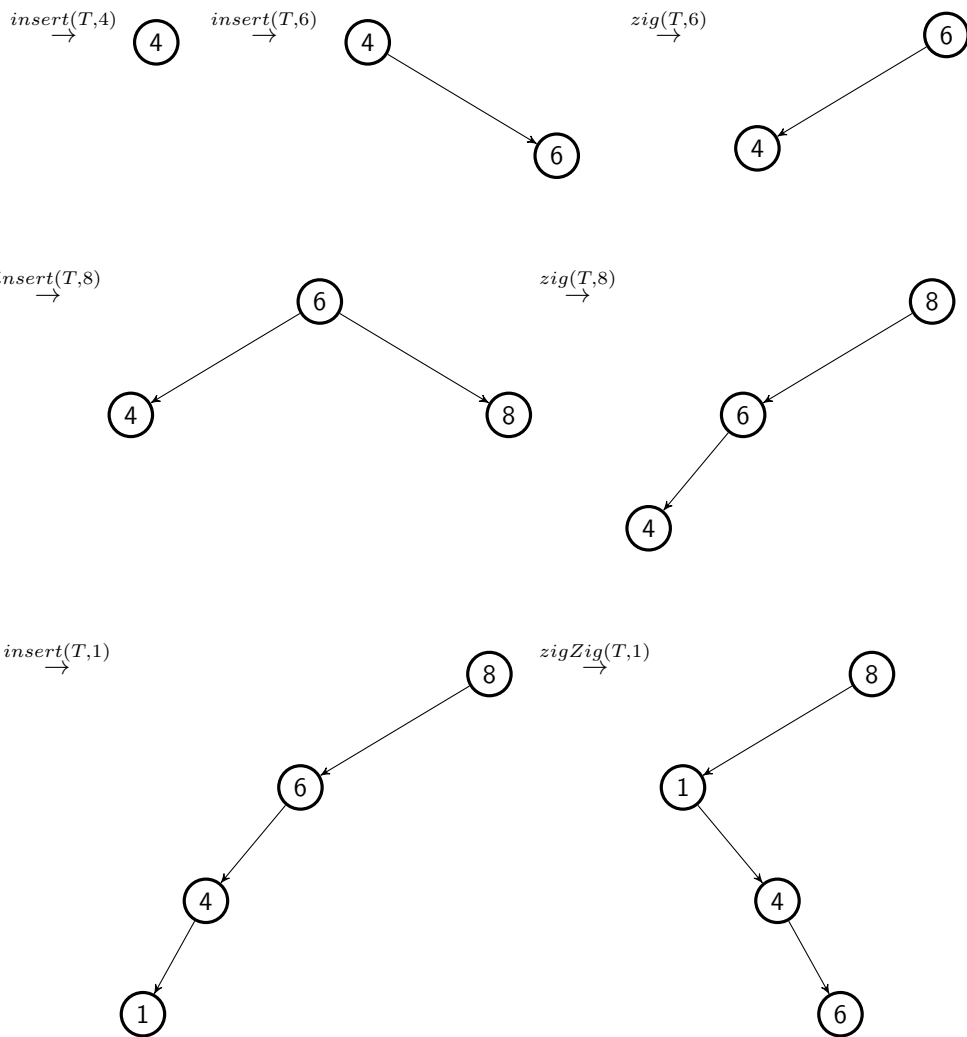

AUD ÜBUNGSBLATT NR. 9

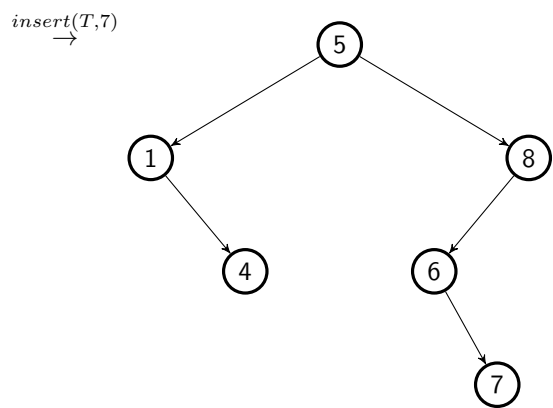
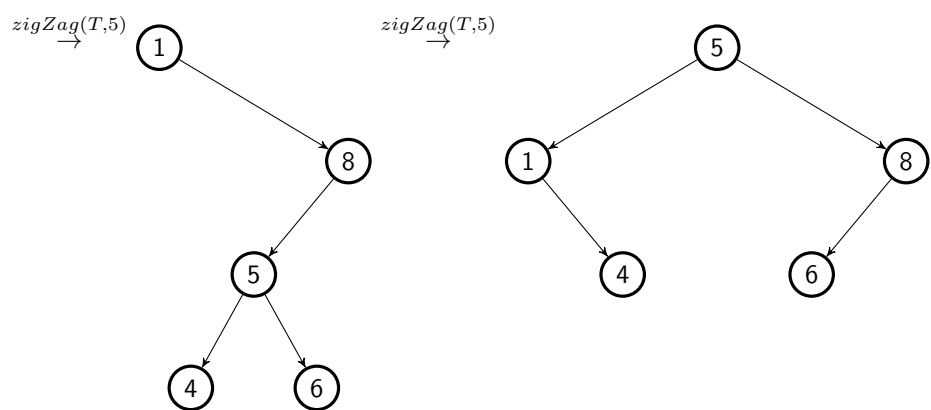
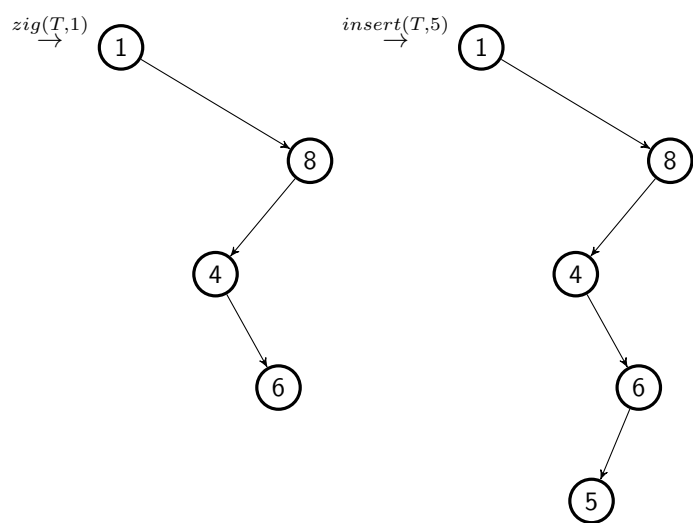
Hannes Albert

Gruppe: 36
Tutor: Julian Eulenburg
Juni 2023

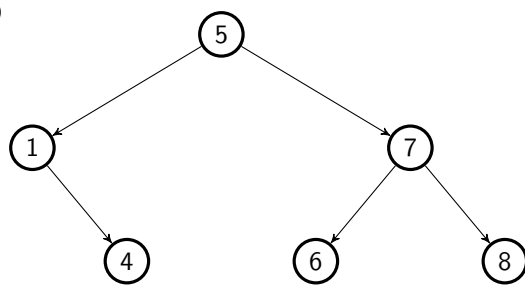
H1

a)

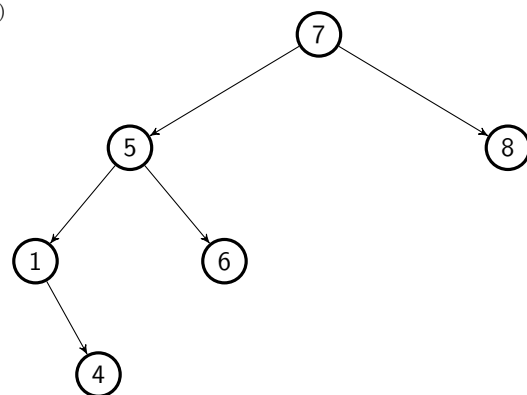




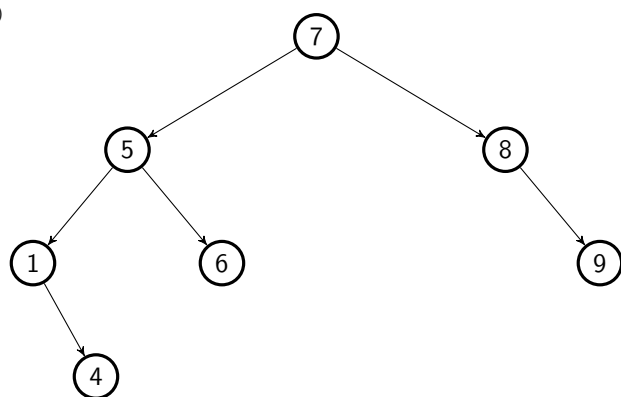
$zigZag(T,7)$
 $\xrightarrow{\quad}$



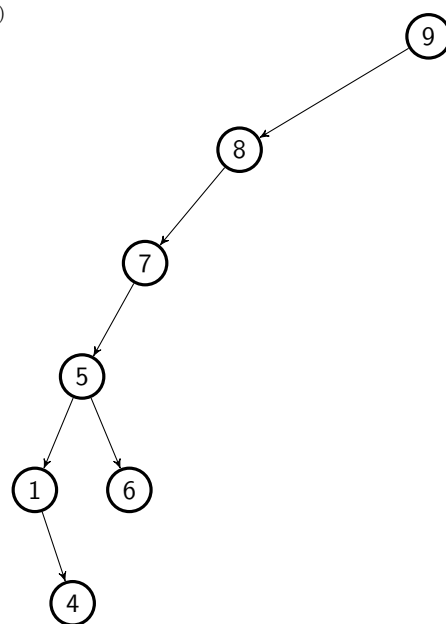
$zig(T,7)$
 $\xrightarrow{\quad}$



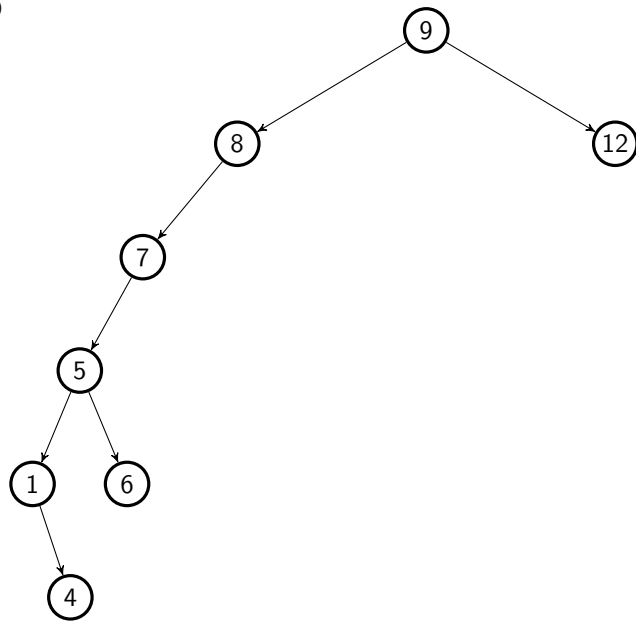
$insert(T,9)$
 $\xrightarrow{\quad}$



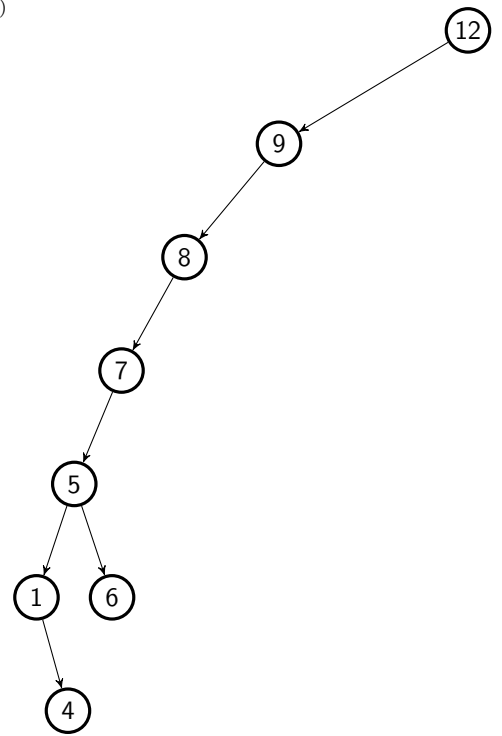
$zigZig(T,9)$
 $\xrightarrow{\quad}$



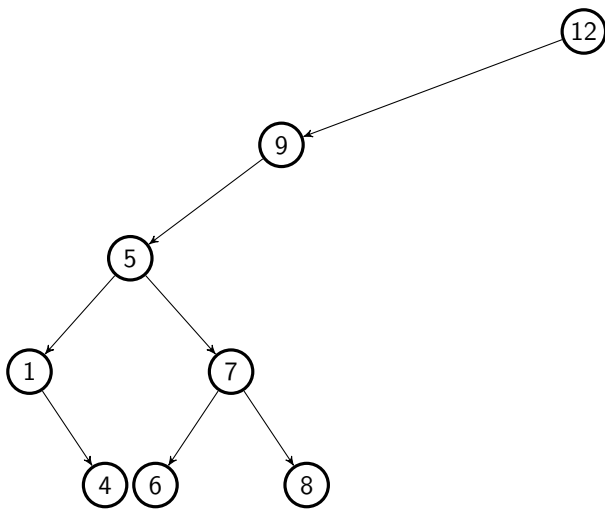
$insert(T, 12)$
 \rightarrow



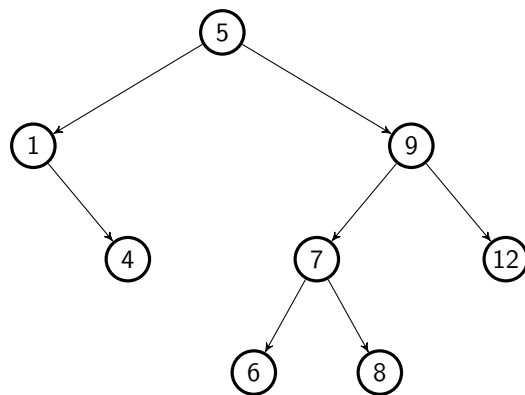
$zig(T, 12)$
 \rightarrow



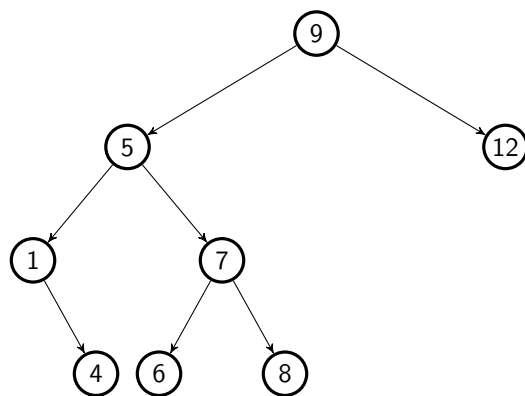
b)
 Search(T, 5):
 $zigZig(T, 5)$
 \rightarrow



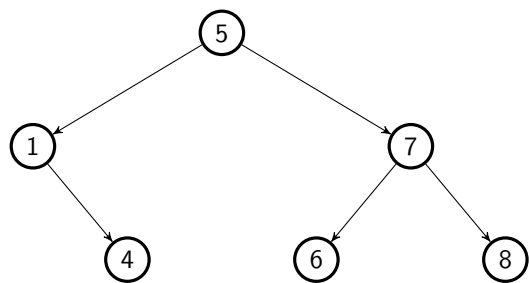
$zigZig(T, 5)$
 \rightarrow



Delete(T, 9):
 $zig(T, 9)$
 \rightarrow

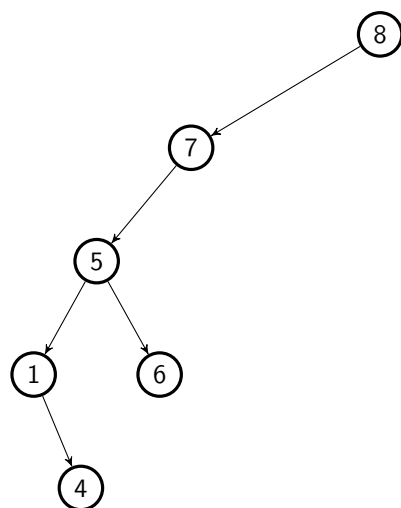


L =

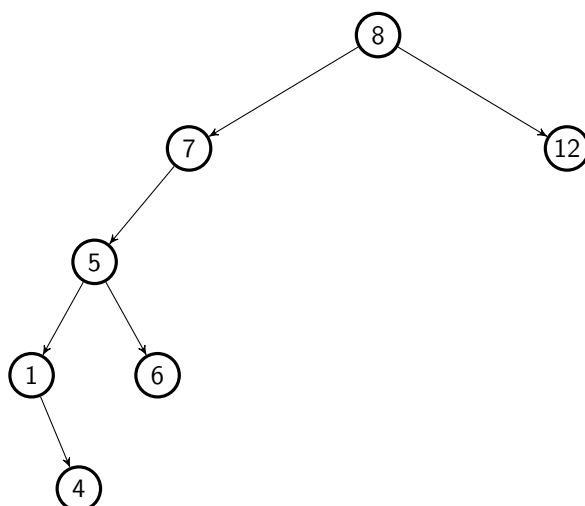


R = 12

$\text{zigZig}(L,8)$
 $\xrightarrow{\quad}$



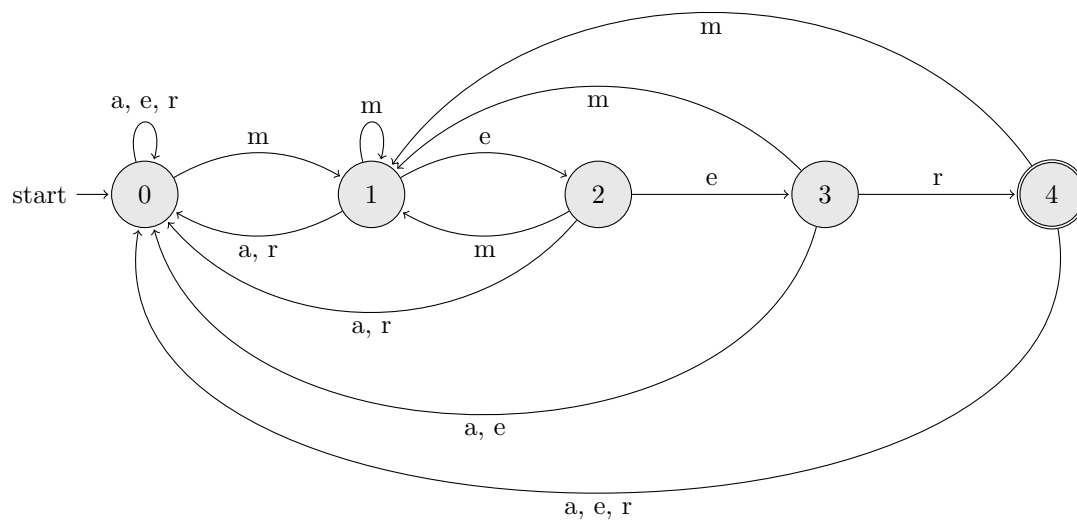
R an L anhängen:



H2

a)

4 ist unser akzeptierender Zustand:



b)

sft	T[sft]	st	L
0	a	0	
1	m	1	
2	e	2	
3	r	0	
4	m	1	
5	e	2	
6	m	1	
7	e	2	
8	e	3	
9	r	4	[6]
10	m	1	[6]
11	a	0	[6]
12	m	1	[6]
13	e	2	[6]
14	e	3	[6]
15	r	4	[6, 12]
16	a	0	[6, 12]

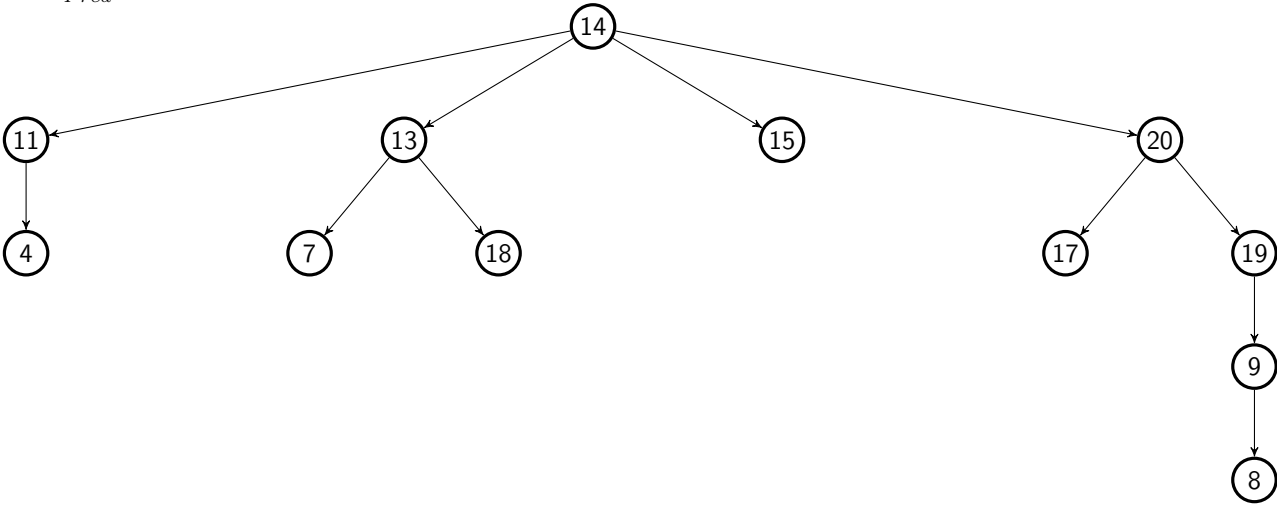
H3

i)

Iteration	u	v	Q
0	-	□	[14]
1	14	11, 13, 15, 20	[11, 13, 15, 20]
2	11	4	[13, 15, 20, 4]
3	13	7, 18	[15, 20, 4, 7, 18]
4	15	□	[20, 4, 7, 18]
5	20	17, 19	[4, 7, 18, 17, 19]
6	4	□	[7, 18, 17, 19]
7	7	□	[18, 17, 19]
8	18	□	[17, 19]
9	17	□	[19]
10	19	9	[9]
11	9	8	[8]
12	8	□	[]

ii)

$G_{Pred}^{14} =$



c)

Folgende vier Kanten erfüllen die gewünschten Eigenschaften:

- $\{10, 16\}$
- $\{16, 18\}$
- $\{12, 17\}$
- $\{1, 4\}$

Hier nochmal die Kanten in Blau eingefügt:

