

REST

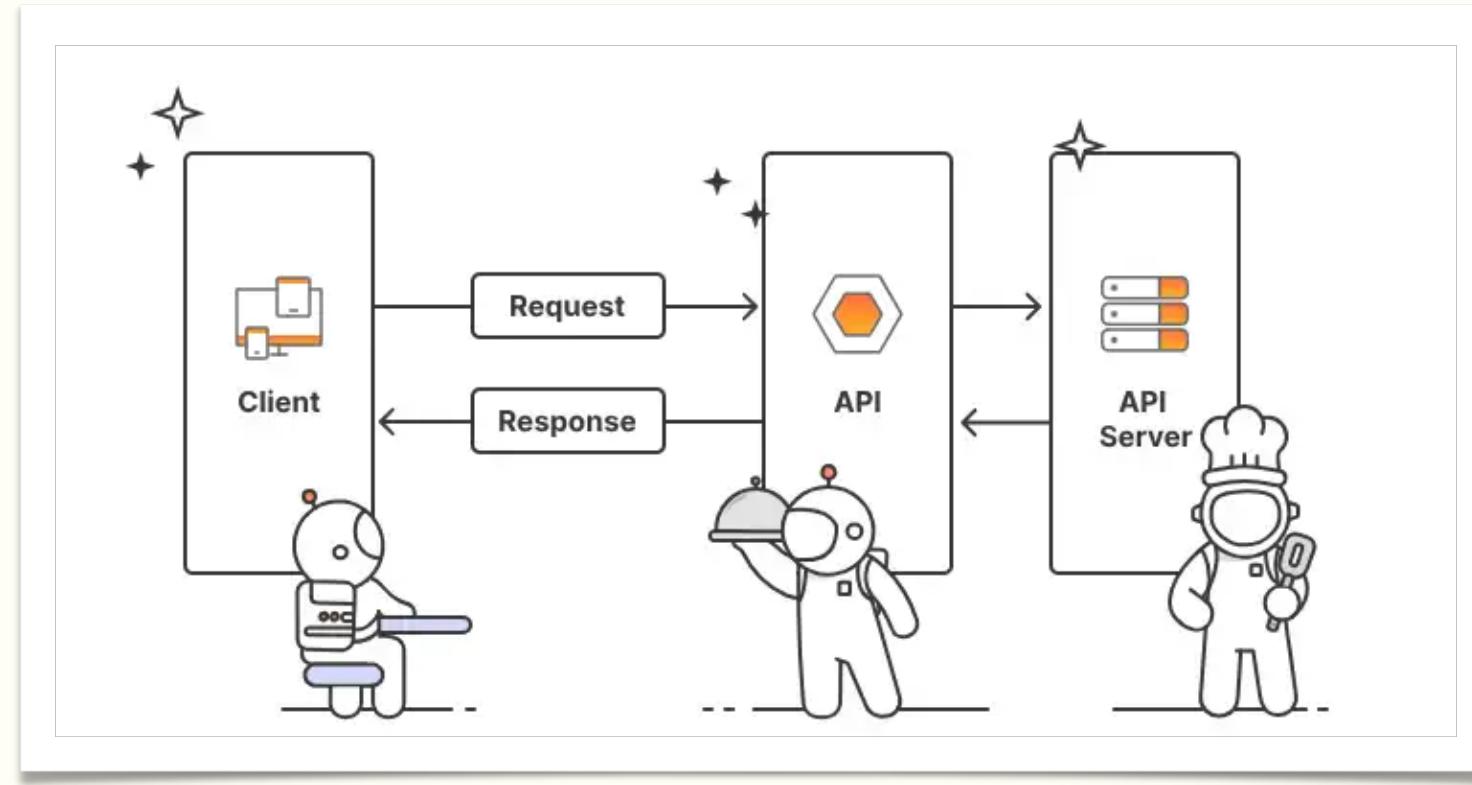
Consumindo API's



HACKA TRUCK
Maker Space

REST - Consumindo APIS externas

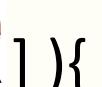
Vamos localizar API's* públicas, de preferência sem autenticação.



*API = Application Programming Interface

Listas

```
[  
    Estudante(nome: "Hermione", idade: 11),  
    Estudante(nome: "Harry", idade: 10),  
    Estudante(nome: "Rony", idade: 12)  
]
```

```
ForEach([ , ,  ] ){ aluno in  
    Text(aluno.nome)  
}
```



1ª Iteração - personagem =



2ª Iteração - personagem =



3ª Iteração - personagem =



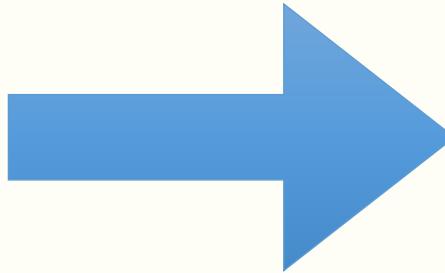
Conceitos

Autenticação
JSON
Endpoint
Objetos

```
[  
  {  
    "id": "9e3f7ce4-b9a7-4244-b709-dae5c1f1d4a8",  
    "name": "Harry Potter",  
    "alternate_names": [  
      "The Boy Who Lived",  
      "The Chosen One",  
      "Undesirable No. 1",  
      "Potty"  
    ],  
    "species": "human",  
    "gender": "male",  
    "house": "Gryffindor",  
    "dateOfBirth": "31-07-1980",  
    "yearOfBirth": 1980,  
    "wizard": true,  
    "ancestry": "half-blood",  
    "eyeColour": "green",  
    "hairColour": "black",  
    "wand": {  
      "wood": "holly",  
      "core": "phoenix tail feather",  
      "length": 11  
    },  
    "patronus": "stag",  
    "hogwartsStudent": true,  
    "hogwartsStaff": false,  
    "actor": "Daniel Radcliffe",  
    "alternate_actors": [],  
    "alive": true,  
    "image": "https://ik.imagekit.io/hpapi/harry.jpg"  
  },  
]
```

Agora...

```
[  
  {  
    "nome" : "Hermione",  
    "idade": 11  
  },  
  {"nome": "Harry",  
   "idade": 10  
  },  
  {  
    "nome": "Rony",  
    "idade": 12  
  }  
]
```



```
[  
  Personagem(nome: "Hermione", idade: 11),  
  Personagem(nome: "Harry", idade: 10),  
  Personagem(nome: "Rony", idade: 12)  
]
```



```
ForEach([  ,  ,  ] ){ personagem in  
  Text(personagem.nome)  
}
```

E no Swift?

Conceitos:

Codable

Optional (?)

Objetos

ObservableObject

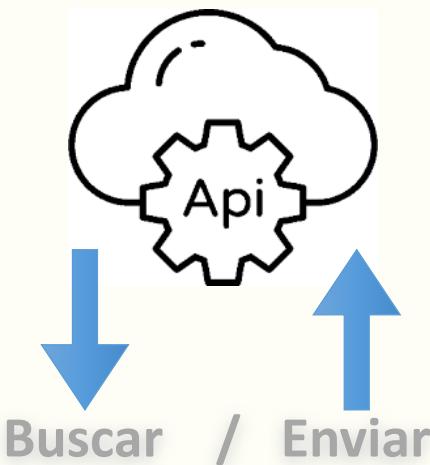
Published

StateObject

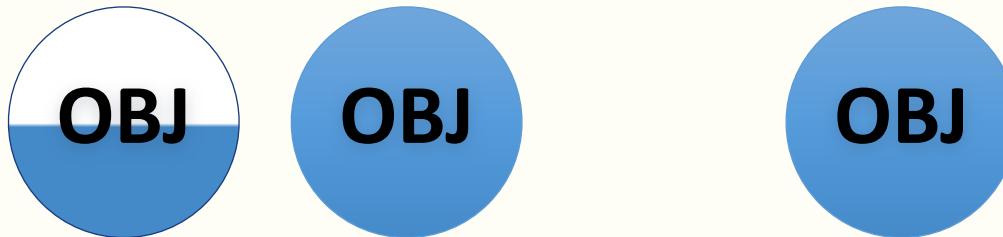
```
struct HaPo: Codable, Identifiable {
    let id: String
    let name: String?
    let alternate_names: [String]?
    let species: String?
    let gender: String?
    let house: String?
    let dateOfBirth: String?
    let yearOfBirth: Int?
    let wizard: Bool?
    let ancestry: String?
    let eyeColour: String?
    let hairColour: String?
    let wand: Wand
    let patronus: String?
    let hogwartsStudent: Bool?
    let hogwartsStaff: Bool?
    let actor: String?
    let alternate_actors: [String]?
    let alive: Bool?
    let image: String?
}

struct Wand: Codable {
    let wood: String?
    let core: String?
    let length: Double?
}
```

Como Funciona o JSON

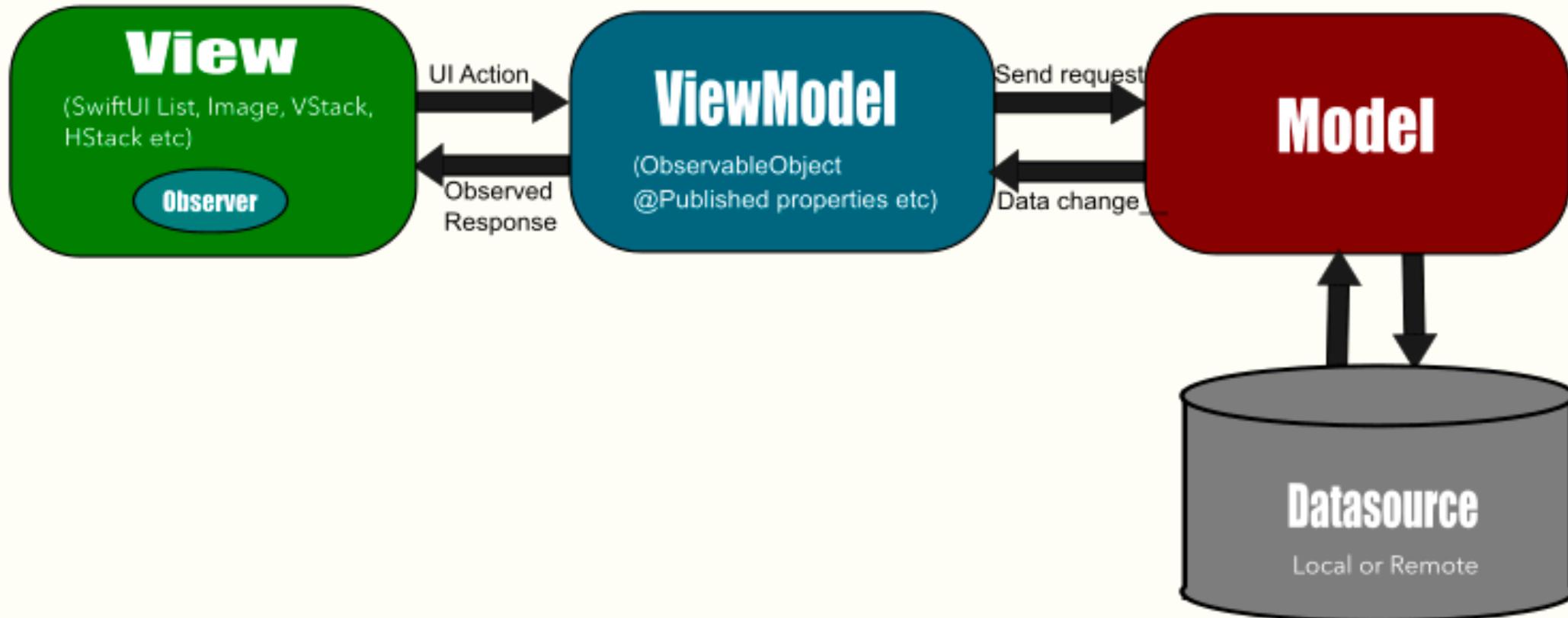


DECODIFICAR + ENCODIFICAR = Codable



Parcial + Total = TOTAL

Swift - MVVM



API Utilizada no Exemplo - HP-API

<https://hp-api.onrender.com/api/characters/house/gryffindor>

Use these routes to request data on Harry Potter characters:

View

- all characters:
 - <https://hp-api.onrender.com/api/characters>
- a specific character, based on their unique ID:
 - <https://hp-api.onrender.com/api/character/:id>
- characters who are Hogwarts students during the book series:
 - <https://hp-api.onrender.com/api/characters/students>
- characters who are Hogwarts staff during the book series:
 - <https://hp-api.onrender.com/api/characters/staff>
- characters in a certain house, e.g. /gryffindor:
 - <https://hp-api.onrender.com/api/characters/house/:house>
- all spells:
 - <https://hp-api.onrender.com/api/spells>

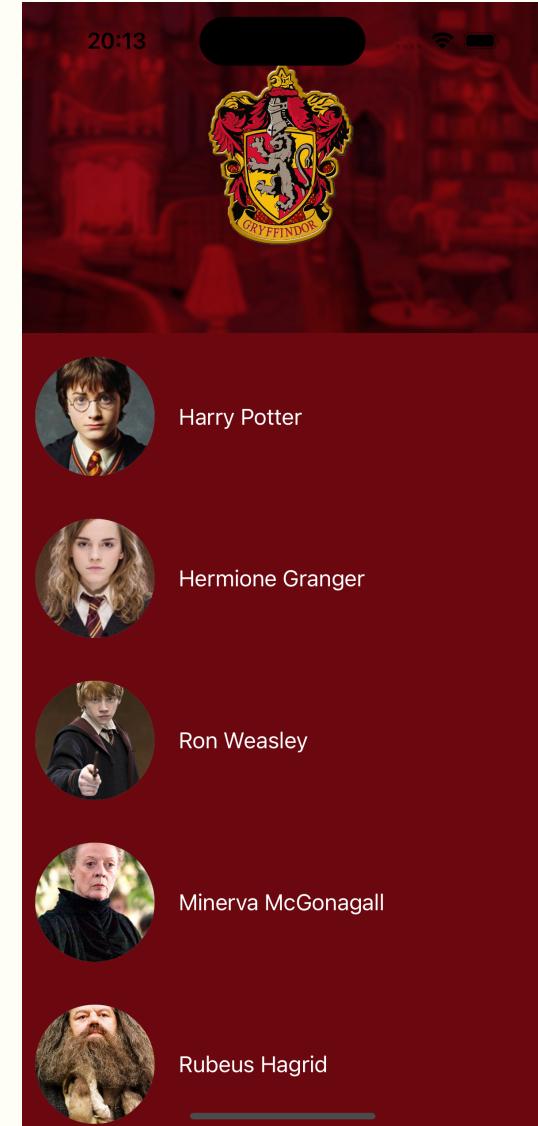
```
[{"id": "9e3f7ce4-b9a7-4244-b709-dae5c1f1d4a8", "name": "Harry Potter", "alternate_names": ["The Boy Who Lived", "The Chosen One", "Undesirable No. 1", "Potty"], "species": "human", "gender": "male", "house": "Gryffindor", "dateOfBirth": "31-07-1980", "yearOfBirth": 1980, "wizard": true, "ancestry": "half-blood", "eyeColour": "green", "hairColour": "black", "wand": {"wood": "holly", "core": "phoenix tail feather", "length": 11}, "patronus": "stag", "hogwartsStudent": true, "hogwartsStaff": false, "actor": "Daniel Radcliffe", "alternate_actors": [], "alive": true, "image": "https://ik.imagekit.io/hpapi/harry.jpg"}]
```

Desafio

Mapear uma API pública e exibir os dados em um App Swift!

Link para busca:

<https://github.com/public-apis/public-apis>





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