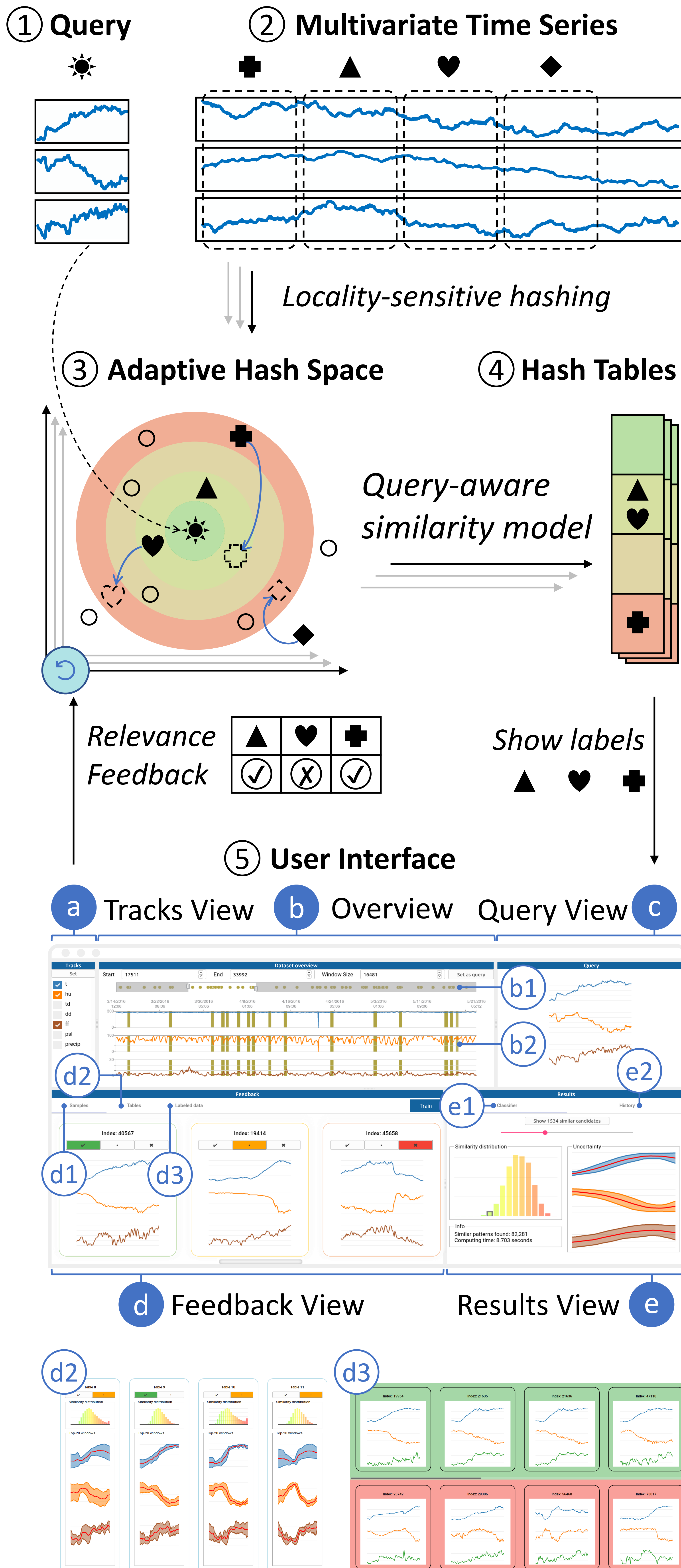


PSEUDO: Interactive Pattern Search in Multivariate Time Series with Locality-Sensitive Hashing and Relevance Feedback

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1 Problem

How to query very **high-dimensional time series** efficiently concerning user's **subjective similarity** notion?

2 Contribution

Efficient and understandable **relevance-feedback** for **locality-sensitive hashing** based multivariate time series retrieval.

3 Pipeline

1. Sliding windows and normalization (2);
2. User defines a query (1);
3. Initial search with LSH (1)(2) → (4);
4. Sampling predictions (4)→(5);
5. Relevance feedback by user (5);
6. Updating LSH model and predictions (5)→(3);
7. Iterating 4 – 6 until satisfactory result.

4 UI Design

- (a) Choose tracks to query
- (b) Main view
 - (b1) Mini-map
 - (b2) Track plots, will be updated for very high-dimensional time series
- (c) Current query
- (d) Relevance feedback
 - (d1) Feedback to predictions
 - (d2) Feedback to classifiers
 - (d3) Review feedback to predictions
- (e) Result
 - (e1) Result statistics
 - (e2) State management