The aim of this thesis was to design and implement the program simulating the city and applicable inner economic and ecologic phenomena. The user is supposed to a ect the city through graphical user interface. In the rst part of the thesis there is analysis of all simulated phenomena, possibility of their implementation and analysis of the advantages and the disadvantages of the possible ways. Other parts of the thesis describes the program created in this thesis. The description starts with user related information and program configuration and continues with the speci cation of the inner representation of the most important data structures and algorithms used in the program. The last part analyses the ways of the possible future extensions of the program and summarize the result of the whole thesis.