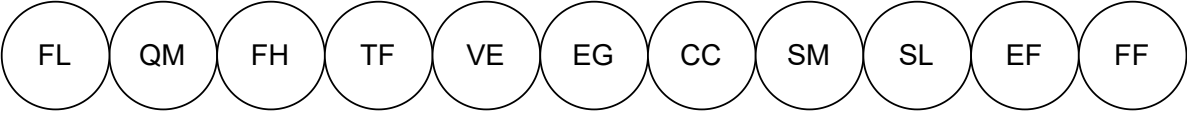
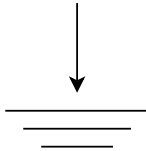


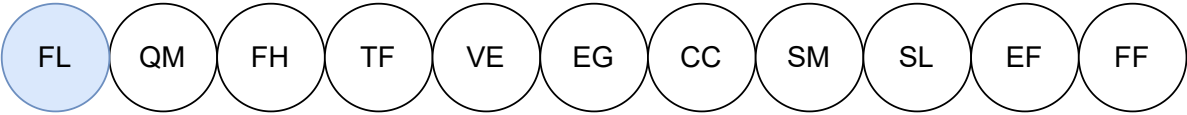
**Elementos a serem inseridos:**



raiz



Elementos a serem inseridos:



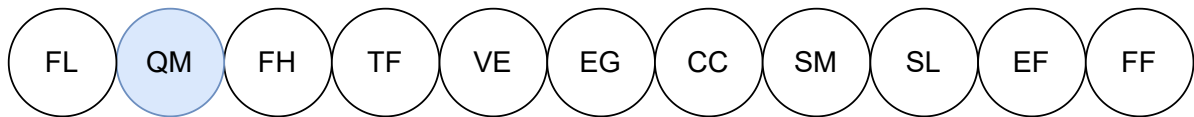
raiz



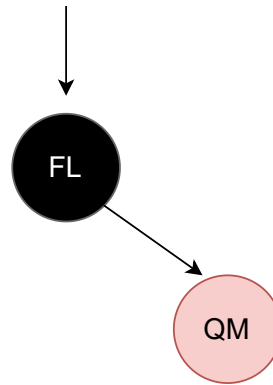
Inserção da Raiz



**Elementos a serem inseridos:**

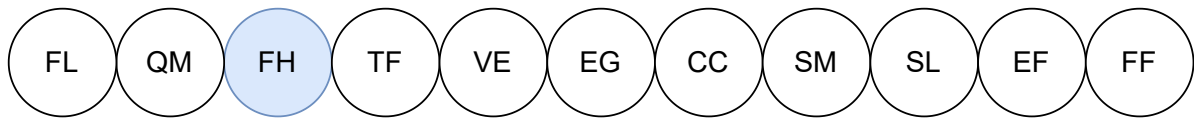


raiz



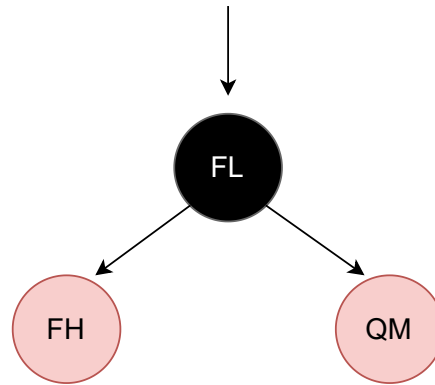
Inserção Simples

**Elementos a serem inseridos:**

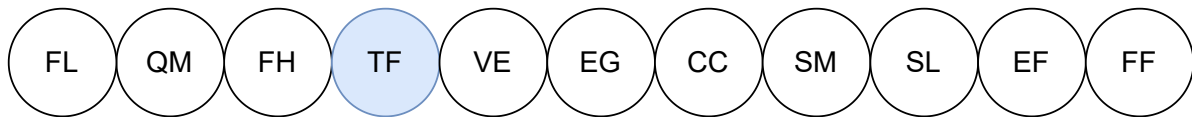


raiz

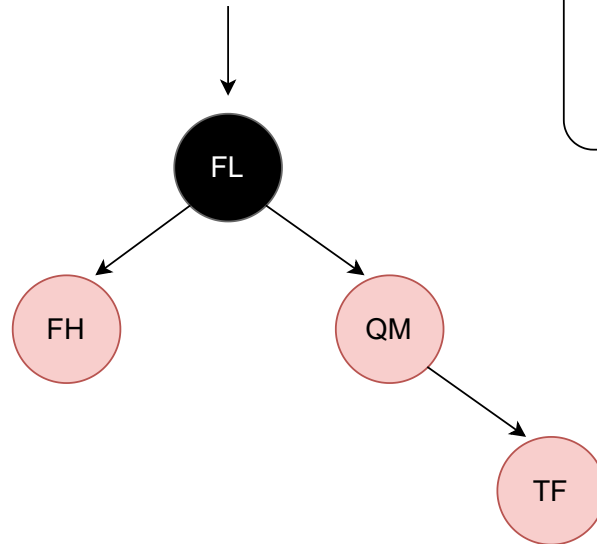
Inserção Simples



**Elementos a serem inseridos:**



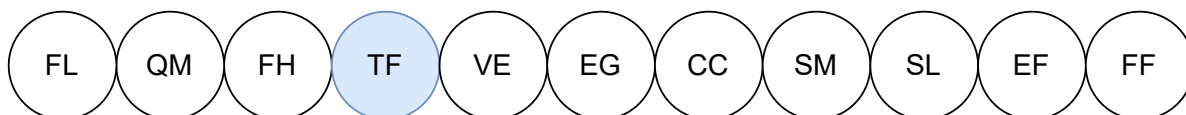
raiz



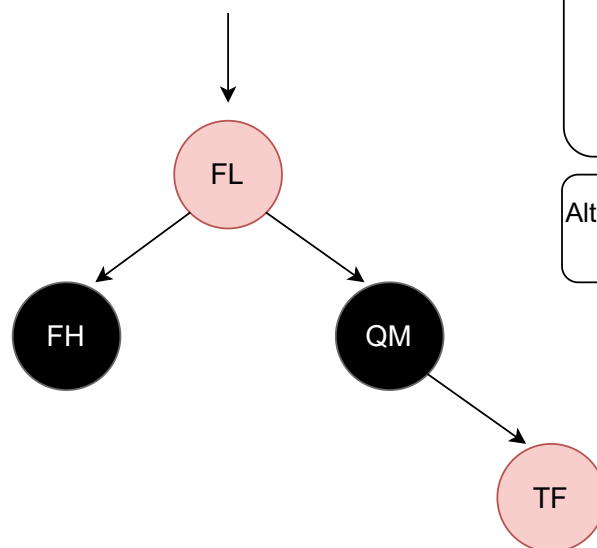
Caso 1:

- Pai vermelho
- Avô preto
- Tio vermelho

**Elementos a serem inseridos:**



raiz

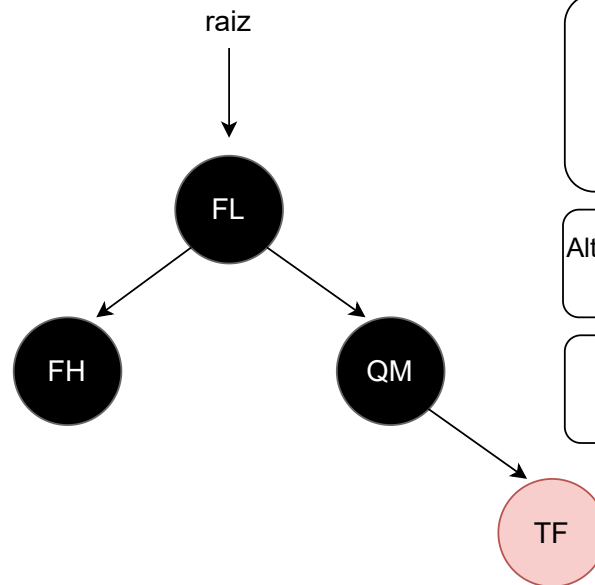
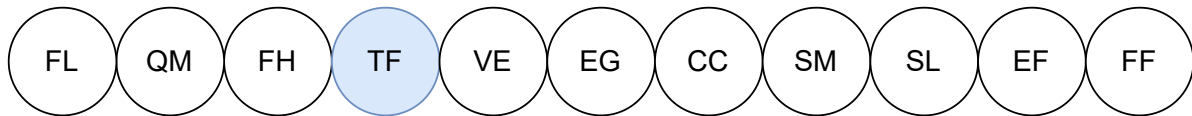


Caso 1:

- Pai vermelho
- Avô preto
- Tio vermelho

Alterar as cores do pai,  
tio e avô

**Elementos a serem inseridos:**



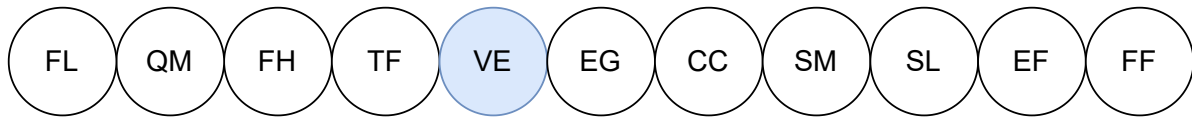
Caso 1:

- Pai vermelho
- Avô preto
- Tio vermelho

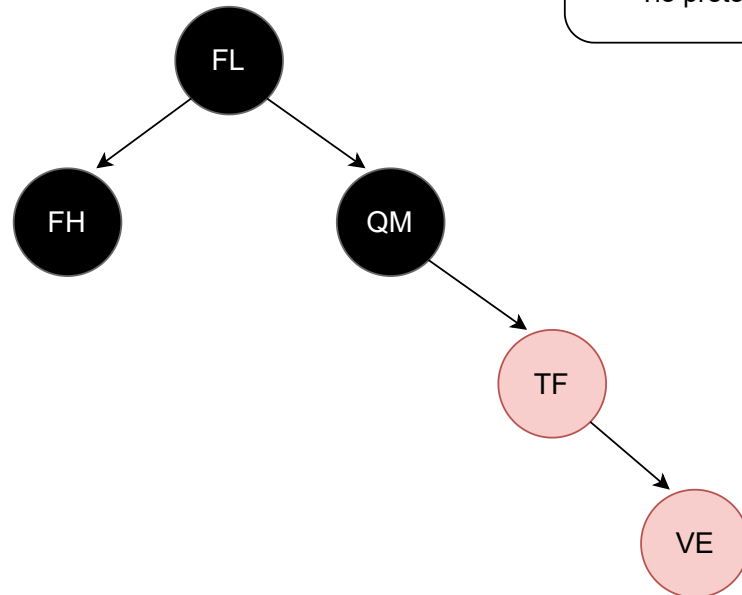
Alterar as cores do pai,  
tio e avô

Avô é raiz:  
Alterar cor do avô

**Elementos a serem inseridos:**



raiz

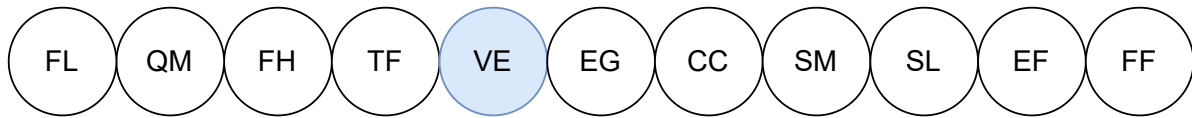


Caso 2:

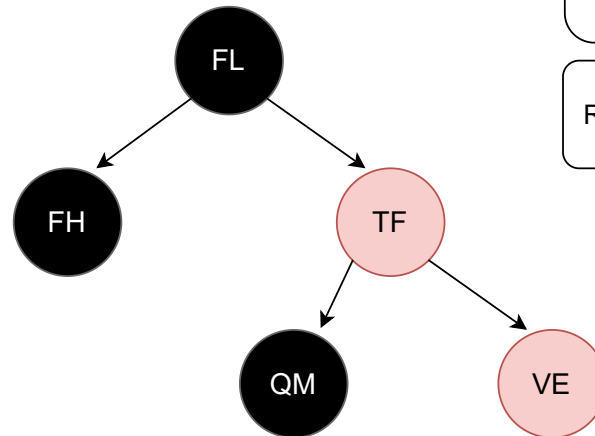
- Pai vermelho
- Avô preto
- Tio preto



**Elementos a serem inseridos:**



raiz

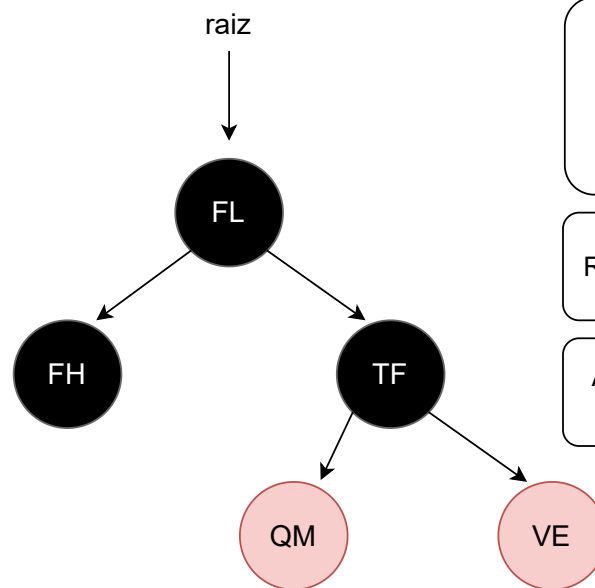
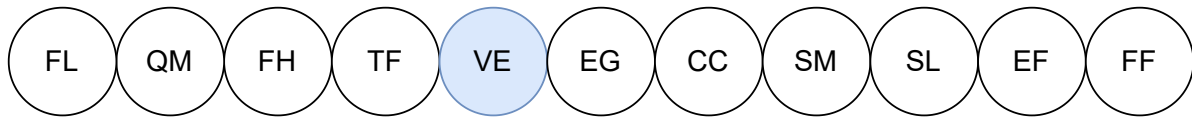


Caso 2:

- Pai vermelho
- Avô preto
- Tio preto

Rotação à esquerda

**Elementos a serem inseridos:**



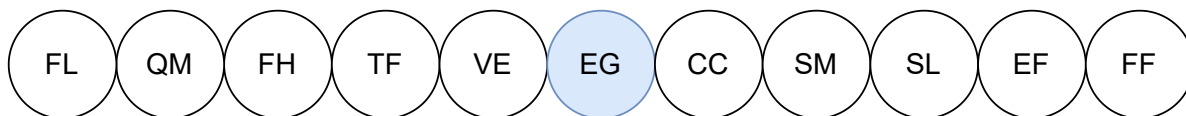
**Caso 2:**

- Pai vermelho
- Avô preto
- Tio preto

Rotação à esquerda

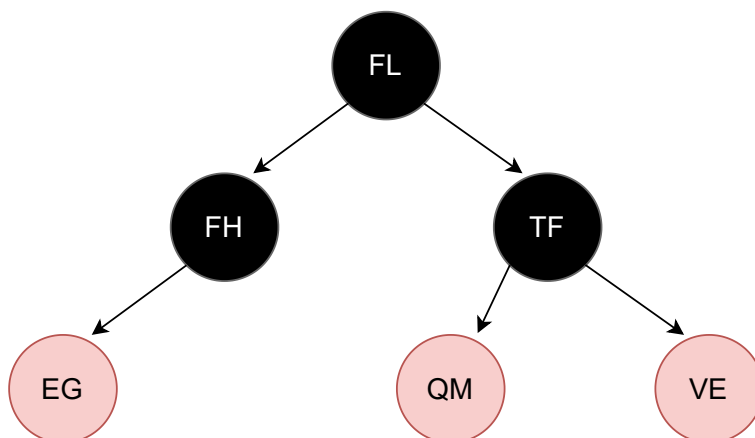
Alterar as cores do  
pai e avô

**Elementos a serem inseridos:**

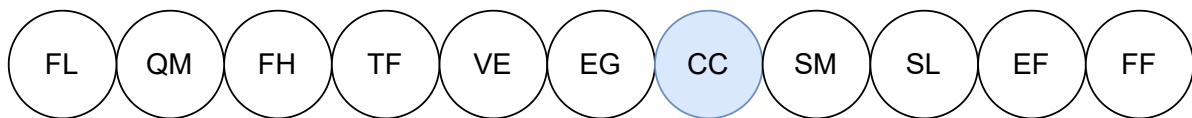


raiz

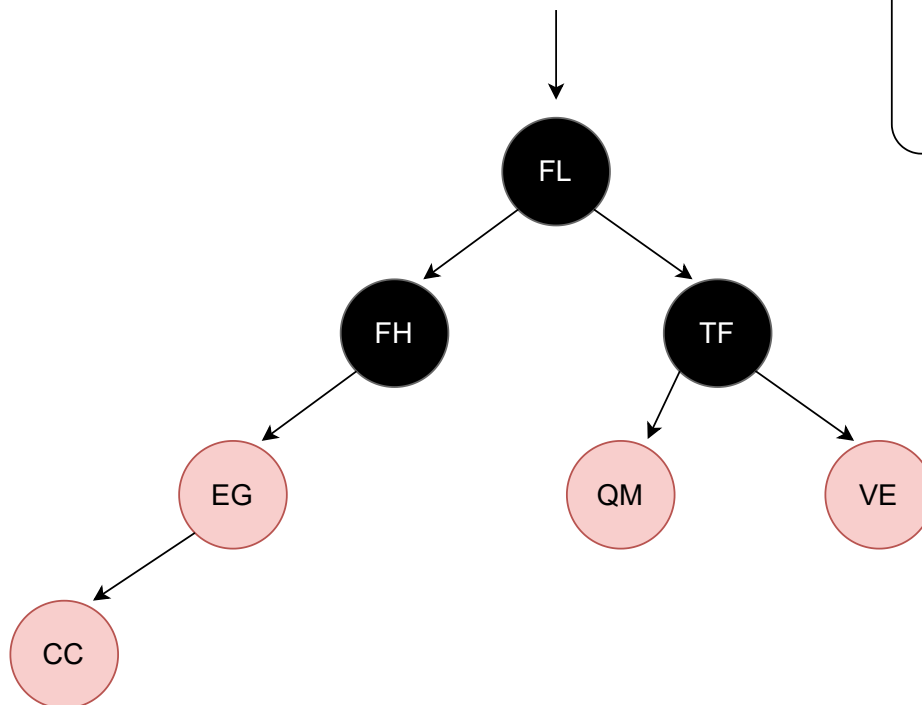
Inserção Simples



**Elementos a serem inseridos:**



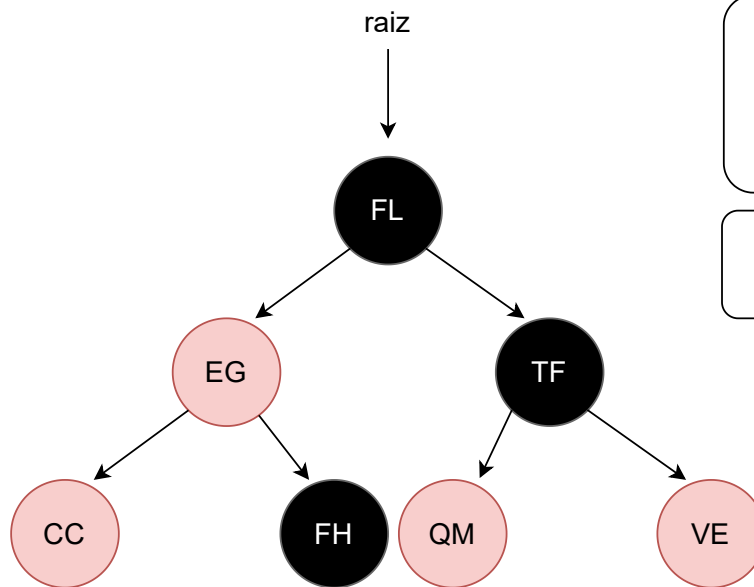
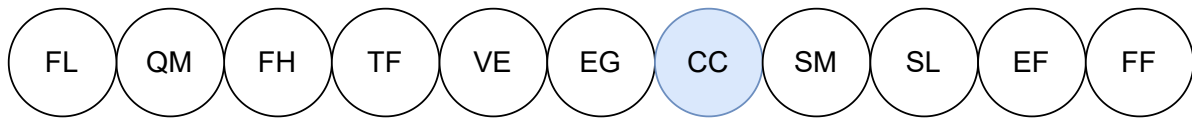
raiz



Caso 3:

- Pai vermelho
- Avô preto
- Tio preto

**Elementos a serem inseridos:**

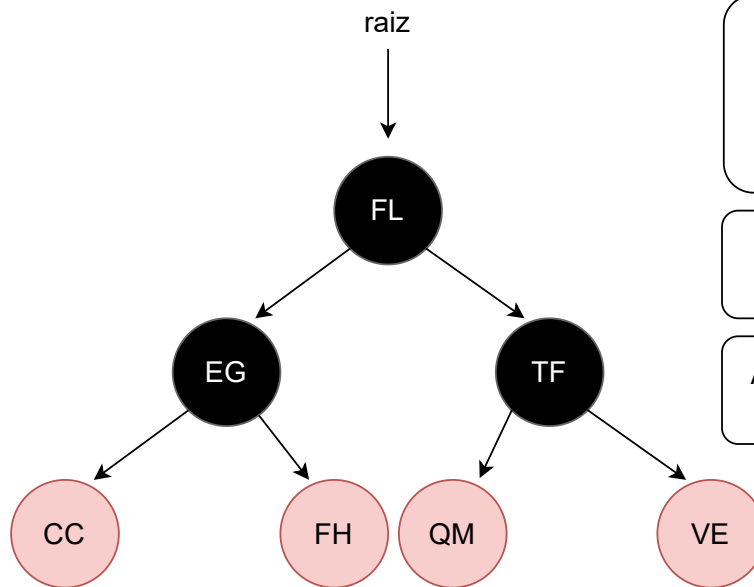
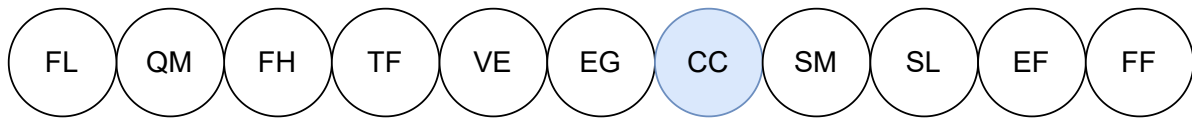


Caso 3:

- Pai vermelho
- Avô preto
- Tio preto

Rotação à direita

**Elementos a serem inseridos:**



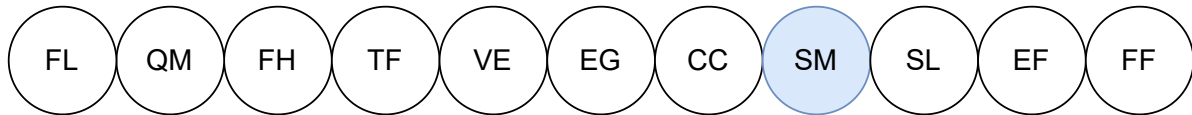
**Caso 3:**

- Pai vermelho
- Avô preto
- Tio preto

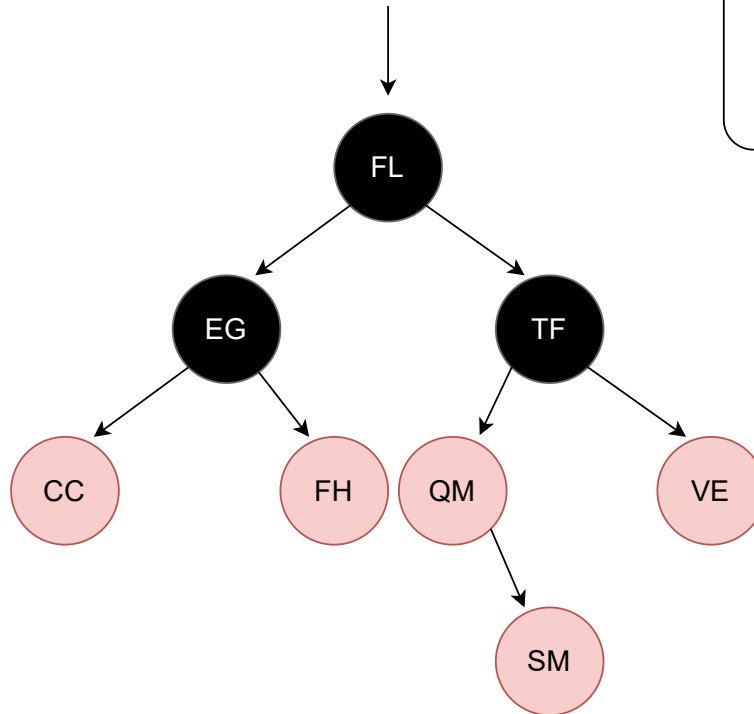
Rotação à direita

Alterar as cores do pai e avô

**Elementos a serem inseridos:**



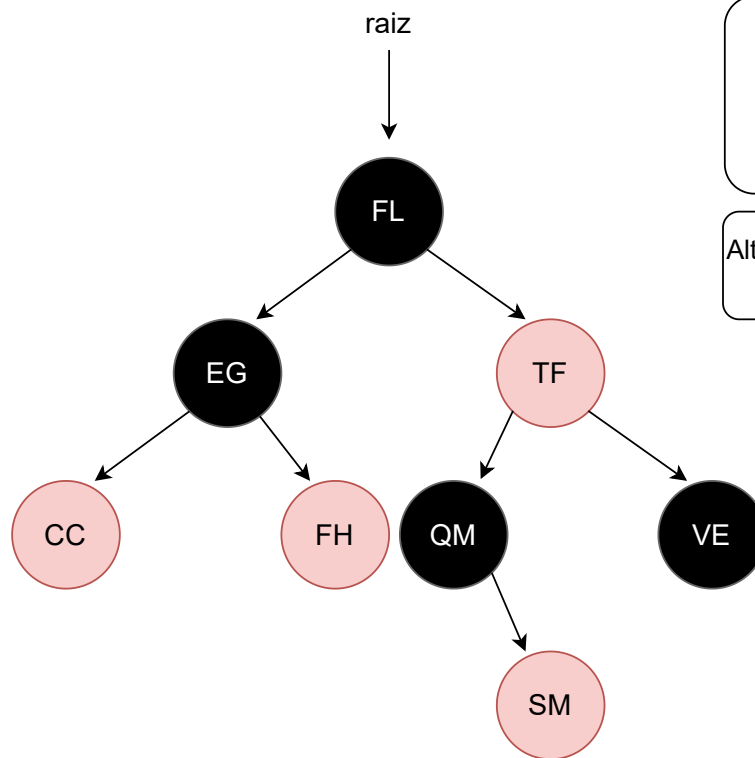
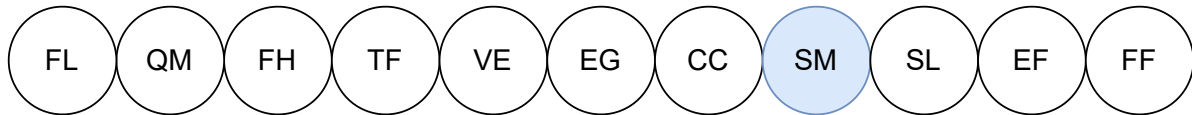
raiz



Caso 1:

- Pai vermelho
- Avô preto
- Tio vermelho

**Elementos a serem inseridos:**



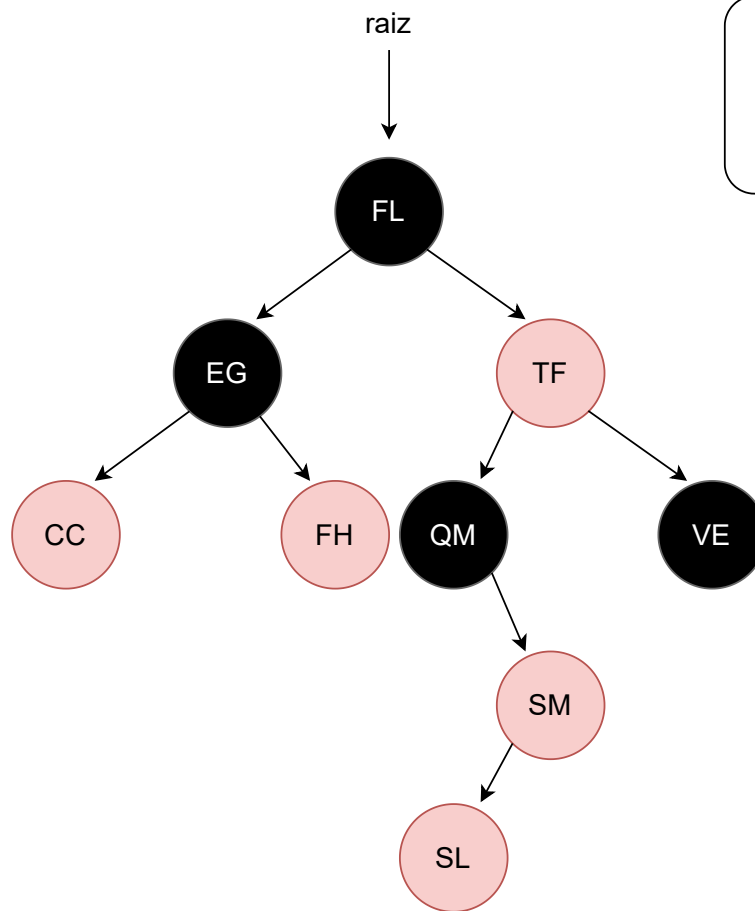
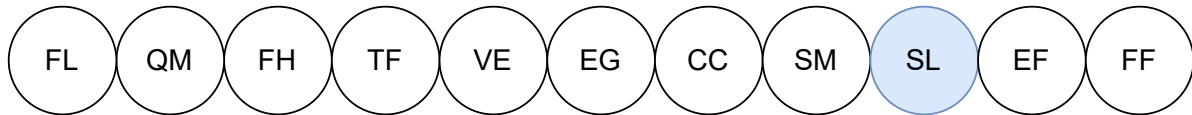
**Caso 1:**

- Pai vermelho
- Avô preto
- Tio vermelho

Alterar as cores do pai,  
tio e avô



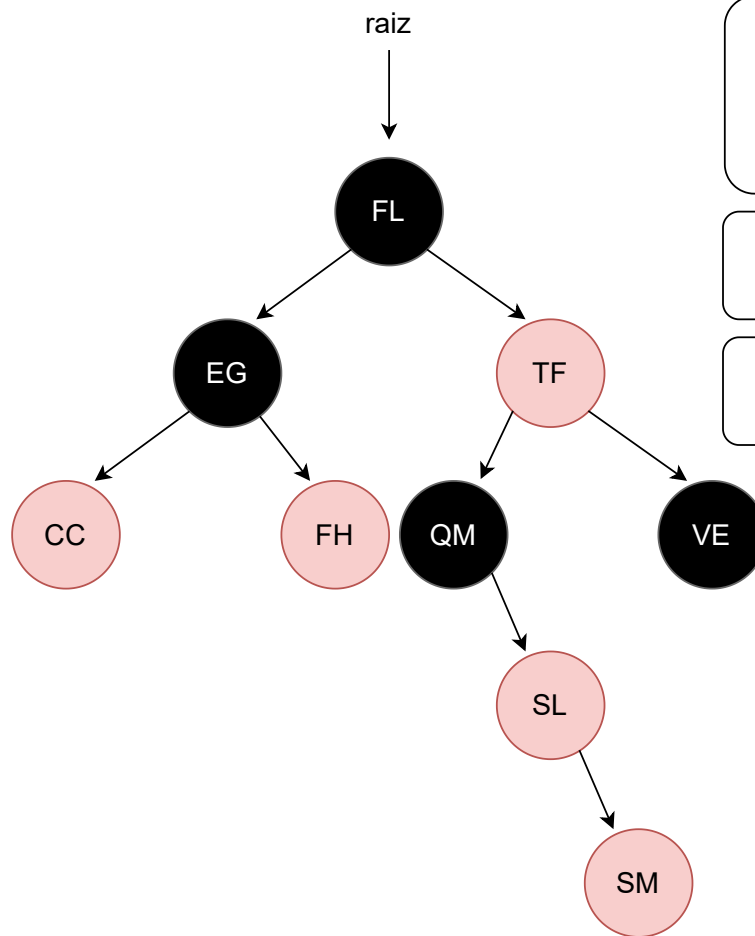
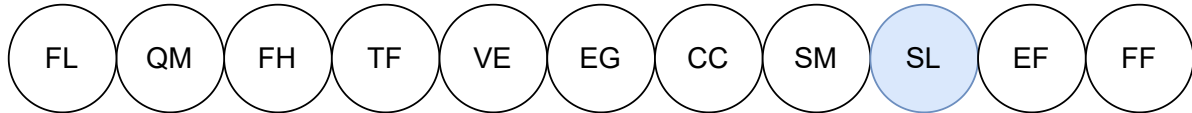
**Elementos a serem inseridos:**



**Caso 4:**

- Pai vermelho
- Avô preto
- Tio preto

**Elementos a serem inseridos:**



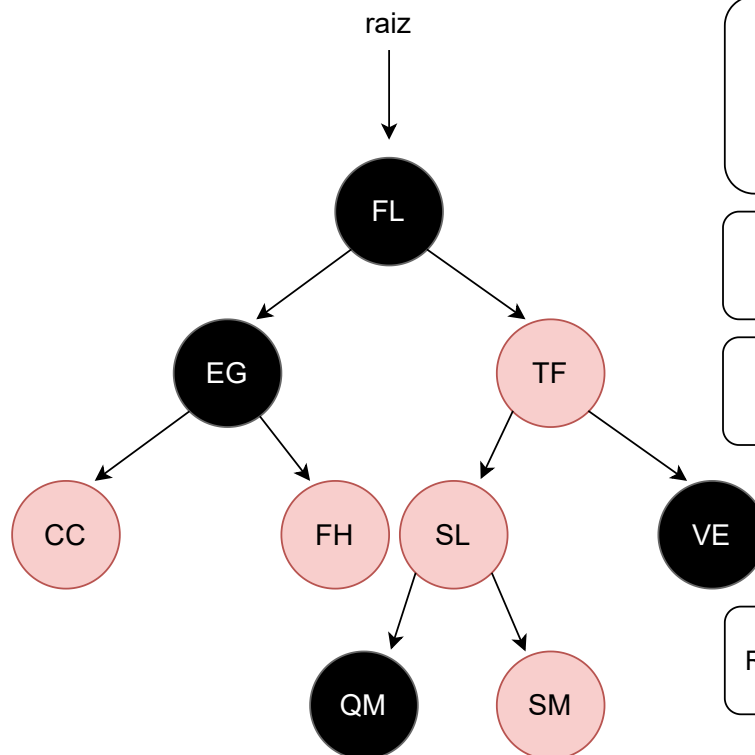
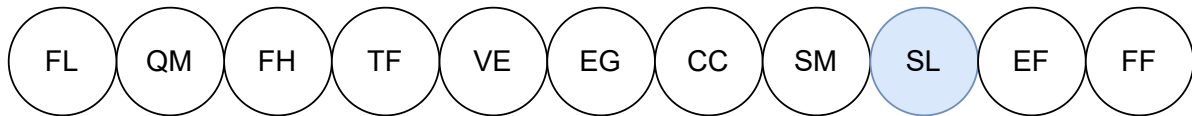
**Caso 4:**

- Pai vermelho
- Avô preto
- Tio preto

Rotação dupla

Rotação à direita

**Elementos a serem inseridos:**



Caso 4:

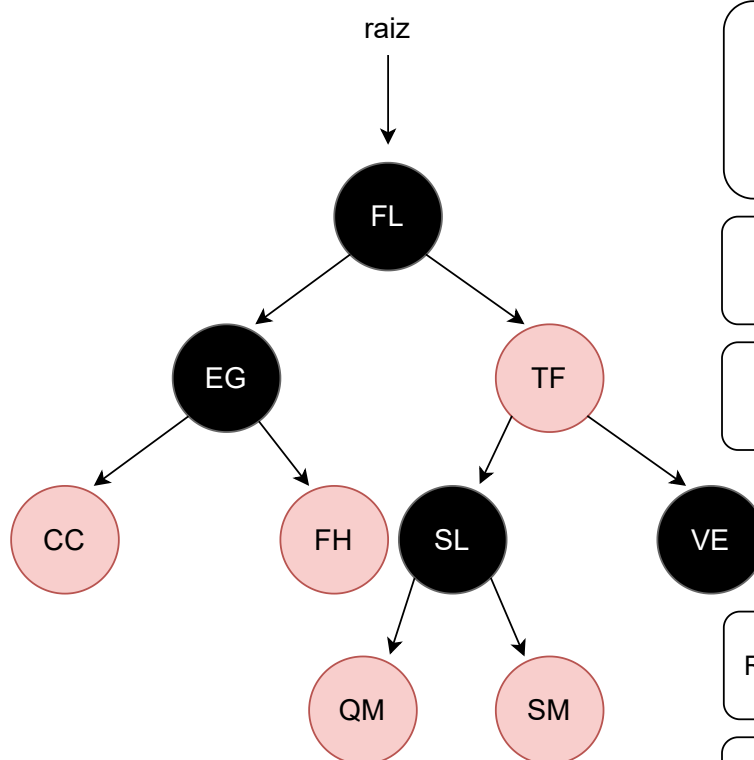
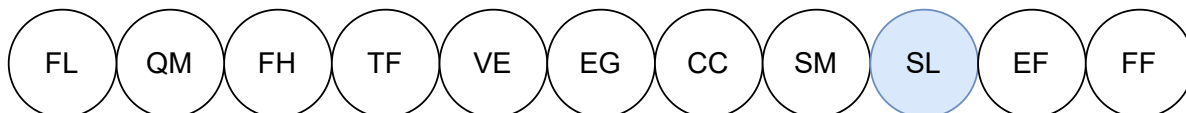
- Pai vermelho
- Avô preto
- Tio preto

Rotação dupla

Rotação à direita

Rotação à esquerda

**Elementos a serem inseridos:**



Caso 4:

- Pai vermelho
- Avô preto
- Tio preto

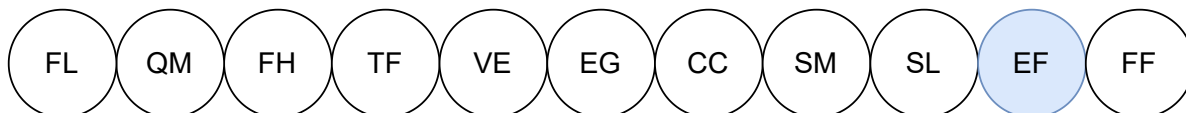
Rotação dupla

Rotação à direita

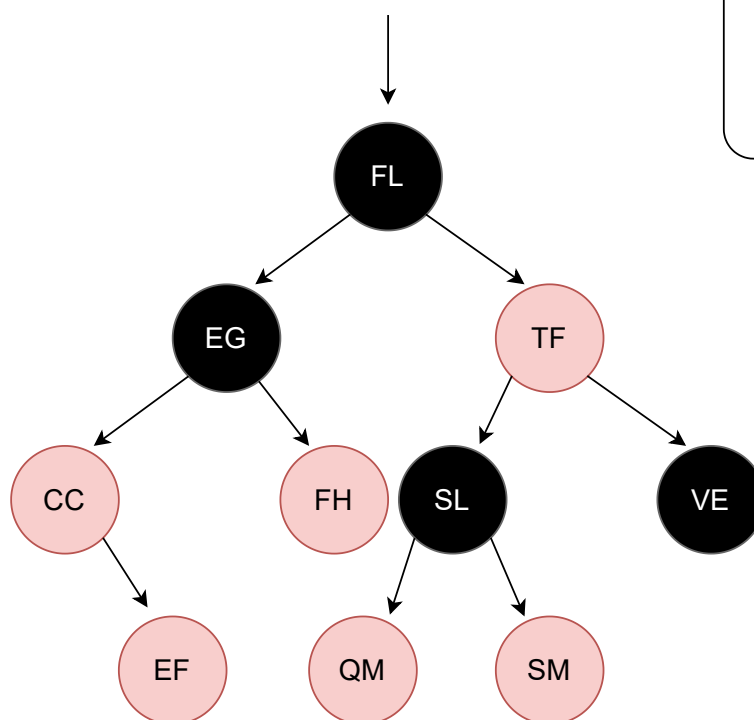
Rotação à esquerda

Alterar as cores do avô e do próprio nó

**Elementos a serem inseridos:**



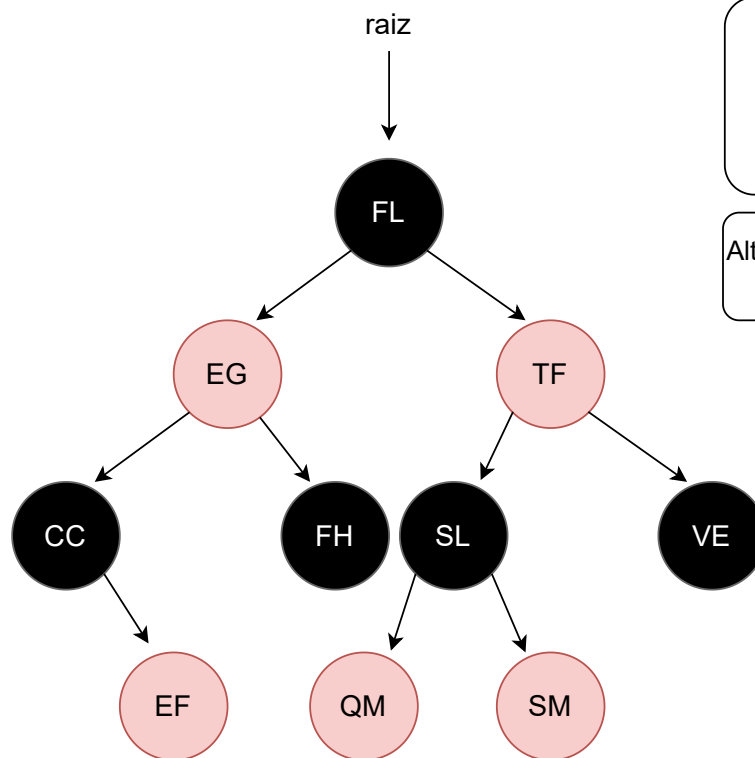
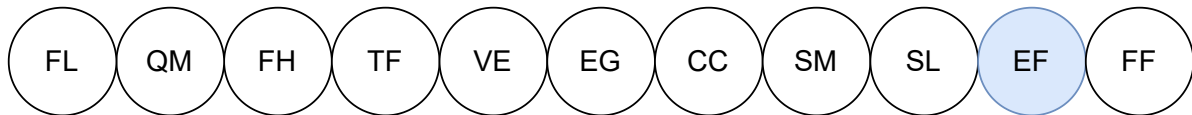
raiz



Caso 1:

- Pai vermelho
- Avô preto
- Tio vermelho

**Elementos a serem inseridos:**

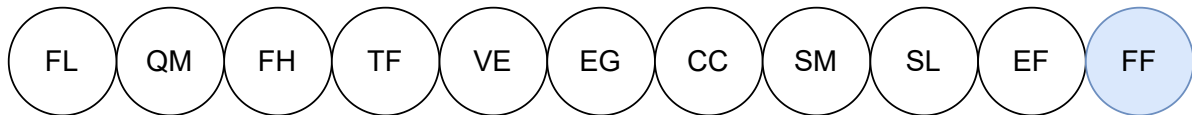


Caso 1:

- Pai vermelho
- Avô preto
- Tio vermelho

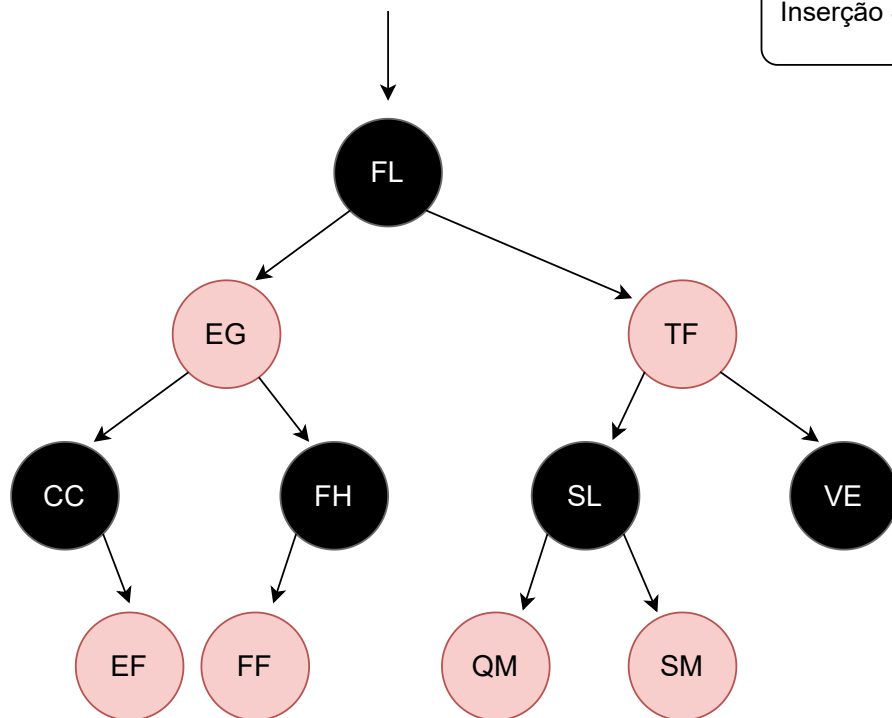
Alterar as cores do pai,  
tio e avô

**Elementos a serem inseridos:**



raiz

Inserção Simples



# FIM!

