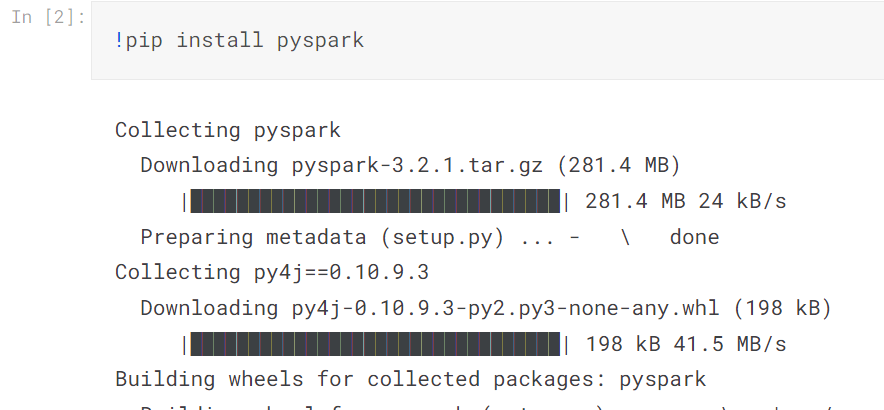
INITIALIZE SPARK SESSION



LOAD NECESSARY LIBRARIES

LOAD DATASET IN APACHE SPARK

SELECT DATA FOR RECOMMENDATION

 CONVERT STRINGS customer\_id AND article\_id COLUMN TO INDEX FORM

CREATE TEST AND TRAIN DATASETS

ALS MODEL

RMSE

GENERATE PREDICTIONS

RECOMMEDATIONS BY article\_id

RECOMMENDATIONS BY customer\_id

CONVERT BACK TO STRING FORM

RECOMMENDATIONS BY customer\_id

IMPORT to\_read DATA

CREATE TEMPORARY TABLE

IMPORT RATINGS DATA AND CREATE TEMPORARY TABLE

IMPORT BOOKS DATA AND CREATE TEMPORARY TABLE

CONVERTING BOOKS DATA INTO PANDAS DATAFRAME

BOOKS WITH MOST NUMBER OF RATINGS ON GOODBOOKS

BOOKS WITH HIGHEST AVERAGE RATINGS ON GOODBOOKS