

# About

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This project uses Maven profiles to test individual AspectJ aspects. It uses load-time weaving to ensure only the relevant aspects are compiled and woven into the program.

Aspect code is within `src/main/java/barr` and test code is within `src/test/java/barr`. Profile information is within the `profiles` tag of `pom.xml` and in `src/test/resources/aop`.

## Aspects and Tests

The following aspects were created to modify the behavior of the `MoneyTransferService`. Use the command in the Command column to run the test for the aspect.

Assignment Item	Aspect	Test	Command
None	AroundAdviceAspect	AroundAdviceAspectTest	<code>mvn -P around-advice -Dtest=AroundAdviceAspectTest test</code>
None	MoneyTransferServiceAspect	MoneyTransferServiceAspectTest	<code>mvn -P money-transfer-service -Dtest=MoneyTransferServiceAspectTest test</code>
1	DoubleDepositByParamAspect	DoubleDepositByParamAspectTest	<code>mvn -P double-param -Dtest=DoubleDepositByParamAspectTest test</code>
2	DoubleDepositByBalanceAspect	DoubleDepositByBalanceAspectTest	<code>mvn -P double-balance -Dtest=DoubleDepositByBalanceAspectTest test</code>
3	TenPercentAspect	TenPercentAspectTest	<code>mvn -P ten-percent -Dtest=TenPercentAspectTest test</code>
4	ServiceFeeAspect	ServiceFeeAspectTest	<code>mvn -P service-fee -Dtest=ServiceFeeAspectTest test</code>
5	PrintOnBalanceSetAspect	PrintOnBalanceSetAspectTest	<code>mvn -P balance-set -Dtest=PrintOnBalanceSetAspectTest test</code>
6	PrintEveryMethodAspect	PrintEveryMethodAspectTest	<code>mvn -P print-method -Dtest=PrintEveryMethodAspectTest test</code>
7	TieredBonusAspect	TieredBonusAspectTest	<code>mvn -P tiered-bonus -Dtest=TieredBonusAspectTest test</code>
8	ReduceThirdTransferAspect	ReduceThirdTransferAspectTest	<code>mvn -P third-transfer -Dtest=ReduceThirdTransferAspectTest test</code>
9	StealFromRecipientAspect	StealFromRecipientAspectTest	<code>mvn -P steal -Dtest=StealFromRecipientAspectTest test</code>
9	DrainAccountAspect	DrainAccountAspectTest	<code>mvn -P drain-account -Dtest=DrainAccountAspectTest test</code>
9	PerformanceStatsAspect	PerformanceStatsAspectTest	<code>mvn -P stats -Dtest=PerformanceStatsAspectTest test</code>

## Custom Aspects (step 9)

- StealFromRecipientAspect reverses the transaction after it goes through.
- DrainAccountAspect takes everything from the recipient, leaving them with \$1.
- PerformanceStatsAspect tracks and prints statistics for each transfer by using inter-type fields.

## Credits

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Credit to Tingshuo Miao for helping me fix my Maven profiles build issues.