

```

classDiagram
    class Expense {
        <<abstract>>
        +serviceType: string
        +billDate: string
        +billAmount: double
        +dueDate: string
        +balanceAmount: string
        +expenseRefNumber: string
        +payment: Payment
        +Expense()
        +getServiceType()
        +getServiceType(serviceType): void
        +getBillDate()
        +setBillDate(billDate): void
        +getBillAmount()
        +setBillAmount(billAmount): void
        +getDueDate()
        +setDueDate(dueDate): void
        +getBalanceAmount()
        +getPayment() Payment
        +setPayment(payment: Payment): void
        +PrintExpensesOrPayment(): void
        +ToString(): string
    }
    class Payment {
        +Name: string
        +Number: string
        +PaymentDate: string
        +PaymentAmount: string
        +PaymentRefNumber: string
        +ExpenseRefNumber: string
        +Expense: Expense
        +Payment()
        +GetName()
        +SetName(Name): void
        +GetNumber()
        +SetNumber(Number): void
        +GetPaymentDate()
        +SetPaymentDate(paymentDate): void
        +GetPaymentAmount()
        +SetPaymentAmount(paymentAmount): void
        +GetPaymentRefNumber()
        +SetPaymentRefNumber(paymentRefNumber): void
        +GetExpenseRefNumber()
        +SetExpenseRefNumber(expenseRefNumber): void
        +GetExpense()
        +SetExpense(expense): void
        +PrintExpensesOrPayment(): void
        +PrintWithCreditOrDebit(): abstract void
    }
    class DebitPayment {
        +Bank: string
        +getBank(): string
        +setBank(bank: string): void
        +PrintWithCreditOrDebit(): void
        +DebitPayment()
        +ToString(): string
    }
    class CreditPayment {
        +Card: string
        +getCard(): string
        +setCard(card: string): void
        +ToString(): string
    }
    class PrintInterface {
        +PrintExpensesOrPayment(): void
    }
    class ExpenseGUI {
        +MyExpensesGUI
        +Main()
        +Launch()
        +Start()
    }
    class MyExpenses {
        +ReadAndPrint() string
        +WriteAndPrint() string
        +Print() string
        +PrintTotalBalance() string
        +PrintTotalExpenses() string
        +Start()
    }
    Expense <|-- Payment
    Expense <|-- DebitPayment
    Expense <|-- CreditPayment
    ExpenseGUI --> Expense
    ExpenseGUI --> MyExpenses
    MyExpenses --> Payment
    Payment <|-- DebitPayment
    Payment <|-- CreditPayment
    Payment <|-- PrintInterface
    
```

The diagram illustrates the design of an expense management system. It features an abstract **Expense** class and a concrete **Payment** class. The **Expense** class defines attributes for service type, bill date, bill amount, due date, balance amount, expense reference number, and payment. It includes methods for getting and setting these attributes, as well as a `PrintExpensesOrPayment()` method and a `ToString()` method. The **Payment** class inherits from **Expense** and adds attributes for name, number, payment date, payment amount, payment reference number, expense reference number, and expense. It also includes methods for getting and setting these attributes, a `PrintExpensesOrPayment()` method, and an abstract `PrintWithCreditOrDebit()` method. Two concrete classes, **DebitPayment** and **CreditPayment**, inherit from **Payment** and implement the `PrintWithCreditOrDebit()` method. A **PrintInterface** defines the `PrintExpensesOrPayment()` method. A **GUI** class, **MyExpensesGUI**, interacts with the **Expense** class and a **MyExpenses** class. The **MyExpenses** class interacts with the **Payment** class. The diagram is titled "Expense" and "Payment".