An example ontology

You can find many ontology examples from OWL Reasoning Examples and Hands-On Session.

OWL 2 family ontology

- Classes:
  - Our domain has a top concept called Person.
  - Female is a person.
  - Male is not a female person.
  - No element belongs to both male, and female.
  - Person with at least two male children.
  - Person with at least two female children.
  - Person with exactly two children.
  - A male is married to a female.
  - A female is married to a male.
  - Child is a person who has age at most 10. (not inclusive).
  - Teenager is a person between 13 and 19.
  - Teens are neither children nor adult.
  - Adults are persons who have age over 18 or above.
  - Seniors are persons . . .
  - Family members are only grandfather, grandmother, uncle, father, mother, son and daughter.

- Roles:
  - Everybody has a father.
  - Everybody has a mother.
  - Everybody has at most two parents.
  - Everybody has an age.
  - Everybody is married to at most one .
  - All ancestors of ancestors are ancestors.
  - Has descendant is the inverse of has ancestor.
  - Has parent is a has ancestor.
  - Has father is functional and is a parent. Range of has father is fathers.
  - Has mother is functional and is a parent. Range of has mother is mothers.
  - Has is a has child.
  - Has daughter is a has child.
  - Has sibling is symmetric and irreflexive.
– Has sister is a sibling. Only females are sisters.
– Has child is the inverse of has parent.
– Likes and dislikes does not contain relations in common.
– Has age is functional.
– Grater than 65.
– the parent’s brother is the uncle.

• Individuals: (A-Box)
  – Grandfather, grandmother, uncle, father, mother, son and daughter are persons. They are all different.
  – Grandfather is 66, has son father and is married to grandmother.
  – Father is 38, has mother grandmother, has son son, has brother uncle, likes personX, and dislike personY and personZ.
  – Uncle is a male.
  – Mother has child daughter.
  – Son is 17 and has sister daughter.
  – Daughter is 9 and has parent father.
  – PersonX is a person.
  – PersonY is a person and is married to personZ.
  – personZ is a person.