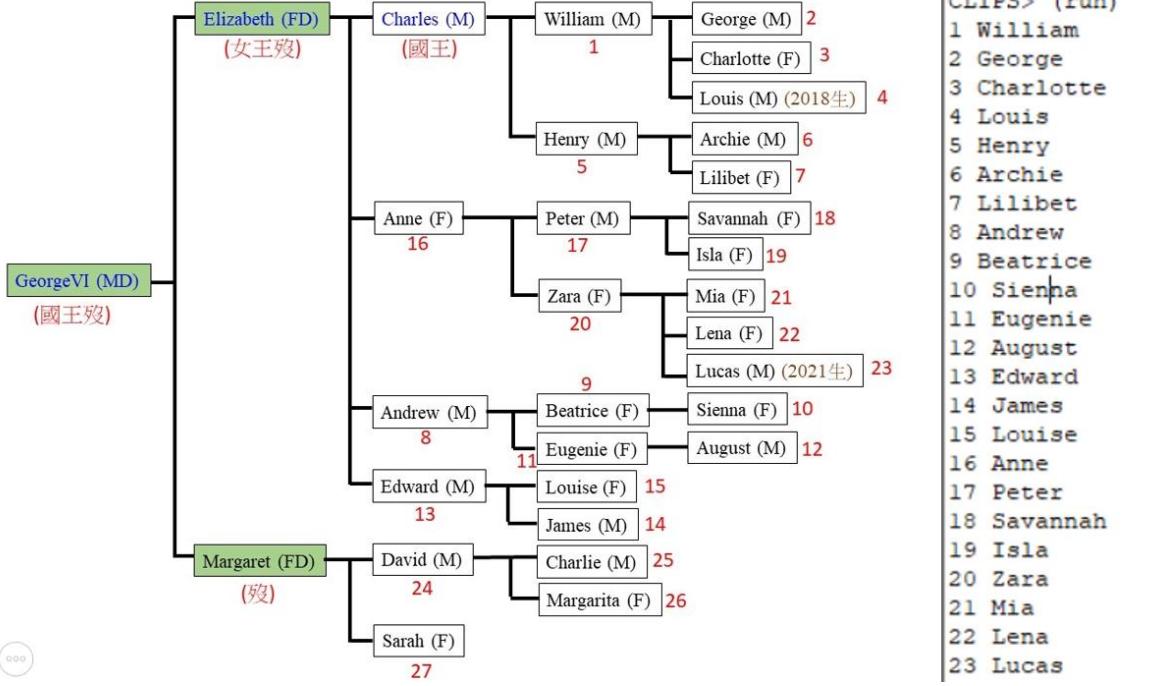


英國1533年制訂王位繼承法，兒子的繼承優先權一直都在女兒之前。一直到2013修正案才改為2013年以後出生無論男女都擁有同等繼承權，修改前的繼承優先規則如下：

- (1) 國王兒子(由長至幼)及其直屬血親。
- (2) 國王女兒(由長至幼)及其直屬血親。
- (3) 國王兄弟(由長至幼)及其直屬血親。
- (4) 國王姊妹(由長至幼)及其直屬血親。

● 當2022年查爾斯繼位為國王後，前27順位的王位繼承順序如下圖，已死亡者無繼承權，但其直屬血親仍有繼承權，直屬血親可有很多代。假設沒有2013修正案，則Charlotte的繼承順序將下降為4，而Louis上升為3。同樣的，Mia和Lena將下降為22和23，而Lucas則上升為21。為簡化程式，王位繼承順序範圍只計算到國王親兄弟姊妹的直屬血親，亦即下圖中的24~27順位不用輸出。

● 請到雲端學院下載inheritance_1~3.txt，輸出符合2013修正案的王位繼承順序。



作業#10

(deftemplate relative (slot parent) (multislot child))

(deftemplate person (slot name) (slot gender) (slot alive) (slot after2013))

(deftemplate inheritance (multislot priority))

(load-facts "inheritance_1.txt") 可載入
inheritance_1.txt 檔案中資料並 assert facts

(king-or-queen Charles)

(relative (parent GeorgeVI) (child Elizabeth Margaret))
(relative (parent Elizabeth) (child Charles Anne Andrew Edward))
(relative (parent Charles) (child William Henry))
(relative (parent William) (child George Charlotte Louis))
(relative (parent Henry) (child Archie Lilibet))
(relative (parent Anne) (child Peter Zara))
(relative (parent Peter) (child Savannah Isla))
(relative (parent Zara) (child Mia Lena Lucas))
(relative (parent Andrew) (child Beatrice Eugenie))
(relative (parent Beatrice) (child Sienna))
(relative (parent Eugenie) (child August))
(relative (parent Edward) (child Louise James))
(relative (parent Margaret) (child David Sarah))
(relative (parent David) (child Charlie Margarita))
(person (name GeorgeVI) (gender M) (alive no) (after2013 no))
(person (name Elizabeth) (gender F) (alive no) (after2013 no))
(person (name Margaret) (gender F) (alive no) (after2013 no))
(person (name Charles) (gender M) (alive yes) (after2013 no))
(person (name Anne) (gender F) (alive yes) (after2013 no))
(person (name Andrew) (gender M) (alive yes) (after2013 no))
(person (name Edward) (gender M) (alive yes) (after2013 no))
(person (name William) (gender M) (alive yes) (after2013 no))
(person (name Henry) (gender M) (alive yes) (after2013 no))
(person (name George) (gender M) (alive yes) (after2013 no))

調整2013年之前的同輩男性順序優先於女性

產生要處理的優先順序，國王在前，兄弟姊妹在後

優先順序中的每個人，放入其子女到後面

死亡的人沒有繼承權，國王也要拿掉

最後，印出繼承權優先順序

(person (name Charlotte) (gender F) (alive yes) (after2013 no))
(person (name Louis) (gender M) (alive yes) (after2013 yes))
(person (name Archie) (gender M) (alive yes) (after2013 no))
(person (name Lilibet) (gender F) (alive yes) (after2013 no))
(person (name Peter) (gender M) (alive yes) (after2013 no))
(person (name Zara) (gender F) (alive yes) (after2013 no))
(person (name Savannah) (gender F) (alive yes) (after2013 no))
(person (name Isla) (gender F) (alive yes) (after2013 no))
(person (name Mia) (gender F) (alive yes) (after2013 no))
(person (name Lena) (gender F) (alive yes) (after2013 no))
(person (name Lucas) (gender M) (alive yes) (after2013 yes))
(person (name Beatrice) (gender F) (alive yes) (after2013 no))
(person (name Eugenie) (gender F) (alive yes) (after2013 no))
(person (name Sienna) (gender F) (alive yes) (after2013 no))
(person (name August) (gender M) (alive yes) (after2013 no))
(person (name Louise) (gender F) (alive yes) (after2013 no))
(person (name James) (gender M) (alive yes) (after2013 no))
(person (name David) (gender M) (alive yes) (after2013 no))
(person (name Sarah) (gender F) (alive yes) (after2013 no))
(person (name Charlie) (gender M) (alive yes) (after2013 no))
(person (name Margarita) (gender F) (alive yes) (after2013 no))