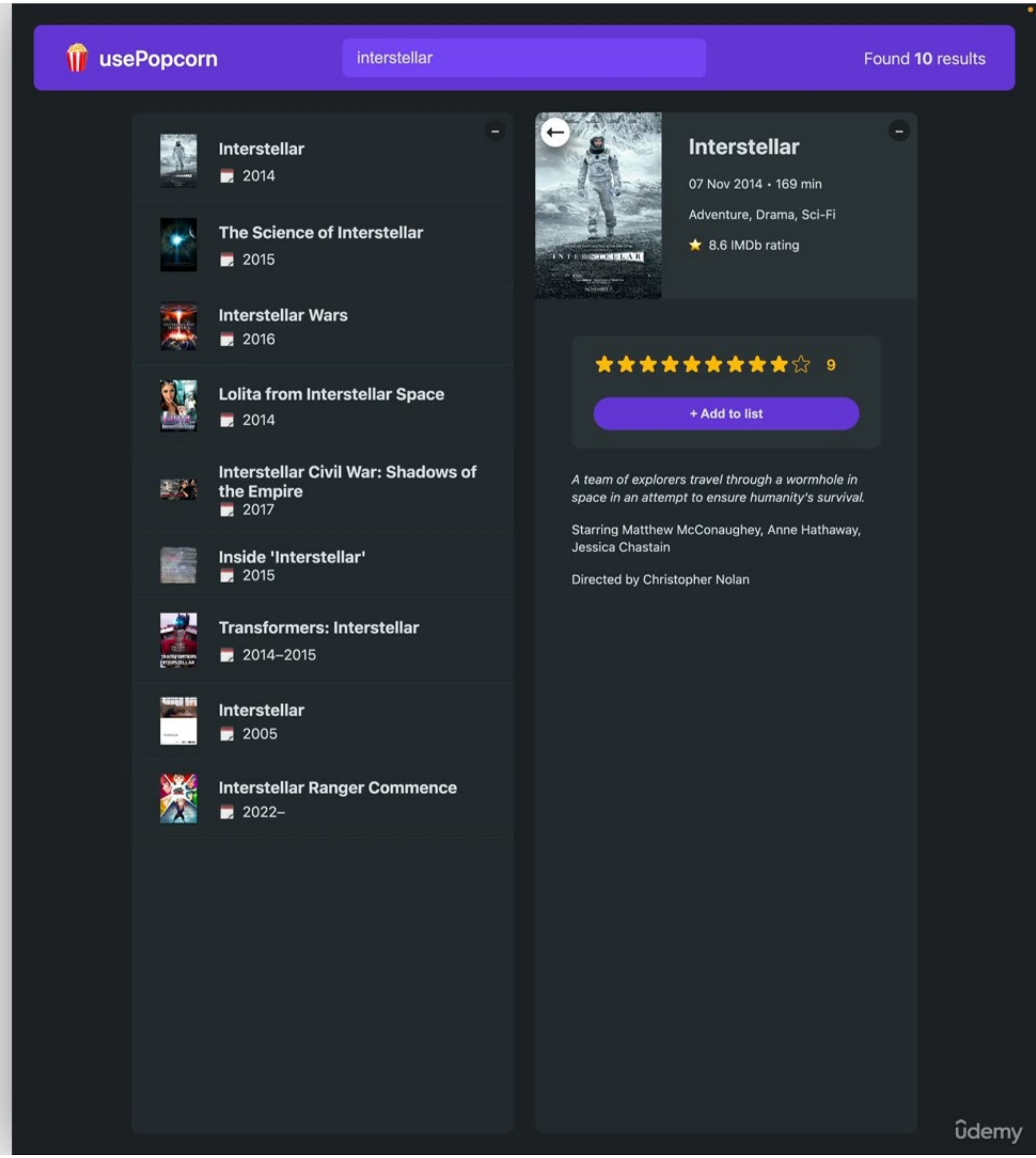
👉 How to **think** about components

👉 Composition

👉 Reusability

👉 How to **split** a component

👉 Building **layouts**



usePopcorn

interstellar

Found **10** results

- Interstellar
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- The Science of Interstellar
  2015
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  2017
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  2015
- Transformers: Interstellar
  2014–2015
- Interstellar
  2005
- Interstellar Ranger Commence
  2022–

Interstellar

07 Nov 2014 • 169 min

Adventure, Drama, Sci-Fi

⭐ 8.6 IMDb rating

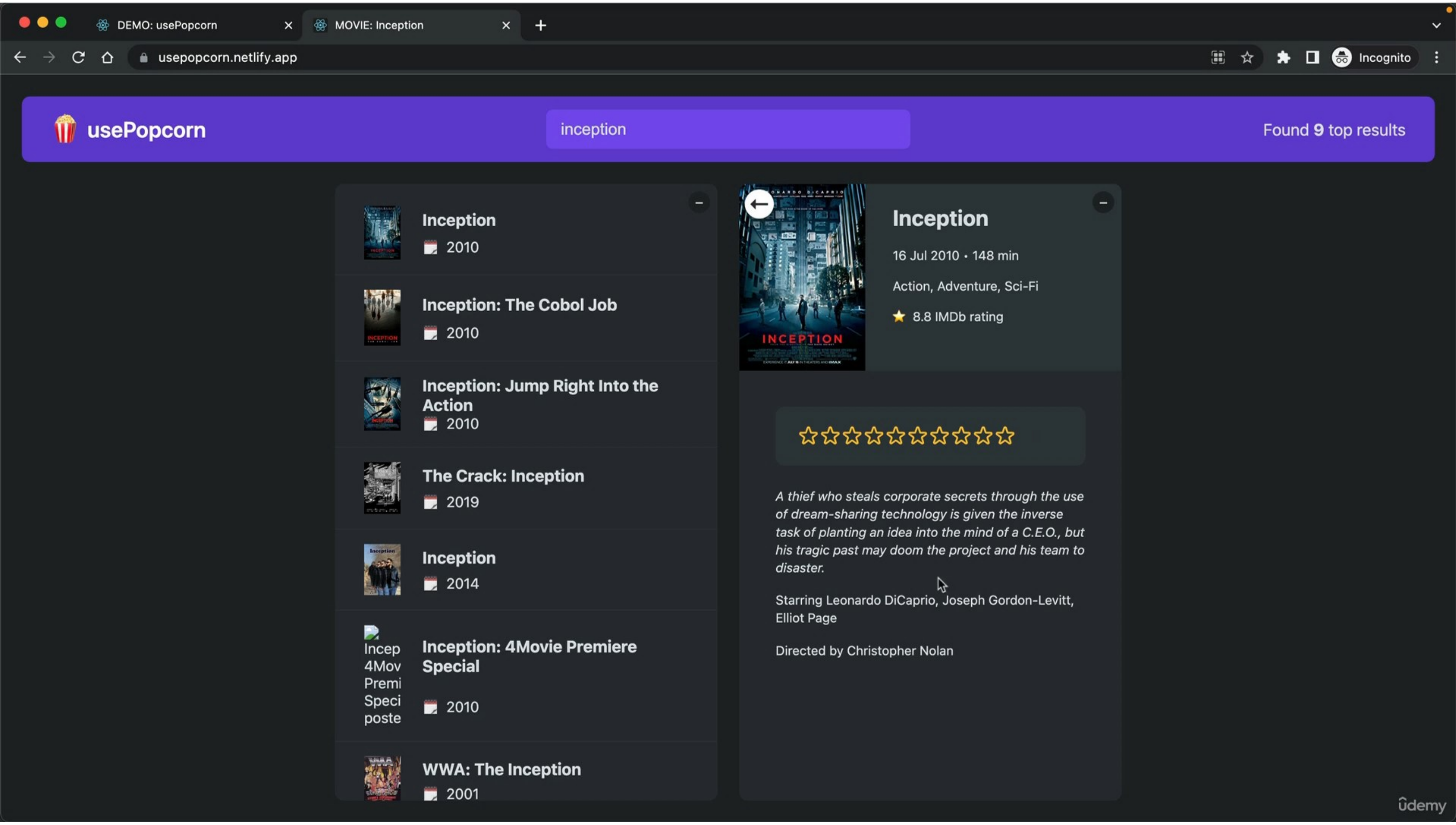
★★★★★★★★★☆ 9

+ Add to list

A team of explorers travel through a wormhole in space in an attempt to ensure humanity's survival.

Starring Matthew McConaughey, Anne Hathaway, Jessica Chastain

Directed by Christopher Nolan



Inception
2010

Inception: The Cobol Job
2010

Inception: Jump Right Into the Action
2010

The Crack: Inception
2019

Inception
2014

Incep 4Mov Premi Speci poste

Inception: 4Movie Premiere Special
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WWA: The Inception
2001

Inception

16 Jul 2010 • 148 min

Action, Adventure, Sci-Fi

⭐ 8.8 IMDb rating

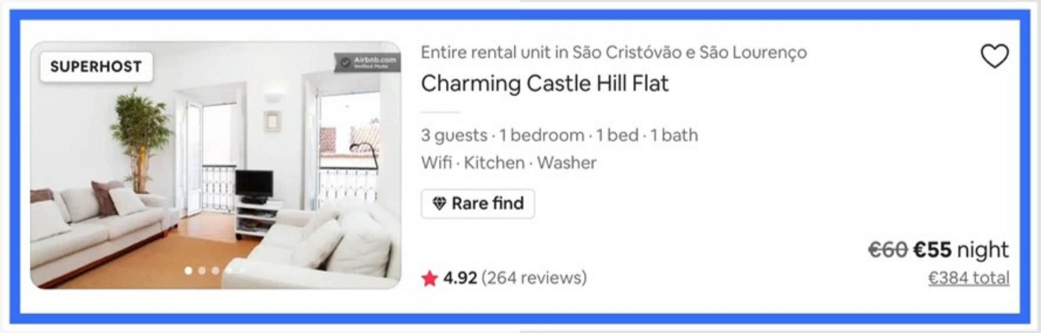
☆☆☆☆☆☆☆☆☆☆

A thief who steals corporate secrets through the use of dream-sharing technology is given the inverse task of planting an idea into the mind of a C.E.O., but his tragic past may doom the project and his team to disaster.

Starring Leonardo DiCaprio, Joseph Gordon-Levitt, Elliot Page

Directed by Christopher Nolan

COMPONENT SIZE **MATTERS**


SUPERHOST

Entire rental unit in São Cristóvão e São Lourenço

Charming Castle Hill Flat

3 guests · 1 bedroom · 1 bed · 1 bath

Wifi · Kitchen · Washer

Rare find

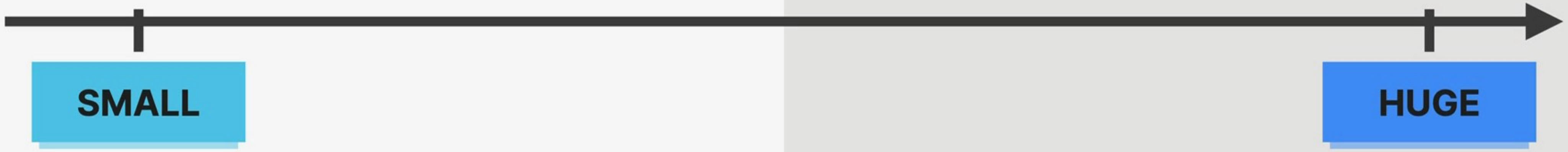
~~€60~~ **€55** night

€384 total

★ **4.92** (264 reviews)

Just one huge component

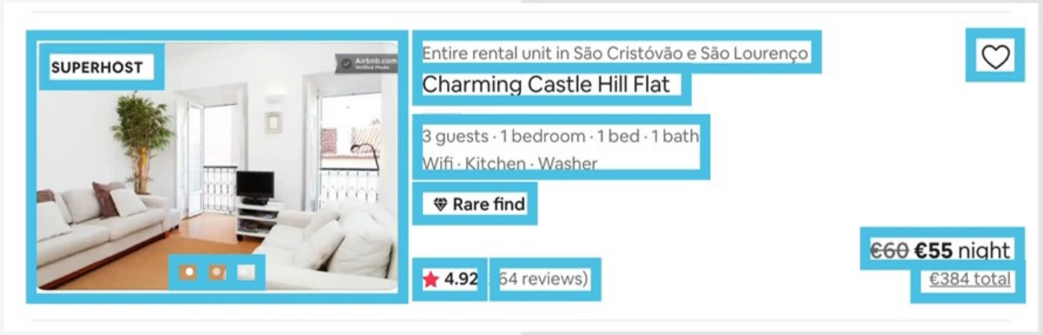
COMPONENT SIZE



- 👉 Too many **responsibilities**
- 👉 Might need too many **props**
- 👉 Hard to **reuse**
- 👉 **Complex** code, hard to understand

COMPONENT SIZE **MATTERS**

Many small components



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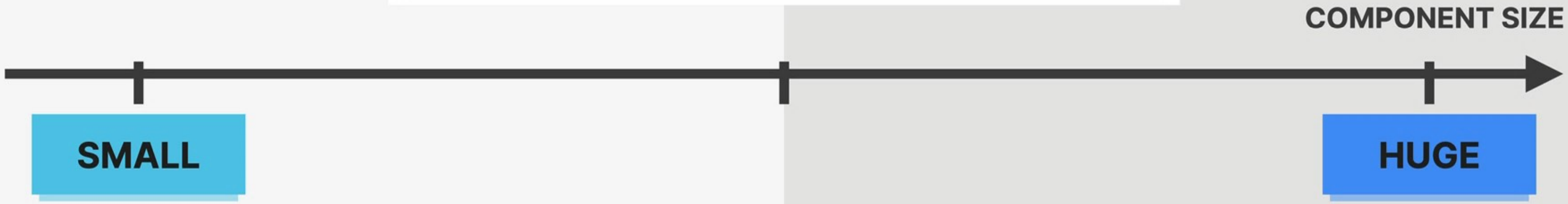

- We end up with 100s of mini-components
- Confusing codebase
- Too **abstracted**

Creating something new to hide the implementation details of that thing

- Too many **responsibilities**
- Might need too many **props**
- Hard to **reuse**
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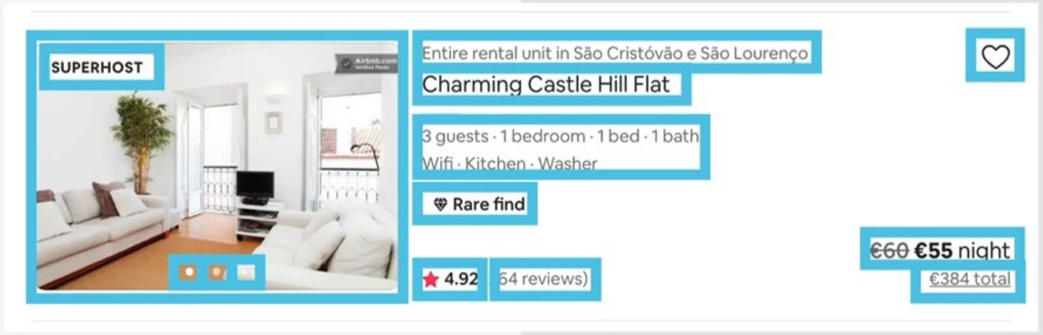
COMPONENT SIZE **MATTERS**

Many small components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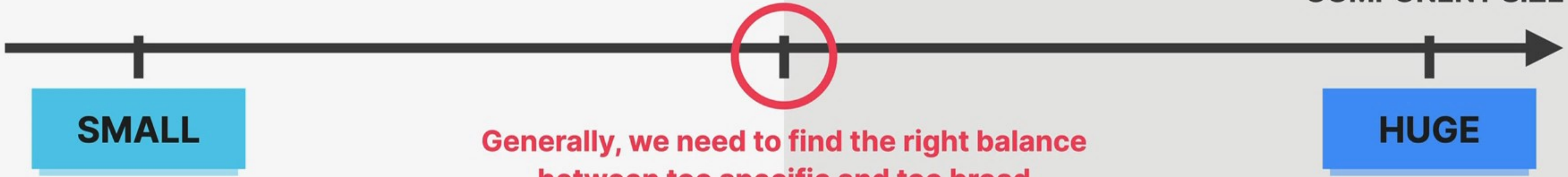

Generally, we need to find the right balance between too specific and too broad

- 👉 We end up with 100s of mini-components
- 👉 Confusing codebase
- 👉 Too **abstracted**

Creating something new to hide the implementation details of that thing

- 👉 Too many **responsibilities**
- 👉 Might need too many **props**
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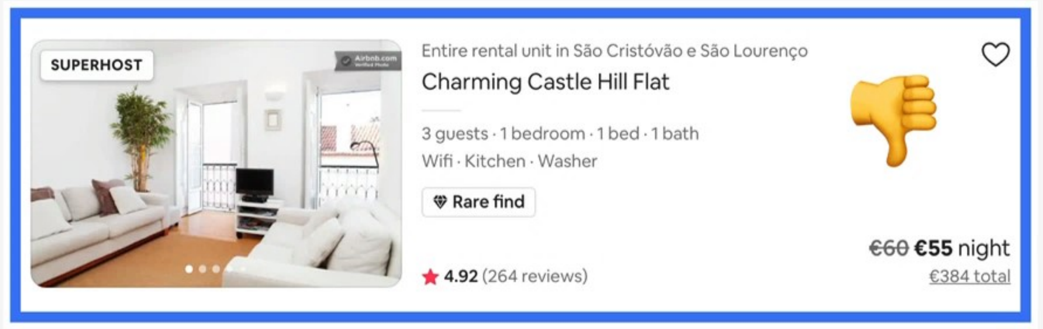
HOW TO **SPLIT** A UI INTO COMPONENTS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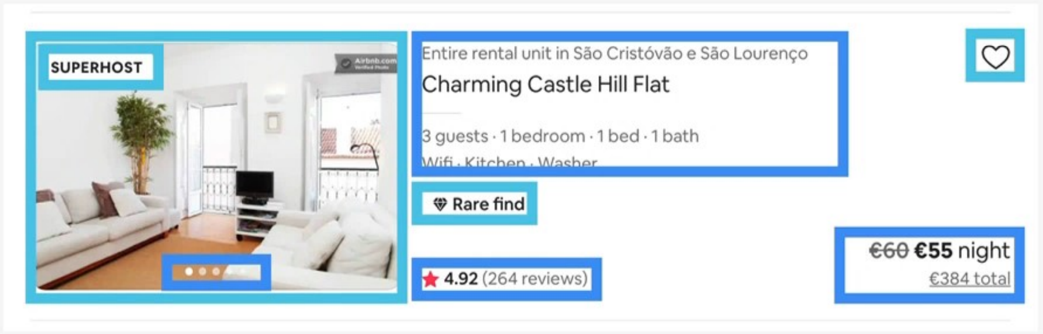
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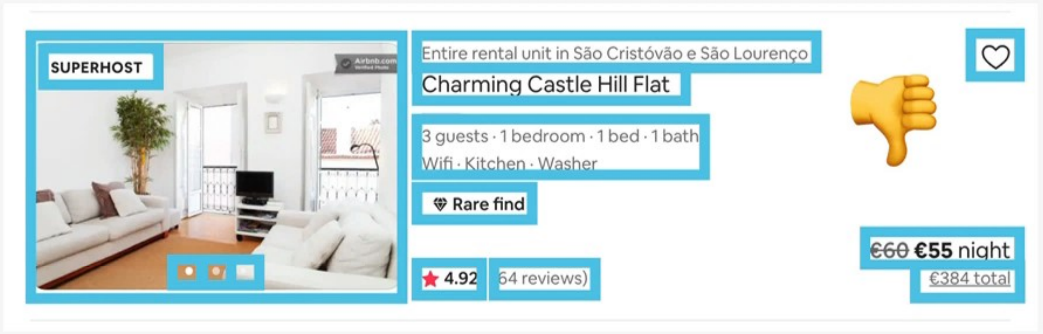
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- ✅ Logical separation
- ✅ Some are reusable
- ✅ Low complexity

HOW TO **SPLIT** A UI INTO COMPONENTS

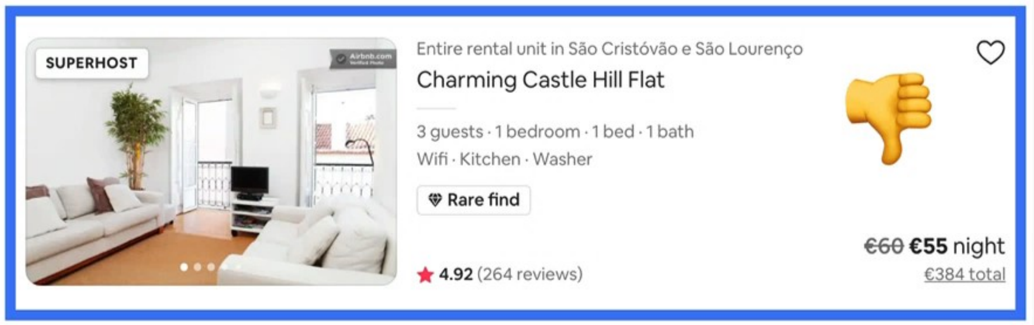
👉 **The 4 criteria for splitting a UI into components:**

1. Logical separation of content/layout

2. Reusability

3. Responsibilities / complexity

4. Personal coding style



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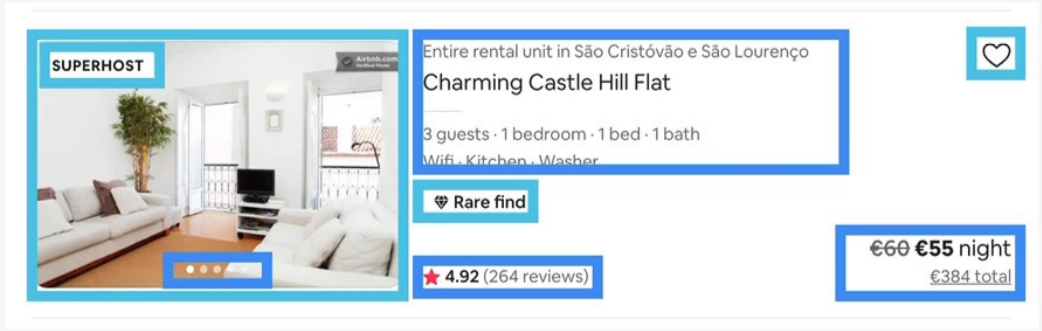

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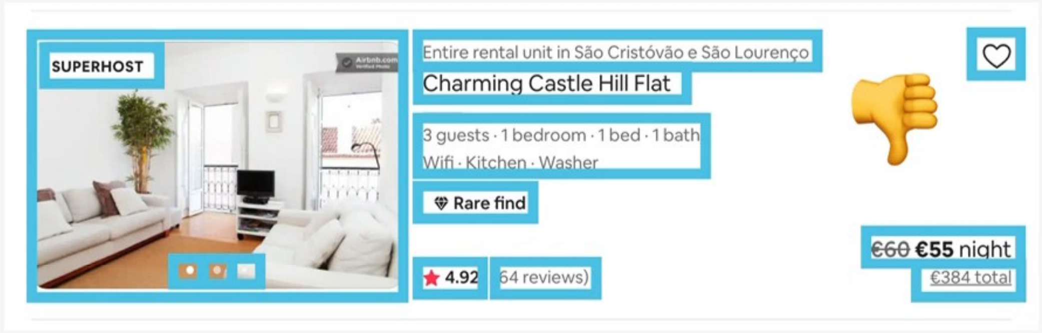

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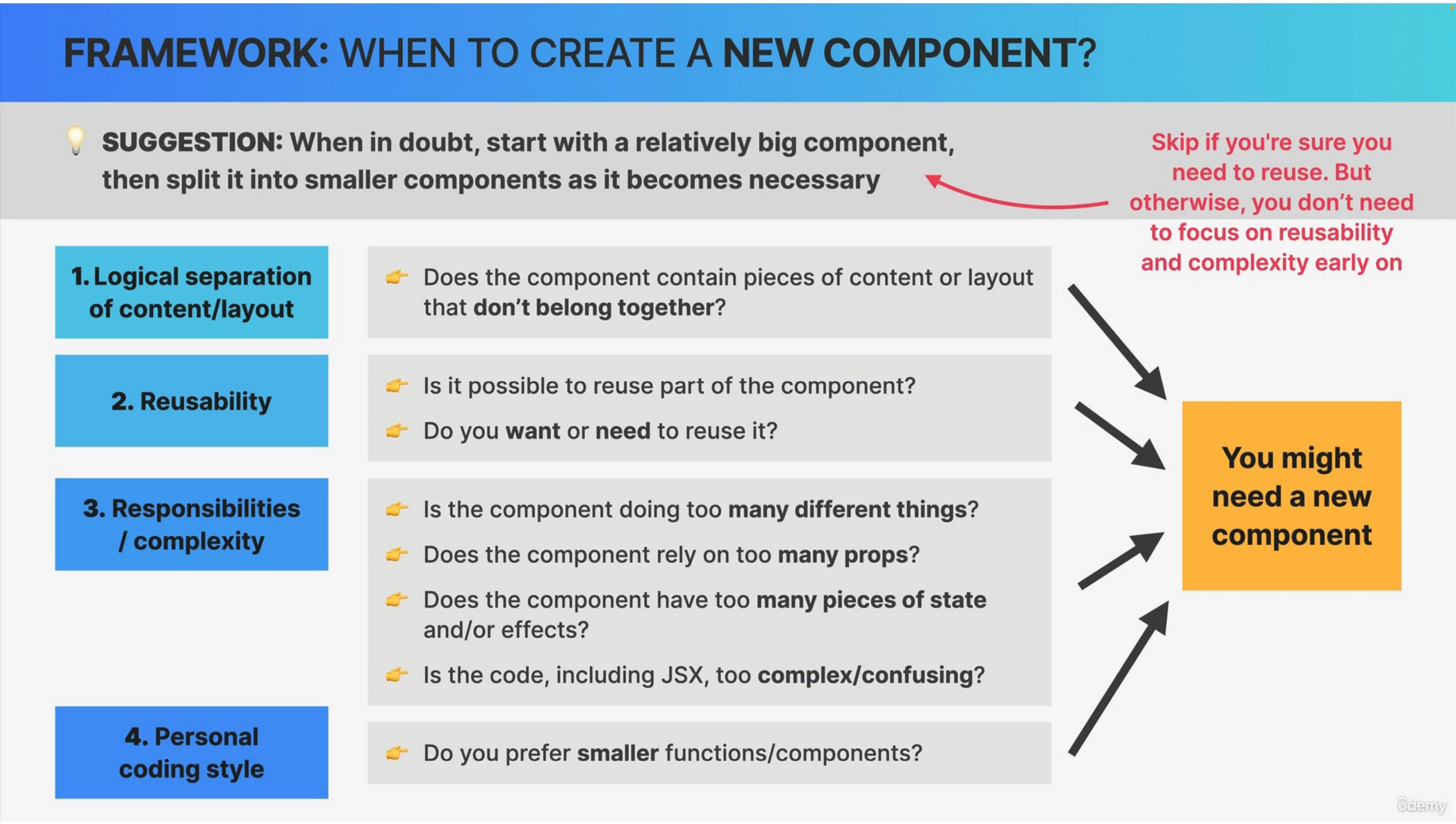
✅ **Some are reusable**

✅ **Low complexity**



FRAMEWORK: WHEN TO CREATE A **NEW COMPONENT?**

💡 **SUGGESTION: When in doubt, start with a relatively big component, then split it into smaller components as it becomes necessary**

Skip if you're sure you need to reuse. But otherwise, you don't need to focus on reusability and complexity early on

1. Logical separation of content/layout	👉 Does the component contain pieces of content or layout that **don't belong together**?
2. Reusability	👉 Is it possible to reuse part of the component? 👉 Do you **want** or **need** to reuse it?
3. Responsibilities / complexity	👉 Is the component doing too **many different things**? 👉 Does the component rely on too **many props**? 👉 Does the component have too **many pieces of state** and/or effects? 👉 Is the code, including JSX, too **complex/confusing**?
4. Personal coding style	👉 Do you prefer **smaller** functions/components?

You might need a new component

FRAMEWORK: WHEN TO CREATE A **NEW COMPONENT?**

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4. Personal coding style	👉 Do you prefer **smaller** functions/components?

You might need a new component

👋 *These are all **guidelines**... It will become intuitive over time!*

SOME MORE GENERAL **GUIDELINES**

💰 Be aware that creating a new component **creates a new abstraction**. Abstractions have a **cost**, because **more abstractions require more mental energy** to switch back and forth between components. So try not to create new components too early

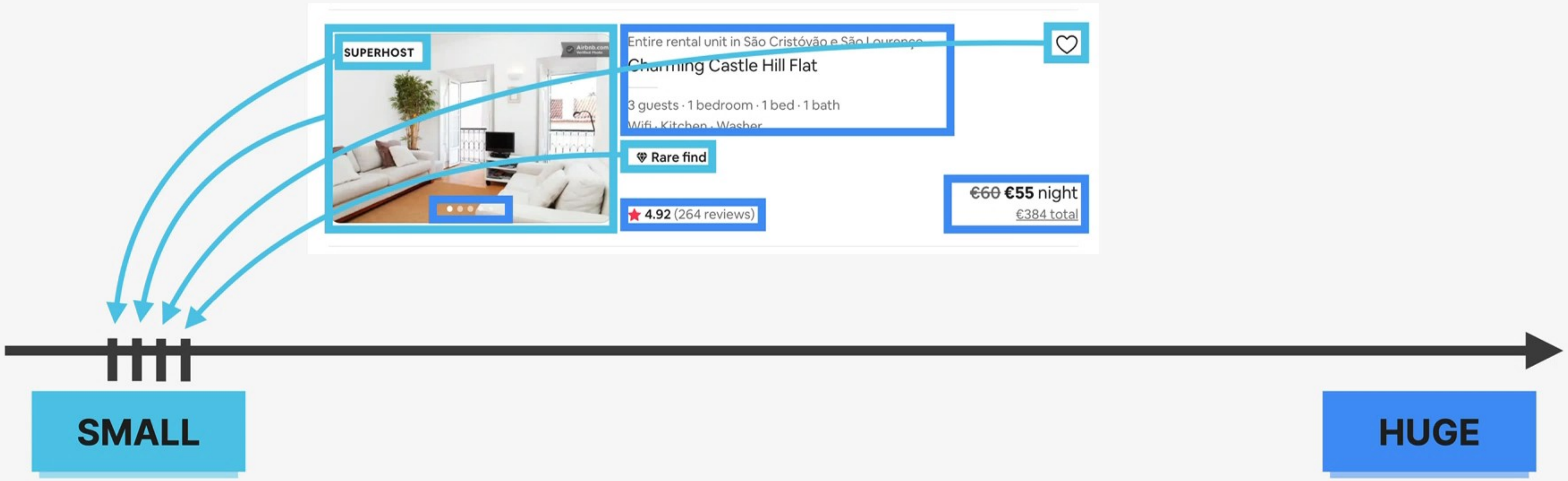
🏷️ Name a component according to **what it does** or **what it displays**. Don't be afraid of using long component names

🪆 Never declare a new component **inside another component**!

🗃️ **Co-locate related components inside the same file.** Don't separate components into different files too early

↔️ It's completely normal that an app has components of **many different sizes**, including very small and huge ones *(See next slide... 👉)*

ANY APP HAS COMPONENTS OF **DIFFERENT SIZES AND REUSABILITY**



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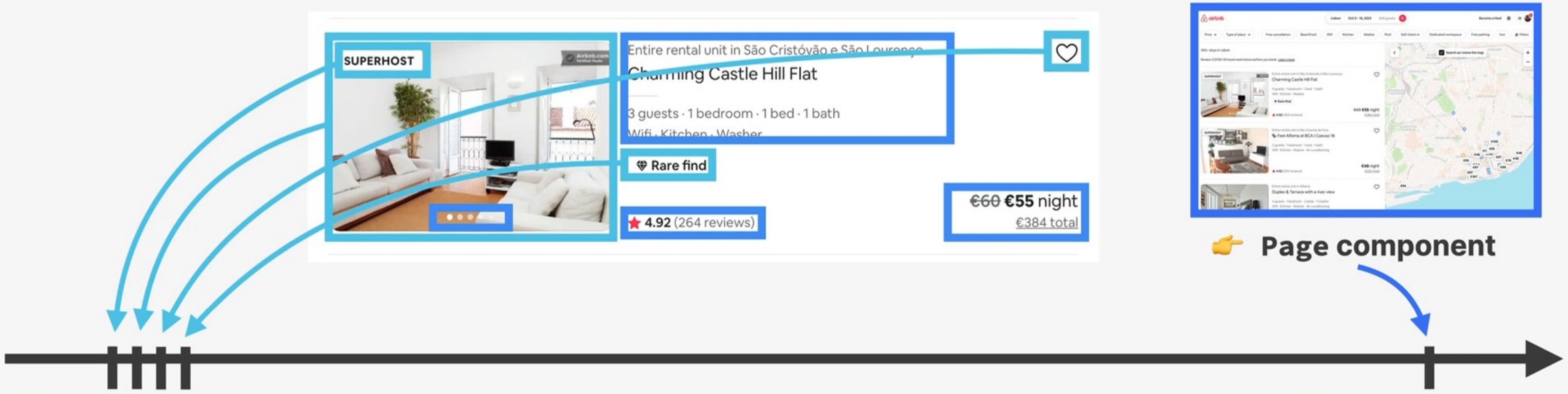
SMALL
HUGE

- 👉 **Some very small components are necessary!**
- 👉 Highly reusable
- 👉 Very low complexity

ANY APP HAS COMPONENTS OF **DIFFERENT SIZES AND REUSABILITY**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👉 **Page component**

SMALL

REUSABLE

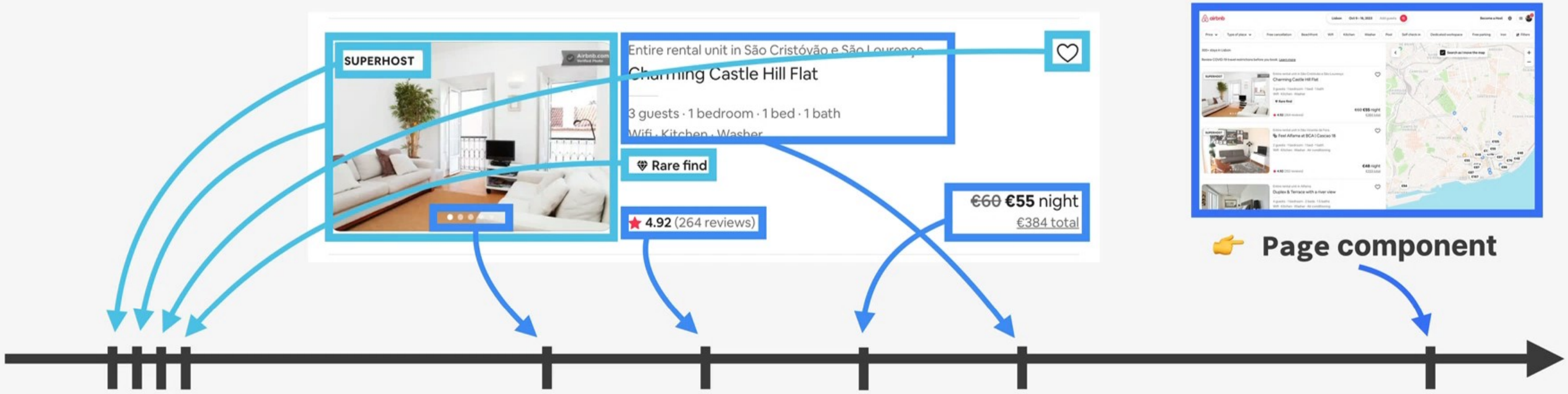
HUGE

NON-REUSABLE

- 👉 **Some very small components are necessary!**
- 👉 Highly reusable
- 👉 Very low complexity

- 👉 **Most apps will have a few huge components**
- 👉 Not meant to be reused (**not a problem!**)

ANY APP HAS COMPONENTS OF **DIFFERENT SIZES AND REUSABILITY**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👉 **Page component**

SMALL

REUSABLE

Components with all different sizes

Different degrees of size, reusability, responsibility, and complexity

HUGE

NON-REUSABLE

- 👉 **Some very small components are necessary!**
- 👉 Highly reusable
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