

# DM-GY 6063 2024F B

## Mid-Term Project

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## *Tree of Life*

*"The Tree of Life" (2011), directed by Terrence Malick, is a contemplative film that explores themes of existence, family, and the struggle between grace and nature. The story follows Jack O'Brien, a middle-aged man reflecting on his upbringing in 1950s Texas. Jack's reflections on his childhood are interwoven with scenes that depict the creation of the universe and the origins of life on Earth, suggesting a connection between his personal experiences and the broader cycles of life and existence.*

# Tree of Life

The Tree of Life explores the cycle of life through the metaphor of a tree undergoing seasonal changes. The project represents themes of growth, maturity, decay, and renewal, with each season symbolizing a different stage in life's journey. Spring is a time of new beginnings, where fresh leaves bloom, representing birth and youth. Summer brings full foliage, signifying maturity and strength. Autumn introduces falling leaves, symbolizing the inevitable decline and letting go, while Winter leaves the tree bare, a time for reflection and rest.

The core logic of the project revolves around a seasonal cycle that dynamically affects the tree's appearance and the background colors, symbolizing the passage of time and life's stages. The goal was to create an interactive visual representation of the changing seasons, each influencing the tree's foliage and the overall atmosphere.

# Challenges

*What you thought would be challenging .*

*Recursive Branch and Leaf Logic*

*Seasonal Transitions*

*What was actually challenging.*

*Recursive Branch and Leaf Logic*

## Highlights

*I'm proud of the recursive `branch()` function, which generates a realistic tree structure that changes with the seasons. This function uses recursion to create natural-looking branches, adjusts leaf colors and density for each season, and includes random angles to add organic asymmetry..*

*Demo*

[vm2612-dm-gy-6063.github.io/MidTerm/](https://vm2612-dm-gy-6063.github.io/MidTerm/)