Datum parser

Familial Relationships

# One:One datums

### Simplistic familial relationships

Father, mother, child, son, daughter, sister, brother, twin, wife, husband

“Marries”?

|  |  |  |  |
| --- | --- | --- | --- |
| Initial Operation | Ext. condition 1 | Ext. condition 2 | Reversal |
| X is father/mother of Y | Y is female | - | Y is daughter of X |
| X is father/mother of Y | Y is male | - | Y is son of X |
| X is child of Y | Y is female | - | Y is mother of X |
| X is child of Y | Y is male | - | Y is father of X |
| X is son/daughter of Y | Y is female | - | Y is mother of X |
| X is son/daughter of Y | Y is male | - | Y is father of X |
| X is sister/brother of Y | Y is female | - | Y is sister of X |
| X is sister/brother of Y | Y is male | - | Y is brother of X |
| X is twin of Y | - | - | Y is twin of X |
| X is wife/husband of Y | Y is female | - | Y is wife of X |
| X is wife/husband of Y | Y is male | - | Y is husband of X |

### Multi-tiered familial relationships

Grandfather, grandmother, grandson, granddaughter, uncle, aunt

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Initial Operation | Ext. condition 1 | Ext. condition 2 | Ext. condition 3 | Reversal |
| X is grandfather/grandmother of Y | Has son/daughter/child | Son/daughter/child has son | - | Y is grandson of X |
| X is grandfather/grandmother of Y | Has son/daughter/child | Son/daughter/child has daughter | - | Y is granddaughter of X |
| X is daughter of Y is daughter/son of Z | Z is female | - | - | X is granddaughter of Z  Z is grandmother of X |
| X is daughter of Y is daughter/son of Z | Z is male | - | - | X is granddaughter of Z  Z is grandfather of X |
| X is son of Y is daughter/son of Z | Z is female | - | - | X is grandson of Z  Z is grandmother of X |
| X is son of Y is daughter/son of Z | Z is male | - | - | X is grandson of Z  Z is grandfather of Y |
| X is aunt/uncle of Y | Y is male | - | - | Y is nephew of X??? |
| X is aunt/uncle of Y | Y is female | - | - | Y is niece of X??? |
| X is sister of Y, Z is daughter of Y | - | - | - | X is aunt of Y  Z is niece of X |
| X is brother of Y, Z is daughter of Y | - | - | - | X is uncle of Y  Z is niece of X |
| X is sister of Y, Z is son of Y | - | - | - | X is aunt of Y  Z is nephew of X |
| X is brother of Y, Z is son of Y | - | - | - | X is uncle of Y  Z is nephew of X |

### Complex familial relationships

Divine father, mother by parthenogenesis, marries(?), descendant of, claimed as ancestor of

### Roles and non-familial relationships

Slave, companion, guardian, divine patron, nurse

Ask Greta

### Comparative relationships

Is older than, contemporary of, compared to???

Ask Greta

# Many:Many, 1:Many, Many:1

For 1:Many, Many:1, Many:Many datums, could split the X and Y into an array of X’s and array of Y’s, and treat each connection as 1:1

[X1,X2,X3,…] is son of [Y1,Y2]

## For genealogical chart & consistency

[X1] is son of [Y1]

[X1] is son of [Y2]

[X2] is son of [Y1]

[X2] is son of [Y2]

[X3] is son of [Y1]

…

**Cartesian product**

## For data cards

Require reversal:

If Y1 is male

[Y1] is father of [X1]

[Y1] is father of [X2]

…

If Y2 is female

[Y2] is mother of [X1]

Where would I store all this parsed information?

Address duplicates

How to make the searches more efficient?

**Graph formats** – GraphML

Create an initial inefficient solution and improve efficiency later on (optimization)

Premature optimization is the root of all evil???? – Don Knuth