University of Primorska
Faculty of Mathematics, Natural Science and Information Technologies

# Programming I
# PROJECT II

## Hidden words

The task will take you to a beautiful world of games.
You will make a program that allows you to play **Hidden Words**.

Game rules:

- The game takes place in the field of size $n \times m$, where $m$ and $n$ are less than 50. Each cell contains one number. In those fields with numbers, the words (number sequences) that the player has to find are hidden. Define the "searched words" by yourself. The number of hidden words defines the difficulty of the game. Hidden words can lie horizontally, vertically, and diagonally, the words can have at most one common point (cell in the game field).
  Each game must have at least one word diagonally, horizontally and vertically.
  List of words that the user has to search for has to be displayed. When the word is found user should be able to see that.
  When a user finds all the words, the game ends.

The basic game should require / support:

- creation of a user interface that allows to play (each new play is another layout), with each new startup game we get a new layout(random). (40)
- the game allows you to save and continue the previous game (save/load). Saves the game status to a file. The record format is arbitrary. (20)
- game control menu (replay, setting the game size, fields and number of hidden words). (15)
- a "hint" button that hints to user the initial cell where one of the undiscovered words begin. (10)
- the game promptly displays a list of words that we have already tried even though not among searched (15)
- Ensure the proper use of the basic elements of object-oriented programming - static methods are prohibited, individual modules. Define the program as an independent class. (up to -5)
- Ensure correct application of the Contracts! (up to -5)