In the data stream scenario, input arrives very rapidly and there is limited memory to store the input. Algorithms have to work with one or two passes over the data, space less than linear in the input size or time significantly less than the input size.

Data Streams: Algorithms and Applications

In previous decades, DBMS settings where the data sets on a machine's disk but data stream clustering - Wikipedia

Data stream clustering has recently attracted attention for emerging applications that involve large amounts of streaming data. For clustering, k-means is a widely used heuristics but alternate algorithms have also been developed such as k-medoids, CURE and the popular BIRCH.

Data Streams: Algorithms and Applications

We study the emerging area of algorithms for processing data streams and associated applications, as an applied algorithm research agenda. We begin with three puzzles: 3.1 Puzzle 1: Finding Missing Numbers Let 1 be a perturbation of (1, ..., n). Further, let 1 be 1 with one element missing. Puzzle 2: E-bronze, silver, and gold. Can you place them correctly?

Data Streams: Algorithms and Applications

Data streams: algorithms and applications: Foundations and Applications

The applications for this scenario include IP network traffic analysis, mining text message streams and processing massive data sets in general. Researchers in Theoretical Computer Science, Databases, IP Networking and Computer Systems are working on the data stream challenges.

Data Streams: Algorithms and Applications

The large volume of data streams poses unique space and time constraints on the computation process. Many query processing, database operations, and mining algorithms require efficient execution.

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Data Streams: Algorithms and Applications

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