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# UK Machine Learning

WS 2018

## Exercise 2

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- Groups of 2 students
  - Implement one of these machine learning algorithms for classification:
    - k-NN
    - Naïve Bayes
    - Decision tree
- .....

# k-NN

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- Implement the algorithm presented in the lecture
- The user should be able to specify the number of neighbours (k)
- You should experiment with different distance metrics (you can use the existing libraries for various distance metrics)
- Apply your implementation in 4 datasets (e.g. UCI Repository) and compare with two other classification algorithms

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# Naïve Bayes

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- Implement the algorithm presented in the lecture
  - You should use Laplace correction
  - You can apply discretization for numeric attributes
  - Apply your implementation in 4 datasets and compare with two other classification algorithms
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# Decision tree

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- Implement the algorithm presented in the lecture
- Apply your implementation in 4 datasets and compare with two other classification algorithms

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## Exercise 2 – Software

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- You can use different programming languages/software packages
    - R
    - Python
    - Matlab
    - Weka (Java)
    - ...
  - You can use the existing libraries for reading the datasets, evaluating of classifiers, ...
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## Exercise 2 – Submission

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- Submission of implementations/slides in Moodle (E-Learning):
  - January 16
- Presentations/Discussions:
  - January 17

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