

CreditCard

-cardNumber: String
-cardHolder: String
-expirationDate: Date
-cvv: String

+CreditCard(cardNumber: String, cardHolder: String, expirationDate: Date, cvv: String)
+getCardNumber(): String
+setCardNumber(cardNumber: String): void
+getCardHolder(): String
+setCardHolder(cardHolder: String): void
+getExpirationDate(): Date
+setExpirationDate(expirationDate: Date): void
+getCvv(): String
+setCvv(cvv: String): void
+isExpirationDateValid(): boolean
+isCvvValid(inputCvv: String): boolean
+isCardNumberValid(): boolean
+getCardType(): String
+toString(): String

CreditCardTest

- dateFormat: SimpleDateFormat
- cal: Calendar
- testCard: CreditCard

+ setUpBeforeClass(): void
+ tearDownAfterClass(): void
+ setUp(): void
+ tearDown(): void
+ testIsCvvValid(): void
+ testIsCardNumberValid(): void
+ testGetCardType(cardNumber: String, expectedType: String): void + testToString(): void
+testIsExpirationDateValid(expirationDateStr: String, expectedValidity: boolean): void

Loan

-loanId: String
-customerName: String
-loanAmount: double
-interestRate: int
-loanStartDate: Date
-termInYears: int

+Loan(loanId: String, customerName: String, loanAmount: double, interestRate: int, loanStartDate: Date, termInYears: int)
+getLoanId(): String
+setLoanId(loanId: String): void
+getCustomerName(): String
+setCustomerName(customerName: String): void
+getLoanAmount(): double
+setLoanAmount(loanAmount: double): void
+getInterestRate(): int
+setInterestRate(interestRate: int): void
+getLoanStartDate(): Date
+setLoanStartDate(loanStartDate: Date): void
+getTermInYears(): int
+setTermInYears(termInYears: int): void
+calculateMonthlyPayment(): double
+calculateTotalRepayment(): double
+toString(): String
+calculateMonthlyInterestRate(): double

LoanTest

- loan: Loan
- readLoanIdsFromCsv(filePath: String): String[]

+ setUpBeforeClass(): void
+ tearDownAfterClass(): void
+ testLoanId(): void
+ testCustomerName(): void
+ testLoanAmount(): void
+ testInterestRate(): void
+ testTermInYears(): void
+ testCalculateMonthlyPayment(): void
+ testCalculateTotalRepayment(): void
+ testLoanStartDate(): void
+ testZeroInterestRate(): void
+ testNegativeTermInYears(): void
+ testLoanIdArrayEquality(): void
+testLoanObjectReferenceEquality(): void
+testLoanStartDateReferenceInequality(): void