📜 Documentation: Genealogy Tree Pro++

🏷️ Project Title

Genealogy Tree Pro++

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📌 Purpose

Genealogy Tree Pro++ is a Java-based web application that allows registered users to create, edit, and interact with family trees. It offers intuitive interfaces for adding family members, validating relationships, and visualizing ancestry data with consistency rules, privacy controls, and a public user directory.

🏛️ Architecture Overview

- **Programming Language:** Java
- **Architecture:** Object-Oriented (OOP)
- **UML Components:** Use Case Diagrams, Class Diagrams, Activity Diagrams, Sequence Diagrams
- **Interface Type:** Console-based for now (extensible to GUI or Web UI)
- **Data Persistence:** Simulated in-memory structures (extendable to database or file)

🔐 Authentication & Access Control

- Access is public for the user directory.
- Private access requires:
    - Private code (sent via email after registration approval)
    - Initial password (default: user’s first name)
    - Password change upon first login

📥 Registration Workflow

1. **Online Application:** User submits:
    - Social security number (or “99” for foreign nationals)
    - Identity details (ID copy + photo)
    - Contact info
2. **Manual Review by Admin**
3. **If Accepted:** User receives:
    - **Public code** (for tree sharing)
    - **Private code** (for login)
4. Immutable fields: name, surname
5. Mutable fields: phone number, email, address

🌳 Family Tree Features

- **If the person is not registered:**
    - Manual entry via simplified form
    - Optional fields: SSN, phone, address
    - Validated by date and relationship consistency
- **If the person is registered:**
    - An email is sent for relationship confirmation
    - Once approved, trees are merged

Data Consistency Rules

- A person cannot have conflicting relationships
- A parent’s birth date must be earlier than their children’s
- Node male parents must be different from the node of female parents
- The tree must be consistent

📝 Who did what ?

- Wiame worked on the Model part of the project especially databases
- Vincent worked on the Interface part of the project (Menus and builders) and also the diagrams
- Abida worked on the schemes and diagrams
- Kevin worked on the Nodes apart of the Interface part and the English documentation of the project