

Nubank - iOS Exercise

General rules

- You have up to 2 weeks to complete the assignment.
- The project should be available in a private repository (suggestion: Github or Bitbucket).
- Live session for assignment demo and Q&A to be scheduled.

Overview

Customers from Nubank have to pay their bill monthly. We have four potential states for the bill: “overdue” (paid); “closed” (ready for payment but not yet paid); “open” (not yet closed, charges are still being added); and “future” (installments/'parcelas' that will be charged to bills in future months).

The goal is to implement the “Bill” screen.

UI: <https://drive.google.com/file/d/0B9GWZuZAoiKPVU94Y1lHbzZ0dw8/view?usp=sharing>

Video: <https://drive.google.com/open?id=0B9GWZuZAoiKPM19lNnhlaEROWDQ&authuser=0>

Tasks

- Develop the app using Objective-C and/or Swift
- Must include unit tests
- UI testing is a plus
- Consume REST API to get the BILL-JSON
- Handle errors, such as, no internet available, 4XX and 5XX and show a specific message for each one:
 - No Internet Available - "Parece que você está sem internet! Por favor, verifique a sua conexão e tente novamente."
 - 4XX - "Houve algum erro com o seu pedido."
 - 5XX - "Desculpe, estamos enfrentando problemas técnicos. Por favor, tente novamente mais tarde."

Use [bill_interface.pdf](#) and [bill_video](#) as a reference.

Data

The REST API is available at:

https://s3-sa-east-1.amazonaws.com/mobile-challenge/bill/bill_new.json

Structure

Summary

Every bill has a “summary” field:

```
{
  "summary": {
    "due_date": "2015-05-05",
    "open_date": "2015-03-23",
    "close_date": "2015-04-22",
    "past_balance": 0,
    "total_balance": 342457,
    "interest": 554,
    "total_cumulative": 341903,
    "paid": 342457,
    "minimum_payment": 51369
  }
}
```

due_date // You until this date to pay a closed bill

open_date // For an open bill, any new transactions posted after this date will be part of this bill

close_date // The date a bill closes, and therefore any new transactions posted after this date will be part of the next bill

past_balance // If greater than 0, this is the total amount you didn't pay from the previous bill (“Valor não pago”); if less than 0, it is the pre-paid balance (“Valores pré-pago”) from the previous bill

total_balance // The total amount you have to pay, which include charges, interest, and refunds

interest // The total interest amount

total_cumulative Monthly charges, which can be different from **total_balance**

paid // Total amount paid for a closed bill

minimum_payment // This is the minimal amount that you have to pay on a closed bill to avoid your card being blocked

Basically, to build the header you have to use the summary field.

Line Items

After you built the header, you have to show all the “**line_items**” (this is an abstraction from transaction) from each bill.

```
{
  "line_items": [
    {
      "post_date": "2015-03-25",
      "amount": 12641,
      "title": "Futurama Guaicurus",
      "index": 1,
      "charges": 2,
      "href": "nuapp://transaction/5510aa26-47e7-4e87-9fab-84b5cdfb03ee"
    },
    {
      "post_date": "2015-04-06",
      "amount": -214259,
      "title": "Pagamento recebido"
    }
  ]
}
```

post_date // The date that the transaction has been settled

amount // Total amount, if it's negative, that is Refund or Payment (show as green) in this case

index // Index = 0 There are no instalments

charges // Current charge

href // To open a specific transaction, won't be necessary in this exercise

amount // Negative that means a payment, so you have show as green

When a transaction has installments, (charges is greater than 1), you have to show what is the current charge (index) and how many there are (charges) along with the transaction description.

This should be the description of the line item represented on the JSON snippet above:

Futurama Guaicurus 2/2

The amount should be:

R\$19,54

Bill

Bill has 4 states:

“overdue”

- Show “PAGAMENTO RECEBIDO” if **paid** is negative.

“closed”

- Show “GERAR BOLETO” button.
- “Gastos do mês” - total_cumulative (Only if it's greater than 0)
- “Valores não pagos” - past_balance (Only if it's greater than 0)
- “Valores pré-pago” - past_balance (Only if it's less than 0)
- “Juros 7,75%” - interest (Only if it's greater than 0)

“open” - The current bill opened, new transactions will be in this bill

- Show “GERAR BOLETO” button.

“future” - This bill will have all instalments' transactions (line_items).

* All dates and times are [ISO 8601](#) format.