**Module 5.2 Assignment**

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Start

Is bext module installed?

No → Show install instructions → End

Yes → Creat a new forest scene

Main Simulation Loop

External interrupt (Ctrl-C) → End

Clear the display

Display current forest

Create an empty dictionary "next forest" for next iteration

Loop through every X column, Y row in current forest

Move to next (X,Y) in current forest

This (X,Y) space already set in next forest?

No → Check if this (X,Y) space is Empty, Tree, or Fire,

Yes → Skip this (X,Y) space (already updated)

Empty
Empty: Grow chance succeeds?
Yes → Set this (X,Y) space to Tree in next forest
No → Keep (X,Y) space Empty in next forest

Tree
Tree: Lighting chance strike occurs?
Yes → Set this (X,Y) space to Fire in next forest
No → Keep this (X,Y) space as Tree in next forest

Fire
Fire: Set all 8 neighboring trees to Fire in next forest
Set this (X,Y) space Empty in next forest

All (X,Y) grid cells processed in current forest?

No

Yes → Replace current forest with next forest → Pause and continue simulation loop