A screenshot of a computer flowchart

Description automatically generated

# **Attributes description:**

**TreasuresFound Fact Table:**

|  |  |
| --- | --- |
| **caches\_found** | Count of caches found (Additive Measure) |
| **treasure\_hunt\_days** | Total number of days spent on treasure hunts (Additive Measure) |
| **logs\_placed** | Count of logs placed (Additive Measure) |
| **avg\_time\_to\_find\_cache** | Average time taken to find a cache (Additive Measure) |
| **user\_id (FK)** | Foreign Key linking to Users Dimension |
| **weather\_id (FK)** | Foreign Key linking to Weather Dimension |
| **description\_lenght** | Lenght of the log’s description |
| **treasure\_id (FK)** | Foreign Key linking to the Treasure Dimension |
| **date\_id** | Foreign Key linking to the Date Dimension |

**User Dimension:**

|  |  |
| --- | --- |
| **user\_id**  **SCD Type 0** | PK to identify users |
| **user\_surr\_key**  **SCD TYPE 2** | Surrogate key for managing changes over time (SCD Type 2). Creates unique entries for different time intervals when attributes changes |
| **experience\_level**  **SCD Type 2** | Experience level of the user (Starter, Amateur, Professional or Pirate) |
| **last\_name**  **SCD Type 1** | User’s surname |
| **first\_name**  **SCD Type 1** | User’s first name |
| **street, number, city, country**  **SCD TYPE 2** | User’s address information |
| **Email**  **SCD TYPE 2** | User’s email address |
| **dedicator\_status**  **SCD TYPE 2** | Indicates if the user is a dedicator (Yes or No). |
| **scd\_begin**  **SCD TYPE 2** | Start date of the time interval for SCD Type 2 changes |
| **scd\_end**  **SCD TYPE 2** | End date of the time interval for SCD Type 2 changes |
| **scd\_flag**  **SCD TYPE 2** | Indicates the current active user’s record |

**Date Dimension:**

|  |  |
| --- | --- |
| **date\_id**  **SCD Type 0** | PK to identify date |
| **Date**  **SCD Type 0** | The date |
| **Day**  **SCD Type 1** | day of the week |
| **Week**  **SCD Type 1** | week number |
| **Month**  **SCD Type 1** | month |
| **Season**  **SCD Type 1** | season of the year |

**Weather Dimension:**

|  |  |
| --- | --- |
| **weather\_id**  **SCD Type 0** | PK to identify weather type |
| **weather\_type**  **SCD Type 0** | Type of weather (Rain, Clear, Snow, Sunny) |

**Treasure Dimension:**

|  |  |
| --- | --- |
| **treasure\_id**  **SCD Type 0** | PK to identify treasures |
| **difficulty**  **SCD Type 0** | Difficulty level (Easy, Medium, Hard) |
| **container\_size**  **SCD Type 0** | Size (Nano, Micro, Regular, Huge) |
| **Country**  **SCD Type 0** | Country where the tresure is located |
| **City**  **SCD Type 0** | City where the treasure is located |

# **Analysis Questions:**

What role do date parameters (days, weeks, months, season) have on the number of caches?

How does user type affect treasurehunt duration? Does a beginner take longer?

Is a person who is a dedicator a better treasure hunter?

On average, do users find the cache faster in the rain?

Are novice users (starters and amateurs) on average looking for larger caches?

Are fewer caches found on average in more difficult terrain when it rains?

Are more difficult caches done on weekends?

# **Extra Questions:**

Do users searching for treasures in their home city find them more often, on average, than users from different locations?

Do longer (more detailed) descriptions allow users to find treasure quicker, on average?

Does the size of the container influence the likelihood of receiving a log?

Do certain types of users show a preference for specific weather conditions when participating in treasure hunts?

Are there particular times of the year when the difficulty level of treasure hunts is consistently higher or lower?