Class: Electric Company
GRASP: Information Expert

//Comments:
Contains the bill of the customer.

Meter
- -MeterReading : float
- -IsEstimated : bool
- -MeterLocationAddress : string
- +GetActualReading() : Meter
- +GetEstimateReading() : Meter
- +SaveUpdatedMeterDetails(in UpdatedMeterDetails : Meter)

+MeterId

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Class: Tax Calculator
GRASP: Information Expert

//Comments

The Tax rate is given.
Has a method to calculate the tax amount.

DatabaseSaving
- -OjectTobeSaved : object
- +insertObject(in ObjectToBePersisted : object)
- +updateObject(in ObjectToPersisted : object)

Class: Database Saving
GRASP: Pure Fabrication Pattern -
Save object in some kind of
persistent storage medium

ElectricCompanySystem
- +BillCreationDate : string = Current Date
- +SendBill(in BillCreated)
- +SendReminder(in BillCreated)

Class: Customer
GRASP: Information Expert

Comments:

Customer details are given.
Generalised from company and individual users.
Method to update various details.

TaxCalculator
- -TaxTypeName : string
- -TaxRate : float
- +GetTax(in TaxId : long) : long

+TaxId

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Bill
- +Total reading : double
- +Customer Name : string
- +BillingAddress : string
- +Total Amount : double
- +BillDueDate : Date
- +meter id : long
- +tax : double
- +previous Reading : long
- +present Reading : long
- +billing date : Dat
- +bill id : long
- +BillCyclePeriod : int
- +BillStartDate : Long
- -MeterAddress : string
- -RatePerUnit : double
- -isRateOfChargeChanged : bool
- -AdditionalCharges : double
- +GenerateBill()
- +ComputeTax()
- +UndeliverableBills()
- +LatePaidBills()
- +PartiallyPaidBills()
- +calcualteBillAmount()
- +BillingHistory()
- +Taxable() : double
- +checkCustomerBillDues()

{BillDueDate=
Billing date + 10days}

{BillingDate=
BillStartDate+BillCyclePeriod}

UnDeliverableBill(){

BillingAddress = invalid;
if(AlternateAddress.exists()){
 BillingAddress = AlternateAddress;
GenerateBill();
}

}

Class: Bill
GRASP: Creator

Can Also behave as a Controller.

Comments:
Class is used to create, update and end.
the service to the customer.
Generated a bill and dispatches it.
Is used to re-create a bill for a particular customer.

Customer
- -CustomerId : int
- -BillingAddress : string
- -UnitCost : int
- +change_Address()
- +changeUnitCost()
- +ChangeBillingAddress()
- +GetUnitCost() : int
- +GetBillingAddress()
- +Customer()

Class: Payment
GRASP: Information Expert

//Comments:

Contains the Payment information
Calculates the payment

Payment
- +CardNo : long
- +CardType : string
- +authorize()

CreditCard
- +CardNo : long
- +CreditBalance : double
- +CardType : string
- +DOI : Date
- +DOE : Date
- +authorize()

DebitCard
- +CardNo : long
- +Balance : string
- +CardType : string
- +DOI : Date
- +DOE : Date
- +authorize()

PaymentGateway
- +BankCode : double
- +BankLocation : string
- +BranchCode : int
- +CardType : string
- +ChecksCard()

Verification
- +CardNo : long
- +CardType : string
- +CardExpiry : string
- -BankName : string