function has 2 variables width and height passed in, so T(n) = O(n)

**draw( ):** this P5 function continuously executes the lines of code contained inside its block until the program is stopped, so T(n) = O(n).

**fillCell( ):** this function simply paints a cell based on the x, y coordinate and a color as parameters being passed in, so T(n) = O(1)

**draw\_grid( ):** this function runs 2 consecutive for loops with input size of variable ix to draw a grid. T(n) = O(n)

**draw\_bot( ):** This function uses function get( ) from P5 which returns an array of color at a certain pixel, so T(n) = O(n).

**move\_bot( ):** This function simply increases bot’s x, y coordinates each time it’s called, so T(n) = O(1)

**keyPressed( ):** This function listens to an event from keyboard input to stop the program, so T(n) = O(1).

In overall, the Big-O running time of our algorithm is O(n).