The SDP Primer

Exercise sheet 01

Scala Warm-Up Exercises

Session: 2016-17

Get started Log in. Open a command-line window and enter `scala` to start the Scala REPL. Use the REPL to compute `2+2`.

Reading and printing Use `readLine` to ask the user for an integer, and save it in a `val` named `number`. Then use `println` to tell the user the value of half of that number.

Use an if statement Compare the number just entered to 100, then print

```
"That's a big number"
```

if the number is greater than 100, or

```
"That's a small number"
```

if the number is less than 100.
(Remember that your test must be put inside parentheses.)

Use a while loop Write a program to repeatedly do the following:

1. Ask for a number, and
2. print out a message that says what number you entered, and the square of that number (for example, 5 squared is 25).
3. Quit when the number 0 is entered.

(Remember that the `readLine` and `println` expressions must be inside curly braces, `{}`).

Use a for loop Write a program to print out the numbers 1 through 25 and, for each number, print its square and its cube on the same line. (You can use `+` to combine strings and numbers into a single string.)

Write a program In a text editor, write a program to compute and print the result of adding 2 and 2. Save this program in a file named `test.scala`, then run it by entering a `:load` command into the REPL. The `:load` command looks like this:

```
:load complete_path_to_the_Scala_file
```

Edit a program Edit your program to compute and print the result of 13 squared. (You can use `13 * 13`, or `13 ** 2` to compute this.) Run the program by loading it in again.

Write a function In your program, write a function named `isEven` that, given a single `Int` as a parameter, returns `true` if the remainder when divided by 2 is zero (the operator that gives you the remainder is `%`), and `false` otherwise. Reload the program and try calling the function with various numbers.