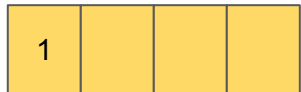


Bulk Load

Bulk Loading: $d = 2$, $f = 3/4$

** GREY indicates an INTERMEDIATE step, which is not a valid state*

Inserting 0-16 in order into an empty B+ tree



Bulk Loading: $d = 2$, $f = 3/4$

*** *GREY indicates an INTERMEDIATE step, which is not a valid state***

1	2		
---	---	--	--

Bulk Loading: $d = 2$, $f = 3/4$

*** *GREY indicates an INTERMEDIATE step, which is not a valid state***

1	2	3	
---	---	---	--

Bulk Loading: $d = 2$, $f = 3/4$

** GREY indicates an INTERMEDIATE step, which is not a valid state*

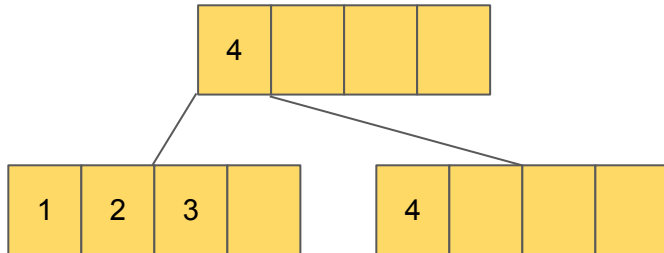
Leaf node has exceeded fill factor of $3/4$ (since there are more than 3 entries)

1	2	3	4
---	---	---	---

Bulk Loading: $d = 2$, $f = 3/4$

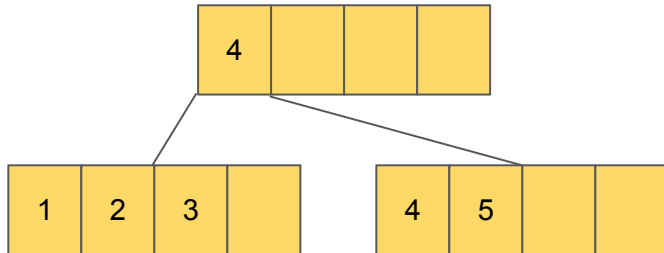
* *GREY indicates an INTERMEDIATE step, which is not a valid state*

Split leaf node



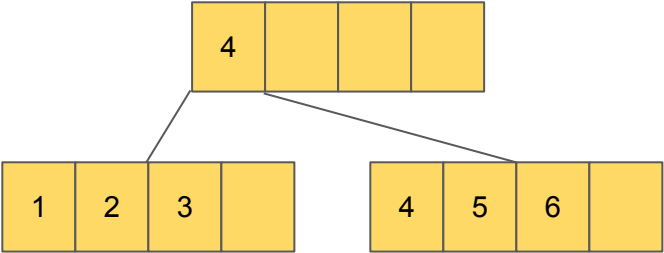
Bulk Loading: $d = 2$, $f = 3/4$

** GREY indicates an INTERMEDIATE step, which is not a valid state*



Bulk Loading: $d = 2, f = 3/4$

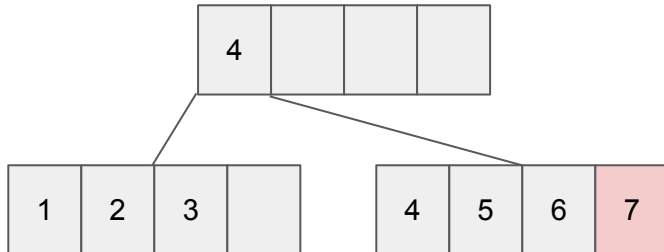
* GREY indicates an INTERMEDIATE step, which is not a valid state



Bulk Loading: $d = 2$, $f = 3/4$

** GREY indicates an INTERMEDIATE step, which is not a valid state*

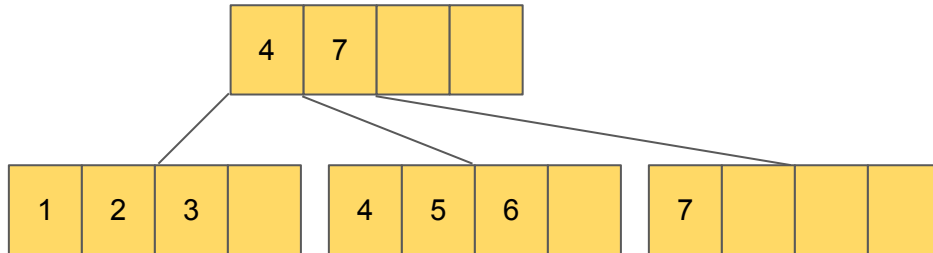
Leaf node has exceeded fill factor of $3/4$ (since there are more than 3 entries)



Bulk Loading: $d = 2$, $f = 3/4$

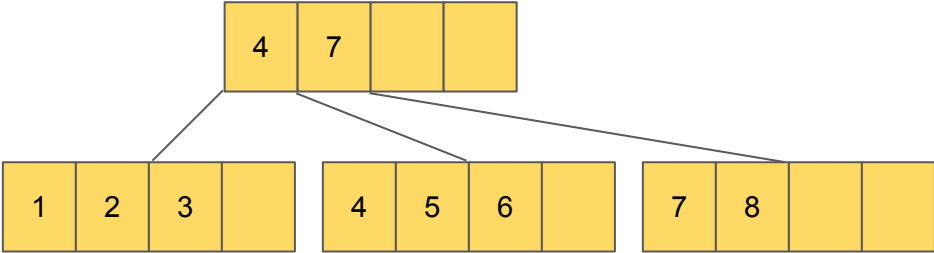
* *GREY indicates an INTERMEDIATE step, which is not a valid state*

Split leaf node



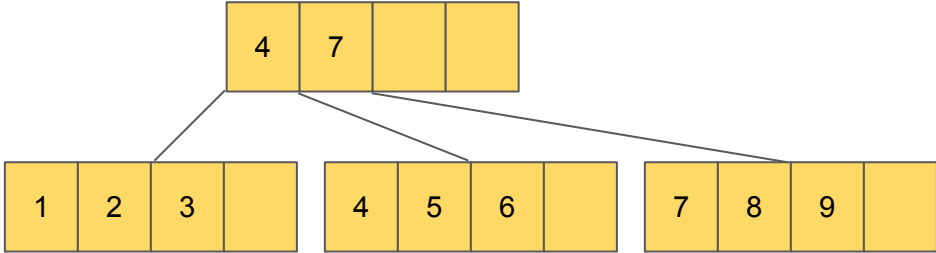
Bulk Loading: $d = 2, f = 3/4$

* GREY indicates an INTERMEDIATE step, which is not a valid state



Bulk Loading: $d = 2, f = 3/4$

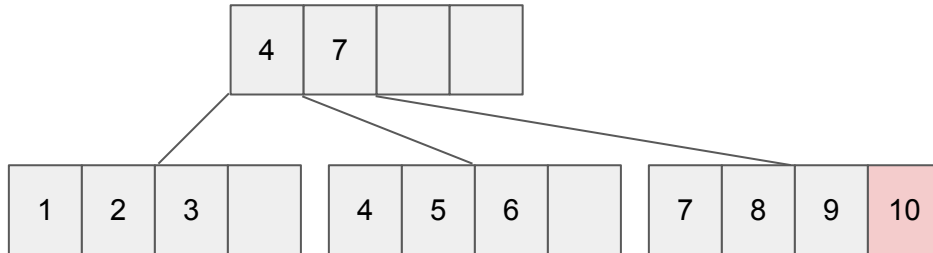
* GREY indicates an INTERMEDIATE step, which is not a valid state



Bulk Loading: $d = 2$, $f = 3/4$

** GREY indicates an INTERMEDIATE step, which is not a valid state*

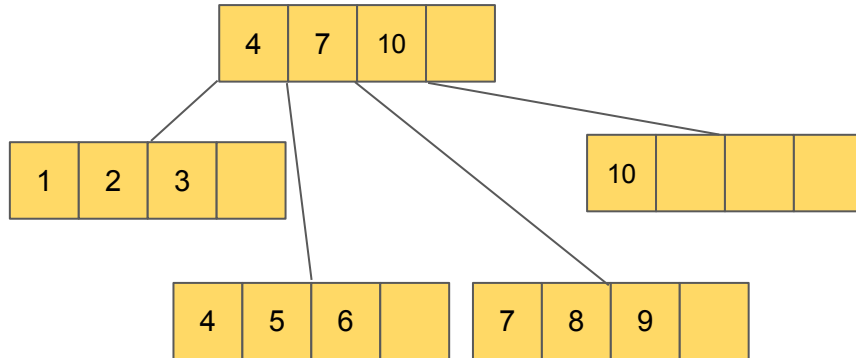
Leaf node has exceeded fill factor of $3/4$ (since there are more than 3 entries)



Bulk Loading: $d = 2$, $f = 3/4$

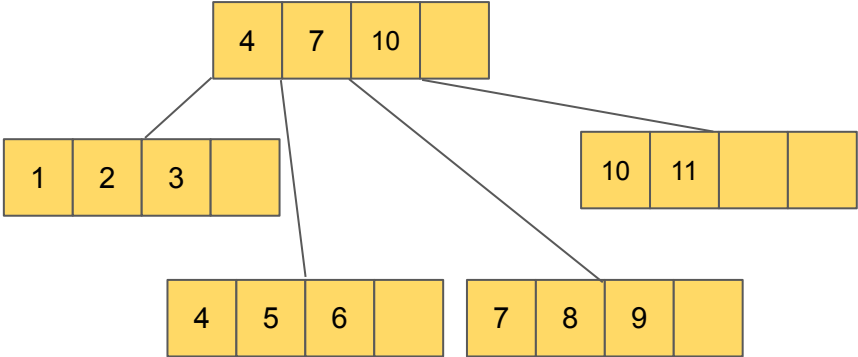
* *GREY indicates an INTERMEDIATE step, which is not a valid state*

Split leaf node



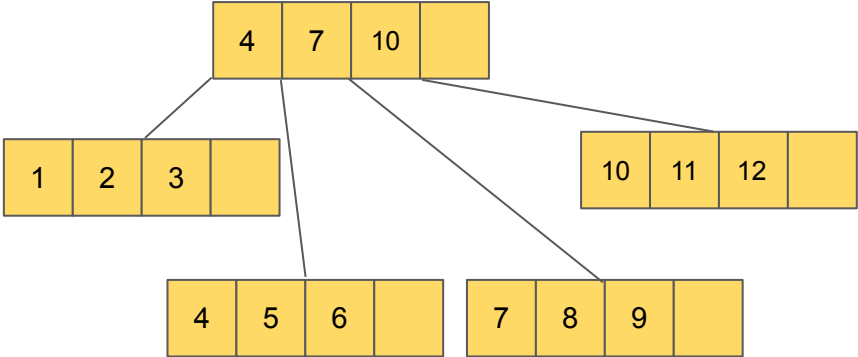
Bulk Loading: $d = 2, f = 3/4$

* GREY indicates an INTERMEDIATE step, which is not a valid state



Bulk Loading: $d = 2, f = 3/4$

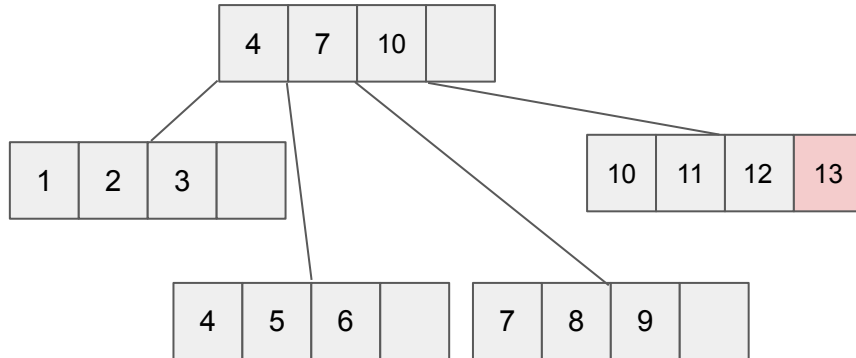
* GREY indicates an INTERMEDIATE step, which is not a valid state



Bulk Loading: $d = 2$, $f = 3/4$

** GREY indicates an INTERMEDIATE step, which is not a valid state*

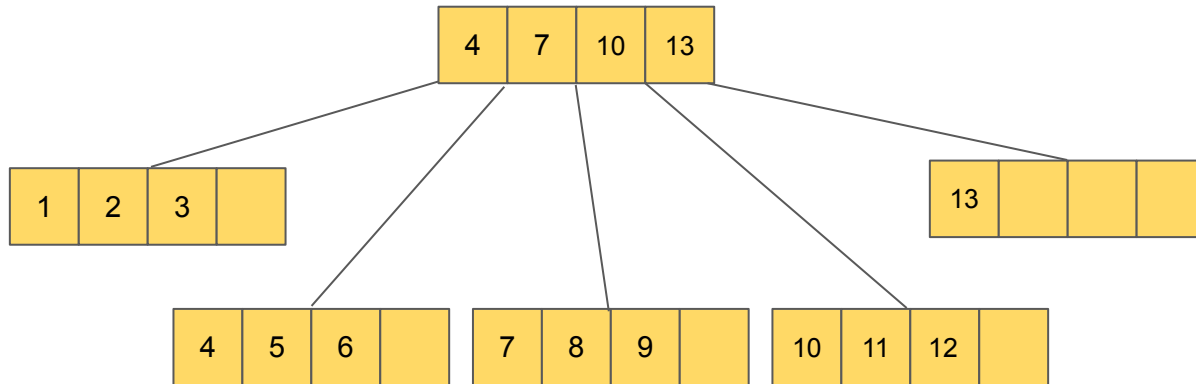
Leaf node has exceeded fill factor of $3/4$ (since there are more than 3 entries)



Bulk Loading: $d = 2$, $f = 3/4$

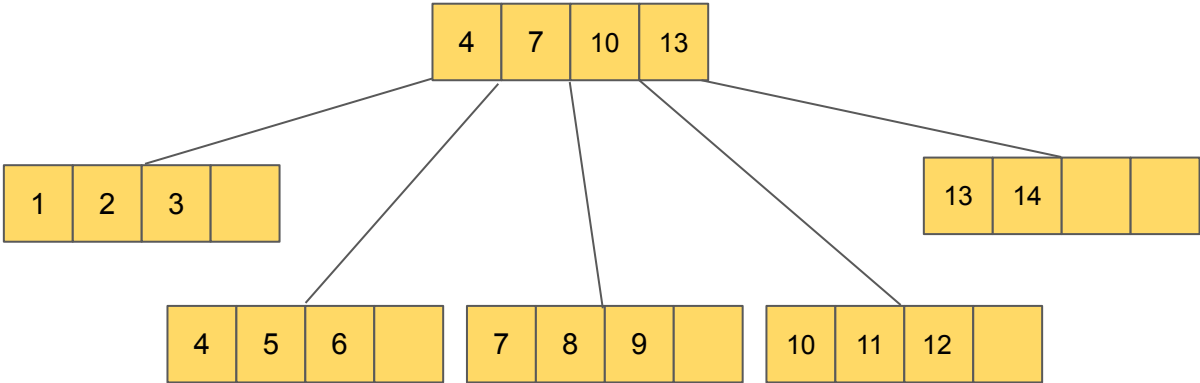
** GREY indicates an INTERMEDIATE step, which is not a valid state*

Split leaf node



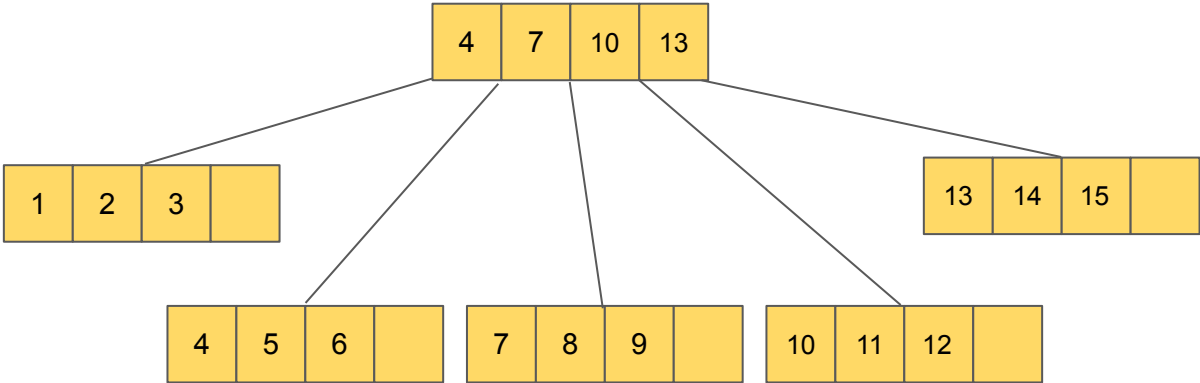
Bulk Loading: $d = 2, f = 3/4$

* GREY indicates an INTERMEDIATE step, which is not a valid state



Bulk Loading: $d = 2, f = 3/4$

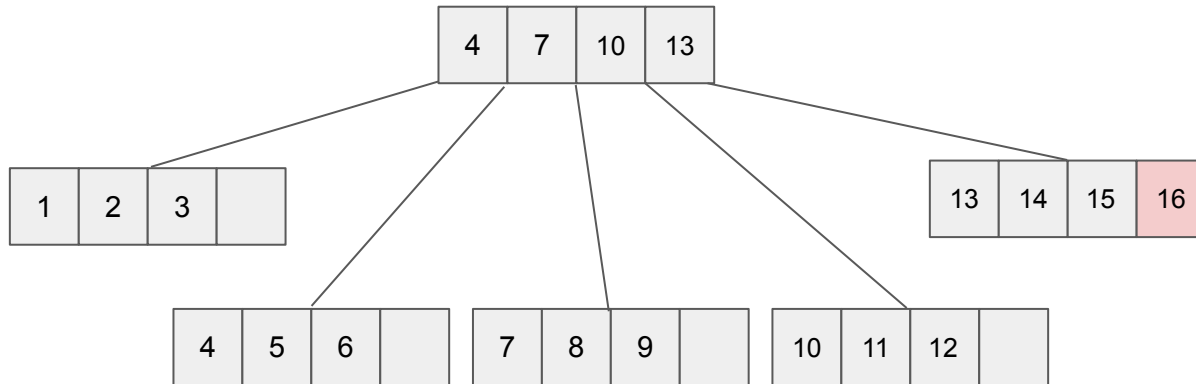
* GREY indicates an INTERMEDIATE step, which is not a valid state



Bulk Loading: $d = 2$, $f = 3/4$

** GREY indicates an INTERMEDIATE step, which is not a valid state*

Leaf node has exceeded fill factor of $3/4$ (since there are more than 3 entries)

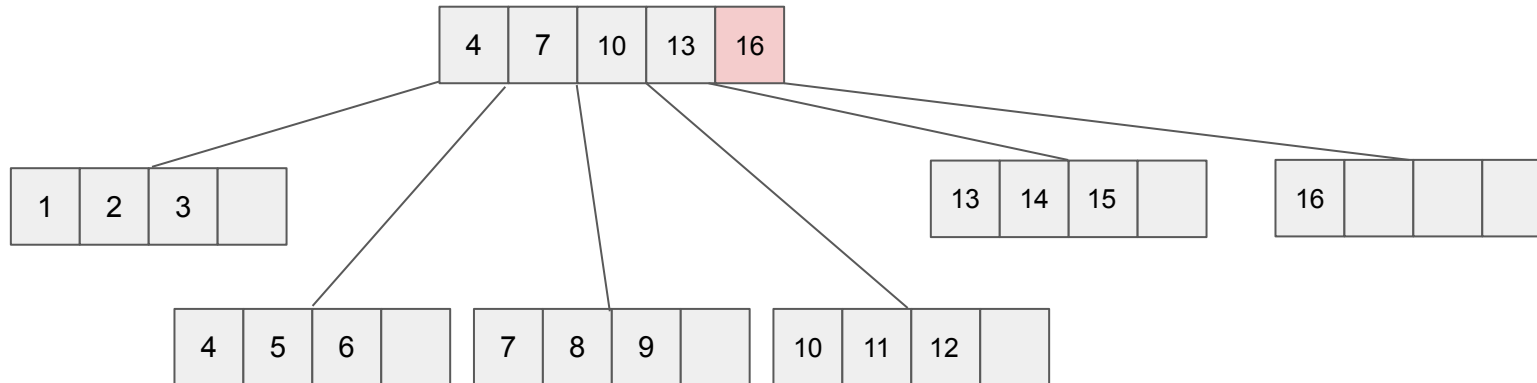


Bulk Loading: $d = 2$, $f = 3/4$

** GREY indicates an INTERMEDIATE step, which is not a valid state*

Split leaf node

Parent node is full (since there are more than 4 entries)



Bulk Loading: $d = 2$, $f = 3/4$

** GREY indicates an INTERMEDIATE step, which is not a valid state*

Split parent node into 2 nodes with $d = 2$ entries each

