

### Tugas-03

Lakukan klasifikasi dengan menggunakan Weka untuk data The Home Equity dataset (HMEQ) yang sudah bersih.

1. Bagi data menjadi *training* dan *test sets*. Lakukan percobaan dengan opsi:
  - a. *Percentage* (60:40)
  - b. *cross-validation* 10-folds
2. Lakukanlah klasifikasi dengan menggunakan algoritma:
  - a. Decision Tree: Random Forest (RF)
  - b. ANN: Multilayer Perceptron (MP)
3. Jelaskanlah hasil dari klasifikasi tersebut.
4. Bandingkan hasilnya dan kesimpulan apa yang Anda ambil dari RF vs. MP ?
5. Dokumentasikan proses pengerjaan *praprocess* data (misalnya *diskritisasi*) dan klasifikasi yang Anda lakukan.

### Data Set HMEQ

The data set HMEQ reports characteristics and delinquency information for 5,960 home equity loans. A home equity loan is a loan where the obligor uses the equity of his or her home as the underlying collateral. The data set has the following characteristics:

- BAD : 1 = applicant defaulted on loan or seriously delinquent; 0 = applicant paid loan
- LOAN : Amount of the loan request
- MORTDUE : Amount due on existing mortgage
- VALUE : Value of current property
- REASON : DebtCon = debt consolidation; HomeImp = home improvement
- JOB : Occupational categories
- YOJ : Years at present job
- DEROG : Number of major derogatory reports
- DELINQ : Number of delinquent credit lines
- CLAGE : Age of oldest credit line in months
- NINQ : Number of recent credit inquiries
- CLNO : Number of credit lines
- DEBTINC : Debt-to-income ratio