Natural Language Query

Player

1.What are the five items my *game title* character uses the most?
2.Which of my characters if the highest level
3.What is the most popular build in *game title*

Game Studio

4.What are the bottom five least used items in *game title*
5.What is the average count of characters per account in *game title*
6.What is the average characters health statistic in *game title*

Producer

7.What game studio has the most accounts tied to its games
8.What is the most popular build in the game with the most accounts
9.What items are found in the most popular game
10. What game price has the highest amount of accounts

SQL Query

1.
   ```
   sql SELECT i.item_id, i.iname, inv.icount
   FROM inventory inv
   JOIN item i
           ON i.ino = inv.ino
   JOIN character c
           ON c.char_id = inv.char_id
   JOIN game g
           ON g.game_id = c.game_id
   WHERE g.title = :p_game
           AND c.char_id = :p_char
   ORDER BY inv.icount DESC
   LIMIT 5;
   ```

2.
   ```
   sql SELECT char_id, name, level
   FROM character
   WHERE account_id = :p_acct
   ```

```
    ORDER BY level DESC
    LIMIT 1;

3.  sql SELECT build_id, description, usage_percent
    FROM popular_builds pb
    JOIN game g ON g.game_id = pb.game_id
    WHERE g.title = :p_game
    ORDER BY usage_percent DESC
    LIMIT 1;

4.  sql SELECT i.item_id, i.iname, SUM(inv.icount) AS total_uses
    FROM inventory inv
    JOIN item i ON i.ino = inv.ino
    JOIN character c ON c.char_id = inv.char_id
    JOIN game g ON g.game_id = c.game_id
    WHERE g.title = :p_game
    GROUP BY i.item_id, i.iname
    ORDER BY total_uses ASC
    LIMIT 5;

5.  sql SELECT AVG(char_cnt)::NUMERIC(5,2) AS avg_chars
    FROM (
            SELECT account_id, COUNT(*) AS char_cnt
            FROM character c
            JOIN game g ON g.game_id = c.game_id
            WHERE g.title = :p_game
            GROUP BY account_id
    ) t;

6.  sql SELECT AVG(health)::NUMERIC(6,2)
    FROM character c
    JOIN game g ON g.game_id = c.game_id
    WHERE g.title = :p_game;

7.   sql SELECT g.studio, COUNT(DISTINCT o.account_id) AS acct_cnt
    FROM owns o
    JOIN game g ON g.game_id = o.game_id
    GROUP BY g.studio
    ORDER BY acct_cnt DESC
    LIMIT 1;

8.  sql WITH top_game AS (
            SELECT g.game_id
            FROM owns o
            JOIN game g ON g.game_id = o.game_id
            GROUP BY g.game_id
            ORDER BY COUNT(DISTINCT o.account_id) DESC
            LIMIT 1
    )
    SELECT pb.build_id, pb.description, pb.usage_percent
    FROM popular_builds pb
    JOIN top_game tg ON tg.game_id = pb.game_id
    ORDER BY pb.usage_percent DESC
    LIMIT 1;
```

```
9.  sql WITH top_game AS ( ...same as above... )
    SELECT DISTINCT i.item_id, i.iname
    FROM inventory inv
    JOIN character c ON c.char_id = inv.char_id
    JOIN top_game tg ON tg.game_id = c.game_id
    JOIN item i ON i.ino = inv.ino;
```

```
10. sql /* Price tier with most owning accounts */ SELECT g.price, COUNT(DISTINCT
    o.account_id) AS account_count
    FROM owns o
    JOIN game g ON g.game_id = o.game_id
    GROUP BY g.price
    ORDER BY account_count DESC
    LIMIT1;
```