CS4215 Programming Language Implementation

Lab task for Week 02/03
OCaml Refresher Exercise

1. Please download the following two files from IVLE workbin

   ```
   lab03.ml
   lab03-extra.ml
   ```

   The first file contains a series of small exercises and you have to hand in by January 29, 23:59 on IVLE workbin. The second file contains two optional exercises. You may do it for more practice.

2. Let us first look at three different ways of executing OCaml code. After you have unzipped the files, you will see the execution/compilation commands in `comp.sh`. This can be executed using `sh comp.sh`. The commands are:

   - For OCaml interpreter in interactive mode. First execute `ocaml`. After that load the file using `# use "lec03.ml";;`. You will see the definitions and commands executed. You may then test the individual methods written using `# mn e1 .. en;;`. To quite, just type `# quit;;`.

   - For OCaml interpreter in batch mode, execute it using `ocaml lec03.ml`. Take note that only commands, such as `print_endline`, to print to the console will cause some output to be displayed.

   - For OCaml bytecode compiler, you may generate bytecode by using `ocamlc lec03.ml -o ex3.byte`. This will produce a bytecode that can be invoked using `ocamlrun ex3.byte` or `./ex3.byte`

   - For OCaml native compiler, you may generate machine code executable by using `ocamlopt lec03.ml -o ex3`. This will produce an executable that can be invoked using `./ex3`

3. Have fun with OCaml!