**DESIGN  
 DOCUMENT**

**for**

**Family Tree Generator**

Circle

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**Yunus Tufan Bozkurt - 20140602003**

**Umut Kanpalta - 20150602036**

**Berke Parıldar - 20190602031**

**Ozan Yücel – 20190602043**

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**2. Program Functions and Design**

**2.1 Language and External Tools**

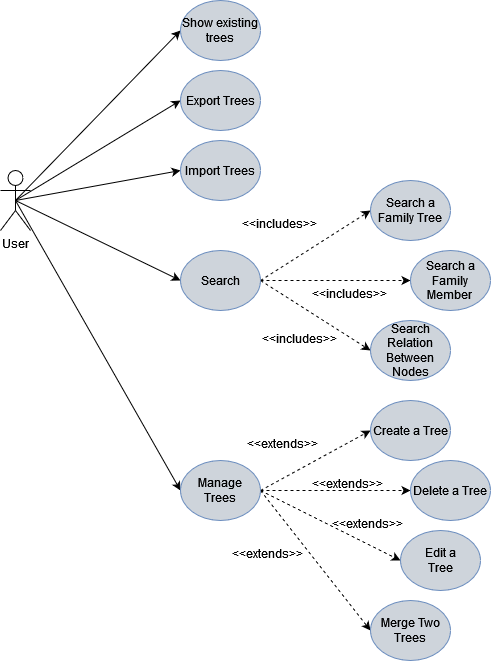
Java will be programming language for this project. Swing will be used as GUI library.

**2.2 Program Capabilities**

User can edit family trees, delete family trees, and export or import a family tree via using File I/O. Program also should be able to merge specific two trees (if there is a node in common), find relation between two person, and search family trees or family members.

**3. Visual Explanations**

**3.1 Use Case Diagram**

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**3.2 Class Diagram**

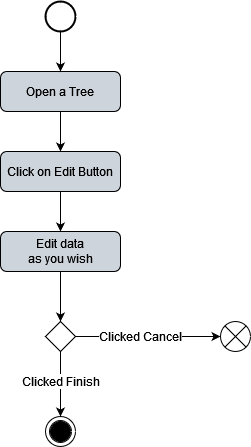
**3.3 Activity Diagrams**

**Create Family Tree Activity Diagram**

**Application

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**Delete Family Tree Activity Diagram**

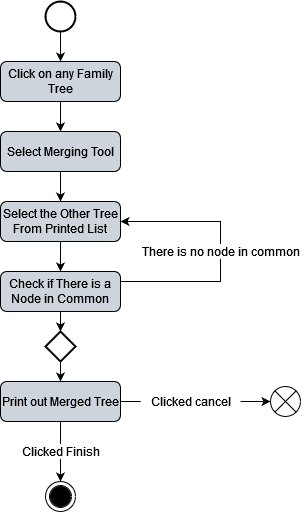
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**Edit Family Tree Activity Diagram**

**Graphical user interface

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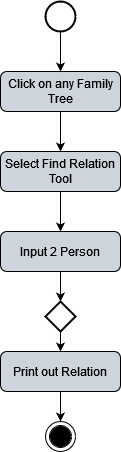
**Merge Family Trees Activity Diagram**

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**Open Family Tree Activity Diagram**

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**Relation Finding Activity Diagram**

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**3.4 Sequence Diagrams**

**Create Family Tree Sequence Diagram**

**Diagram

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**Delete Family Tree Sequence Diagram**

**Text

Description automatically generated**

**Save Family Tree Sequence Diagram**

**Diagram

Description automatically generated**

**Load Family Tree Sequence Diagram**

**A picture containing text

Description automatically generated**