

# HW09 – Part2

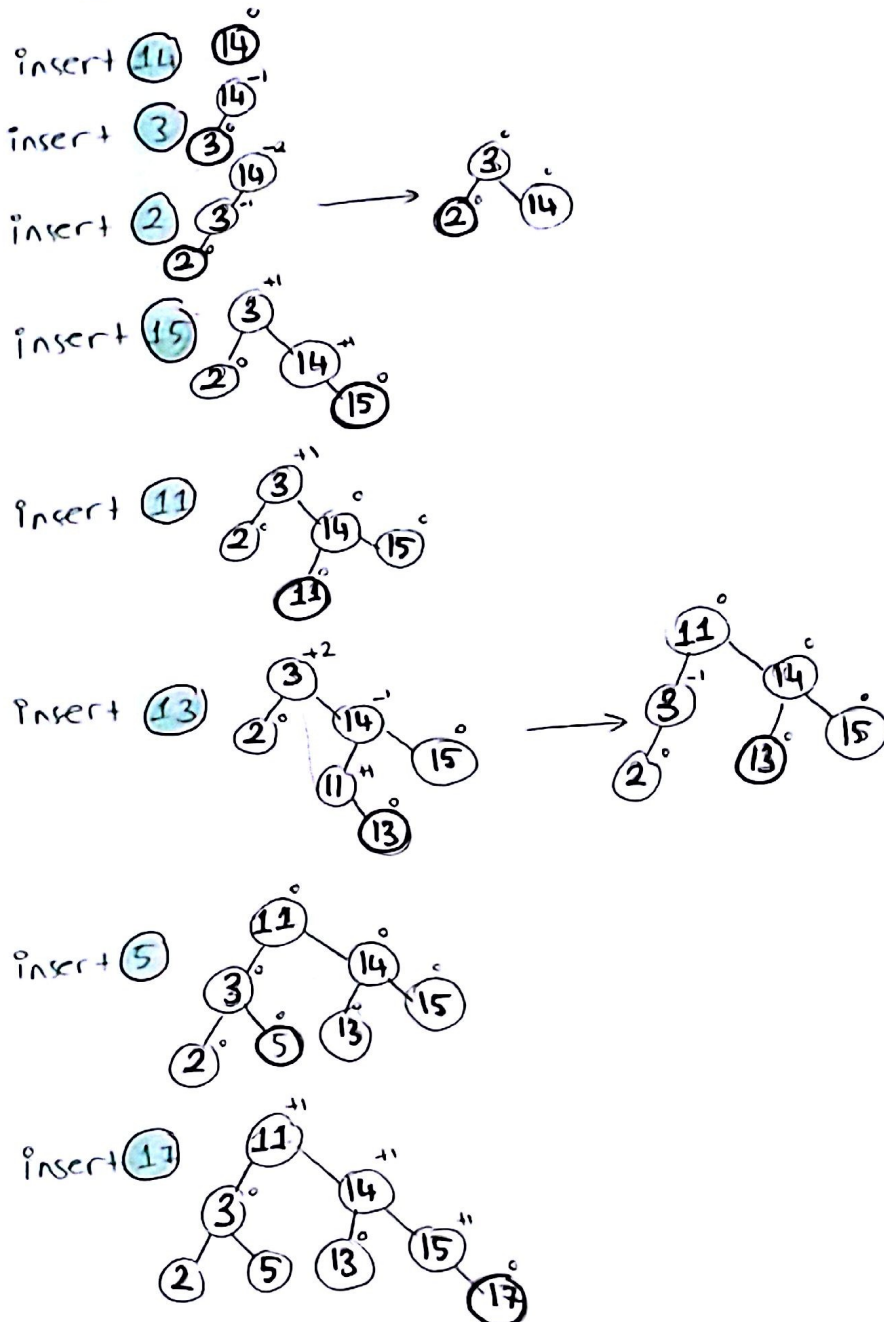
## İlayda Zeynep Özdemir

AVL Tree

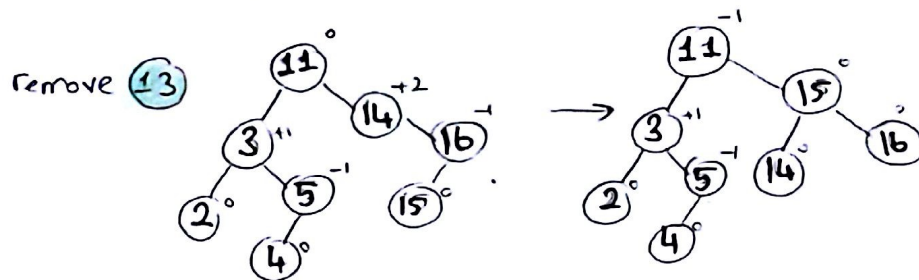
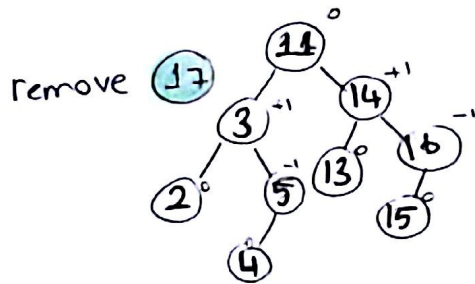
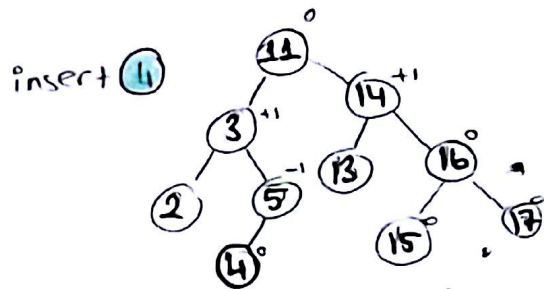
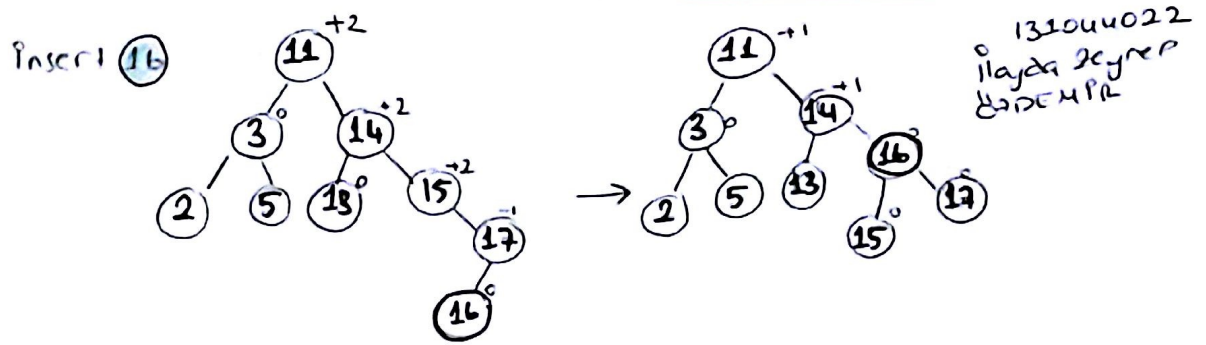
HOMEWORK-09

İlayda Zeynep Özdemir  
131044022

AVL Tree



①



B-tree'nin max'ini 3 seçtiğimizde 2-3 tree ile aynı oluyor.

B-Tree (M=3)  
2-3 Tree

İlkada 2'ye göre ÖZDEHİR 131044022

→ M=3  
B-Tree 11 2-3 Tree

insert 14 (14)

insert 3 (3, 14)

insert 2 (2, 3, 14) →

```

    graph TD
      3((3)) --- 2((2))
      3 --- 14((14))
    
```

insert 15

```

    graph TD
      3((3)) --- 2((2))
      3 --- 14_15((14, 15))
    
```

insert 11

```

    graph TD
      3_14((3, 14)) --- 2((2))
      3_14 --- 11_14_15((11, 14, 15))
      11_14_15 --- 11((11))
      11_14_15 --- 14((14))
      11_14_15 --- 15((15))
    
```

insert 13

```

    graph TD
      3_14((3, 14)) --- 2((2))
      3_14 --- 11_13((11, 13))
      11_13 --- 11((11))
      11_13 --- 13((13))
    
```

insert 5

```

    graph TD
      3_14((3, 14)) --- 2((2))
      3_14 --- 5_11_13((5, 11, 13))
      5_11_13 --- 5((5))
      5_11_13 --- 11((11))
      5_11_13 --- 13((13))
      3_14 --- 15((15))
      3_14 --- 3_11_14((3, 11, 14))
      3_11_14 --- 3((3))
      3_11_14 --- 11((11))
      3_11_14 --- 14((14))
      3_11_14 --- 15((15))
    
```

insert 17

```

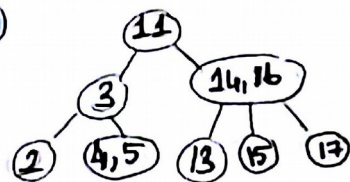
    graph TD
      11((11)) --- 3((3))
      11 --- 14((14))
      3 --- 2((2))
      3 --- 5((5))
      14 --- 13((13))
      14 --- 15_17((15, 17))
    
```

insert 16

```

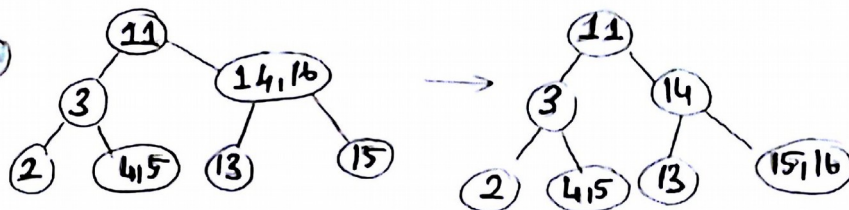
    graph TD
      11((11)) --- 3((3))
      11 --- 14_16((14, 16))
      3 --- 2((2))
      3 --- 5((5))
      14_16 --- 13((13))
      14_16 --- 15((15))
      14_16 --- 17((17))
    
```

Insert (4)



131044022  
ilayajayap  
B+DEMP2

Remove (17)



Remove (13)

