

Lab 6.3.1 Polymorphism: part 2

Objectives

Familiarize the student with:

- polymorphism, or using objects of different types through a common interface;
- using polymorphism in real programs.

Scenario

Let's assume you write a code for the game of checkers (aka draughts). There are two types of pieces in this game: men and kings. You need to implement classes (one abstract for the pieces and two separate classes for the men and the kings) to check if the moves are correct. Men can only move one field forward along diagonals. In international checkers, kings can move any distance forward and backward along unblocked diagonals. To simplify your program, assume that the board is empty and you only have to check one piece at a time. The starting position for one of the pieces is the b1 field. Call a check method from the pointer to the base (Piece) class.

Example input

```
Call a method to check if Piece(Man) can be moved from b1 to c2
Call a method to check if Piece(King) can be moved from b1 to d3
Call a method to check if Piece(Man) can be moved from b1 to d3
```

Example output

```
true
true
false
```