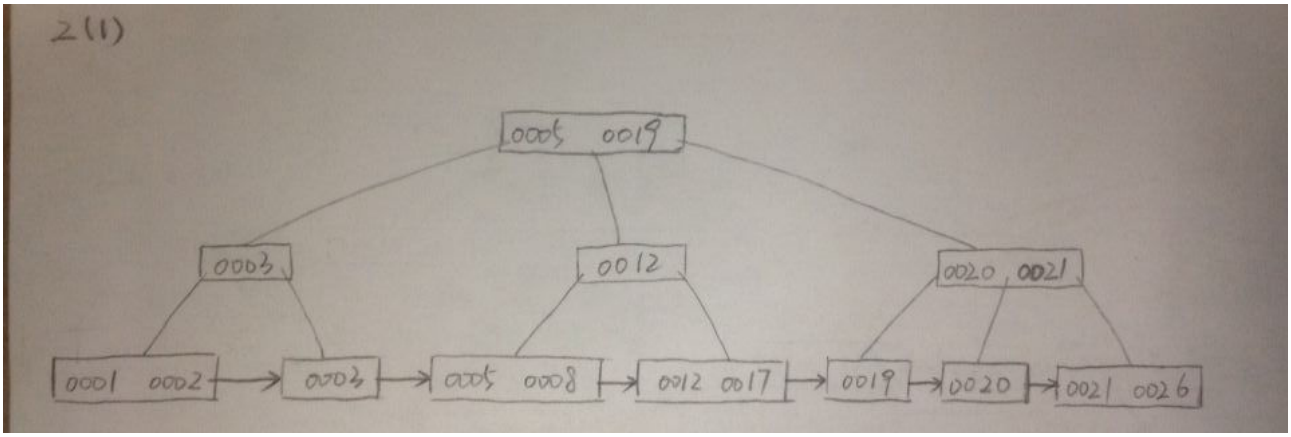
Name: Jian Shi
ID:7983158453
Email: jians@usc.edu

Q1

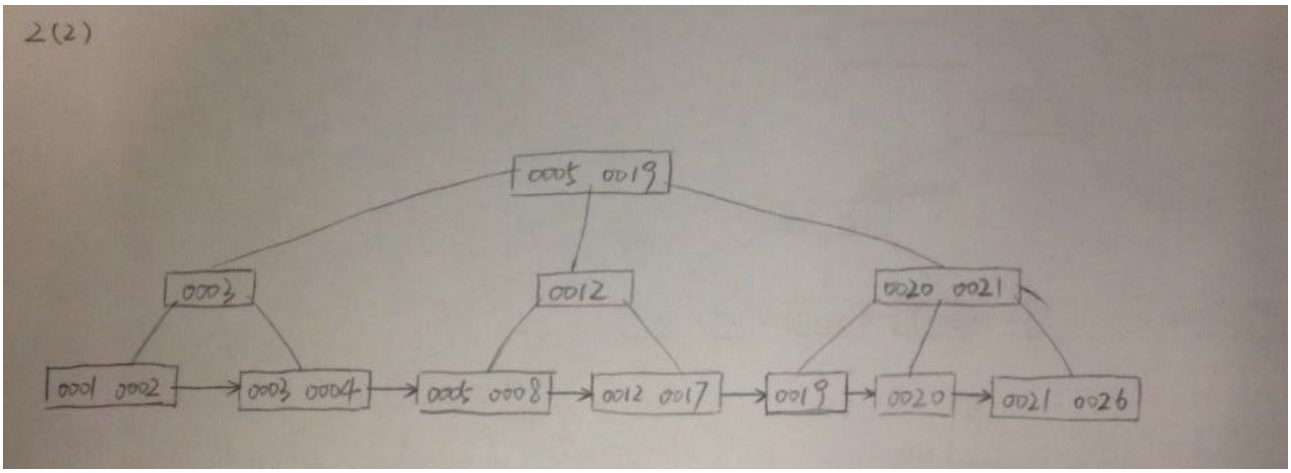
1. 4 levels

2.

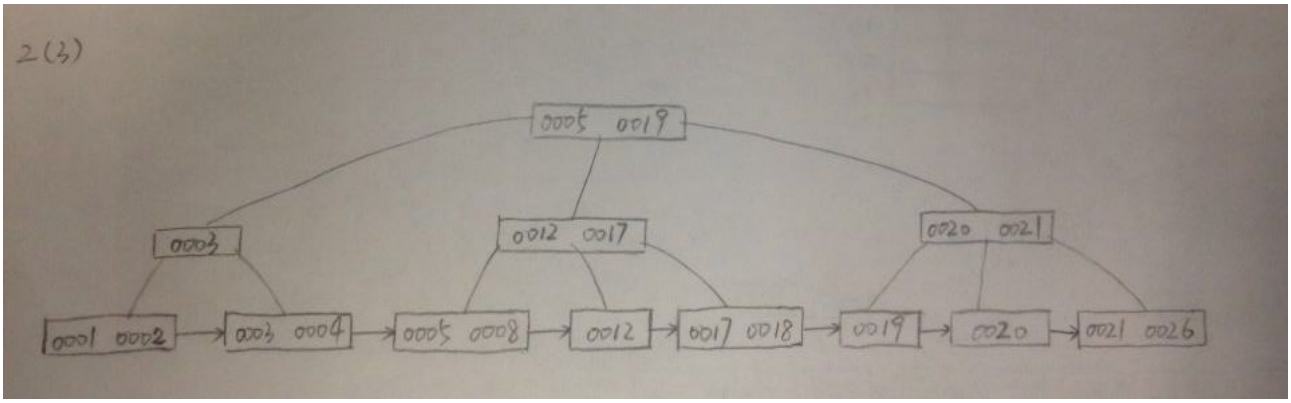
AFTER INSERTION OF 1:



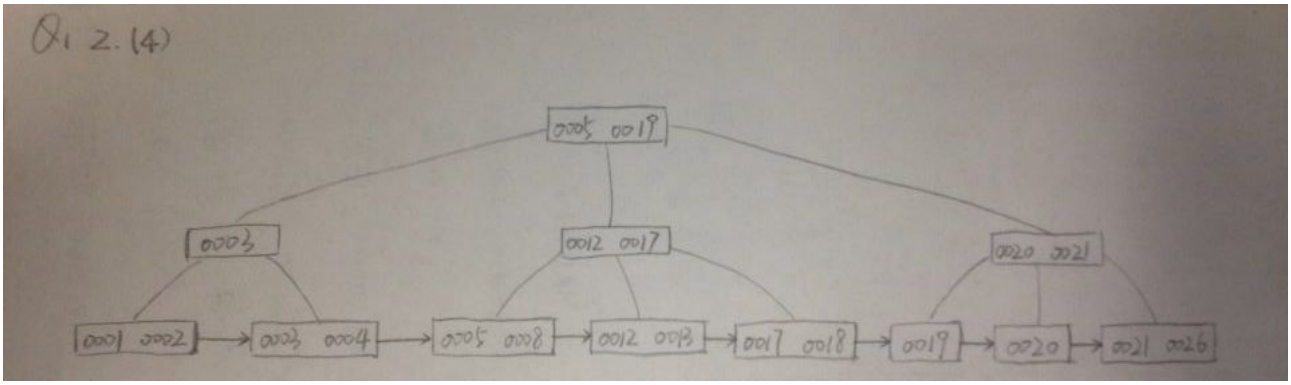
AFTER INSERTION OF 4:



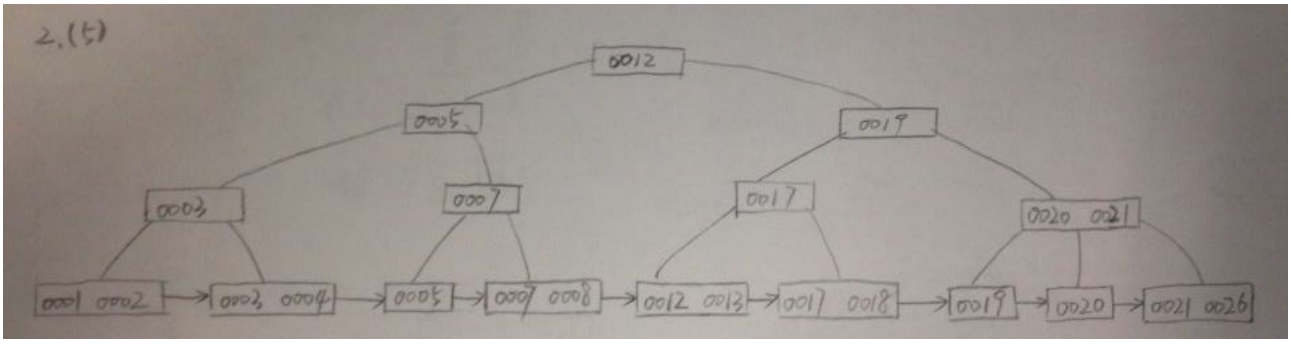
AFTER INSERTION OF 18:



AFTER INSERTION OF 13:



AFTER INSERTION OF 7:

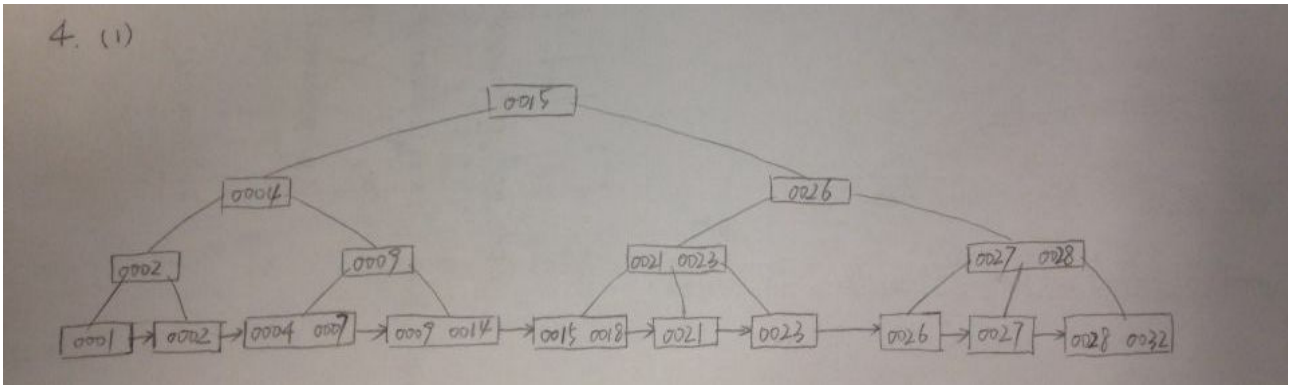


3.

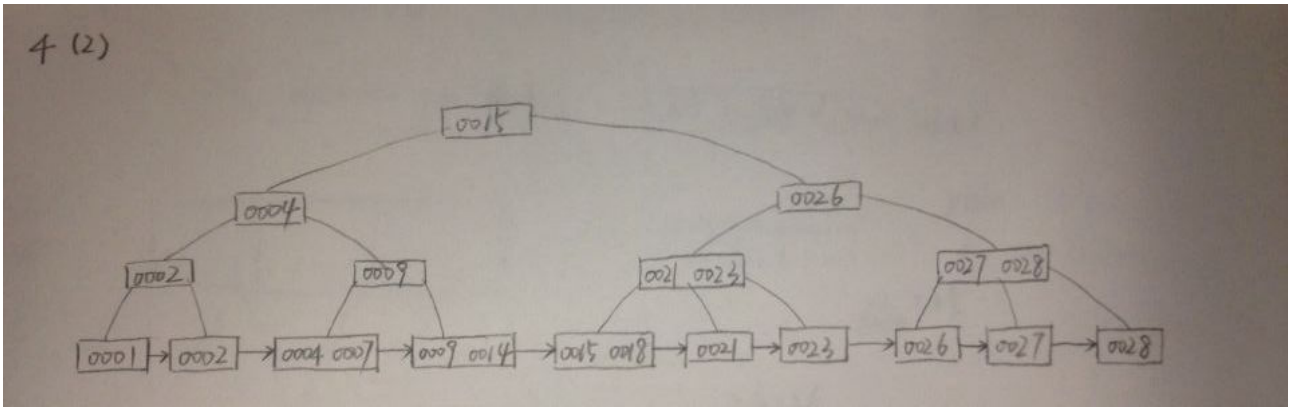
7, 8, 9, 10, 23, 25, 26, 27, 28, 29, 30, 31, 32

4.

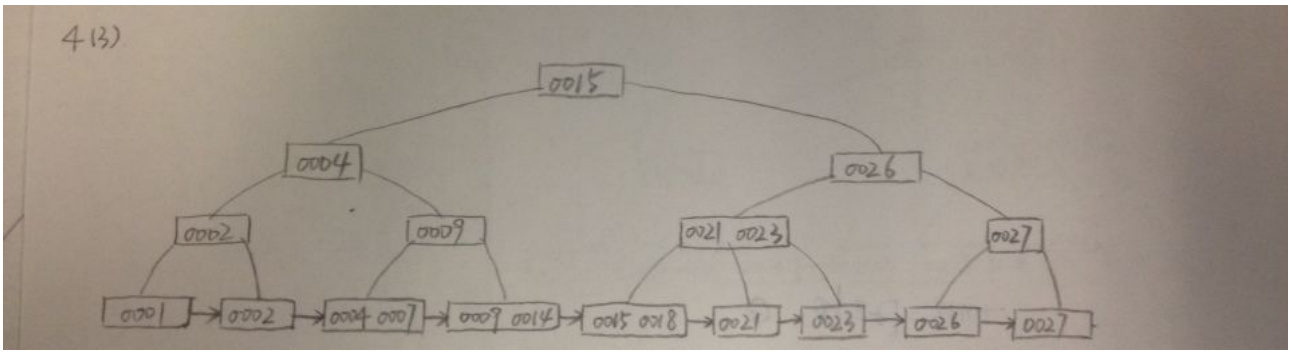
AFTER DELETION OF 24:



AFTER DELETION OF 32



AFTER DELETION OF 28:



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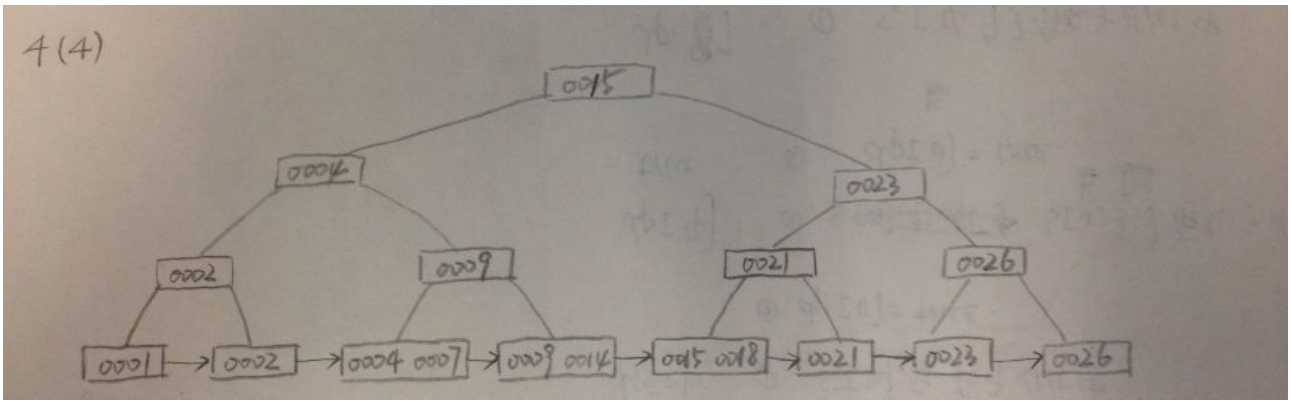

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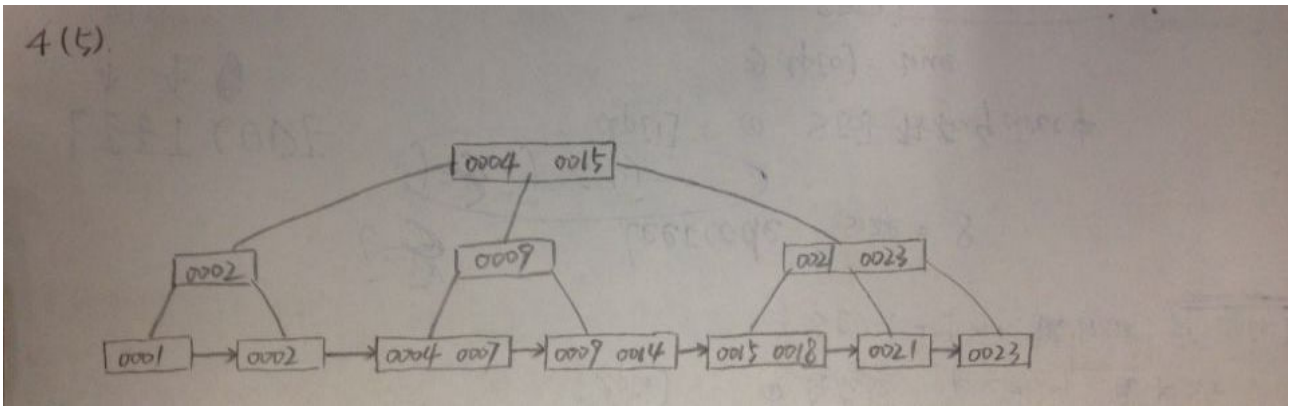
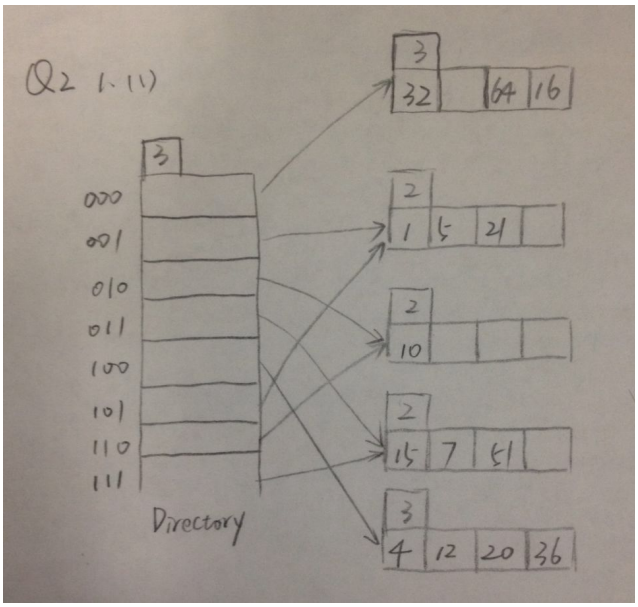
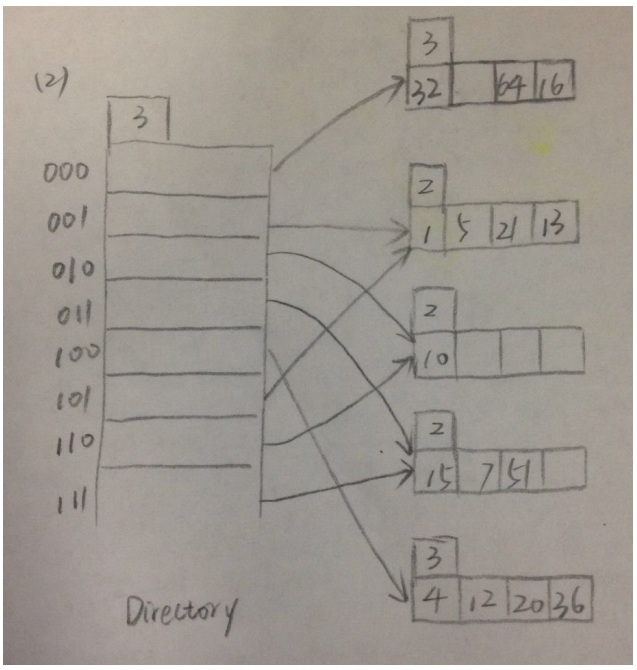


Q2

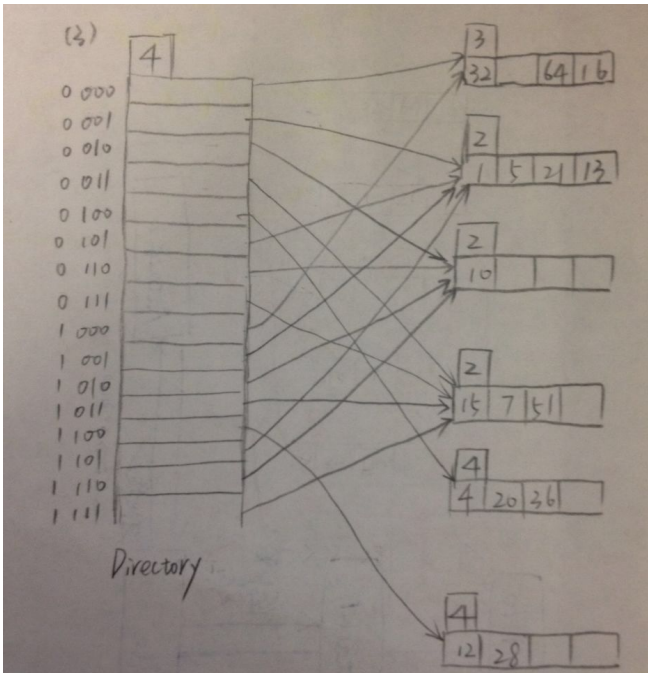
1.
AFTER INSERTION OF 32:



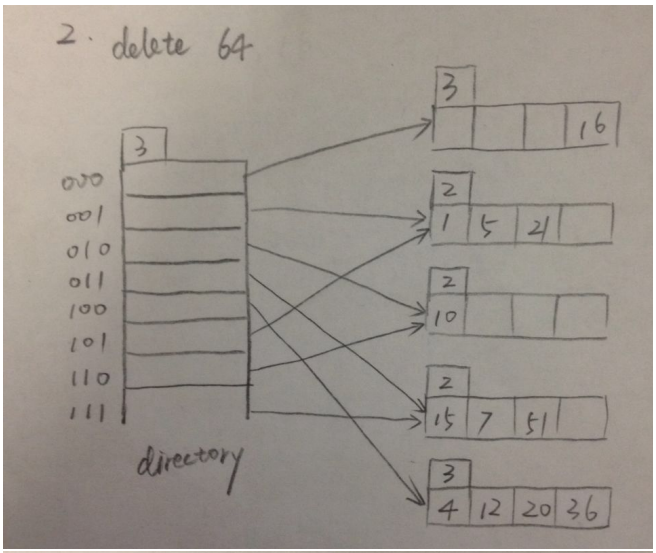
AFTER INSERTION OF 13:

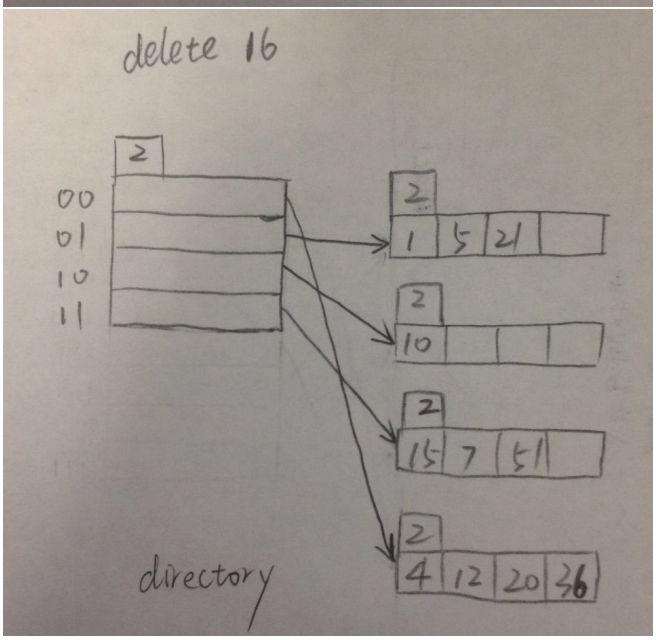


AFTER INSERTION OF 28:



2. AFTER DELETION OF 64 AND 16:





Q3

1.

ATTRIBUTES:

Users.dob

INDEXING TECHNIQUE:

clustered B+

2.

ATTRIBUTES:

Users.username

INDEXING TECHNIQUE:

hashing

3.

ATTRIBUTES:

Ads.username, Ads.price

INDEXING TECHNIQUE:

clustered B+ indexing on both Ads.username and Ads.price.