Sql

Events

Users log in

Like, participate, comment, view others’ activities

Login to view events

Browse a **paginated** list of events

**Event\_tab:**

Event\_id, start\_date, end\_date, name, address, liked\_user\_ids

**Event\_photo\_tab ( 1 to n)**

Id, filepath, event\_id

* Search for an event’s photos

Sql: select \* from event\_photo\_tab where event\_id = 123;

**User\_tab:**

User\_id, username, password

**Like\_tab (n to n)**

Id, event\_id, user\_id,

* Search for users that like an event with event\_id 123

Select \* from like\_tab where event\_id = 123

Inner join user\_tab where user\_tab.user\_id = like\_tab.user\_id

Comment? Participate? Channel?

Get comments for a event?

Get user who participates in an event?

Get events belong to a channel?

Search for specific events by date ranges and channels 搜索 index

索引

Select \* from user\_tab where user\_id = 5

搜索 log(n) => B tree

Index: **search is faster**, insert is slower

A table can have multiple indexes

Too many indexes => insert may too slow

User\_id, user\_name

1 user1

2 user2

3 user3

4 user4

5

6

7

8

…