# Programming II
# Exercises 10: Exercises

*Kenny Štorgel*

## Inheriting Objects

**Exercise 1.** Define a class **person** with two arguments for person name and surname, two variables of type string that can be changed to store the two values for name and surname, methods get and set and a method toString, that will print the information of the person.

**Exercise 2.** Define a class **male** that inherits the class person, with an additional parameter for age and a fixed value M for sex of type char. Then add methods get for the new variables, and a method set for age. In the end override the method toString by using the method of a superclass to print also the new information.

**Exercise 3.** Follow the previous exercise to create a class **female**, with a fixed value for sex F.

**Exercise 4.** Define a class **child** that will inherit from both male and female class in such a way, that the sex will always be M. Override the method toString by calling the method of the female superclass. Then change the class so that the sex of the child will be defined with an additional parameter.

**Exercise 5.** Define a class **family** that creates a family of male and female stored as a pair, and an empty list of children. When creating a family, you need to change the surname of the female to that of the male. Then add a method for adding a new child to the family that will have surname equal to males surname.

**Exercise 6.** Define an abstract class **shape** with the variables storing its color and the number of edges. Add also the methods for calculating the area and circumference of the shape that will be declared in the subclass. Then define a subclass **square** which takes the color and the size of the edge as parameters, has an additional variable for the size of the edge and inherits the class shape.