

BÁO CÁO MINI PROJECT MÔN LẬP TRÌNH HƯỚNG ĐỐI TƯỢNG

Team 21 Topic 1: Visualization of operations on tree data structures

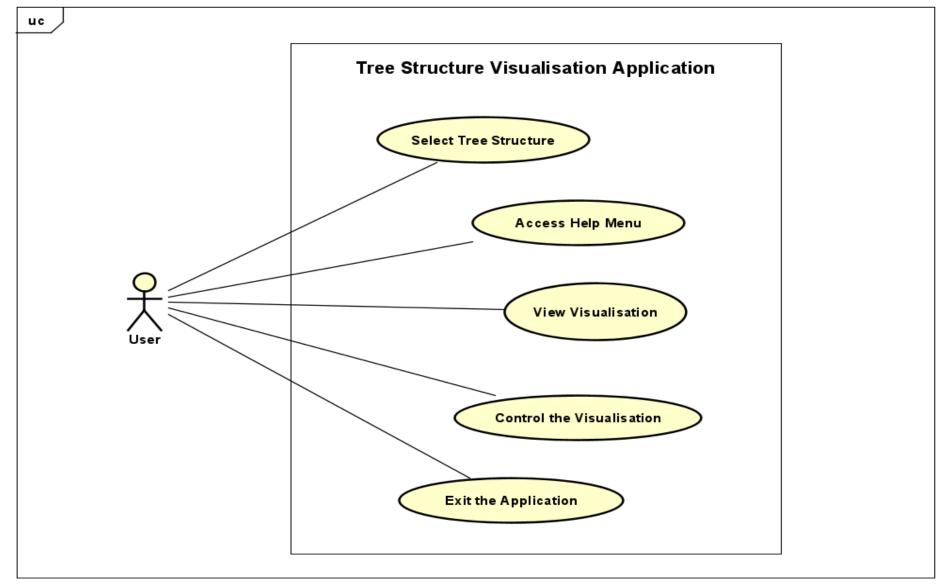
Team members and assignment:

- 1. Lê Quang Minh 20215088 (Leader): Everything
- 2. Nguyễn Phúc Mạnh 20215087: Nothing
- 3. Đoàn Quang Minh 20210606: Slide
- 4. Hoàng Nhật Minh 20210607: Nothing

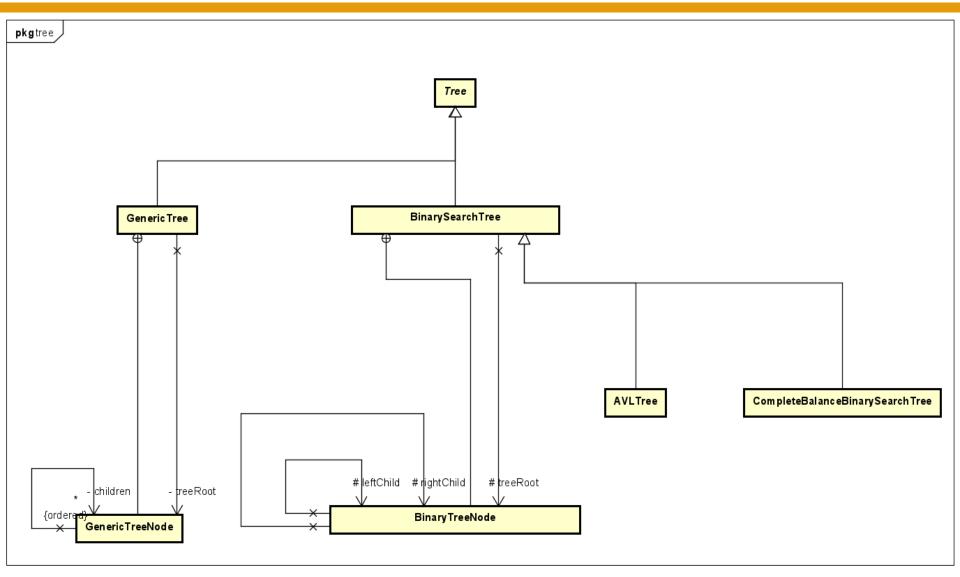
Problem statement

- Tree data structures are interesting and useful, yet not many students can study tree structures that well.
- A tree visualization application can help with that
- Demonstrate step by step of many operations of many types tree.

Use case diagram

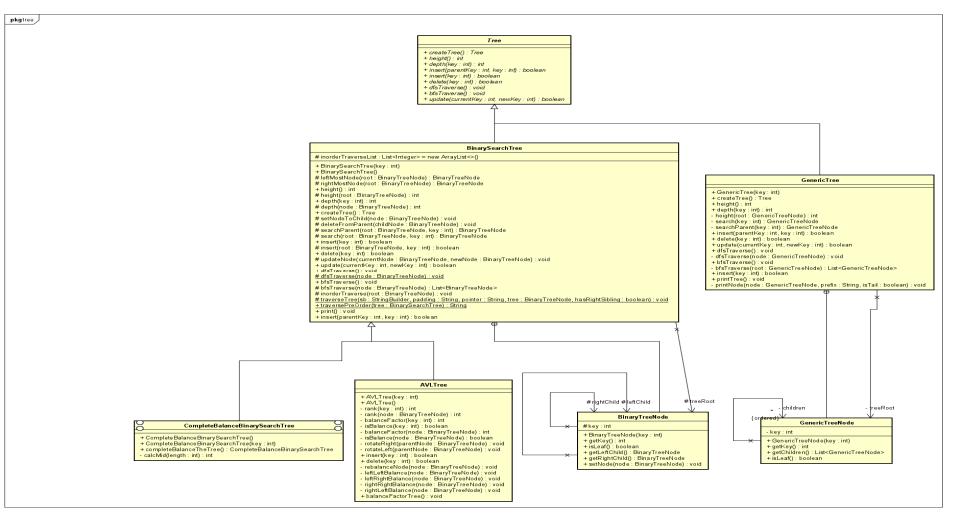


General class diagram





Class diagrams for packages/modules





Inheritance

- GenericTree, BinarySearchTree inherit abstract Tree
- AVLTree, CBBST inherit BinarySearchTree



Abstraction

Abstract Tree class



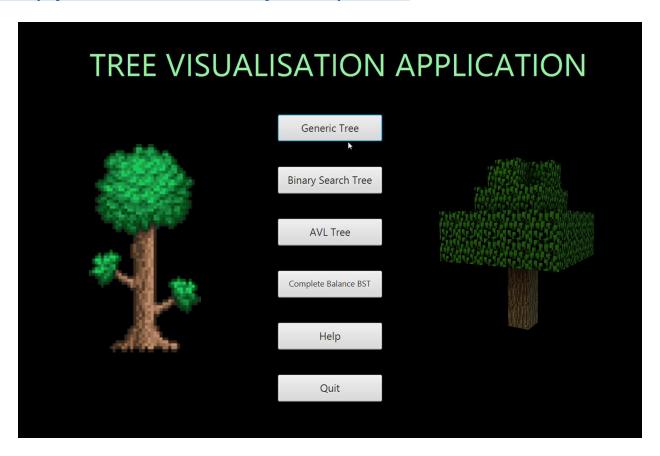
Association/Aggregation/Composition

- GenericTree contains GenericTreeNode (Aggregation)
- BinarySearchTree, AVLTree, CBBST contain BinaryTreeNode (Aggregation)



Demo scenario

https://husteduvn-my.sharepoint.com/:f:/g/personal/minh_lq215088_sis_hust_edu_vn/EmYWON1QnCREr_oOsiEsDZTEByajtv1NTOWhlrd37D0mjHA?e=yA453V







THANK YOU!