附录

5.1 R6 类面向对象编程简单实例

```r
library(R6)

BankAccount = R6Class(
  classname = "BankAccount",

  public = list(
    name = NULL,
    age = NA,

    initialize = function(name, age, balance) {
      self$name = name
      self$age = age
      private$balance = balance
    },

    printInfo = function() {
      cat(" 姓名：", self$name, "\n", sep = "")
      cat(" 年龄：", self$age, " 岁\n", sep = "")
      cat(" 存款：", private$balance, " 元\n", sep = "")
      invisible(self)
    },

    deposit = function(dep = 0) {
      private$balance = private$balance + dep
      invisible(self)
    },

    withdraw = function(draw) {
      private$balance = private$balance - draw
      invisible(self)
    }
  ),
```

```r
  private = list(
    balance = 0
  )
)
```

```r
account = BankAccount$new(" 张三", age = 40, balance = 10000)
account$printInfo()
```

```
## 姓名：张三
## 年龄：40岁
## 存款：10000元
```

```r
account$balance
```

```
## NULL
```

```r
account$age
```

```
## [1] 40
```

```r
account$
  deposit(5000)$
  withdraw(7000)$
  printInfo()
```

```
## 姓名：张三
## 年龄：40岁
## 存款：8000元
```

```r
BanckAcountCharge = R6Class(
  classname = "BankAccount",
  inherit = BankAccount,

  public = list(
    withdraw = function(draw = 0) {
      if (private$balance - draw < 0) {
        draw = draw + 100
      }
      super$withdraw(draw = draw)
    }
  )
)
```

```r
charge_account = BanckAcountCharge$new(" 李四", age = 35, balance = 1000)
charge_account$withdraw(2000)$
  printInfo()
```

```
## 姓名：李四
## 年龄：35岁
## 存款：-1100元
```