

## CSC290: Code and Code Review

1. Review the following code, written in Java.

```
public class Account { // an individual's bank account
    // principal - in dollars
    // rate - yearly compounded interest rate, at 365.25 per year
    // daysActive - days since last interest payout
    // type - variety of account our bank offers
    double principal,rate;
    int daysActive,accountType;
    public static final int STANDARD=0, BUDGET=1, PREMIUM=2,
    PREMIUM_PLUS=3;
}
...
public static double calculateFee(Account[] accounts)
{ // return the sum of broker fees for all the given accounts.
    double totalFee = 0.0;
    Account account;
    for (int i=0;i<accounts.length;i++) {
        account=accounts[i];
        if(account.accountType==Account.PREMIUM|| account.accountType
        == Account.PREMIUM_PLUS )
            totalFee += .0125 * ( // 1.25% broker's fee
            account.principal*Math.pow
            (account.rate,(account.daysActive/365.25))- account.principal); // interest-principal
    }
    return totalFee;
}
```

2. On another piece of paper, rewrite the code to address the concerns that you found.