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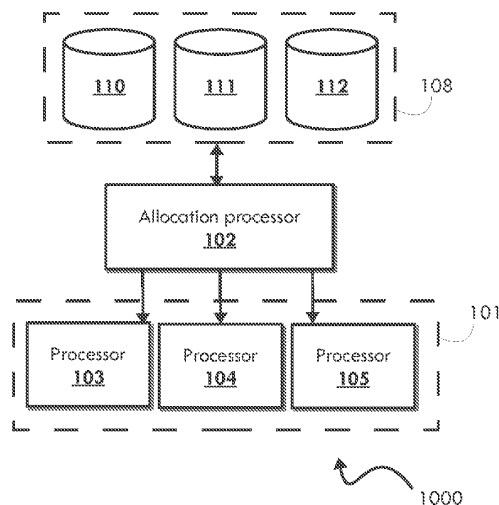


FIG. 1A

(57) Abstract: Systems, methods, and computer program products are provided for load balancing for processing large data sets. The method includes identifying a number of segments and a transaction data set comprising transaction data for a plurality of transactions, the transaction data for each transaction of the plurality of transactions comprising a transaction value, determining an entropy of the transaction data set based on the transaction value of each transaction of the plurality of transactions, segmenting the transaction data set into the number of segments based on the entropy of the transaction data set and balancing respective entropies of each segment of the number of segments, and distributing processing tasks associated with each segment of the number of segments to at least one processor of a plurality of processors to process each transaction in each respective segment.

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