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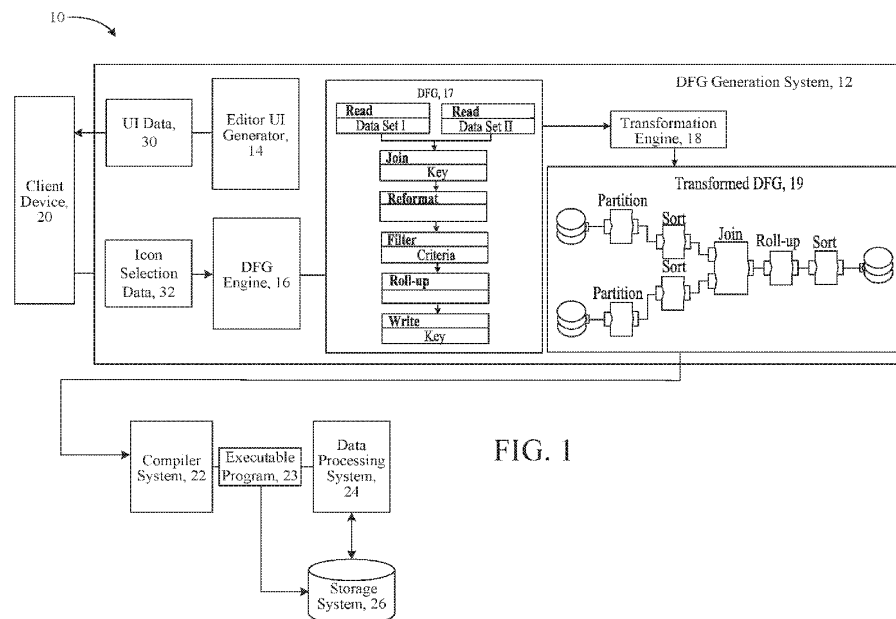


FIG. 1

(57) Abstract: Techniques for generating a dataflow graph include generating a first dataflow graph with a plurality of first nodes representing first computer operations in processing data, with at least one of the first computer operations being a declarative operation that specifies one or more characteristics of one or more results of processing of data, and transforming the first dataflow graph into a second dataflow graph for processing data in accordance with the first computer operations, the second dataflow graph including a plurality of second nodes representing second computer operations, with at least one of the second nodes representing one or more imperative operations that implement the logic specified by the declarative operation, where the one or more imperative operations are unrepresented by the first nodes in the first dataflow graph.

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