

## Testing Report

> Testing class `LoanAdvisor` using `LoanAdvisorTest` (page 24 of code):

[All cases involve principal amount of \$2000.00 and interest rate of 1% per time period]

Purpose	Input	Expected Output	Actual Output/Result
determineTime method [normal]	\$52.68	Return 48.0	As expected
determineTime method [illegal]	\$2.0	Return Double. POSITIVE_INFINITY, i.e. never repaid	As expected: the test outputs the loan will never be repaid to indicate infinity
determineTime method [boundary] (the minimum repayment)	\$20.01	Return 764.0	As expected
determineRepayment method [normal]	48	\$52.67	As expected
determineRepayment method [illegal]	-2000	Return Double. POSITIVE_INFINITY, i.e. impossible	As expected: the test outputs the required payment could not be determined
determineRepayment method [boundary]	1	\$2020.0	As expected

> Testing class `BankXMLServiceProvider` using `BankXMLServiceProviderTest` (page 22 of code):

Purpose	Input	Expected Output	Actual Output/Result
Parsing the XML file [normal: properly structured file]	bank.xml (page 26 of code)	Bank name: WhichBank Credit surcharge: 0.02 Password: soft1901 Card 0: 3 accts listed Card 1: 2 accts listed Card 2: 2 accts listed	As expected
Parsing the XML file [illegal: unsatisfactorily structured file]	file with only <bank></bank> tags	Bank name: [blank] Credit surcharge: 0.0 Password: [blank] No cards or accts listed	As expected

> Testing various classes using `ATMUserInterface` (page 8 of code), the main executable of the project:

Purpose	Input	Expected Output	Actual Output/Result
Password on start-up [normal]	soft1901	Proceeds to next stage	As expected
Password on start-up [illegal]	qwerty (3 times)	Exits and issues a security alert	As expected
Deposit cash [normal]	Acct 1-2; balance is - \$1296.80; put in 96.8	Balance becomes -\$1200.00	As expected
Deposit cash [illegal]	Continuing; put in - 5.2	Rejects the input, and asks for another input	As expected
Deposit cash [boundary]	Continuing; put in 0	Balance remains at -\$1200.00	As expected
Withdraw cash (savings) [normal]	Acct 0-1; balance is \$3867.85; put in 100	Balance becomes \$3767.85	As expected
Withdraw cash (savings) [illegal]	Continuing; put in 20000000	Transaction refused as insufficient balance	As expected
Withdraw cash (savings) [illegal]	Continuing; put in -4	Invalid input	As expected
Withdraw cash (savings) [boundary]	Continuing; put in 0	Balance remains at \$3767.85	As expected
Withdraw cash (credit) [normal]	Acct 2-2; balance is -\$79999.99; put in 100	Balance becomes -\$80101.99 (2% extra credit surcharge fee)	As expected
Withdraw cash (credit) [illegal]	Continuing; put in 1000000000	Transaction refused as ATM out of cash	As expected
Withdraw cash (credit) [boundary]	Continuing; put in 0	Transaction remains at -\$80101.99	As expected