The aim of this work is to implement a Czech spell-checker using several language models and a lexical morphological analyser in order to o er proper correction suggestions and also to nd real-word spelling errors (spelling errors that happen to be in the lexicon). The system should also be able to complete diacritics to Czech text. Mac OS X was chosen as the target platform for the application. During the implementation, emphasis was put especially on memory-effient representation of the above-mentioned statistical models. In the beginning, a gentle introduction to Hiden Markov Models, Language Models and Viterbi algorithm is given. The actual system implementation and the statistical models training is discussed further. In the nal part of the work, the achived results are evaluated and discussed in depth.