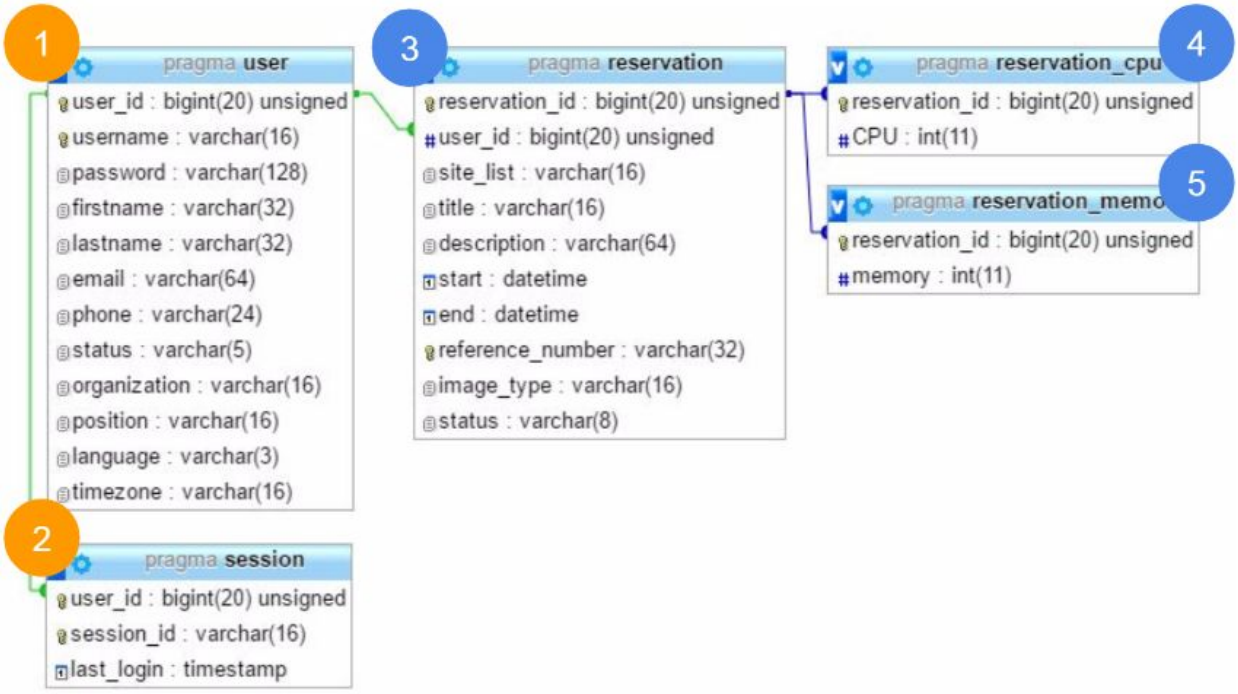
Meeting minutes #6

From meeting date : 27 JAN 2017 9.00-10.00 AM
Next meeting date : 10 FEB 2017 9.00-10.00 AM

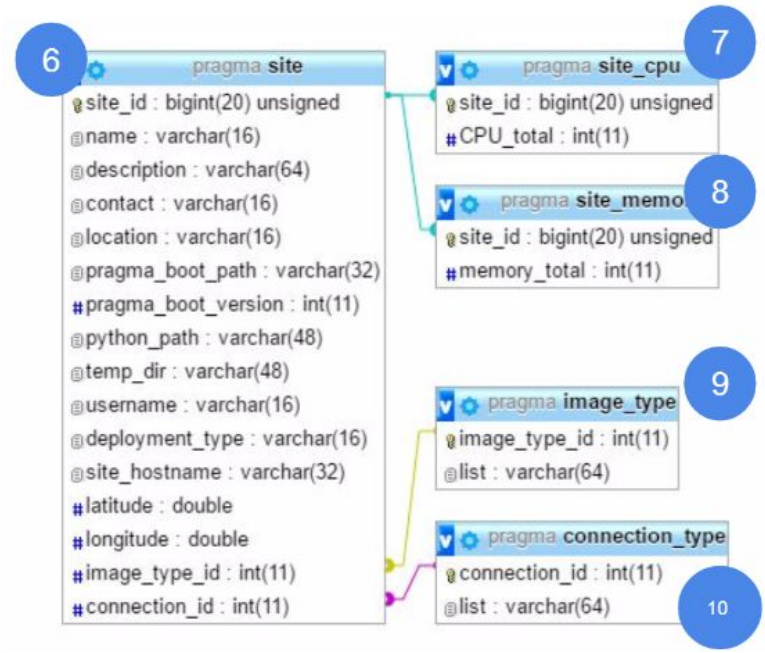
Today, we've talked about the new database schema and transactions for accessing database.

From comments we have to think about:

- In the reservation table, How can we keep data about number of CPU and memory for each site, if there are more than 1 site in a reservation and different amount in each site.



- The image_type table makes difficult searching. For example, if user want CentOS, then we have to check from every row in the table which one have CentOS in their list. Therefore, we have to think about another way to keep this data, may be store list of image type id in site table and specify in image_type table 1 id for 1 image type.



- For calculating the available resources every time will be waste time, so we may be have to use cache for every period of time or create a new database to store amount of available resources with time slot.

```
"Search"

SELECT * FROM 'site';

//keep only sites which have network connection type and image type as same as what user want.

SELECT * FROM 'site_memory' WHERE 'site_id' = [id];
SELECT * FROM 'site_CPU' WHERE 'site_id' = [id];

START TRANSACTION;

SELECT 'reservation_id' FROM 'reservation' WHERE [time] BETWEEN 'begin' AND 'end' AND 'site_id' = [id];

For 'reservation_id' in list of reservations:
    SELECT 'memory' FROM 'reservation_memory' WHERE 'reservation_id' = [id];
    SELECT 'CPU' FROM 'reservation_CPU' WHERE 'reservation_id' = [id];
    //subtracts CPU and memory reserved from total of each site.

COMMIT;

//return only sites which have available resources enough.
```

- If some statement can be joined, we have to do it to reduce to minimum, such as this following SELECT statements.

```
SELECT * FROM 'site';

//keep only sites which have network connection type

SELECT * FROM 'site_memory' WHERE 'site_id' = [id];
SELECT * FROM 'site_CPU' WHERE 'site_id' = [id];
```

- Comparing the overhead about (1) Separating site_CPU and site_memory table, so if there are more resource type we only have to create the new table without editing the

old one and (2) combining site_CPU and site_memory into 1 table to reduce query statement.