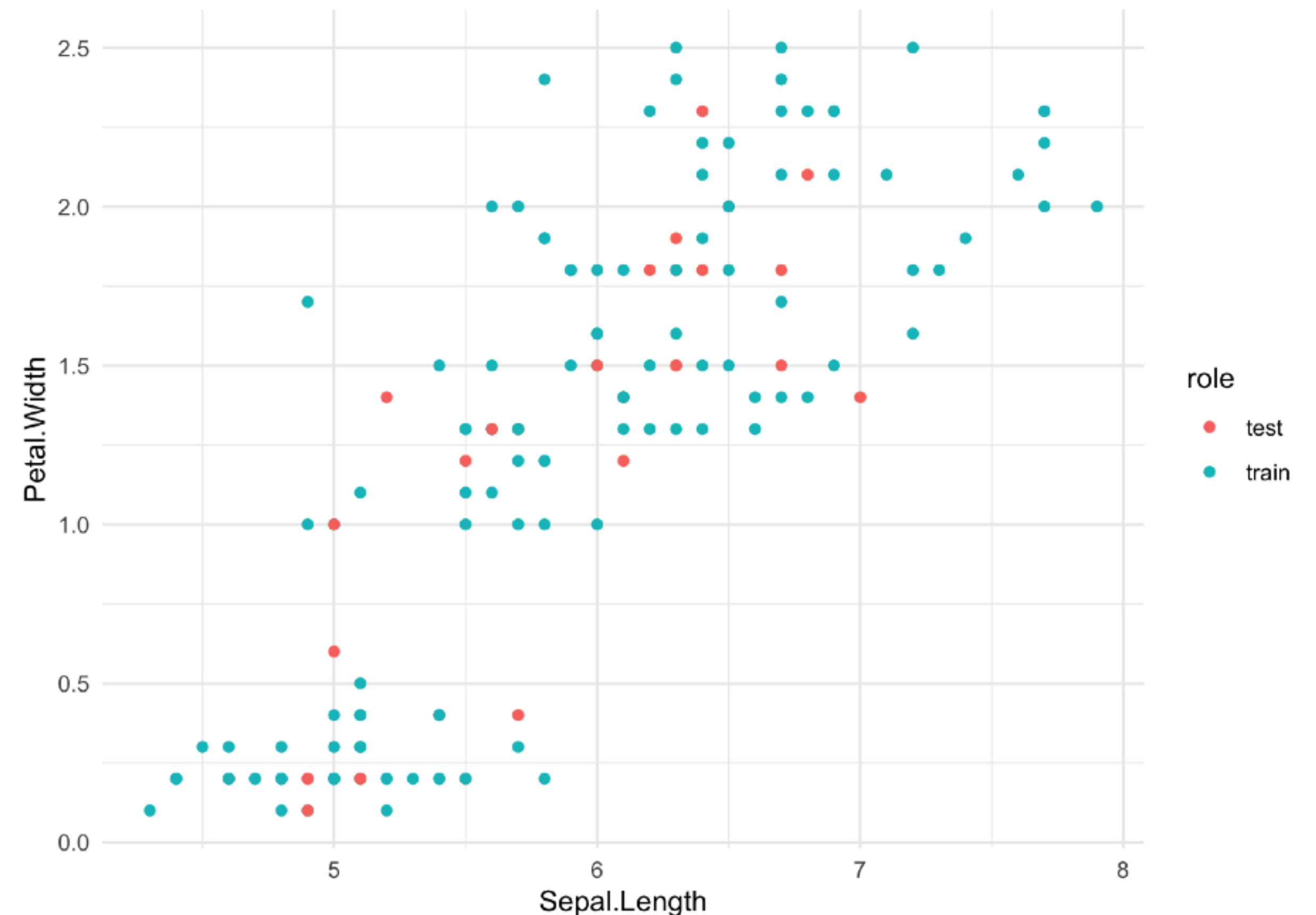# Today's R Example I: Iris Data

- Data: 50 flowers in 3 different species and 4 different attributes
- Use some useful packages such as `care` (Classification And Regression Training)
- Apply linear model and use following performance metrics: *R², RMSE, MAE*
- Validation approaches:
  - Validation set approach
  - LOOCV
  - K-fold CV
  - Repeated K-fold CV

# Today's R Example II: Simulation

- Use cross validation to estimate test performance of KNN classifier
  - ‣ Choosing optimal number of numbers *K* (using MSE and RMSE)
  - ‣ Choosing number of folds in *K*-fold CV



MSE of the CV estimates