# The Problems the Algorithm Solves

1. Extracting corresponding values of keys by using key search
2. Navigation through nested dictionaries
3. Searching using Wildcard (\*)
4. Handling Missing Keys and values

Use Cases

Storing, filtering and retrieving data from databases when using ORM:

This can especially be applied in NoSQL databases like MongoDB where data is stored in JSON or dictionary format.

Log Data Extraction:

The algorithm can be used in debugging purposes to extract error details or general details from logs, allowing the programmer filter and retrieve relevant information.

E- Commerce product search

The algorithm can dynamically filter products based on the customer input. Fore example electronics category with a price range of $100-$500, you could set a needle like ["categories.electronics", "price"].

Organisation and extraction of medical records in the Healthcare area:

Every patient of a hospital or healthcare facility has their information and medical history stored in a database. This algorithm makes it easy to sort patients information and retrieve a specific data pertaining to a patient a group of patients. Take for example the doctor wants to retrieve the test results of patience that have typhoid and their medication from the database, using the algorithm provide, it can be something like this:  
needle = [“test\_result.typhoid”, “medication”]

Social Media Data Mining:

The algorithm can be used to analyze posts based on specific tags and extract only the relevant parts of the post.