```
<?xml version="1.0"?>
<!DOCTYPE rdf:RDF [</pre>
   <!ENTITY owl "http://www.w3.org/2002/07/owl#" >
   <!ENTITY swrl "http://www.w3.org/2003/11/swrl#" >
   <!ENTITY swrlb "http://www.w3.org/2003/11/swrlb#" >
   <!ENTITY xsd "http://www.w3.org/2001/XMLSchema#" >
   <!ENTITY rdfs "http://www.w3.org/2000/01/rdf-schema#" >
   <!ENTITY rdf "http://www.w3.org/1999/02/22-rdf-syntax-ns#" >
] >
<rdf:RDF xmlns="http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#"</pre>
    xml:base="http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto"
    xmlns:rdfs="http://www.w3.org/2000/01/rdf-schema#"
    xmlns:swrl="http://www.w3.org/2003/11/swrl#"
    xmlns:owl="http://www.w3.org/2002/07/owl#"
    xmlns:xsd="http://www.w3.org/2001/XMLSchema#"
    xmlns:swrlb="http://www.w3.org/2003/11/swrlb#"
    xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#">
   <owl:Ontology rdf:about="http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto"/>
   <!--
   // Object Properties
   //
   <!-- http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#isAncestor -->
   <owl:ObjectProperty</pre>
   rdf:about="http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#isAncestor"/>
   <!-- http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#isParent -->
   <owl:ObjectProperty</pre>
   rdf:about="http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#isParent">
      rdf:resource="http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#Parent"/>
   </owl:ObjectProperty>
   // Data properties
```

```
//
-->
<!-- http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#gender -->
<owl:DatatypeProperty</pre>
rdf:about="http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#gender">
   <rdfs:range>
      <rdfs:Datatype>
         <owl:oneOf>
             <rdf:Description>
                <rdf:type rdf:resource="&rdf;List"/>
                <rdf:first>female</rdf:first>
                <rdf:rest>
                   <rdf:Description>
                      <rdf:type rdf:resource="&rdf;List"/>
                      <rdf:first>male</rdf:first>
                       <rdf:rest rdf:resource="&rdf;nil"/>
                   </rdf:Description>
                </rdf:rest>
             </rdf:Description>
         </owl:oneOf>
      </rdfs:Datatype>
   </rdfs:range>
</owl:DatatypeProperty>
//
// Classes
-->
<!-- http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#Ancestor -->
<owl:Class
rdf:about="http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#Ancestor">
   <rdfs:subClassOf
   rdf:resource="http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#Person"/>
</owl:Class>
<!-- http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#Father -->
<owl:Class
rdf:about="http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#Father">
```

```
<rdfs:subClassOf
   rdf:resource="http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#Parent"/>
</owl:Class>
<!-- http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#Mother -->
<owl:Class
rdf:about="http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#Mother">
   <rdfs:subClassOf
   rdf:resource="http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#Parent"/>
</owl:Class>
<!-- http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#Parent -->
<owl:Class
rdf:about="http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#Parent">
   <rdfs:subClassOf
   rdf:resource="http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#Person"/>
</owl:Class>
<!-- http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#Person -->
<owl:Class
rdf:about="http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#Person"/>
<!--
// Individuals
-->
<!-- http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#doris -->
<owl:NamedIndividual</pre>
rdf:about="http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#doris">
   rdf:resource="http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#Person"/>
   <gender rdf:datatype="&xsd;string">female</gender>
   rdf:resource="http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#hans"/>
</owl:NamedIndividual>
```

```
<!-- http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#hans -->
<owl:NamedIndividual</pre>
rdf:about="http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#hans">
    <rdf:type
    rdf:resource="http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#Person"/>
    <gender rdf:datatype="&xsd;string">male</gender>
    rdf:resource="http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#lisa"/>
</owl:NamedIndividual>
<!-- http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#lisa -->
<owl:NamedIndividual</pre>
rdf:about="http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#lisa">
    rdf:resource="http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#Person"/>
    <gender>female
    <isParent</pre>
    rdf:resource="http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#luca"/>
    rdf:resource="http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#tea"/>
</owl:NamedIndividual>
<!-- http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#luca -->
<owl:NamedIndividual</pre>
rdf:about="http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#luca">
    <rdf:type
    rdf:resource="http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#Person"/>
    <gender>male</gender>
</owl:NamedIndividual>
<!-- http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#madita -->
<owl:NamedIndividual</pre>
rdf:about="http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#madita">
    rdf:resource="http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#Person"/>
    <gender>female
    <isParent
    rdf:resource="http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#lisa"/>
</owl:NamedIndividual>
<!-- http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#max -->
<owl:NamedIndividual</pre>
rdf:about="http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#max">
    <rdf:type
```

```
rdf:resource="http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#Person"/>
   <gender>male</gender>
   <isParent
   rdf:resource="http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#luca"/>
   rdf:resource="http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#tea"/>
</owl:NamedIndividual>
<!-- http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#tea -->
<owl:NamedIndividual</pre>
rdf:about="http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#tea">
   <rdf:type
   rdf:resource="http://www.semanticweb.org/mira/ontologies/2014/9/FamilyOnto#Person"/>
   <gender>female
</owl:NamedIndividual>
<!--
// Rules
//
-->
<rdf:Description rdf:about="urn:swrl#f">
   <rdf:type rdf:resource="&swrl; Variable"/>
</rdf:Description>
<rdf:Description rdf:about="urn:swrl#x">
   <rdf:type rdf:resource="&swrl; Variable"/>
</rdf:Description>
<rdf:Description rdf:about="urn:swrl#a">
   <rdf:type rdf:resource="&swrl; Variable"/>
</rdf:Description>
<rdf:Description rdf:about="urn:swrl#c">
   <rdf:type rdf:resource="&swrl; Variable"/>
</rdf:Description>
<rdf:Description rdf:about="urn:swrl#m">
   <rdf:type rdf:resource="&swrl; Variable"/>
</rdf:Description>
<rdf:Description>
   <rdf:type rdf:resource="&swrl;Imp"/>
   <swrl:body>
       <rdf:Description>
           <rdf:type rdf:resource="&swrl;AtomList"/>
          <rdf:rest>
              <rdf:Description>
                  <rdf:type rdf:resource="&swrl;AtomList"/>
                  <rdf:rest rdf:resource="&rdf;nil"/>
                  <rdf:first>
                     <rdf:Description>
                         <rdf:type rdf:resource="&swrl;IndividualPropertyAtom"/>
                         <swrl:propertyPredicate</pre>
```

```
rdf:resource="http://www.semanticweb.org/mira/ontologies/2014/
                             9/FamilyOnto#isParent"/>
                             <swrl:argument1 rdf:resource="urn:swrl#a"/>
                             <swrl:argument2 rdf:resource="urn:swrl#x"/>
                         </rdf:Description>
                    </rdf:first>
                </rdf:Description>
            </rdf:rest>
            <rdf:first>
                <rdf:Description>
                    <rdf:type rdf:resource="&swrl;ClassAtom"/>
                    <swrl:classPredicate</pre>
                    rdf:resource="http://www.semanticweb.org/mira/ontologies/2014/9/Family
                    Onto#Person"/>
                    <swrl:argument1 rdf:resource="urn:swrl#a"/>
                </rdf:Description>
            </rdf:first>
        </rdf:Description>
    </swrl:body>
    <swrl:head>
        <rdf:Description>
            <rdf:type rdf:resource="&swrl;AtomList"/>
            <rdf:rest rdf:resource="&rdf;nil"/>
            <rdf:first>
                <rdf:Description>
                    <rdf:type rdf:resource="&swrl;IndividualPropertyAtom"/>
                    <swrl:propertyPredicate</pre>
                    rdf:resource="http://www.semanticweb.org/mira/ontologies/2014/9/Family
                    Onto#isAncestor"/>
                    <swrl:argument1 rdf:resource="urn:swrl#a"/>
                     <swrl:argument2 rdf:resource="urn:swrl#x"/>
                </rdf:Description>
            </rdf:first>
        </rdf:Description>
    </swrl:head>
</rdf:Description>
<rdf:Description>
    <rdf:type rdf:resource="&swrl;Imp"/>
    <swrl:body>
        <rdf:Description>
            <rdf:type rdf:resource="&swrl;AtomList"/>
            <rdf:rest>
                <rdf:Description>
                    <rdf:type rdf:resource="&swrl;AtomList"/>
                    <rdf:rest rdf:resource="&rdf;nil"/>
                    <rdf:first>
                         <rdf:Description>
                             <rdf:type rdf:resource="&swrl;IndividualPropertyAtom"/>
                             <swrl:propertyPredicate</pre>
                            rdf:resource="http://www.semanticweb.org/mira/ontologies/2014/
                             9/FamilyOnto#isAncestor"/>
                             <swrl:argument2 rdf:resource="urn:swrl#c"/>
                             <swrl:argument1 rdf:resource="urn:swrl#x"/>
                         </rdf:Description>
                    </rdf:first>
                </rdf:Description>
            </rdf:rest>
```

```
<rdf:first>
                <rdf:Description>
                    <rdf:type rdf:resource="&swrl;IndividualPropertyAtom"/>
                    <swrl:propertyPredicate</pre>
                    rdf:resource="http://www.semanticweb.org/mira/ontologies/2014/9/Family
                    Onto#isParent"/>
                    <swrl:argument1 rdf:resource="urn:swrl#a"/>
                     <swrl:argument2 rdf:resource="urn:swrl#x"/>
                </rdf:Description>
            </rdf:first>
        </rdf:Description>
    </swrl:body>
    <swrl:head>
        <rdf:Description>
            <rdf:type rdf:resource="&swrl;AtomList"/>
            <rdf:rest rdf:resource="&rdf;nil"/>
            <rdf:first>
                <rdf:Description>
                     <rdf:type rdf:resource="&swrl;IndividualPropertyAtom"/>
                    <swrl:propertyPredicate</pre>
                    rdf:resource="http://www.semanticweb.org/mira/ontologies/2014/9/Family
                    Onto#isAncestor"/>
                    <swrl:argument1 rdf:resource="urn:swrl#a"/>
                     <swrl:argument2 rdf:resource="urn:swrl#c"/>
                </rdf:Description>
            </rdf:first>
        </rdf:Description>
    </swrl:head>
</rdf:Description>
<rdf:Description>
    <rdf:type rdf:resource="&swrl;Imp"/>
    <swrl:head>
        <rdf:Description>
            <rdf:type rdf:resource="&swrl;AtomList"/>
            <rdf:rest rdf:resource="&rdf;nil"/>
            <rdf:first>
                <rdf:Description>
                    <rdf:type rdf:resource="&swrl;ClassAtom"/>
                    <swrl:classPredicate</pre>
                    rdf:resource="http://www.semanticweb.org/mira/ontologies/2014/9/Family
                    Onto#Ancestor"/>
                     <swrl:argument1 rdf:resource="urn:swrl#a"/>
                </rdf:Description>
            </rdf:first>
        </rdf:Description>
    </swrl:head>
    <swrl:body>
        <rdf:Description>
            <rdf:type rdf:resource="&swrl;AtomList"/>
            <rdf:rest>
                <rdf:Description>
                    <rdf:type rdf:resource="&swrl;AtomList"/>
                    <rdf:rest rdf:resource="&rdf;nil"/>
                    <rdf:first>
                         <rdf:Description>
                             <rdf:type rdf:resource="&swrl;ClassAtom"/>
                             <swrl:classPredicate</pre>
```

```
rdf:resource="http://www.semanticweb.org/mira/ontologies/2014/
                             9/FamilyOnto#Person"/>
                             <swrl:argument1 rdf:resource="urn:swrl#a"/>
                         </rdf:Description>
                    </rdf:first>
                </rdf:Description>
            </rdf:rest>
            <rdf:first>
                <rdf:Description>
                    <rdf:type rdf:resource="&swrl;IndividualPropertyAtom"/>
                    <swrl:propertyPredicate</pre>
                    rdf:resource="http://www.semanticweb.org/mira/ontologies/2014/9/Family
                    Onto#isAncestor"/>
                    <swrl:argument1 rdf:resource="urn:swrl#a"/>
                    <swrl:argument2 rdf:resource="urn:swrl#x"/>
                </rdf:Description>
            </rdf:first>
        </rdf:Description>
    </swrl:body>
</rdf:Description>
<rdf:Description>
    <rdf:type rdf:resource="&swrl;Imp"/>
    <swrl:head>
        <rdf:Description>
            <rdf:type rdf:resource="&swrl;AtomList"/>
            <rdf:rest rdf:resource="&rdf;nil"/>
            <rdf:first>
                <rdf:Description>
                    <rdf:type rdf:resource="&swrl;ClassAtom"/>
                    <swrl:classPredicate</pre>
                    rdf:resource="http://www.semanticweb.org/mira/ontologies/2014/9/Family
                    Onto#Mother"/>
                    <swrl:argument1 rdf:resource="urn:swrl#m"/>
                </rdf:Description>
            </rdf:first>
        </rdf:Description>
    </swrl:head>
    <swrl:body>
        <rdf:Description>
            <rdf:type rdf:resource="&swrl;AtomList"/>
            <rdf:first>
                <rdf:Description>
                    <rdf:type rdf:resource="&swrl;ClassAtom"/>
                    <swrl:classPredicate</pre>
                    rdf:resource="http://www.semanticweb.org/mira/ontologies/2014/9/Family
                    Onto#Person"/>
                    <swrl:argument1 rdf:resource="urn:swrl#m"/>
                </rdf:Description>
            </rdf:first>
            <rdf:rest>
                <rdf:Description>
                    <rdf:type rdf:resource="&swrl;AtomList"/>
                    <rdf:rest>
                         <rdf:Description>
                             <rdf:type rdf:resource="&swrl;AtomList"/>
                             <rdf:rest rdf:resource="&rdf;nil"/>
                             <rdf:first>
```

```
<rdf:Description>
                                     <rdf:type
                                     rdf:resource="&swrl;DatavaluedPropertyAtom"/>
                                     <swrl:argument2>female</swrl:argument2>
                                     <swrl:propertyPredicate</pre>
                                     rdf:resource="http://www.semanticweb.org/mira/ontologi
                                     es/2014/9/FamilyOnto#gender"/>
                                     <swrl:argument1 rdf:resource="urn:swrl#m"/>
                                 </rdf:Description>
                             </rdf:first>
                         </rdf:Description>
                    </rdf:rest>
                    <rdf:first>
                        <rdf:Description>
                             <rdf:type rdf:resource="&swrl;IndividualPropertyAtom"/>
                             <swrl:propertyPredicate</pre>
                             rdf:resource="http://www.semanticweb.org/mira/ontologies/2014/
                             9/FamilyOnto#isParent"/>
                             <swrl:argument1 rdf:resource="urn:swrl#m"/>
                             <swrl:argument2 rdf:resource="urn:swrl#x"/>
                         </rdf:Description>
                     </rdf:first>
                </rdf:Description>
            </rdf:rest>
        </rdf:Description>
    </swrl:body>
</rdf:Description>
<rdf:Description>
    <rdf:type rdf:resource="&swrl;Imp"/>
    <swrl:head>
        <rdf:Description>
            <rdf:type rdf:resource="&swrl;AtomList"/>
            <rdf:rest rdf:resource="&rdf;nil"/>
            <rdf:first>
                <rdf:Description>
                    <rdf:type rdf:resource="&swrl;ClassAtom"/>
                    <swrl:classPredicate</pre>
                    rdf:resource="http://www.semanticweb.org/mira/ontologies/2014/9/Family
                    Onto#Father"/>
                     <swrl:argument1 rdf:resource="urn:swrl#f"/>
                </rdf:Description>
            </rdf:first>
        </rdf:Description>
    </swrl:head>
    <swrl:body>
        <rdf:Description>
            <rdf:type rdf:resource="&swrl;AtomList"/>
            <rdf:rest>
                <rdf:Description>
                    <rdf:type rdf:resource="&swrl;AtomList"/>
                    <rdf:first>
                         <rdf:Description>
                             <rdf:type rdf:resource="&swrl;IndividualPropertyAtom"/>
                             <swrl:propertyPredicate</pre>
                             rdf:resource="http://www.semanticweb.org/mira/ontologies/2014/
                             9/FamilyOnto#isParent"/>
                             <swrl:argument1 rdf:resource="urn:swrl#f"/>
```

```
<swrl:argument2 rdf:resource="urn:swrl#x"/>
                             </rdf:Description>
                        </rdf:first>
                        <rdf:rest>
                            <rdf:Description>
                                 <rdf:type rdf:resource="&swrl;AtomList"/>
                                 <rdf:rest rdf:resource="&rdf;nil"/>
                                 <rdf:first>
                                     <rdf:Description>
                                         <rdf:type
                                         rdf:resource="&swrl;DatavaluedPropertyAtom"/>
                                         <swrl:argument2>male</swrl:argument2>
                                         <swrl:propertyPredicate</pre>
                                         rdf:resource="http://www.semanticweb.org/mira/ontologi
                                         es/2014/9/FamilyOnto#gender"/>
                                         <swrl:argument1 rdf:resource="urn:swrl#f"/>
                                     </rdf:Description>
                                 </rdf:first>
                             </rdf:Description>
                        </rdf:rest>
                    </rdf:Description>
                </rdf:rest>
                <rdf:first>
                    <rdf:Description>
                        <rdf:type rdf:resource="&swrl;ClassAtom"/>
                        <swrl:classPredicate</pre>
                        rdf:resource="http://www.semanticweb.org/mira/ontologies/2014/9/Family
                        Onto#Person"/>
                        <swrl:argument1 rdf:resource="urn:swrl#f"/>
                    </rdf:Description>
                </rdf:first>
            </rdf:Description>
        </swrl:body>
    </rdf:Description>
</rdf:RDF>
<!-- Generated by the OWL API (version 3.5.1) http://owlapi.sourceforge.net -->
```