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Remarks:

Claim 20 is deemed to be abandoned due to non-payment of the claims fee (Rule 45(3) EPC).

(54) **SYNTHESIZING ML PIPELINES FOR AUTOMATED PIPELINE RECOMMENDATIONS**

(57) According to an aspect of an embodiment, operations include receiving data comprising tabular datasets and code files. The operations further include generating a task specification corresponding to each dataset and determining data type information for features of each dataset. The operations further include extracting a plurality of API methods from the code files and generating an ML pipeline based on the data type information and the task specification. The operations further include obtaining variations of the ML pipeline based on options associated with at least one ML component and generating a database of pipelines based on the ML pipeline and the variations. The operations further include selecting candidate ML pipelines from the database based on an optimization approach and executing the candidate ML pipelines to evaluate a performance of each candidate pipeline on test data. The operations further include

obtaining a training corpus of ML pipelines for pipeline recommendation.

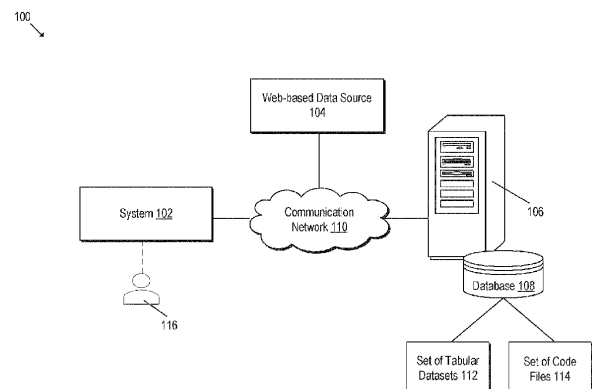


FIG. 1

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