

UITableViewController, optimised cell management

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As an introduction...



Remain fluid in this usual situation

- For a UITableView...
 - ▶ Avoid lags
- Optimise memory
 - ▶ Avoid numerous allocation/deallocation



dedicated mechanism

Principle: reuse objects

Reusing cells

Fine handling of memory

- Booked memory for the displayed ones

When a cell «gets out»

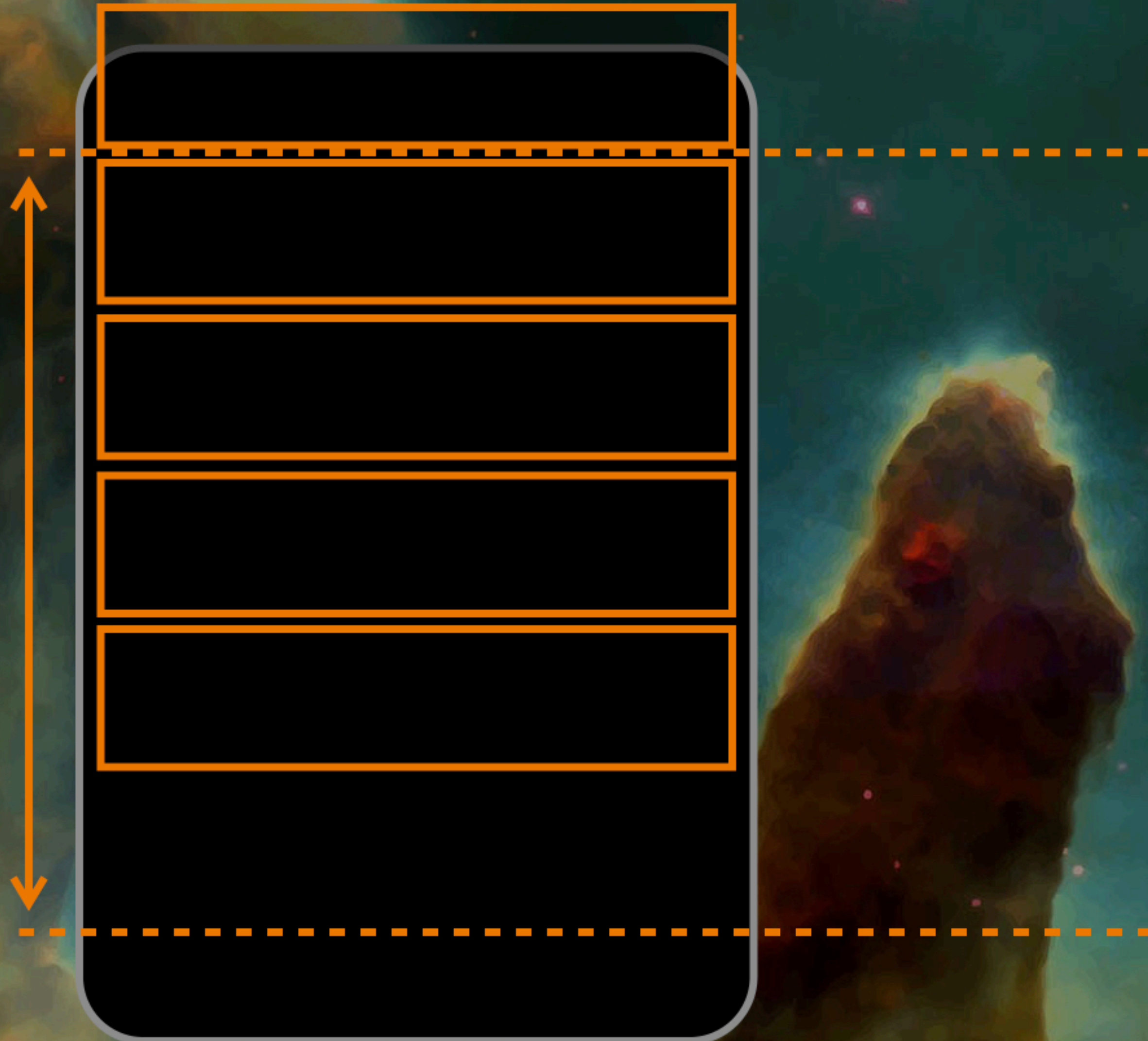
- May be deallocated
- Stored in a «temporary place»

When a cell «enters»

- Try to fetch a cell from the «temporary place»
 - ▶ Possible reuse of an existing cell
 - ▶ There are cell types (free identifiers)
- If not available, then allocation

Principle (basics)

Booked cells



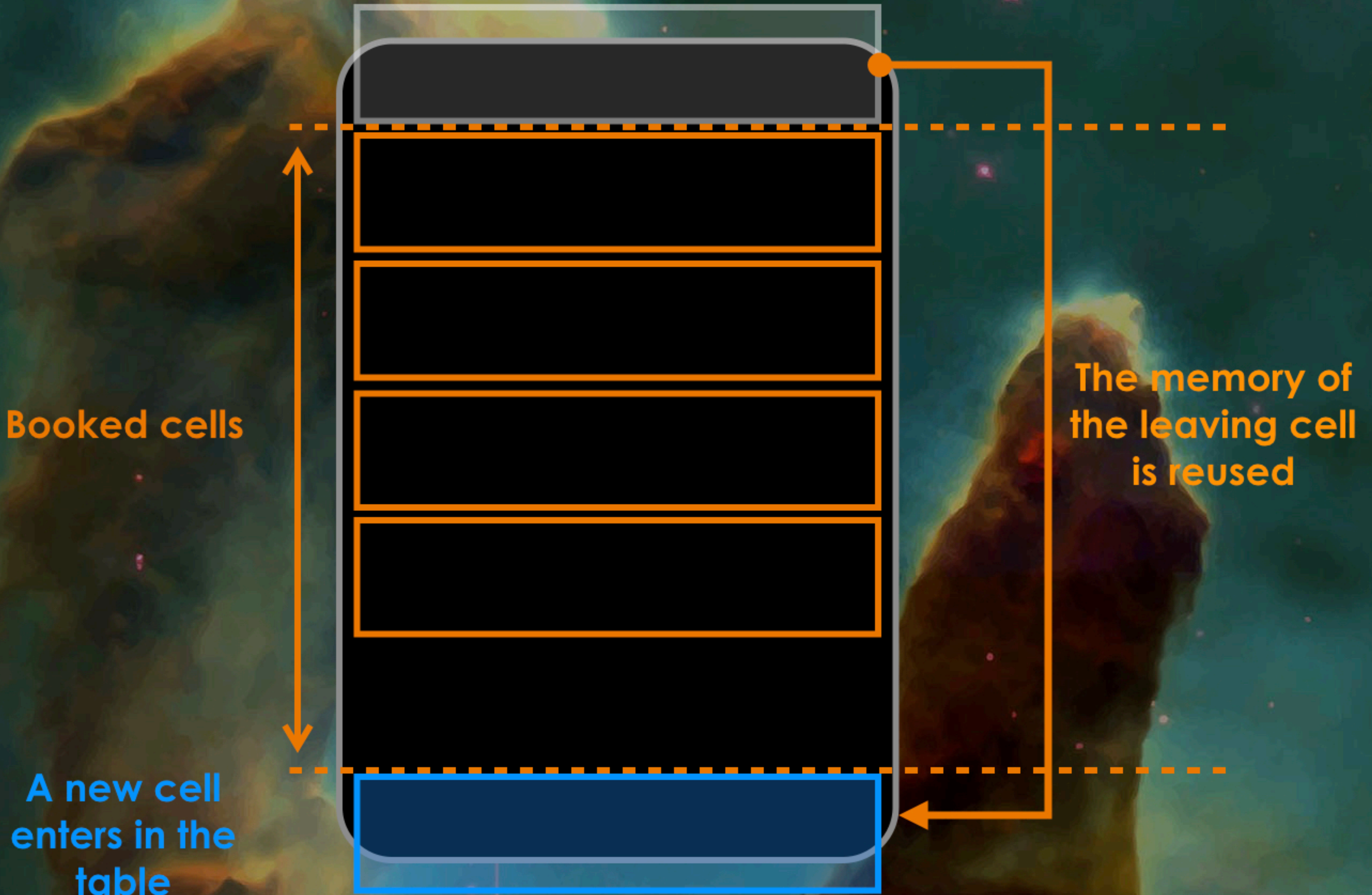
Principle (basics)

This cell might be deallocated at any time



Booked cells

Principle (basics)



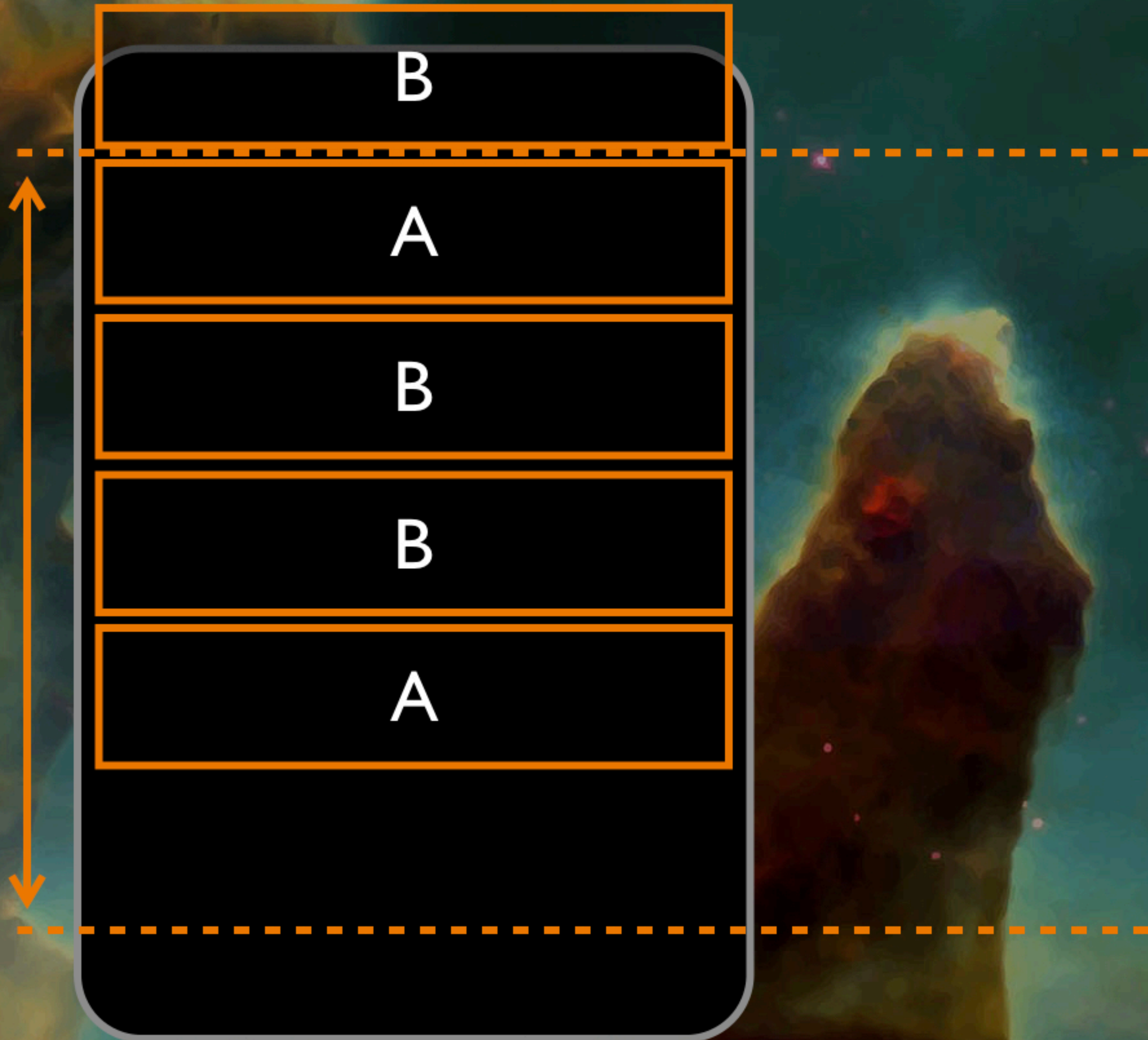
Principle (basics)

Booked cells



Principle (complete)

Booked cells



Principle (complete)

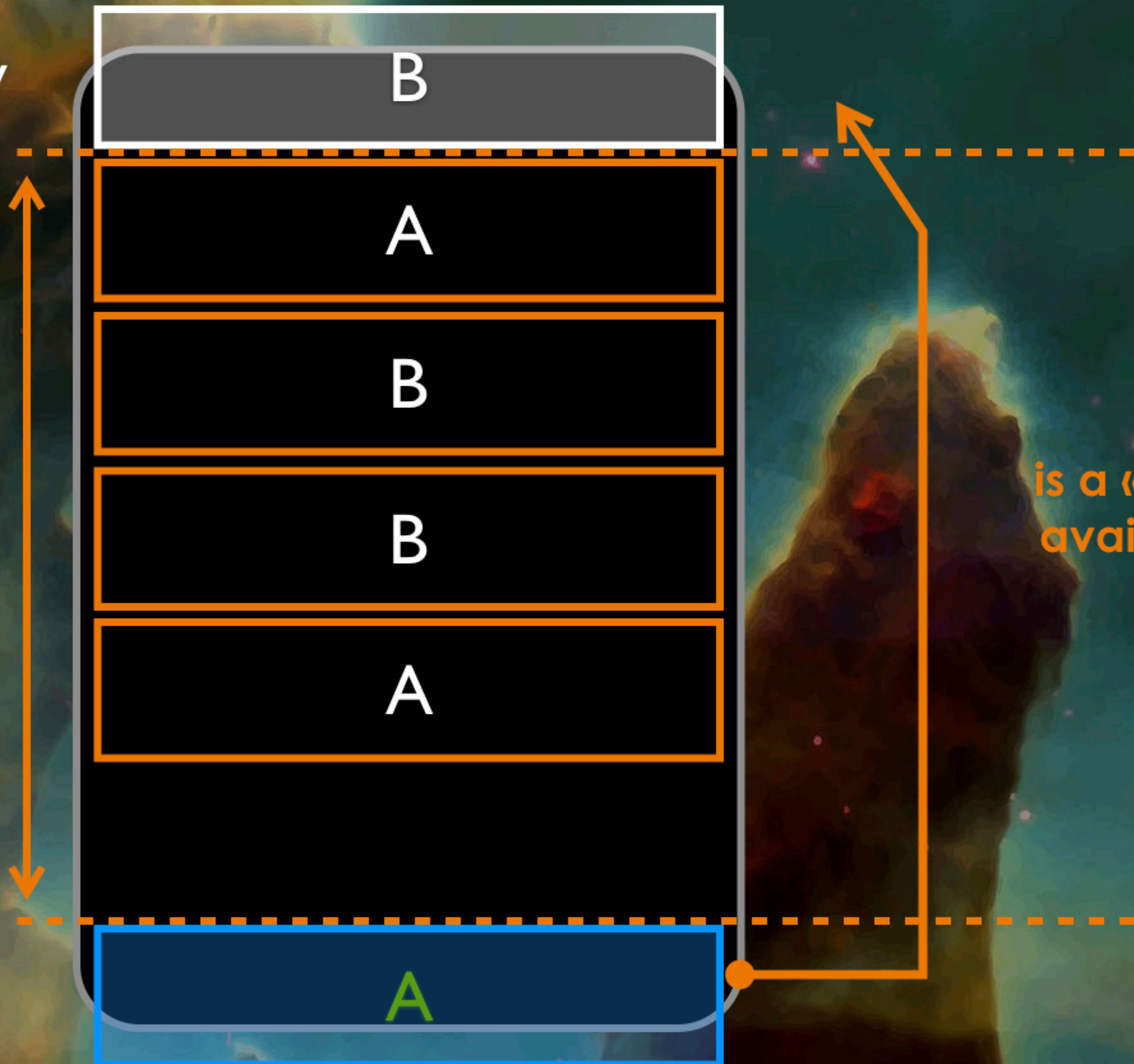
This cell may be deallocated at any time



Booked cells

Principle (complete)

This cell may be deallocated at any time



Booked cells

is a «A cell» available ?

A new cell enters in the table

Principle (complete)

This cell may be deallocated at any time



Booked cells

Principle (complete)

These cells may be deallocated at any time

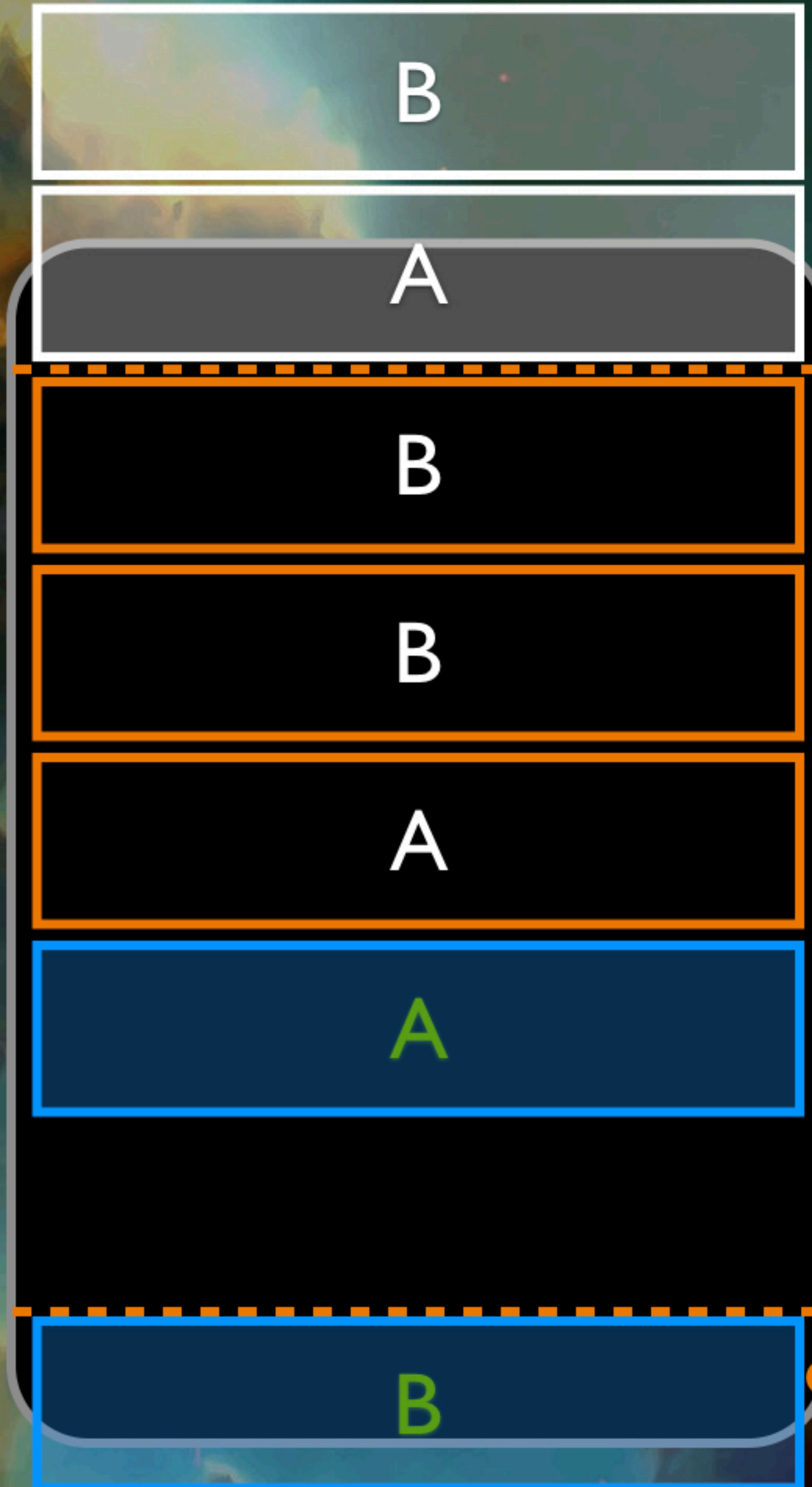


Booked cells

Principle (complete)

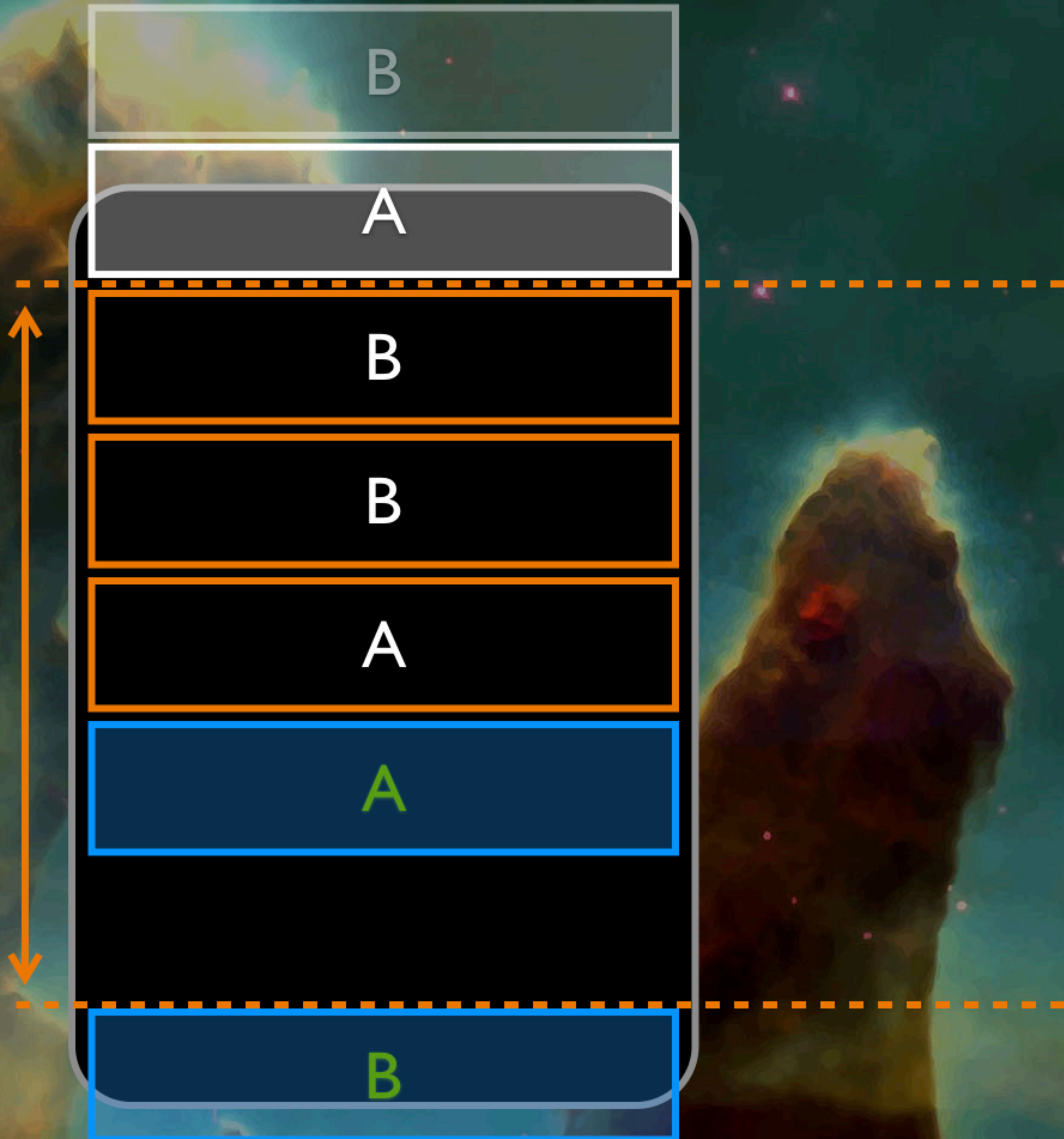
These cells may be deallocated at any time

Booked cells



is a «B cell» available ?

Principle (complete)



Booked cells

Principle (complete)

Booked cells



Requesting a UITableViewCell

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One method

```
func dequeueReusableCell(withIdentifier identifier: String) -> UITableViewCell?
```

 If it returns nil?

▶ You perform allocation

 Otherwise?

▶ You reuse the provided cell


In swift?

 dequeueReusableCellWithIdentifier:

As a conclusion...

 **You must ALWAYS allocate TableView cells this way!**

- Efficiency proved
- Visual effects handled by the environment

 **And if not?**

- At your own risks (of being kicked-off on the App Store)
- It is so natural that...
when creating a UITableViewController...
 - ▶ **The code provided «by default» (commented)**