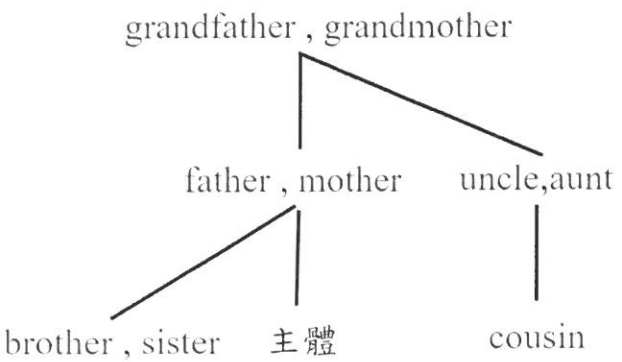
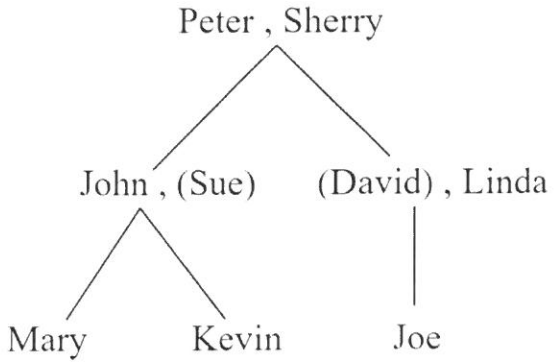
作業#2:推理親屬關係

- 請定義person、parent-children、和pair三個template，並使用deffacts來建立下列的親屬關係
- 請寫出CLIPS的規則來推導下列的親屬關係，輸入任何兩個名字後可以得知此二人之親屬關係（本題只推理平輩以上的關係）

```
(example 11 22 33 44)
會讓以下的規則
(defrule hint
   (example $? ?x $?)
=>
   (assert (data ?x)))
執行4次，產生4個事實
(data 11)
(data 22)
(data 33)
(data 44)
```






```
(deftemplate person (slot name) (slot sex))

(deftemplate parent-children (multislot parent) (multislot children))

(deftemplate pair (slot husband) (slot wife))

(deftemplate query (slot name) (slot subject))

(deffacts initial
   (person (name John) (sex male))
   (person (name Peter) (sex male))
   (person (name David) (sex male))
   (person (name Joe) (sex male))
   (person (name Kevin) (sex male))
   (person (name Mary) (sex female))
   (person (name Sue) (sex female))
   (person (name Linda) (sex female))
   (person (name Sherry) (sex female))
   (pair (husband John) (wife Sue))
   (pair (husband David) (wife Linda))
   (pair (husband Peter) (wife Sherry))
   (parent-children (parent John Sue) (children Mary Kevin))
   (parent-children (parent Peter Sherry) (children John Linda))
   (parent-children (parent David Linda) (children Joe))
   (query (name Mary) (subject Kevin))
   (query (name Sue) (subject Kevin))
   (query (name Peter) (subject Kevin))
   (query (name David) (subject Kevin))
   (query (name Linda) (subject Kevin))
   (query (name Joe) (subject Kevin))
)

(defrule define-brother
   (query (name ?p1) (subject ?p2))
   (or (parent-children (parent $?)
                        (children  $? ?p1 $? ?p2 $?))
       (parent-children (parent $?)
                        (children $? ?p2 $? ?p1 $?)))
   (person (name ?p1) (sex male))
   =>
   (printout t ?p1 " is " ?p2 "'s brother." crlf))
```