

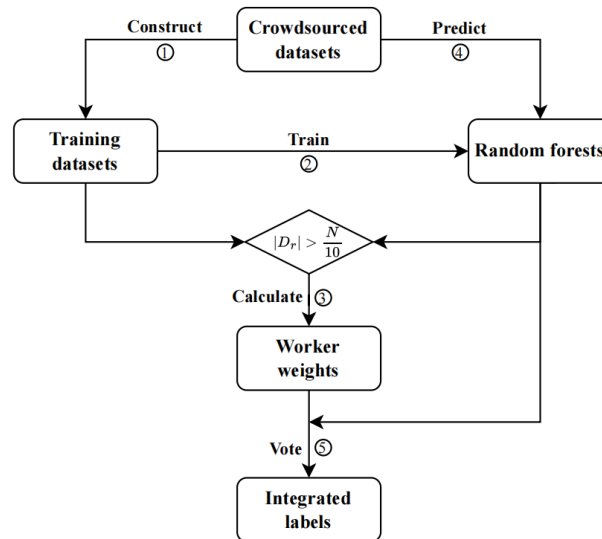
# Random Forest-based Weighted Majority Voting for Crowdsourcing

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# Problems & Ideas

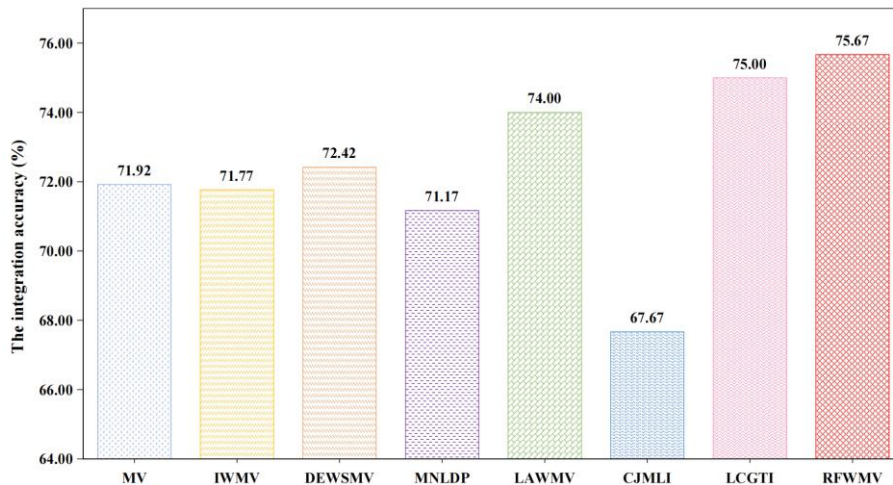
- Problems of label integration for crowdsourcing:
  - Existing label integration algorithms perform poorly in crowdsourcing scenarios where the label quality of most workers is low.
- Ideas: A novel label integration algorithm is proposed which is called as Random Forest-based Weighted Majority Voting (RFWMV).



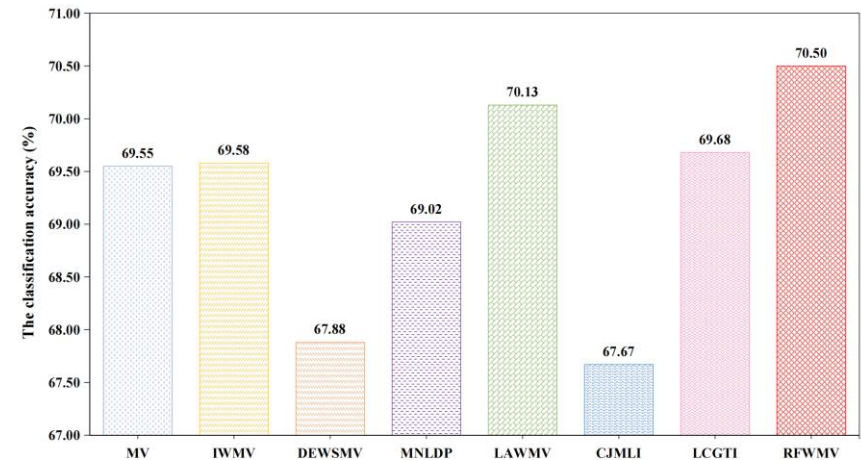
Overall framework of RFWMV.

# Main Contributions

- Contributions:
  - A new crowdsourcing scenario for label integration is extended. In this new crowdsourcing scenario, the label quality of most workers is low, which poses some new challenges to label integration;
  - A novel label integration algorithm is designed to handle the new crowdsourcing scenario. In RFWMV, the label quality of workers is transformed into the consistency of outputs of the corresponding random forest's base classifiers.



(a) The integration accuracy



(b) The classification accuracy

The averaged integration accuracy (%) and the averaged classification accuracy (%) comparisons for RFWMV versus its competitors on the “Income” dataset.