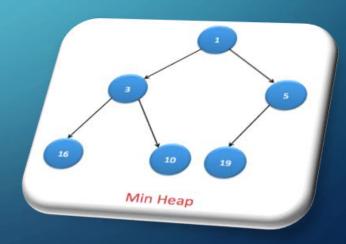
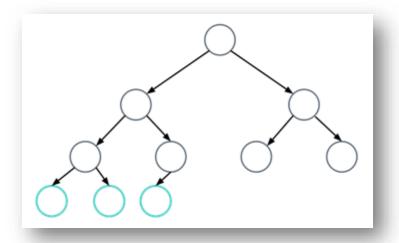
HEAP TREE ALGORITHM

MIN HEAP



Heap Algorithm

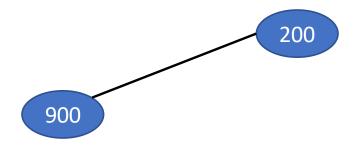
- A complete tree is a binary tree, where all the levels are full, except the last one, where all the nodes are packed on the left.
- A heap is a complete binary tree, where all the parents are greater than their children (max-heap). If all the children are greater than their parents it is considered to call the heap a (min-heap)

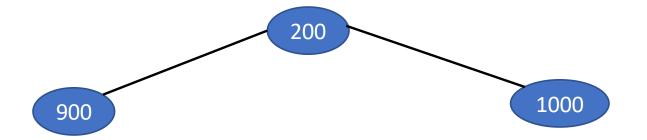


900

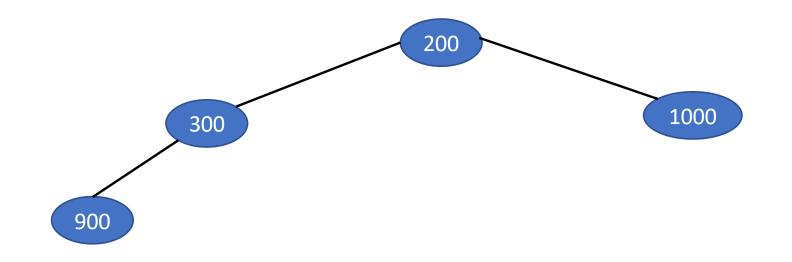


| 200 | 900 | | | | |
|-----|-----|--|--|--|--|
| | | | | | |

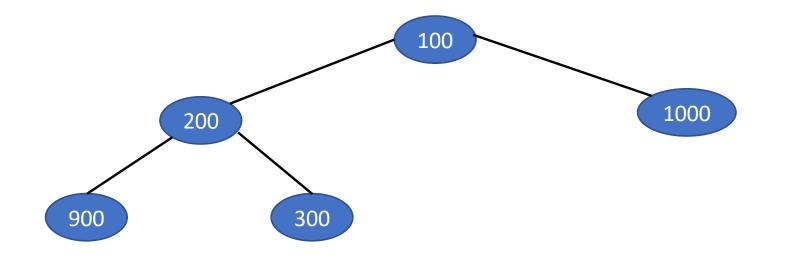




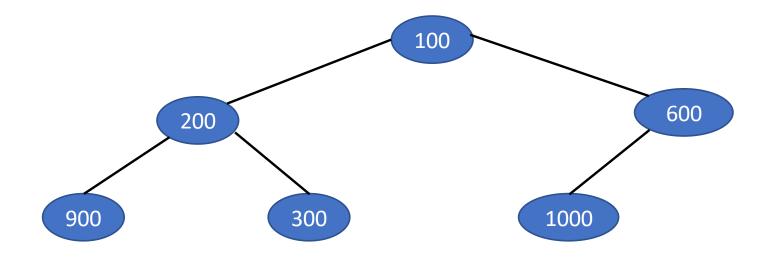
| | 200 | 300 | 1000 | 900 | | | | | | |
|--|-----|-----|------|-----|--|--|--|--|--|--|
|--|-----|-----|------|-----|--|--|--|--|--|--|



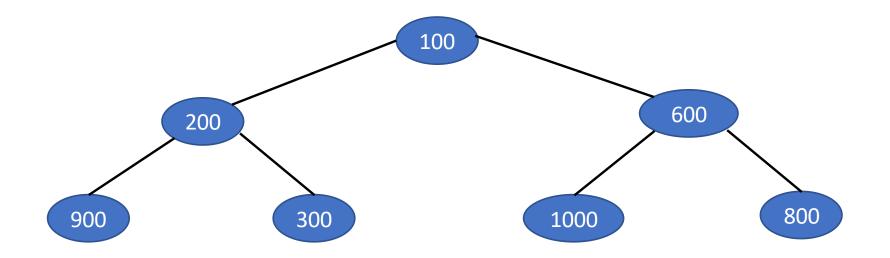
| 100 | 200 | 1000 | 900 | 300 | | | |
|-----|-----|------|-----|-----|--|--|--|
| | | | | | | | |



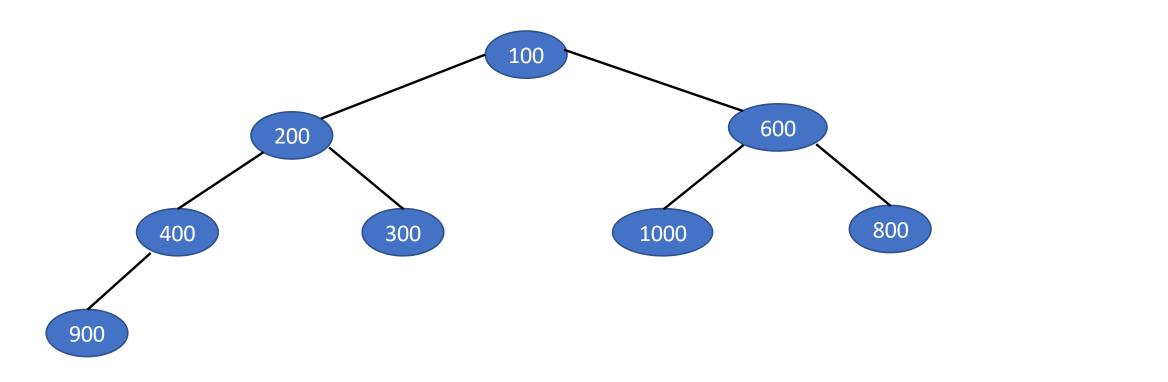
| | | 100 | 200 | 600 | 900 | 300 | 1000 | | | | |
|--|--|-----|-----|-----|-----|-----|------|--|--|--|--|
|--|--|-----|-----|-----|-----|-----|------|--|--|--|--|



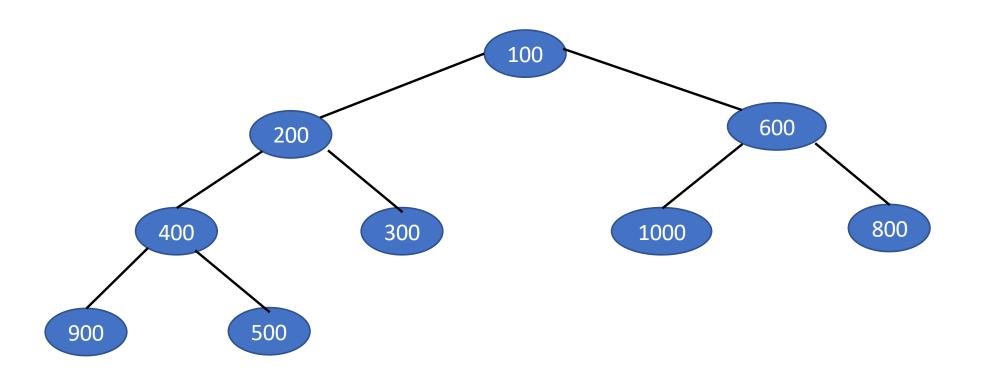
| | 100 | 200 | 600 | 900 | 300 | 1000 | 800 | | | |
|--|-----|-----|-----|-----|-----|------|-----|--|--|--|
|--|-----|-----|-----|-----|-----|------|-----|--|--|--|



| 100 | 200 | 600 | 400 | 300 | 1000 | 800 | 900 | |
|-----|-----|-----|-----|-----|------|-----|-----|---|
| | | | | | | | | 1 |



| 10 | 0 | 200 | 600 | 400 | 300 | 1000 | 800 | 900 | 500 | |
|----|---|-----|-----|-----|-----|------|-----|-----|-----|--|
| | | | | | | | | | | |



| 100 | 200 | 600 | 400 | 300 | 1000 | 800 | 900 | 500 | 700 |
|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|
| | | | | | | | | | |

