

Scala SCS 2204 - Functional Programming

Scala Tutorial – 9

1. 1. Implement a Data Structure for Rational Number and create a method `neg` to class `Rational` that is used like this:

```
x.neg // evaluates to -x
```

2. Create a method `sub` to subtract two rational numbers and find an answer $x - y - z$ where

$x = 3/4$, $y = 5/8$, $z = 2/7$.

3. Implement a Data Structure for Account and create a method `transfer` which transfers the money from this account to a given account.

Basic functions: `Deposit`, `Withdraw`, `Transfer`

4. A Bank is defined as a List of Accounts. So, implement the following functions:

4.1 List of Accounts with negative balances

4.2 Calculate the sum of all account balances

4.3 Calculate the final balances of all accounts after applying the interest function as follows:

If balance is positive, deposit interest is `.05` and if balance is negative, overdraft interest is `.1`