

KNN CLASSIFICATION AGENDA o Feature Scaling o KNN CLASSIFICATION KNN Classification What is Classification o Motivation: Prediction o Is a bank loan applicant "safe" or "risky"? o Which treatment is better for patient, "treatment X" or "treatment Y"? o Classification is a data analysis task where a model is constructed to predict classlabels(categories) The Basics General Approach A two-step process:

- cLearning (training)step a construct classification model ?Build classifier for a predetermined set of classes ?Learn from a training dataset (data tuples + their associated classes) a Supervised Learning
- cClassification step a model is used to predict class labels for given data (testset) The Basics General Approach Training data Class label Attribute vector Classification Algorithm Classification rules The Basics General Approach Test data (Mohammed, youth, medium) Loan decision?Does it best fit the first ?category, or the second