

Test Method Name	Balance	Student Type	Amount	Expected Fee	Actual Fee	Status	Notes
testStudentAmountOver50BalanceOver500	600	Student	100	0.50	0.20	Fail	Student, amount>50, balance>500 → 0.5% fee
testStudentAmountOver50BalanceUnder500	500	Student	100	0.25	0.20	Fail	Student, amount>50, balance≤500 → 0.25% fee
testStudentAmountUnder50BalanceOver5000	5100	Student	50	0.25	0.25	Pass	Student, amount≤50, balance>5000 → 0.5% fee
testStudentAmountUnder50BalanceUnder5000	5000	Student	50	0.00	0.10	Fail	Student, amount≤50, balance≤5000 → no fee
testNonStudentAmountOver250BalanceOver2500	3000	Non-Student	300	2.40	0.00	Fail	Non-student, amount>250, balance>2500 → 0.8% fee
testNonStudentAmountOver250BalanceUnder2500	2500	Non-Student	300	1.20	0.00	Fail	Non-student, amount>250, balance≤2500 → 0.4% fee

testNonStudentAmountUnder250 BalanceOver10000	1010 0	Non- Stud ent	250	0.00	1.2 5	Fail	Non- student, amount≤ 250, balance> 10000 → no fee
testNonStudentAmountUnder250 BalanceUnder10000	1000 0	Non- Stud ent	250	0.25	0.0 0	Fail	Non- student, amount≤ 250, balance≤ 10000 → 0.1% fee
testInvalidStudentAmountNegativ e	600	Stud ent	-10	0.00	- 0.0 02	Fail	Invalid negative amount for student
testInvalidStudentAmountZero	600	Stud ent	0	0.00	0.0 0	Pass	Invalid zero amount for student
testInvalidNonStudentAmountNeg ative	3000	Non- Stud ent	-10	0.00	- 0.0 0	Fail	Invalid negative amount for non- student
testInvalidNonStudentAmountZer o	3000	Non- Stud ent	0	0.00	0.0 0	Pass	Invalid zero amount for non- student

Test cases for deposit fee calculation were designed using Weak Robust Equivalence Class Analysis. This involves testing one input variable at a time, covering valid input classes based on business rules and including invalid classes to check error handling.

The input variables are Deposit amount, Account balance, student or not.

Since, the test cases are design using equivalence classes. There are in total of three equivalence classes including robust class.

- For students: amount \leq 50 or $>$ 50; balance thresholds at 500 and 5000
- For non-students: amount \leq 250 or $>$ 250; balance thresholds at 2500 and 10000
- Invalid amounts: negative and zero values

The Valid tests cover typical values and boundaries for each input separately (weak testing). Invalid tests include negative and zero amounts, assuming balance and client type remain valid (robust testing).

The assumptions that are made were that boundary values chosen at exact or just above thresholds, invalid amounts expected to return zero fee or throw exceptions; tests assume zero fee returned, and fee calculation follows specification percentages.