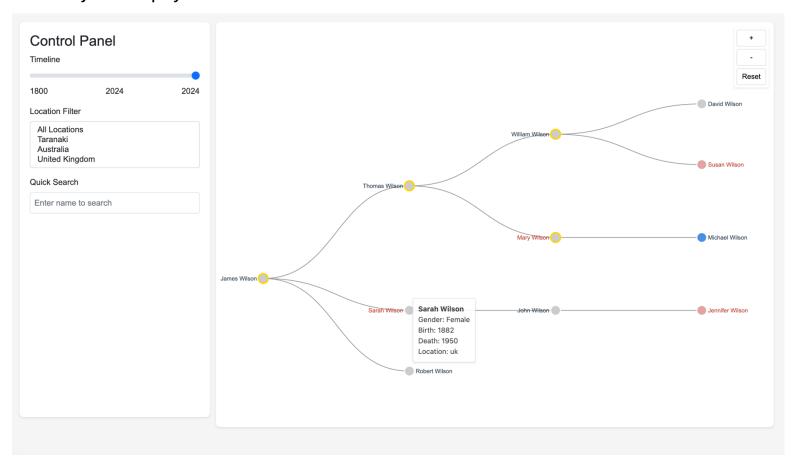
## **Assignment 3: Representing Relationships**

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## 1. System Display



## 2. System Features

- 1. Users can zoom in/out using the +/- buttons or mouse wheel
- 2. Users can identify gender through color coding:
  - Blue nodes represent male family members
  - Pink nodes represent female family members
  - Gray nodes indicate deceased members
  - Green nodes indicate members not yet born (relative to selected year)
- 3. Users can drag the timeline slider to observe family members' survival status
  - Active range: 1800-2024

- Members who died before the selected year appear in gray
- 4. Users can filter family members by location using the dropdown menu:
  - All Locations
  - Taranaki
  - Australia
  - United Kingdom
- 5. Users can search for specific family members using the search box
  - Real-time filtering as you type
  - Highlights matching members
- 6. Users can click on any family member to:
  - Highlight direct relationships
  - Show parents and children
  - Identify siblings and cousins
- 7. Users can hover over nodes to view detailed information:
  - Full name
  - Birth year
  - Death year (if applicable)
  - Current location
- 8. Users can pan the visualization by clicking and dragging
  - Reset button returns to default view
  - zoom level during panning

## 3. Example Demonstrations

1. "Show me all of the first cousins of X"

Example using Michael Wilson:

Click on Michael Wilson's node

System highlights:

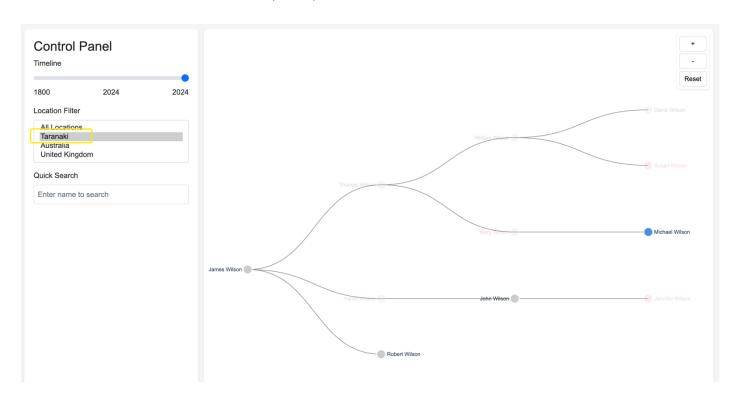
- His parent (Mary Wilson)
- His cousins:
  - David Wilson
  - Susan Wilson
  - Jennifer Wilson



- 2. "Which members of the family were living during the 1914-18 war?"
  - Steps:
    - Move timeline slider to 1914
    - Observe colored (living) nodes:
      - Thomas Wilson (1880-1940)
      - Sarah Wilson (1882-1950)
      - Robert Wilson (1885-1960)
      - Elizabeth Brown (1905-1980)
      - William Wilson (1910-1970)
      - Mary Wilson (1912-1990)
      - John Wilson (1915-2000)



- 3. "Which members of the family ever lived in Taranaki?"
  - Steps:
    - Select "Taranaki" from location filter
    - System highlights:
      - James Wilson (1850-1910)
      - Robert Wilson (1885-1960)
      - John Wilson (1915-2000)
      - Michael Wilson (1945-)



4. "Does X have any cousins in Australia?"

Example using Michael Wilson:

- Click on Michael Wilson's node
- Select "Australia" from location filter
- System shows:

His cousin David Wilson lives in Australia

Relationship path:

Michael Wilson  $\rightarrow$  Mary Wilson (mother)  $\rightarrow$  Thomas Wilson (grandfather)  $\rightarrow$  William Wilson (uncle)  $\rightarrow$  David Wilson (cousin)

