Request #1 :

- Before Index :

	QUERY PLAN text	
1	Seq Scan on participation (cost=0.00..618.14 rows=10 width=21) (actual time=0.185..1.597 rows=10.00 loo...	
2	Filter: (player_id = 107)	
3	Rows Removed by Filter: 20001	
4	Buffers: shared hit=368	
5	Planning Time: 0.084 ms	
6	Execution Time: 1.614 ms	

- After Index :

	QUERY PLAN text	
1	Index Scan using idx_participation_player on participation (cost=0.29..31.62 rows=10 width=21) (actual time=0.049..0.058 rows=10.00 loo...	
2	Index Cond: (player_id = 107)	
3	Index Searches: 1	
4	Buffers: shared hit=10 read=2	
5	Planning:	
6	Buffers: shared hit=15 read=1	
7	Planning Time: 0.408 ms	
8	Execution Time: 0.072 ms	

Request #2 :

- Before Index :

	QUERY PLAN text	🔒
1	Index Scan using ukoivbimcon0iqmb8efpv723h08 on player (cost=0.28..8.29 rows=1 width=69) (actual time=0.030..0.031 rows=1.00 loo…	
2	Index Cond: ((email)::text = 'eg2@gmail.com'::text)	
3	Index Searches: 1	
4	Buffers: shared hit=3	
5	Planning Time: 0.096 ms	
6	Execution Time: 0.048 ms	

- After Index :

	QUERY PLAN text	🔒
1	Index Scan using idx_player_email on player (cost=0.28..8.29 rows=1 width=69) (actual time=0.024..0.025 rows=1.00 loo…	
2	Index Cond: ((email)::text = 'eg2@gmail.com'::text)	
3	Index Searches: 1	
4	Buffers: shared hit=3	
5	Planning Time: 0.110 ms	
6	Execution Time: 0.041 ms	

Request #3 :

- ## Before Index :

	QUERY PLAN text	🔒
1	Limit (cost=158.28..158.28 rows=1 width=20) (actual time=2.159..2.161 rows=1.00 loops=1)	
2	Buffers: shared hit=75	
3	-> Sort (cost=158.28..159.17 rows=356 width=20) (actual time=2.158..2.159 rows=1.00 loops=1)	
4	Sort Key: (count(g.id)) DESC	
5	Sort Method: top-N heapsort Memory: 25kB	
6	Buffers: shared hit=75	
7	-> HashAggregate (cost=152.94..156.50 rows=356 width=20) (actual time=2.047..2.102 rows=322.00 loops=1)	
8	Group Key: p.full_name	
9	Batches: 1 Memory Usage: 56kB	
10	Buffers: shared hit=75	
11	-> Hash Join (cost=35.66..151.16 rows=356 width=20) (actual time=0.395..1.933 rows=356.00 loops=1)	
12	Hash Cond: (g.host_player_id = p.id)	
13	Buffers: shared hit=75	
14	-> Seq Scan on game g (cost=0.00..114.57 rows=356 width=16) (actual time=0.022..1.429 rows=356.00 loops=1)	
15	Filter: (date > (CURRENT_TIMESTAMP - '30 days'::interval))	
16	Rows Removed by Filter: 2648	
17	Buffers: shared hit=62	
18	-> Hash (cost=23.07..23.07 rows=1007 width=20) (actual time=0.366..0.367 rows=1007.00 loops=1)	
19	Buckets: 1024 Batches: 1 Memory Usage: 64kB	
20	Buffers: shared hit=13	
21	-> Seq Scan on player p (cost=0.00..23.07 rows=1007 width=20) (actual time=0.010..0.181 rows=1007.00 loo...	
22	Buffers: shared hit=13	
23	Planning:	
24	Buffers: shared hit=6	
25	Planning Time: 0.286 ms	
26	Execution Time: 2.201 ms	

- ## After Index :

	QUERY PLAN text	🔒
1	Limit (cost=122.99..122.99 rows=1 width=20) (actual time=0.708..0.709 rows=1.00 loops=1)	
2	Buffers: shared hit=52	
3	-> Sort (cost=122.99..123.88 rows=356 width=20) (actual time=0.707..0.709 rows=1.00 loops=1)	
4	Sort Key: (count(g.id)) DESC	
5	Sort Method: top-N heapsort Memory: 25kB	
6	Buffers: shared hit=52	
7	-> HashAggregate (cost=117.65..121.21 rows=356 width=20) (actual time=0.626..0.664 rows=322.00 loops=1)	
8	Group Key: p.full_name	
9	Batches: 1 Memory Usage: 56kB	
10	Buffers: shared hit=52	
11	-> Hash Join (cost=46.70..115.87 rows=356 width=20) (actual time=0.353..0.550 rows=356.00 loops=1)	
12	Hash Cond: (g.host_player_id = p.id)	
13	Buffers: shared hit=52	
14	-> Bitmap Heap Scan on game g (cost=11.04..79.27 rows=356 width=16) (actual time=0.081..0.175 rows=356.00 loops...	
15	Recheck Cond: (date > (CURRENT_TIMESTAMP - '30 days'::interval))	
16	Heap Blocks: exact=36	
17	Buffers: shared hit=39	
18	-> Bitmap Index Scan on idx_game (cost=0.00..10.96 rows=356 width=0) (actual time=0.057..0.057 rows=356.00 loo...	
19	Index Cond: (date > (CURRENT_TIMESTAMP - '30 days'::interval))	
20	Index Searches: 1	
21	Buffers: shared hit=3	
22	-> Hash (cost=23.07..23.07 rows=1007 width=20) (actual time=0.265..0.265 rows=1007.00 loops=1)	
23	Buckets: 1024 Batches: 1 Memory Usage: 64kB	
24	Buffers: shared hit=13	
25	-> Seq Scan on player p (cost=0.00..23.07 rows=1007 width=20) (actual time=0.012..0.145 rows=1007.00 loops=1)	
26	Buffers: shared hit=13	
27	Planning:	
28	Buffers: shared hit=6	
29	Planning Time: 0.323 ms	
30	Execution Time: 0.759 ms	