





Noodle.js A6 Team



200 OK

99.5 ms

383.5 KB

Just Now ▼

Preview ▼

Headers<sup>9</sup>

Cookies

Timeline

```
1 ▼ [
2 ▼   {
3     "createdAt": "2023-03-12T00:12:28.380Z",
4     "updatedAt": "2023-03-12T00:12:28.380Z",
5     "deletedAt": null,
6     "bidId": 6084286,
7     "bidSize": 280,
8     "bidPrice": 189000,
9     "bidQuantity": null,
10    "userId": 50768,
11    "raffleId": 9510
12  },
```

tablename	indexname	
Bid	PK_88960f301c458b51987cd93dbb9	
Bid	idx_raffleid	
Bid	idx_bidsize	
Bid	idx_createddate	

```
explain analyze select * from "Bid" b where "bidSize" = 280 order by "createdAt" desc limit 2000;
```

QUERY

PLAN

```
-----
Limit  (cost=0.43..832.81 rows=2000 width=48) (actual time=0.040..8.137 rows=2000
loops=1)
  ->  Index Scan Backward using idx_createddate on "Bid" b  (cost=0.43..230257.99 rows=553256 width=48) (actual time=0.039..8.013 rows=2000
loops=1)
Filter: ("bidSize" = 280)
Rows Removed by Filter: 19661
Planning Time: 0.142 ms
Execution Time: 8.220ms
```

# Module 4: Query Indexing

























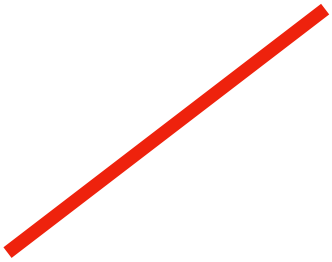


























문제상황

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 사이 수준으로, 중복도가 높아 인덱스의 효과가 미미한 것이 문제

해결방안

중복도가 낮은 생성 날짜(createdAt) 기준으로 인덱스를 적용하여 해결.  
실제 API 요청 시, 인덱스 적용 후 75% 이상 검색 성능 개선

```
tablename|indexname|
-----+-----+
Bid      |PK_88960f301c458b51987cd93dbb9|
Bid      |idx_raffleid|
Bid      |idx_bidsize|
Bid      |idx_createddate|

explain analyze select * from "Bid" b where "bidSize" = 280 order by "createdAt" desc limit 2000;

QUERY
PLAN

-----
Limit  (cost=0.43..832.81 rows=2000 width=48) (actual time=0.040..8.137 rows=2000
loops=1)
  ->  Index Scan Backward using idx_createddate on "Bid" b  (cost=0.43..230257.99 rows=553256 width=48) (actual time=0.039..8.013 rows=2000
loops=1)|
  Filter: ("bidSize" = 280)
  Rows Removed by Filter: 19661
  Planning Time: 0.142 ms
  Execution Time: 8.220ms
```

- 390ms(79%)

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7

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8

"bidPrice": 189000,

9

"bidQuantity": null,

10

"usersId": 50768,

11

"raffleId": 9510

12

},



# Trouble 4. Summary

Node.js A6 Team