Account

```
+ accountNumber : Long
+ customerID : Long
+ balance : Double
+ createdOn : Date
+ accountType: String
---
+ showBalance(): Double
+ showAccountDetails() : Void
```

Extends → Savings
Extends → Loan
Extends → FixedDeposit

Savings

```
+ savingsAccountType: String
+ minimumBalance : Integer
+ minimumBalancePenalty : Integer
+ debitCardType : String
---
+ deposit(int amount) : Void
+ withdraw(int amount) : Void
```

Extends → Basic
Extends → Regular
Extends → Student
Extends → Premium

Loan

```
+ loanType : String
+ collateralType : String
+ collateralValue : Double
+ interestRate : Double
+ durationInDays : Integer
+ emiAmount : Double
---
+ deposit(int amount) : Void
```

Extends → Student
Extends → House
Extends → Car
Extends → Personal

FixedDeposit

```
+ depositAmount : Double
+ duration : Integer
+ dueDate : Date
+ interestRate : Double
+ expectedPayout : Double
+ totalPayout : Double
+ daysHold : Integer
---
+ getPayout() : Double
<<note>>
if the amount is withdrawn before the due date,
penalty = (difference b/w dueDate and
presentDate*0.15%*totalPayout)

+ getTotalPayout() : Double
<<note>>
totalPayout = depositAmount +
(depositAmount*interestRate*duration)/100
```

Basic

```
+ getMinimumBalance() : Integer
<<note>>
minimumBalance = 1000
+ getMinimumBalancePenalty() : Integer
<<note>>
minimumBalancePenalty = 100
```

Regular

```
+ getMinimumBalance() : Integer
<<note>>
minimumBalance = 4000
+ getMinimumBalancePenalty() : Integer
<<note>>
minimumBalancePenalty = 400
```

Student

```
+ getMinimumBalance() : Integer
<<note>>
minimumBalance = 500
+ getMinimumBalancePenalty() : Integer
<<note>>
minimumBalancePenalty = 50
```

Premium

```
+ getMinimumBalance() : Integer
<<note>>
minimumBalance = 10000
+ getMinimumBalancePenalty() : Integer
<<note>>
minimumBalancePenalty = 1000
```

Student

```
+ getInterestRate() : Double
<<note>>
interestRate=4.5%
```

House

```
+ getInterestRate() : Double
<<note>>
interestRate=6%
setDurationInDays(int days)
<<note>>
durationInDays>=1825 (5 years)
```

Car

```
+ getInterestRate() : Double
<<note>>
interestRate=7.5%
setDurationInDays(int days)
<<note>>
durationInDays>=365 (1 year)
```

Personal

```
+ getInterestRate() : Double
<<note>>
interestRate=9.5%
setDurationInDays(int days)
<<note>>
durationInDays<=1825 (5 years)
```

Customer

```
+ customerID : Long
+ fname : String
+ lname : String
+ dob : Date
+ mobile String
+ mail : String
+ address : String
+ aadhar : String
+ pan : String
---
+ openAccount() : Void
<<note>>
open only if age >=18
aadhar and pan must be provided
mobile or mail either must be provided
+ closeAccount() : Void
<<note>>
make sure the amount is withdrawn successfully and
given back to the customer
```

TransactionRecord

```
+ transactionId : String
+ transactionDate : Date
+ transactionType : String
<<note>>
deposit, withdraw, neft/imps/ rtgs
+ transactionAmount : Double
+ remainingBalance : Double
---
+ makeTransaction() : void
<<note>>
call getBalance() from Account to get updated balance
```