

Introduction to Programming - Lab Exercises for Week 04

Use Eclipse to attempt the following exercises.

If statements

Develop solutions to the following problems.

1. An electricity bill charges the first 100 units used at 26.7p per unit. Units after the first 100 are charged at 15.6p. Write a program to read a number of units and output the cost in pence.
2. Write a program which reads in the names of two teams and the number of goals they have scored in a game. The program should output the name of the winner, or output "draw", depending on the score.
3. Write a program which reads in a username and a password, and expects the username to be "brian" and the password to be "spam". The program should print a welcome message if these are **both** correct.

Switch statements

4. Rewrite the following if statement as a switch statement (you may assume that leafCount is an `int` variable and that its value is never less than zero). Write a program to test that your solution produces the same output as the if statement would do:

```
if (leafCount == 0) {
    TextIO.putln("No leaves");
} else if (leafCount == 1) {
    TextIO.putln("One leaf");
} else if (leafCount == 2) {
    TextIO.putln("A couple of leaves");
} else if (leafCount >= 3 && leafCount <= 5) {
    TextIO.putln("A handful of leaves");
} else {
    TextIO.putln("More than a handful of leaves");
}
```

5. Write a program that prints out the name of each of the days of the week, given a number from 0 to 6 (for example, if the input is 0 the output is Sunday). Use a switch statement.