**Programming in CLIPS**

Given a set of facts and rules, use CLIPS to create a knowledge base for the family tree in Figure 1 and then ask queries about the family tree.



**Figure 1: A typical family tree. Lines connect spouses and arrows point to children**

1. Enter the information from this family tree as a set of Prolog facts. Note that the females are Mum, Kydd, Elizabeth, Margaret, Diana, Anne, Sarah, Zara, Beatrice, and Eugenie.
2. Add CLIPS rules that will allow you to infer information for the predicate grandChild, great Grandparent, brother, sister, daughter, son, aunt, uncle, brotherInLaw, sisterInLaw, and firstCousin. The creation of rules for additional predicates is encouraged.
3. Test the CLIPS program by asking it who are Elizabeth’s grandchildren, Diana’s brothers-in-law, and Zara’s great-grandparents. Note, in some cases, it may be impossible to avoid getting the same answer more than once for a query.