# Programming assignment

**Task 1:**
Write a Delphi VCL application that contain 5 threads that can be started or stopped independently of each other and that write the progress of the thread to the user interface in a thread-save way.

**Task 2:**
Create a Delphi VCL application with a simple user interface that provides the user with two choices: to read text from a file or to randomly generate the text. After selecting the method, the user can choose to proceed, and the following should occur:

Process the text and find all occurrences of two or more consecutive digits (e.g., “456”). The digits should be in ascending order and the sequence should not contain "gaps" (e.g., "135" would not be a matching sequence, since "2" and "4" are missing).

Output the text itself as well as a list of found substrings and the number of their occurrences.

Additional clarifications:
• The longest sequence of digits should always be chosen, and sequences cannot overlap (e.g., in a string such as “asd123qwe56” only “123” and “56” should be found – and not combinations such as “12” or “23”)

• The resulting list should be sorted by the number of occurrences (most frequent come first). In case several strings have the same number of occurrences, the one that represents a larger number should come first.

• Characters separated with a line break should not be considered consecutive, and shall be processed as two separate sequences

• Unit Tests are optional.

Sample input:
```
asd123qwe457rty89234
567zx01245cvbnm
```

Corresponding output:
```
45 2
567 1
234 1
123 1
89 1
012 1
```

**PS : The implementation code/structure should be as close to production code (modular/easily testable) as possible (even if it might seem unreasonable for such a small project).**