```
Automatic evaluation[+]
LoanManagement/src/com/dao/CustomerDAO.java
    1 package com.dao;
    3 import java.util.*;
    5 import com.exception.LoanException;
    6 import com.model.Customer;
    8 public class CustomerDAO {
   10
        List<Customer> customerList = new ArrayList<>();
   11
   12
        public void addCustomer(Customer customerObj){
   13
            customerList.add(customerObj);
   14
   15
   16
        public List<Customer> viewAllCustomer(){
   17
            if(customerList.isEmpty()){
   18
                 return null;
   19
   20
            return customerList;
        }
   21
   22
   23
        public boolean deleteCustomer(int customerId){
   24
            //boolean flag=false;
   25
            for(Customer c : customerList){
   26
                 if(c.getCustomerId()==customerId){
   27
                     customerList.remove(c);
   28
                     return true;
   29
   30
   31
            return false;
   32
        }
   33
   34
        public boolean validateCustomerID(int customerId){
   35
   36
            try {
                 if(customerId>=1000 && customerId<=9999)
   37
   38
   39
                     return true;
   40
   41
                 else{
   42
                     throw new LoanException("Customer Id is invalid");
   43
            } catch (LoanException e) {
   44
   45
                 // TODO Auto-generated catch block
   46
                 e.printStackTrace();
   47
   48
            return false;
   49
        }
   50
   51 }
   52
LoanManagement/src/com/dao/LoanDAO.java
    1 package com.dao;
    2
```

```
3
    4 import java.util.ArrayList;
    5 import java.util.List;
    7 import com.exception.LoanException;
    8 //import com.model.Customer;
    9 import com.model.Loan;
   10
   11 //import java.io.IOException;
   13 public class LoanDAO {
   14
   15
        List<Loan> loanList = new ArrayList<>();
   16
   17
        public void issueLoan(Loan loanObj){
   18
            loanList.add(loanObj);
   19
   20
   21
        public List<Loan> viewLoanByType(int loanType) throws LoanException {
   22
   23
            if(loanList.isEmpty()){
   24
                 return null;
   25
            }
   26
            else
   27
   28
                 List<Loan> temp= new ArrayList<>();
   29
                 for(Loan loan : loanList){
   30
                     if(loan.getLoanType().equals(loanType)){
                          temp.add(loan);
   31
   32
   33
                 }
   34
   35
                 //try{
   36
                     if(temp==null)
   37
   38
                          // to check if temp is empty
   39
                          throw new LoanException("No loans available with type
"+loanType);
   40
                     }
   41
                 //}
   42
                 //catch(LoanException e){
   43
   44
                 //}
   45
                 /*inally{
   46
                     return temp;
   47
                 }*/
   48
                 else{
   49
                     return temp;
   50
                 }
   51
            }
   52
        }
   53
   54 }
LoanManagement/src/com/dao/PaymentDAO.java
    1 package com.dao;
    2
```

```
3 import java.util.ArrayList;
    4 import java.util.List;
    6 import com.model.Payment;
    7 //import com.dao.LoanDAO;
    8 //import com.dao.CustomerDAO;
   10 public class PaymentDAO {
   11
   12
        private List<Payment> paymentList = new ArrayList<>();
   13
   14
        //private CustomerDAO custDAO;
   15
   16
   17
        public void setPaymentList(List<Payment> paymentList ) {
   18
            this.paymentList= paymentList;
   19
   20
   21
        public List<Payment> getPaymentList() {
   22
            return paymentList;
   23
       }
   24
   25
          public void makePayment(Payment obj){
   26
            paymentList.add(obj);
   27
   28
   29
         /* public void updatePayment(int paymentId,double amount){
   30
   31
          } */
   32
   33 }
   34
LoanManagement/src/com/exception/LoanException.java
    1 package com.exception;
    3 public class LoanException extends Exception {
        public LoanException(String msg){
    5
            super(msg);
    6
        }
    7}
LoanManagement/src/com/model/Customer.java
    1 package com.model;
    2
    3 public class Customer {
    4
    5
        int customerId;
    6
        String customerName;
    7
        String address;
    8
        String panNumber;
    9
        String emailed;
   10
   11
        public Customer(int customerId, String customerName, String address, String
panNumber) {
            //String pan="";
   12
   13
            this.customerId = customerId;
   14
            this.customerName = customerName;
```

```
15
            this.address = address;
   16
            this.panNumber = panNumber;
   17
   18
   19
        public Customer() {
   20
            //default
   21
   22
   23
        public int getCustomerId() {
   24
            return customerId;
   25
   26
   27
        public void setCustomerId(int customerId) {
   28
            this.customerId = customerId;
   29
   30
   31
        public String getCustomerName() {
   32
            return customerName;
   33
        }
   34
   35
        public void setCustomerName(String customerName) {
   36
            this.customerName = customerName;
   37
   38
        public String getAddress() {
   39
   40
            return address;
   41
   42
   43
        public void setAddress(String address) {
   44
            this.address = address;
   45
   46
   47
        public String getPanNumber() {
   48
            return panNumber;
   49
   50
   51
        public void setPanNumber(String panNumber) {
   52
            this.panNumber = panNumber;
   53
        }
   54
   55
        public String getEmailId() {
   56
            return emailld;
   57
   58
   59
        public void setEmailId(String emailId) {
            this.emailId = emailId;
   60
   61
   62
   63 }
LoanManagement/src/com/model/Loan.java
    1 package com.model;
    3 public class Loan {
        int loanNumber;
        String loanType="Vehicle";
        Customer customer;
```

```
7
        double loanAmount;
    8
        double balanceLoanAmount;
    9
        static final double MAXLOANAMOUNT=1500000;
   10
        public Loan(){
   11
   12
            //default
   13
   14
        public Loan(int loanNumber, String loanType, Customer customer, double
   15
loanAmount) {
            this.loanNumber = loanNumber;
   16
   17
            this.loanType = loanType;
   18
            this.customer = customer;
   19
            this.loanAmount = loanAmount;
   20
            balanceLoanAmount=loanAmount;
   21
        }
   22
   23
        public int getLoanNumber() {
   24
            return loanNumber;
   25
   26
   27
        public void setLoanNumber(int loanNumber) {
            this.loanNumber = loanNumber:
   28
   29
   30
   31
        public String getLoanType() {
   32
            return loanType;
   33
        }
   34
   35
        public void setLoanType(String loanType) {
   36
            this.loanType = loanType;
   37
        }
   38
   39
        public Customer getCustomer() {
   40
            return customer;
   41
   42
   43
        public void setCustomer(Customer customer) {
   44
            this.customer = customer;
   45
   46
   47
        public double getLoanAmount() {
   48
            return loanAmount;
   49
   50
        public void setLoanAmount(double loanAmount) {
   51
   52
            this.loanAmount = loanAmount;
   53
        }
   54
   55
        public double getBalanceLoanAmount() {
   56
            return balanceLoanAmount;
   57
        }
   58
   59
        public void setBalanceLoanAmount(double balanceLoanAmount) {
   60
            this.balanceLoanAmount = balanceLoanAmount;
        }
   61
   62
```

```
63
   64
        public boolean checkBalanceAmount(double amountPaid){
   65
            //float gst=3;
   66
            return (balanceLoanAmount >= amountPaid);
   67
            //double amount = balanceLoanAmount+balanceLoanAmount*gst/100;
   68
            //if(balanceLoanAmount >= amountPaid)
   69
            // return true;
   70
            //else
   71
            // return false;
   72
       }
   73
   74
   75
   76
   77 }
   78
LoanManagement/src/com/model/Payment.java
    1 package com.model;
    3 import java.time.LocalDate;
    5 public class Payment {
    6
    7
        int paymentId;
    8
        LocalDate dateOfPayment;
    9
        Loan loanObj;
   10
        double amount;
   11
        String paymentMode;
   12
        static final float GSTPERCENTAGE=2;
   13
   14
        public Payment(int paymentId, LocalDate dateOfPayment, Loan loanObj, double
amount, String paymentMode) {
   15
   16
            this.paymentId = paymentId;
   17
            this.dateOfPayment = dateOfPayment;
   18
            this.loanObj = loanObj;
   19
            this.amount = amount;
   20
            this.paymentMode = paymentMode;
   21
        }
   22
   23
        public int getPaymentId() {
   24
            return paymentId;
   25
        }
   26
   27
        public void setPaymentId(int paymentId) {
   28
            this.paymentId = paymentId;
   29
   30
   31
        public LocalDate getDateOfPayment() {
   32
            return dateOfPayment;
   33
        }
   34
   35
        public void setDateOfPayment(LocalDate dateOfPayment) {
   36
            this.dateOfPayment = dateOfPayment;
   37
   38
   39
        public Loan getLoanObj() {
```

```
40
            return loanObj;
   41
        }
   42
        public void setLoanObj(Loan loanObj) {
   43
   44
            this.loanObj = loanObj;
   45
        }
   46
   47
        public double getAmount() {
   48
            return amount;
   49
        }
   50
   51
        public void setAmount(double amount) {
   52
            this.amount = amount;
   53
   54
   55
        public String getPaymentMode() {
   56
            return paymentMode;
   57
   58
   59
        public void setPaymentMode(String paymentMode) {
   60
            this.paymentMode = paymentMode;
   61
   62
        public static float getGstpercentage() {
   63
            return GSTPERCENTAGE;
   64
   65
        }
   66
   67
   68
   69 }
   70
Grade
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Grade 100 / 100
Assessment report
[+]Grading and Feedback
```