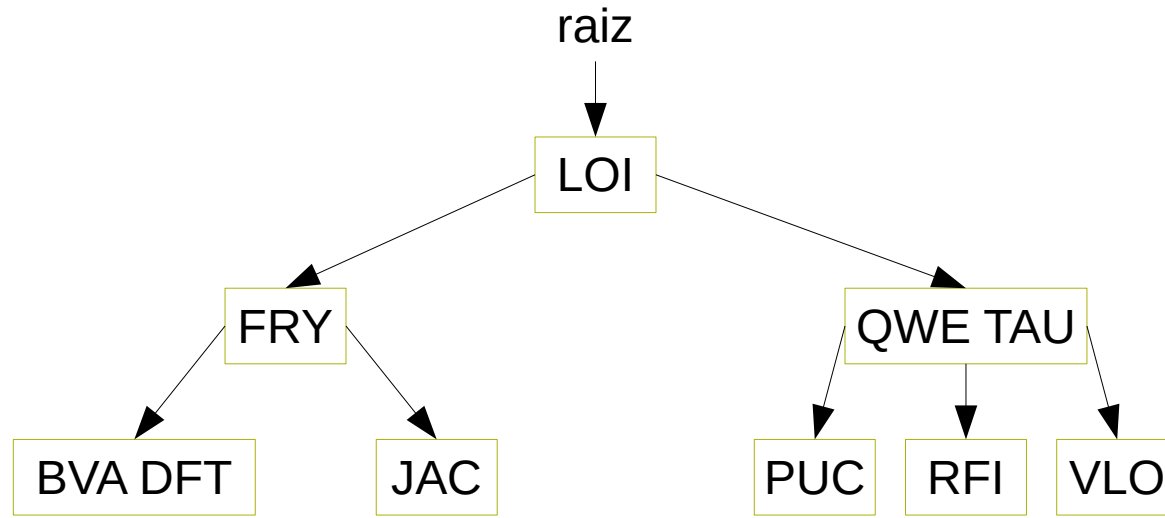
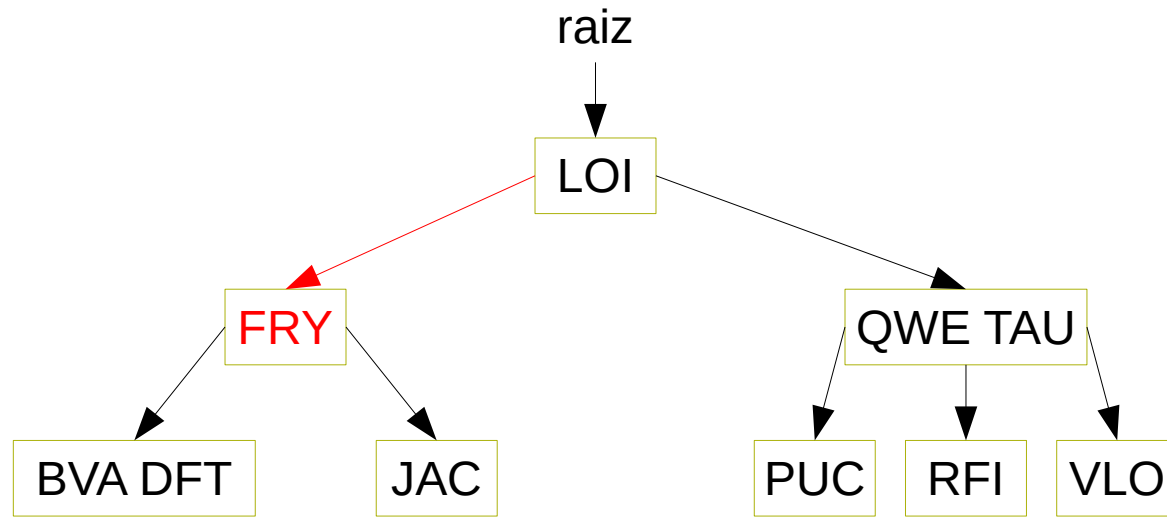


Questão 2 – Árvore 2-3

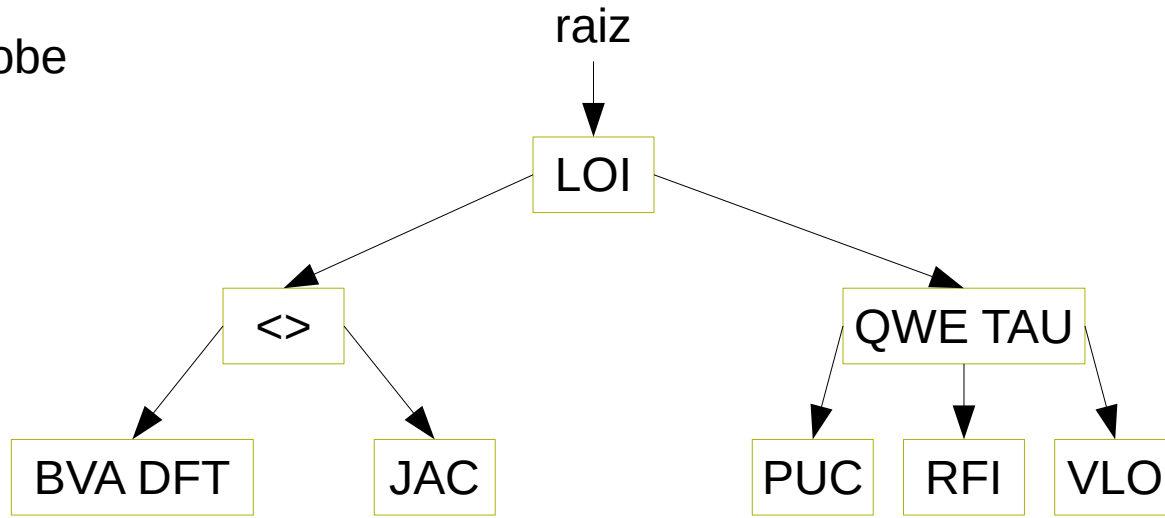


Remover FRY



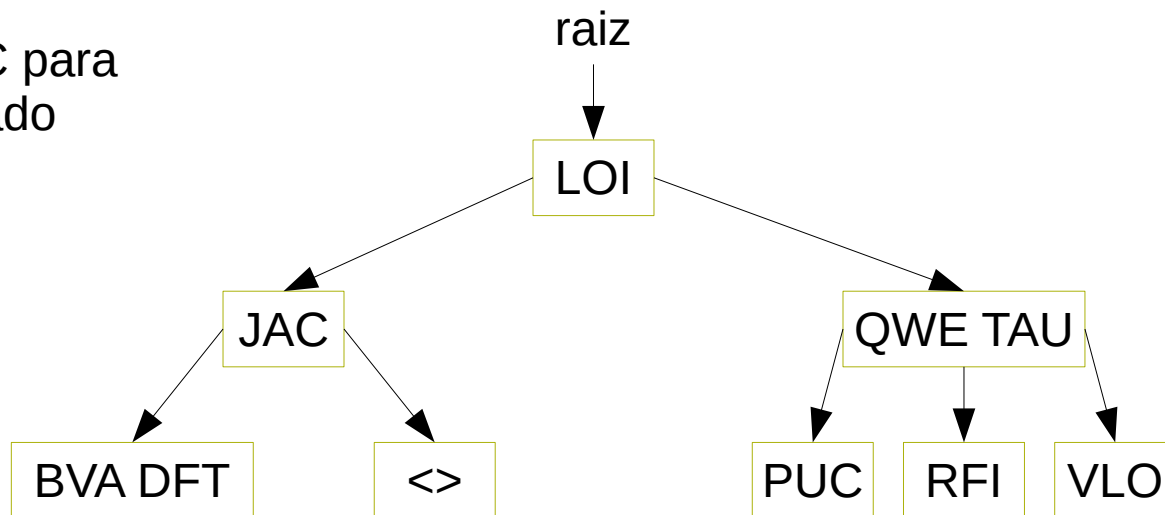
Remover FRY

Sucessor JAC sobe

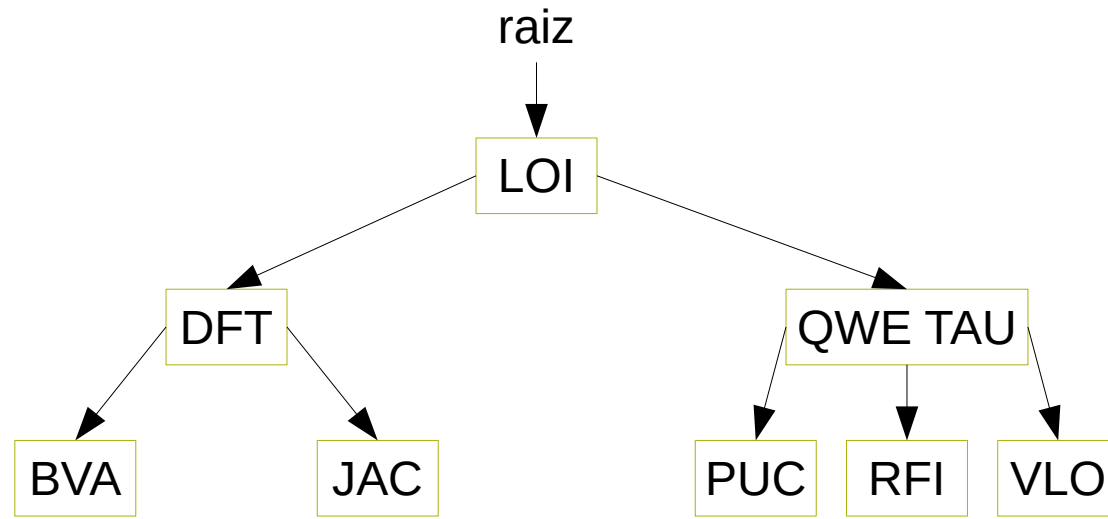


Remover FRY

Rotação em JAC para
manter balanceado



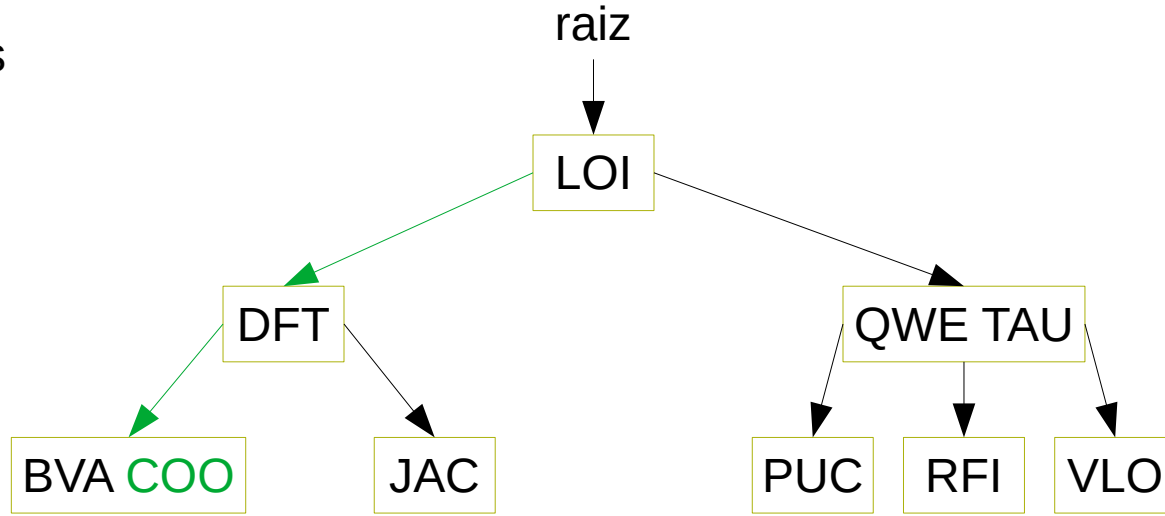
Remover FRY



Inserir COO

Inserção simples

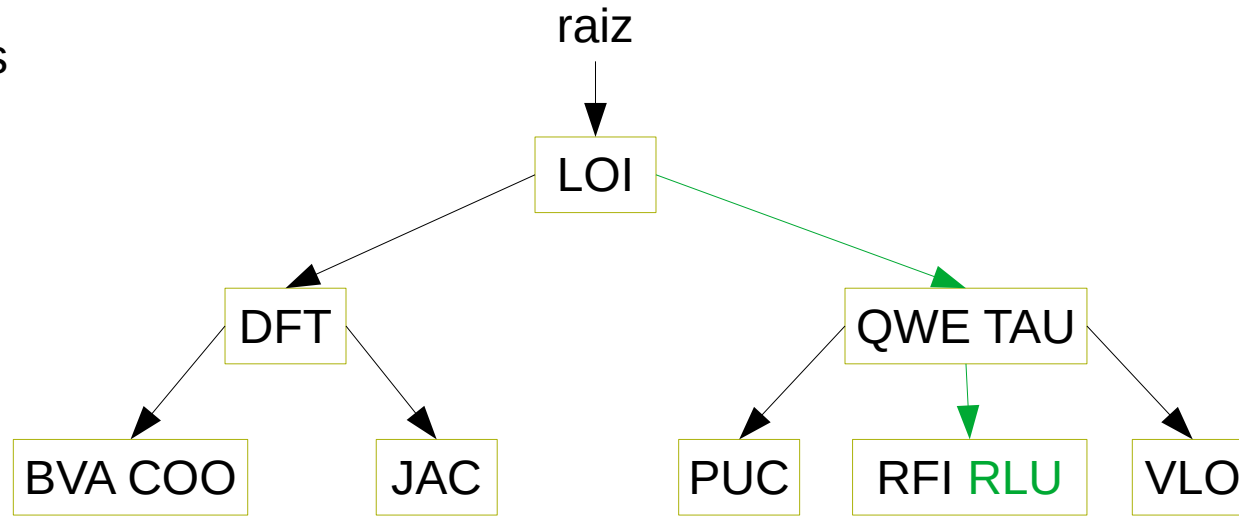
COO < LOI
COO < DFT
COO > BVA



Inserir RLU

Inserção simples

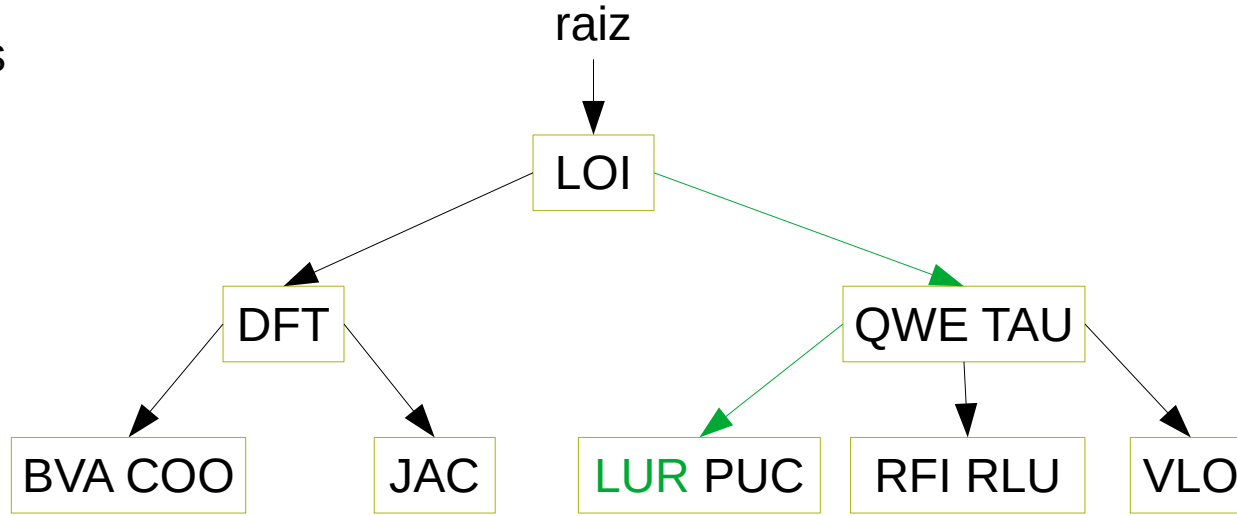
RLU > LOI
RLU > QWE
RLU < TAU
RLU > RFI



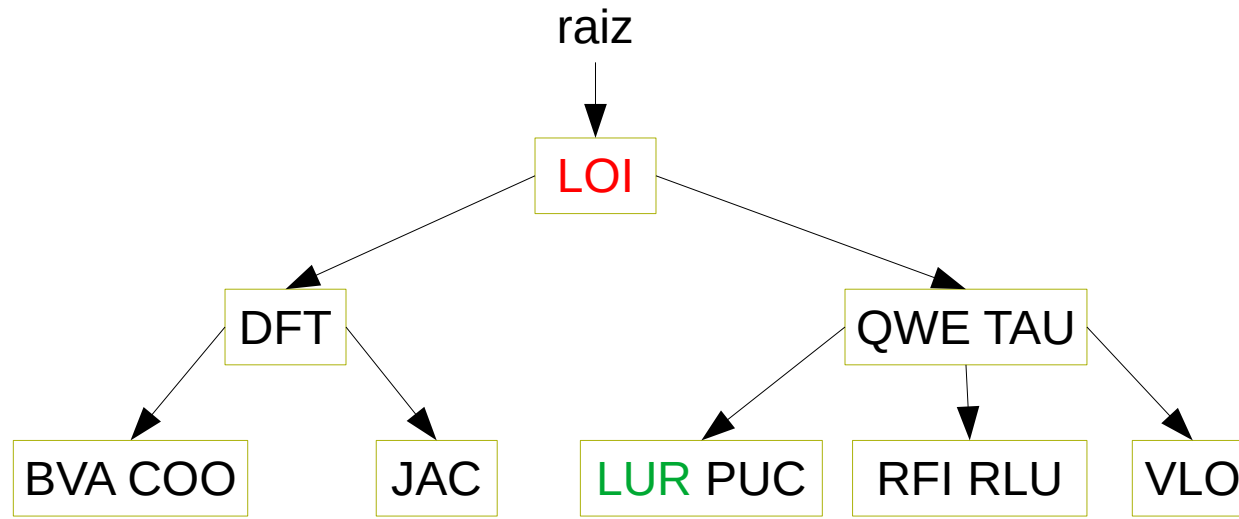
Inserir LUR

Inserção simples

LUR > LOI
LUR < QWE
LUR < PUC

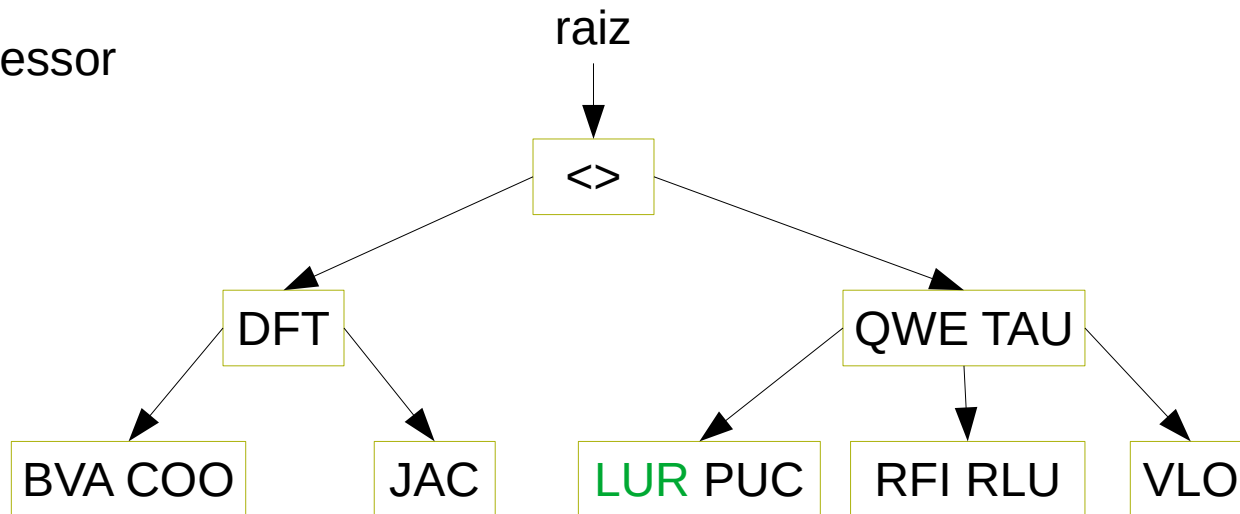


Remover LOI

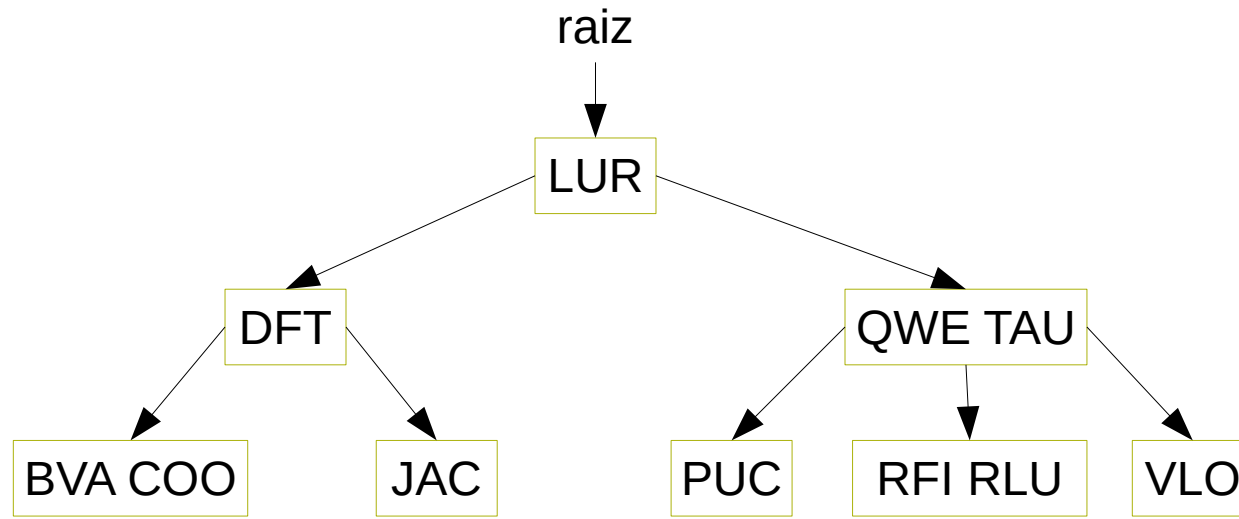


Remover LOI

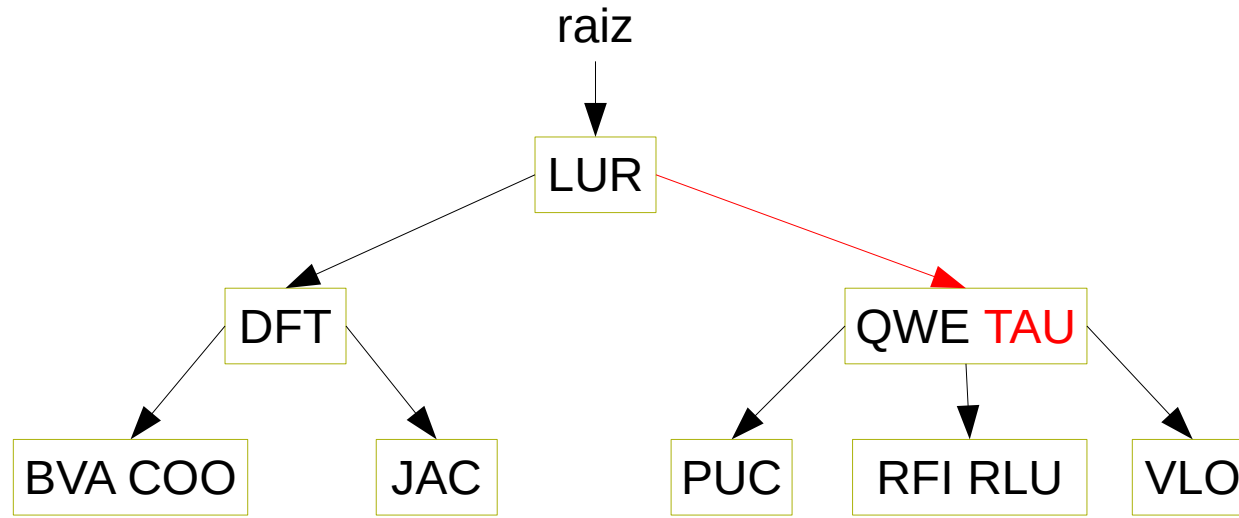
Troca com o sucessor



Remover LOI

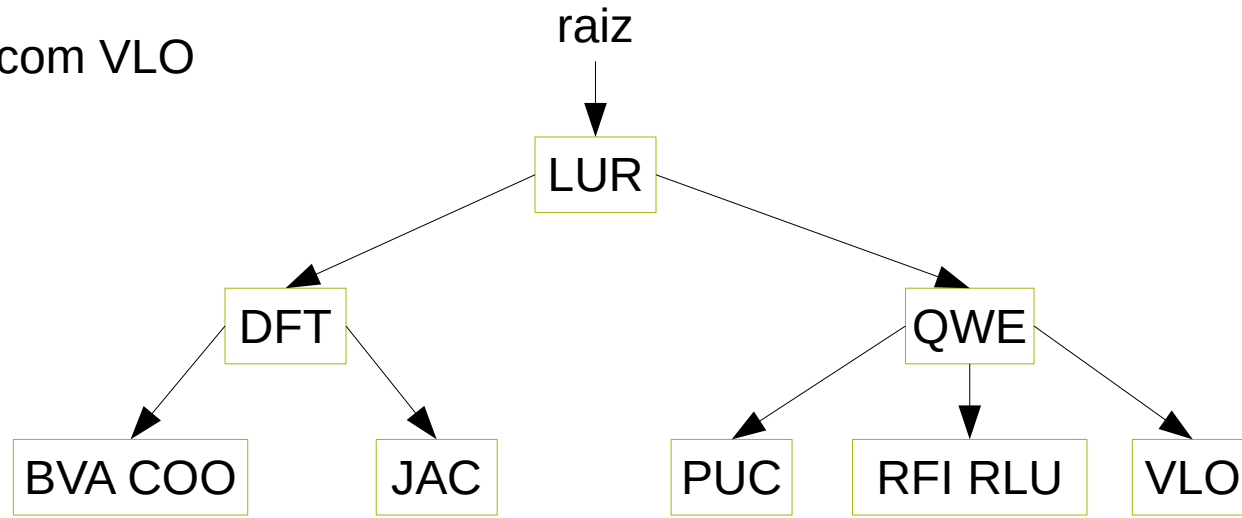


Remover TAU



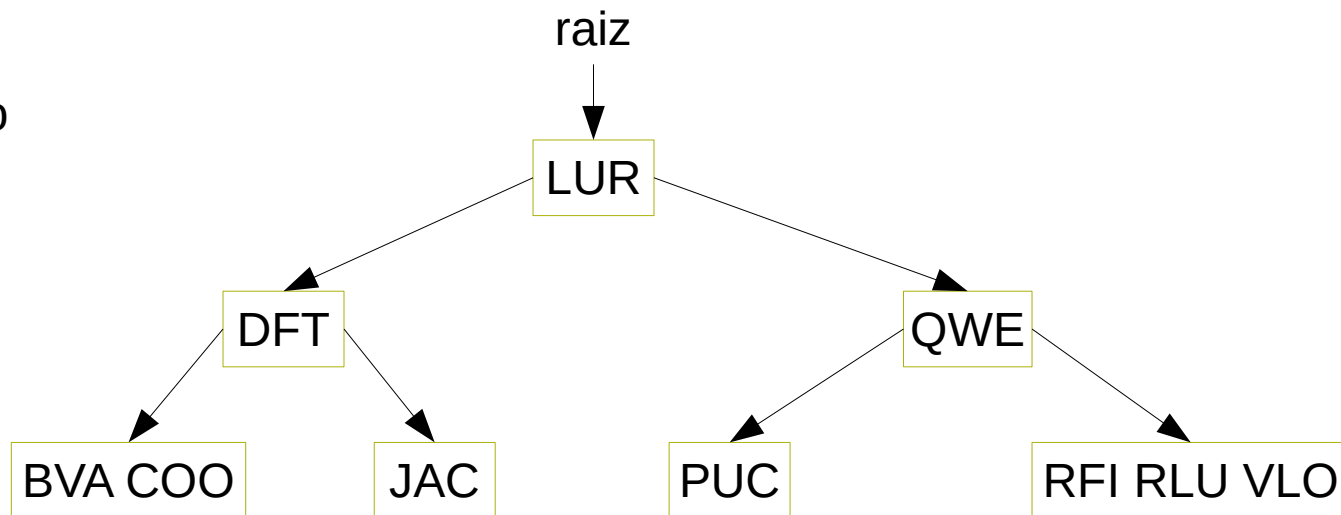
Remover TAU

Fusão RFI RLU com VLO

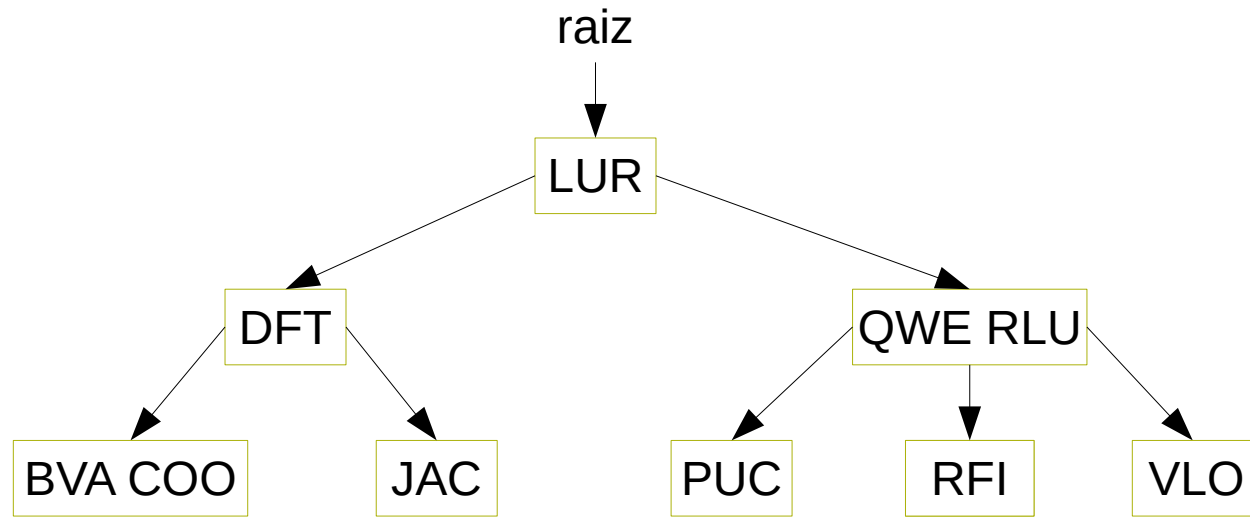


Remover TAU

RLU sobe, RFI
vira filho do meio



Remover TAU



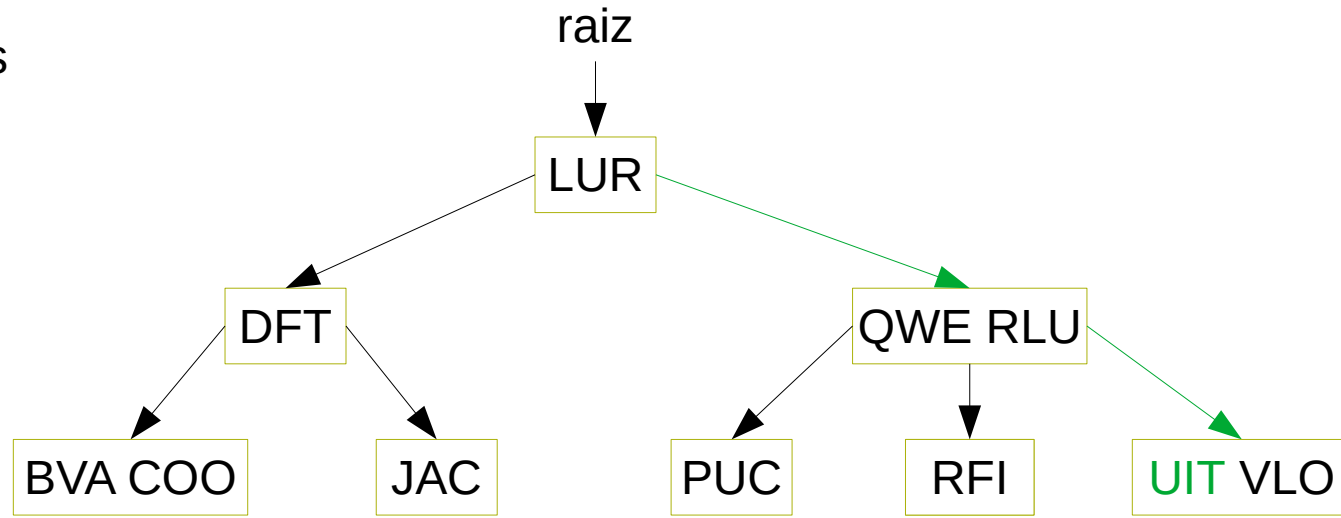
Inserir UIT

Inserção simples

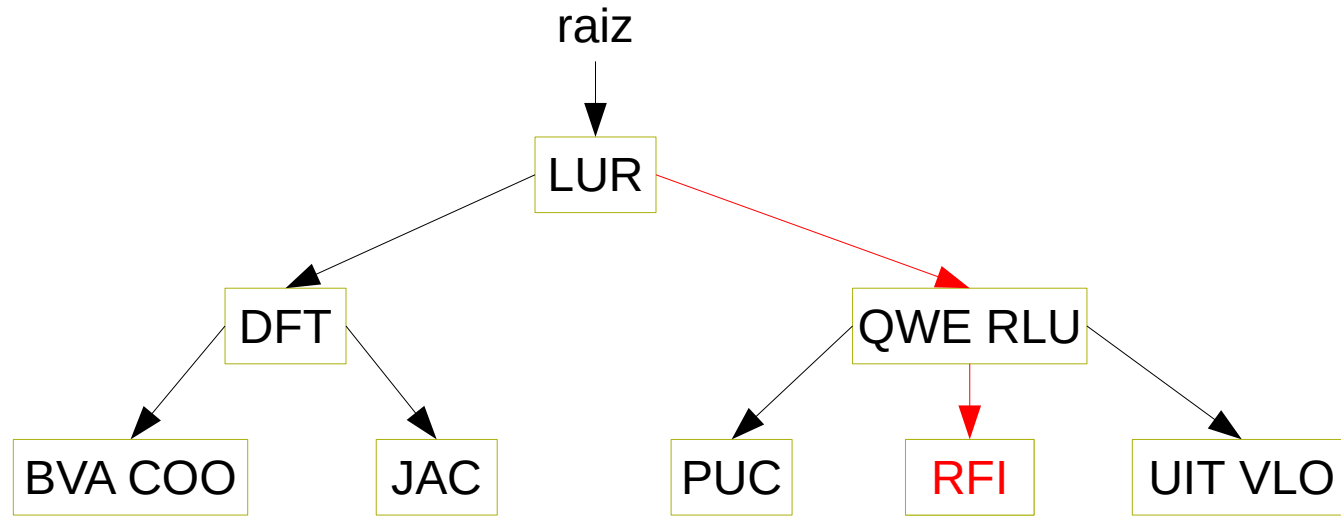
UIT > LUR

UIT > RLU

UIT < VLO

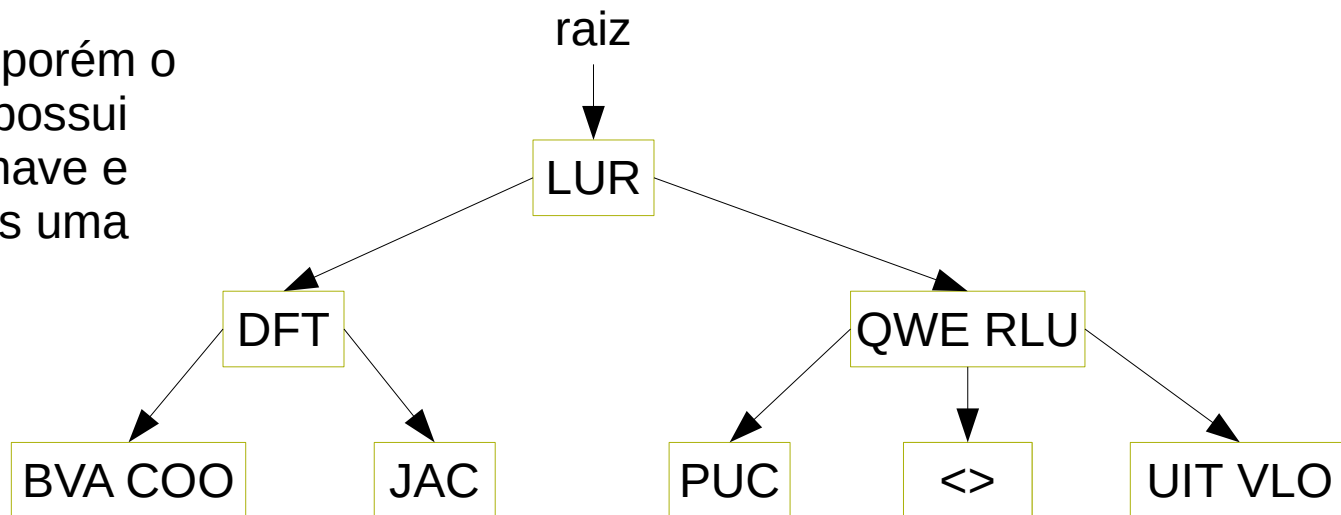


Remover RFI

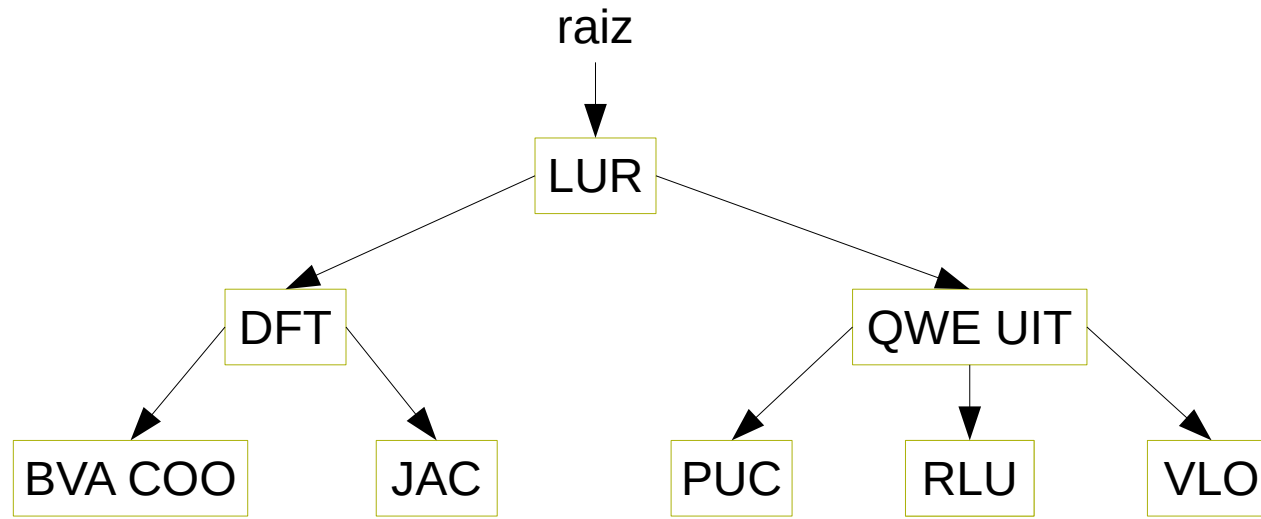


Remover RFI

Noh ficou vazio, porém o irmão da direita possui mais que uma chave e com isso faremos uma rotação



Remover RFI



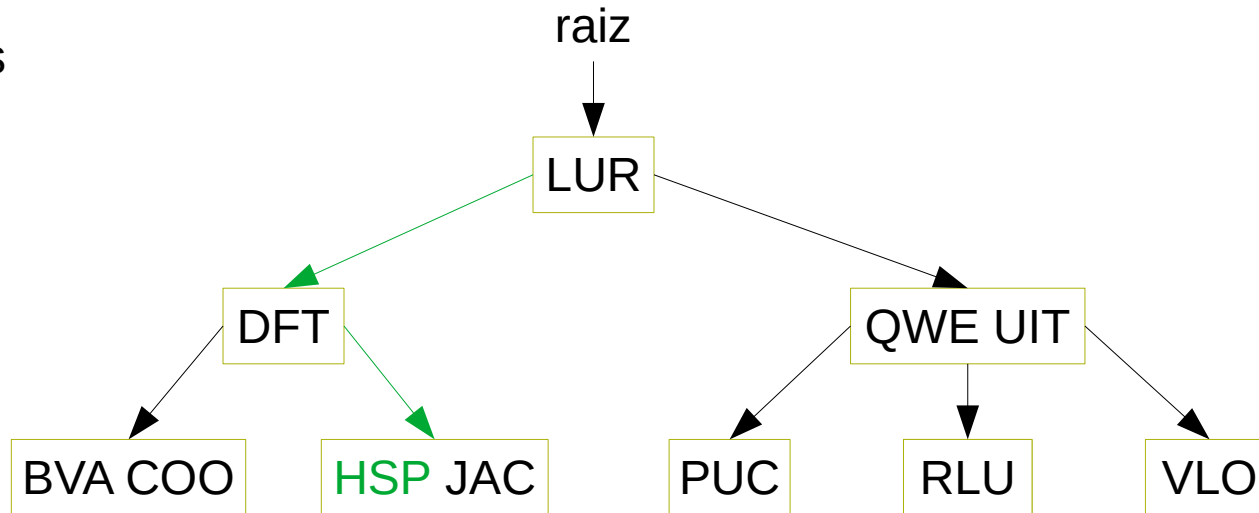
Inserir HSP

Inserção simples

HSP < LUR

HSP > DFT

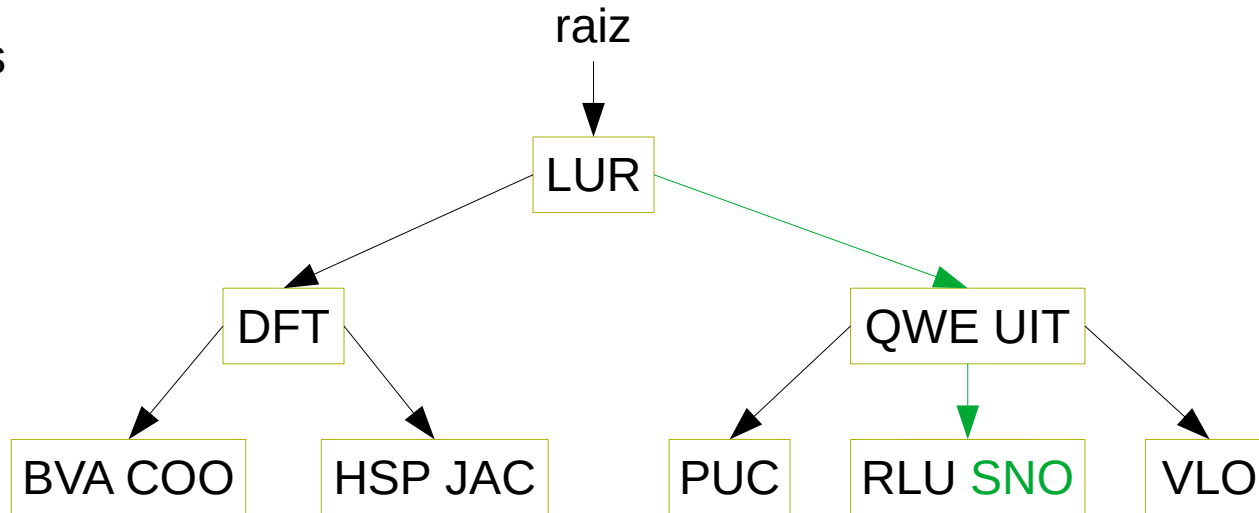
HSP < JAC



Inserir SNO

Inserção simples

SNO > LUR
SNO < UIT
SNO > QWE
SNO > RLU



Resultado:

