# 2ID90 Spell Checker Assignment
## *template report*

Group 19: Daan de Graaf, Yoeri Poels

April 4, 2017

## 1 Introduction

**Yoeri**

*Give a short introduction on your program: state the objectives and comment on how they are achieved. Further more, in the whole document, please take care of the following:*

- *Refer to any material you used to obtain your results, e.g. [1].*

- *Illustrate your material with appropriate figures which are numbered and have a descriptive caption. Refer to the figure in the text: see Figure 1.*



*Figure 1: The author of the book we used for background information.*

- *Use pseudo-code to explain your algorithms. Note that pseudo-code is not the same as your actual java code. It should be an abstraction of that code and should be presented with readability and clarity in mind. Pseudo-code has to be accompanied with proper explanation and argumentation.*

- *Use numbered mathematical formulas instead of lengthy explanations in text. Additionally, discuss the principles behind the formula.*

## 2 Overall approach

**Yoeri**

*Give a full discussion of how you have followed the general set-up as given by the course material and how you have implemented your spell checker.*

## 3 Phrase generation and evaluation

**Daan**

*Give a full discussion of how you have implemented phrase generation and have the best candidate sentence is selected. In particular, describe what rule the confusion matrices and bigrams play a role in attaching a value/probability to a candidate sentence. Also describe what type of smoothing you use and how you have implemented it.*

## 4 Results and evaluation

**Allebei**

*Provide an overall assessment of your programs. What type of errors is it good at to catch and repair, which type or errors are missed or wrongly repaired. Explain what could be done, in principle, to improve your program. Discuss how you have calibrated the relevant parameters.*

# 5   Advanced enhancements

**Yoeri**

*Several extensions and enhancements of the basic set-up of the spell checker are possible. Describe explicitly what you have incorporated from other sources than the course material to improve the performance of your program and in what way the performance did improve indeed.*

# 6   Conclusions and contributions

*A short logical summing up of the main reported results and a statement on the contributions of each of the authors.*

|       | implementation | documentation | total #hours |
|-------|----------------|---------------|--------------|
| Daan  | 60%            | 40%           | 22           |
| Yoeri | 40%            | 60%           | 21           |

- *At least the given columns in the table need to be filled in, add columns if needed.*

- *Add comments to clarify your table entries when necessary.*

# References

[1] Wolfgang Ertel. *Introduction to Artificial Intelligence.* Springer Publishing Company, Incorporated, 1st edition, 2011.