

## Exercise 3 (Repo 1): CK Metrics Across Classes: Who Looks “Smelly”?

Class	LOC	WMC	CBO	LCOM	Quick notes
Bank	412	14	3	0	
BankAccount	469	20	2	44	
Person	324	23	0	79	

I'm showing the process for **Bank.class** :

```
wan@laptop:~/Bazar_EMA/BankApplication-master/jay-bank$ java -jar ..../ckjm_ext.jar target/classes/bankAccountApp/Bank.class
bankAccountApp.Bank 14 1 0 3 45 0 0 3 12 0,8333 412 1,0000 0 0,0000 0,3286 0 0 28,0000
~ public double getMinimumBalance(): 4
~ public void saveAccounts(bankAccountApp.Bank accManager): 8
~ public boolean registerAccount(int fromAccountNumber, int fromRoutingNumber, int destinationBank, int toAccountNumber): 1
~ public double getMaximumBalance(): 3
~ public void deleteAccount(int accountNumber): 3
~ public String convertToText(): 2
~ public int addAccount(bankAccountApp.BankAccount acc, int isLoadAccount): 4
~ protected int getAccountsLoaded(): 1
~ public java.util.ArrayList getAccounts(): 1
~ public boolean transferAmount(int fromAccountNumber, int fromRoutingNumber, int destinationBank, int toAccountNumber, float amount): 1
~ public bankAccountApp.BankAccount findAccount(int accountNumber): 4
~ public double getAverageBalance(): 2
~ public void <init>(): 1
```

### BankAccount

```
wan@laptop:~/Bazar_EMA/BankApplication-master/jay-bank$ java -jar ..../ckjm_ext.jar target/classes/bankAccountApp/BankAccount.class
bankAccountApp.BankAccount 20 1 0 2 45 44 0 2 18 0,6908 469 1,0000 0 0,0000 0,2917 0 0 22,0500
```

### Person

```
wan@laptop:~/Bazar_EMA/BankApplication-master/jay-bank$ java -jar ..../ckjm_ext.jar target/classes/bankAccountApp/Person.class
bankAccountApp.Person 23 1 0 0 40 79 0 0 21 0,7626 324 0,8889 0 0,0000 0,3565 0 0 12,6957
```

**Person** has the highest WMC, **Bank** has the highest CBO

Now looking at WMC + CBO + LCOM together

Class	WMC + CBO + LCOM
Bank	17
BankAccount	66
Person	102

With the highest score, **Person** would be the hardest class to maintain because of code complexity and too much responsibilities.