

1) Einfügen in Rot-Schwarz Baum (zeichnen)

Geben Sie Rot-Schwarz-Bäume an (mit allen Zwischenschritten), die beim Einfügen der Buchstaben HITCHHIKER entstehen.





Einfügen von: HITCHHIKER



Einfügen von: HITCHHIKER

H

+ I

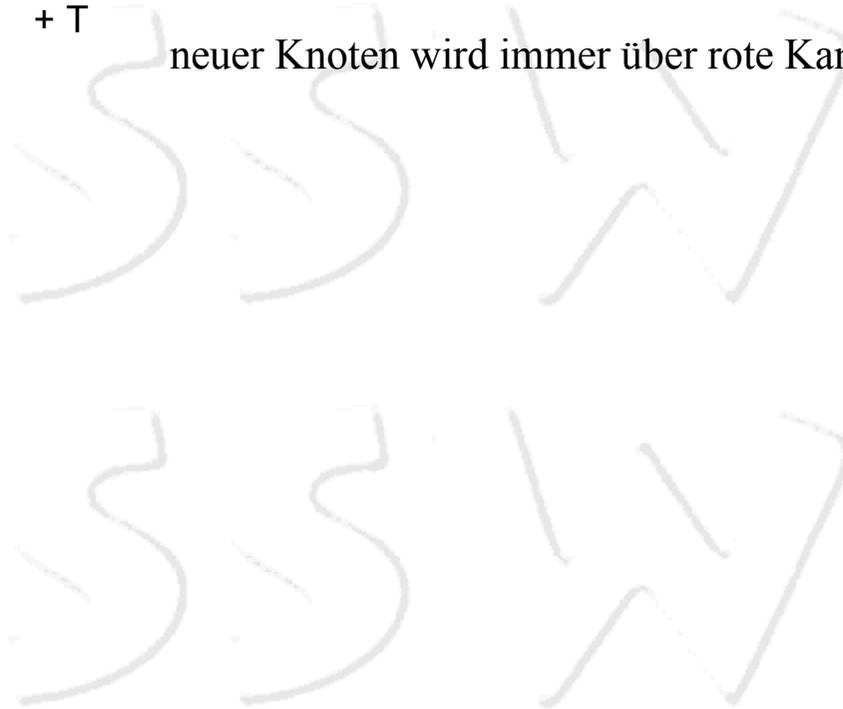


Einfügen von: HITCHHIKER

H + I

H + T
I

neuer Knoten wird immer über rote Kante angehängt

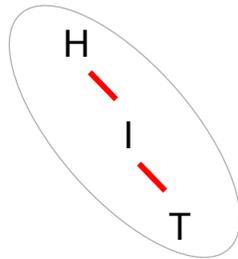


Einfügen von: HITCHHIKER

H + I

H + T
I

neuer Knoten wird immer über rote Kante angehängt

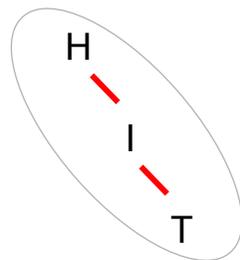


Einfügen von: HITCHHIKER

H + I

H + T
|
I

neuer Knoten wird immer über rote Kante angehängt



⇒
1x rotieren

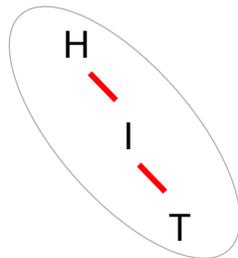
I + C
/ \
H T

Einfügen von: HITCHHIKER

H + I

H + T
|
I

neuer Knoten wird immer über rote Kante angehängt



⇒
1x rotieren

I + C
|
H T

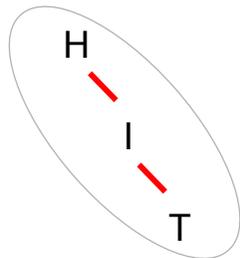
I
|
H T

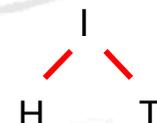
Einfügen von: HITCHHIKER

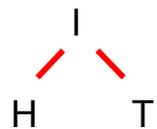
H + I

H + T

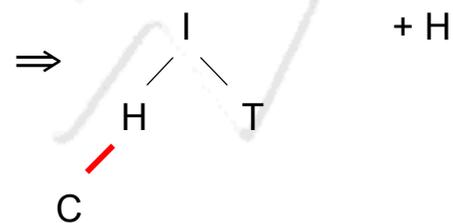

neuer Knoten wird immer über rote Kante angehängt



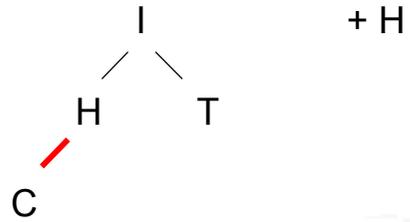
⇒ 1x rotieren + C




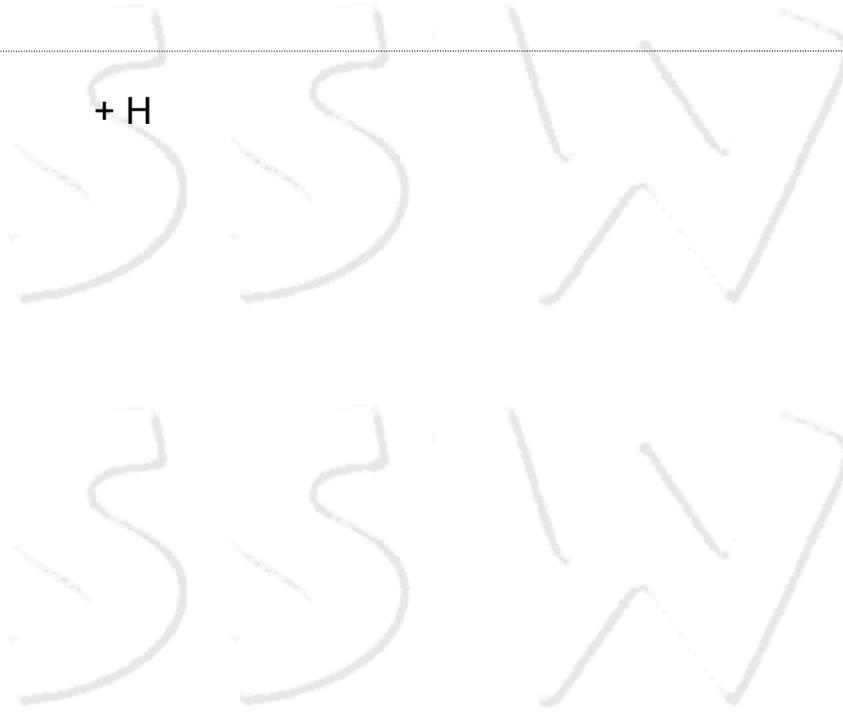
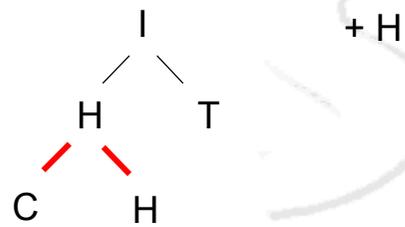
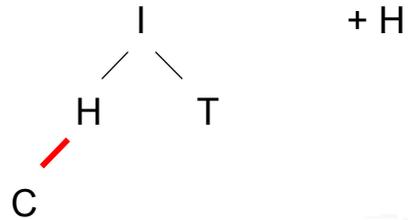
⇒ splitten

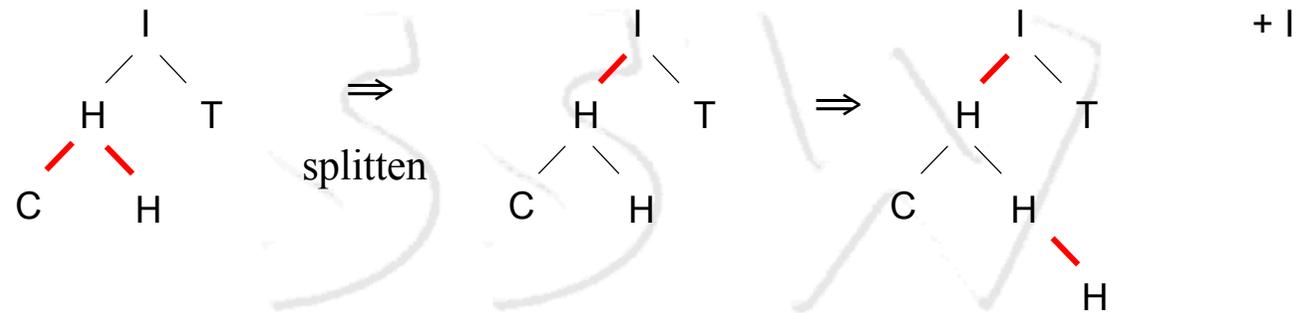
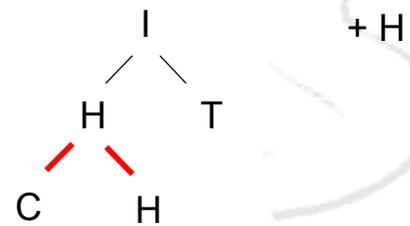
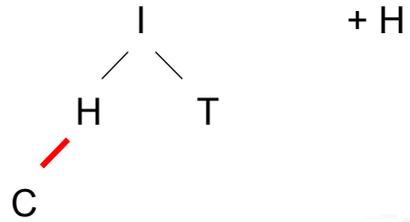
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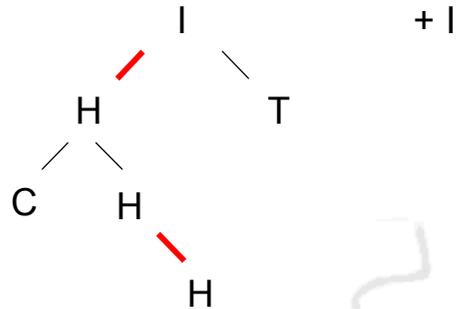
Einfügen von: HITCHHIKER



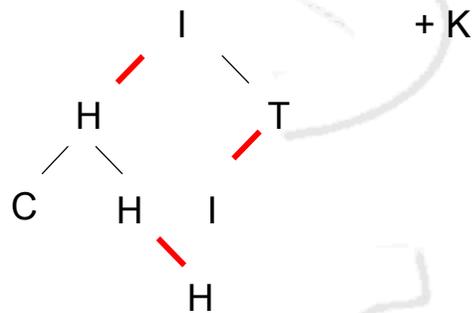
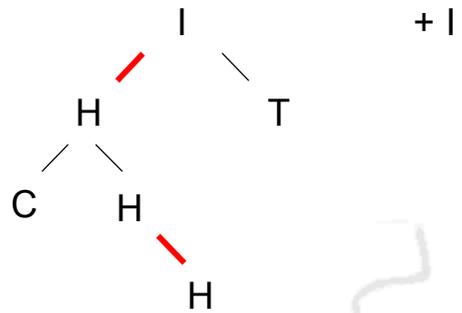
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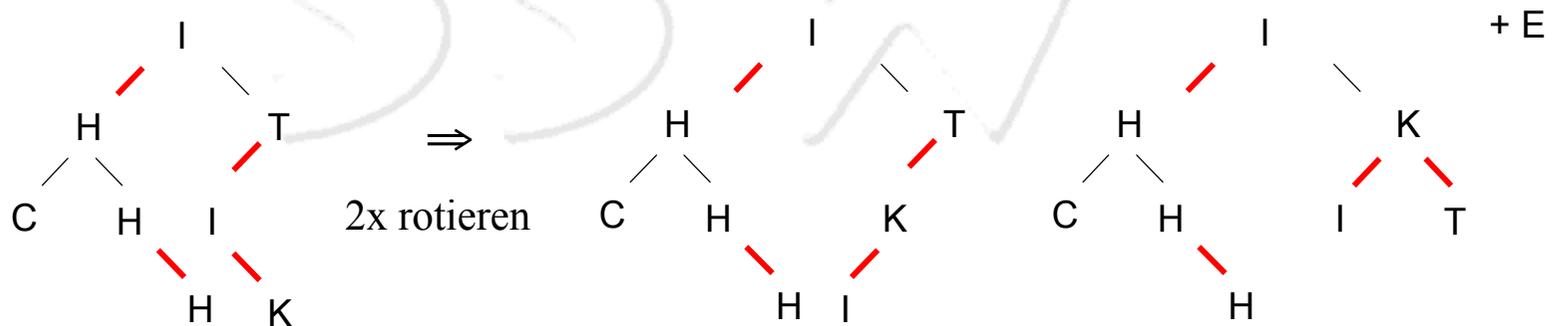
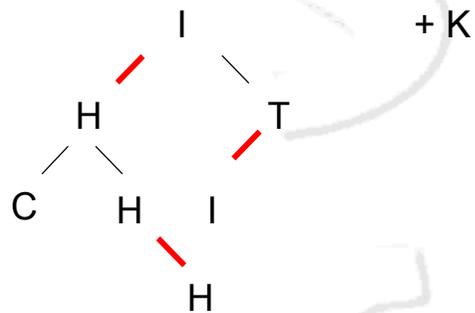
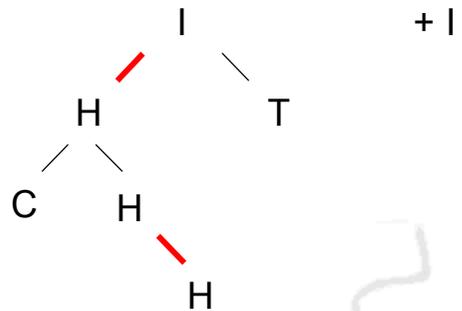
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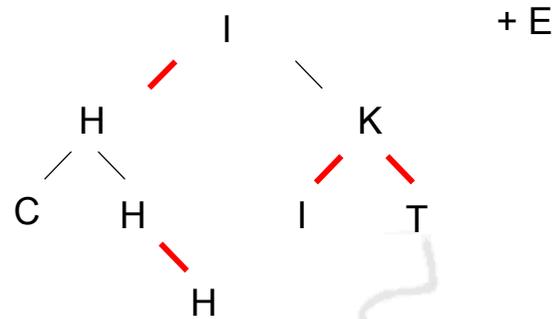
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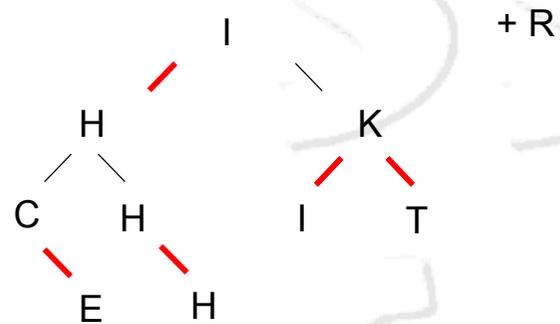
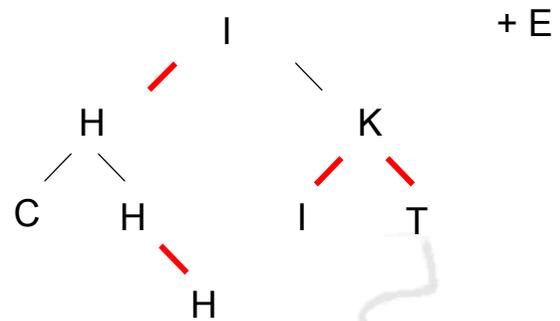
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