

Scala Programing

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Write a Scala program that creates a class BankAccount with properties accountNumber and balance. Implement methods to deposit and withdraw money from the account.

Code:

```
class BankAccount(val accountNumber: String, var balance: Double) {  
  def deposit(amount: Double): Unit = {  
    balance += amount  
    println(s"Deposited $amount. New balance: $balance")  
  }  
  def withdraw(amount: Double): Unit = {  
    if (amount <= balance) {  
      balance -= amount  
      println(s"Withdrew $amount. New balance: $balance")  
    }  
    else  
    {  
      println(s"Want to withdraw $amount? Insufficient balance!")  
    }  
  }  
}  
  
object BankAccountApp {  
  def main(args: Array[String]): Unit = {  
    val account = new BankAccount("SB-1234", 1000.0)  
    println(s"Account Number: ${account.accountNumber}")  
    println(s"Initial Balance: ${account.balance}")  
    account.deposit(500.0)  
    account.withdraw(200.0)  
    account.withdraw(2000.0)  
  }  
}
```

Output:

Output:

```
Account Number: SB-1234
Initial Balance: 1000.0
Deposited 500.0. New balance: 1500.0
Withdrew 200.0. New balance: 1300.0
Want to withdraw 2000.0? Insufficient balance!
```

In the below code we added a new property i.e. simple interest where it takes the values given by the user for rate and time and uses balance amount value for the principal amount

Code:

```
class BankAccount(val accountNumber: String, var balance: Double) {
  def deposit(amount: Double): Unit = {
    balance += amount
    println(s"Deposited $amount. New balance: $balance")
  }
  def simpleinterest(rate: Float,time: Int): Unit = {
    balance += (balance*rate*time)/100
    println(s"SimpleInterest rate is $rate, New balance: $balance")
  }
  def withdraw(amount: Double): Unit = {
    if (amount <= balance) {
      balance -= amount
      println(s"Withdrew $amount. New balance: $balance")
    }
    else
    {
      println(s"Want to withdraw $amount? Insufficient balance!")
    }
  }
}

object BankAccountApp {
  def main(args: Array[String]): Unit = {
    val account = new BankAccount("SB-1234", 1000.0)
```

```
println(s"Account Number: ${account.accountNumber}")
println(s"Initial Balance: ${account.balance}")
account.deposit(500.0)
account.withdraw(200.0)
account.withdraw(2000.0)
account.simpleinterest(3.5F,1)
}
}
```

Output:

Output:

Account Number: SB-1234

Initial Balance: 1000.0

Deposited 500.0. New balance: 1500.0

Withdrew 200.0. New balance: 1300.0

Want to withdraw 2000.0? Insufficient balance!

SimpleInterest rate is 3.5, New balance: 1345.5