## Trouble shooting

# Query

## Trouble 4. Query Indexing

#### 문제상황

입찰 데이터 조건 검색 조건인 bidSize에 인덱스 적용했으나 성능 개선이 발생하지 않았음 (조건 신발 사이즈(bidSize=280)와 비딩 생성 날짜(order by createdAt))

### 가설 및 정의

신발 사이즈(bidSize) 데이터의 범위는 250 - 300 사이수준으로, 중복도가 높아 인덱스의 효과가 미미한 것이 문제

```
tablename indexname
Bid
         | PK 88960f301c458b51987cd93dbb9 |
Bid
         idx_raffleid
explain analyze select * from "Bid" b where "bidSize" = 280 order by "createdAt" desc limit 2000;
QUERY PLAN
      (cost=103448.50..103681.85 rows=2000 width=48) (actual time=324.262..327.186 rows=2000 loops=1)
     Gather Merge (cost=103448.50..157240.95 rows=461046 width=48) (actual time=324.260..327.071 rows=2000 loops=1)
       Workers Planned: 2
       Workers Launched: 2
        -> Sort (cost=102448.47..103024.78 rows=230523 width=48) (actual time=317.568..317.635 rows=1223 loops=3)
             Sort Key: "createdAt" DESC
             Sort Method: top-N heapsort Memory: 409kB
             Worker 0: Sort Method: top-N heapsort Memory: 409kB
             Worker 1: Sort Method: top-N heapsort Memory: 409kB
             -> Parallel Seq Scan on "Bid" b (cost=0.00..88656.53 rows=230523 width=48) (actual time=0.008..248.258 rows=184556 loops=3)
                   Filter: ("bidSize" = 280)
                   Rows Removed by Filter: 1843510
Planning Time: 0.077 ms
Execution Time: 327.278 ms
```

```
200 OK
                        383.5 KB
            490 ms
                                                      Just Now ▼
Preview -
                            Cookies
                                        Timeline
    1- [
           "createdAt": "2023-03-12T00:12:28.380Z",
            "updatedAt": "2023-03-12T00:12:28.380Z",
           "deletedAt": null,
           "bidId": 6084286,
            "bidSize": 280,
            "bidPrice": 189000,
            "bidQuantity": null,
           "usersId": 50768,
           "raffleId": 9510
   11
   12
```