ANGULAR
ARCHITECTS
INSIDE KNOWLEDGE

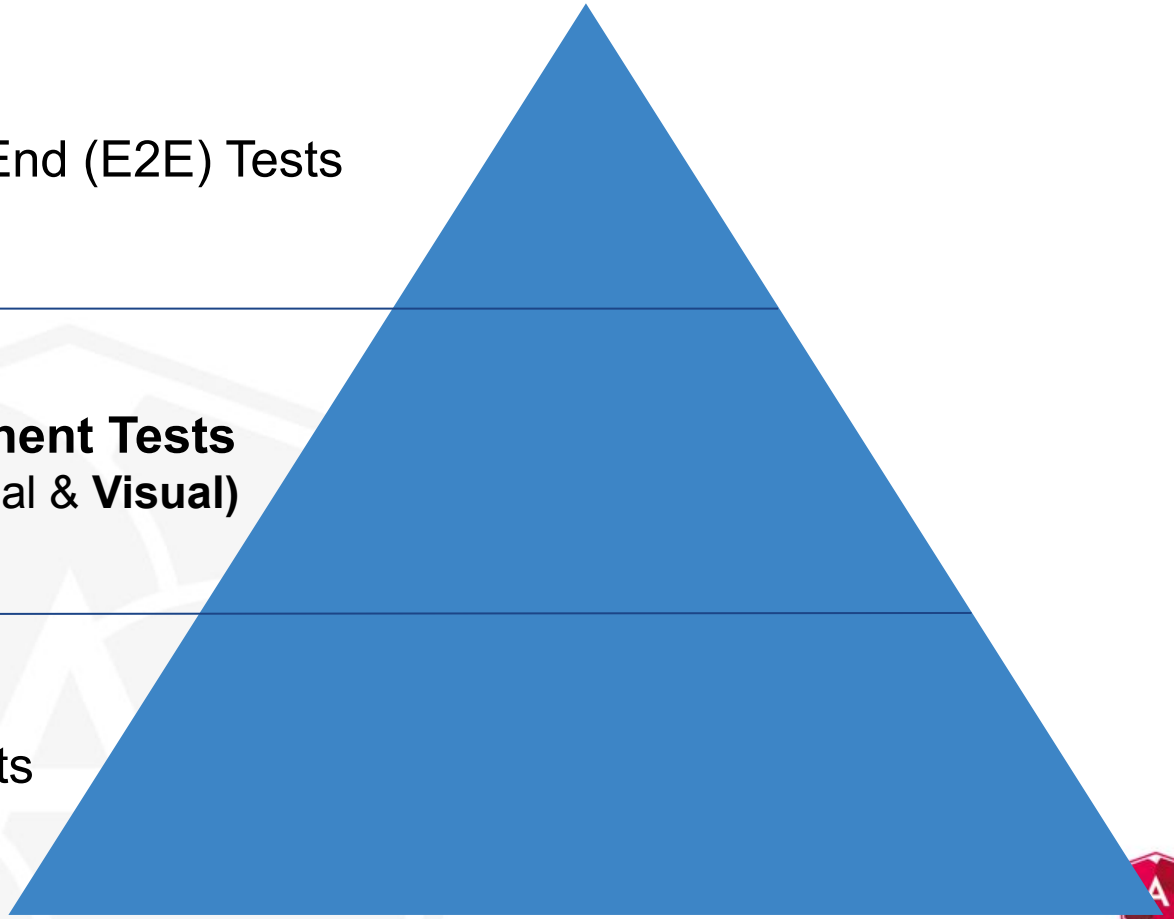
Angular Testing

6 - Component Tests - Visual Regression

End-to-End (E2E) Tests

Component Tests
(Functional & **Visual)**

Unit Tests



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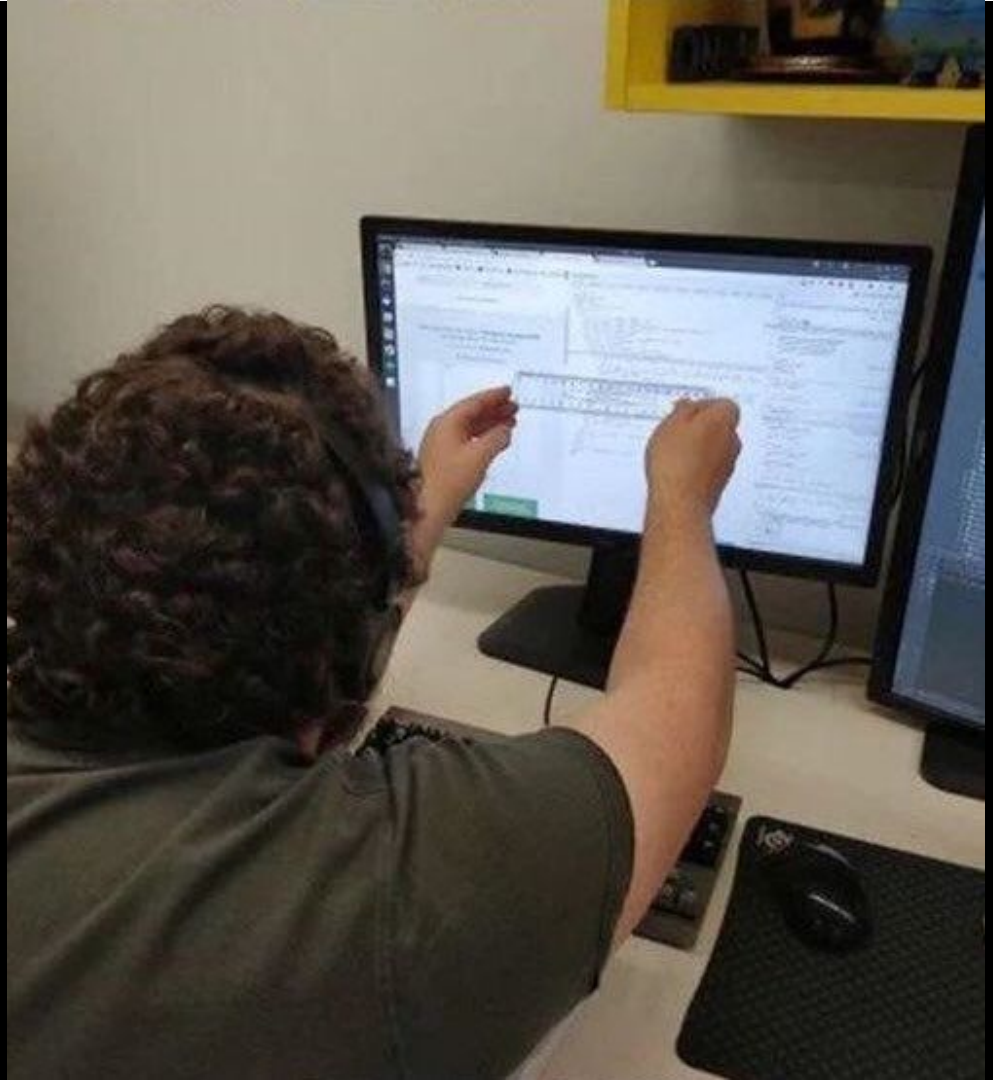
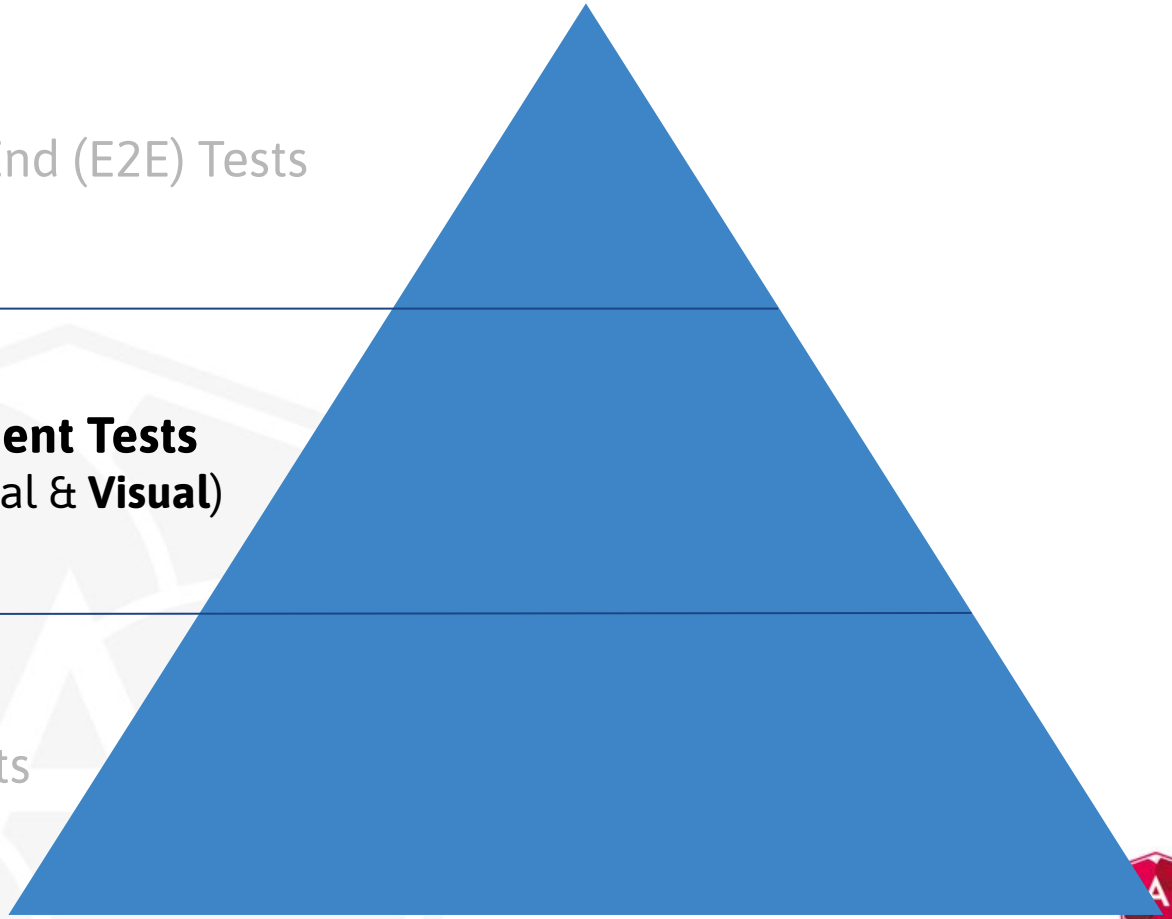


End-to-End (E2E) Tests

Component Tests
(Functional & **Visual**)

Unit Tests



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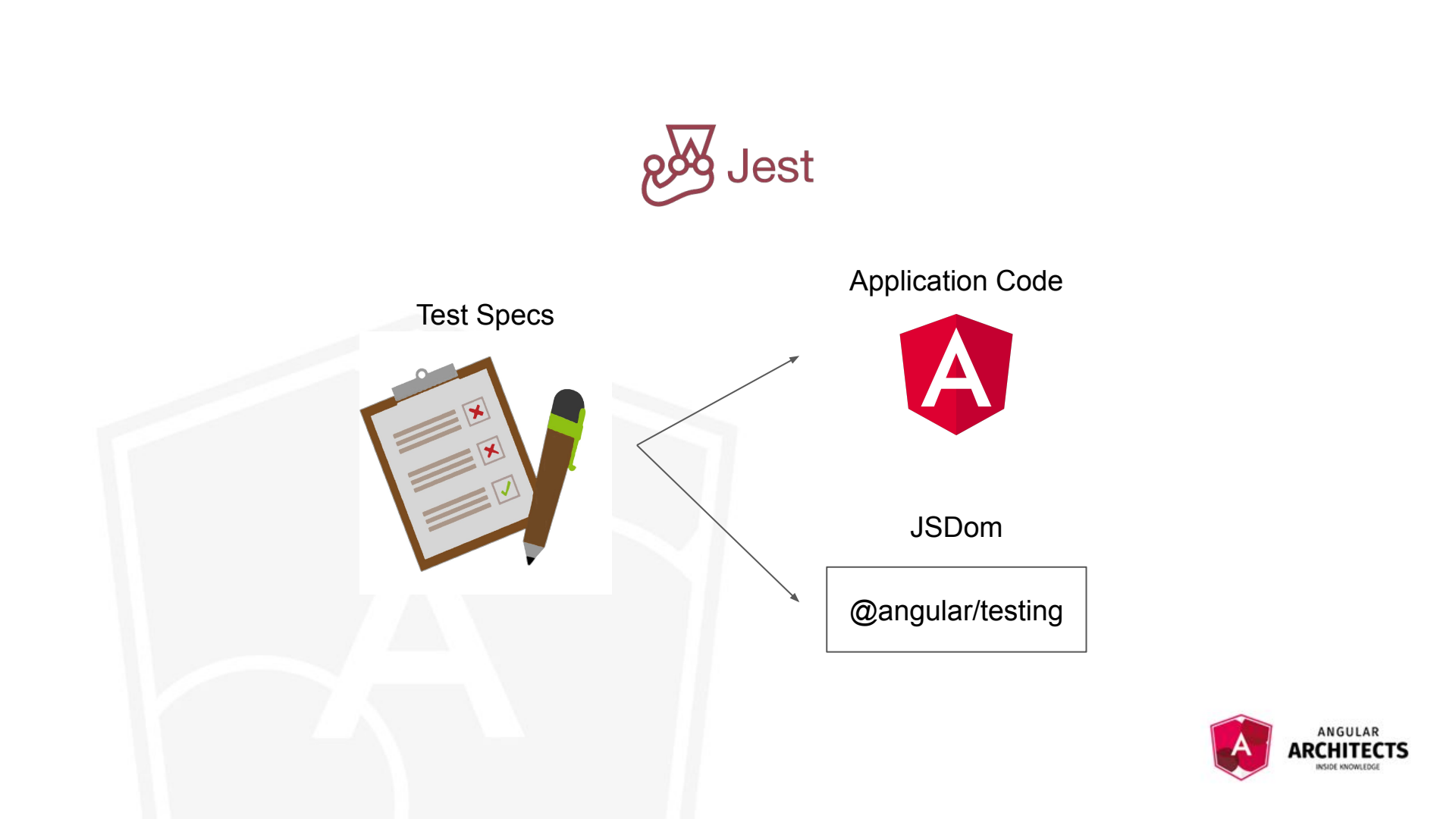


ANGULAR ARCHITECTS
INSIDE KNOWLEDGE

Jest

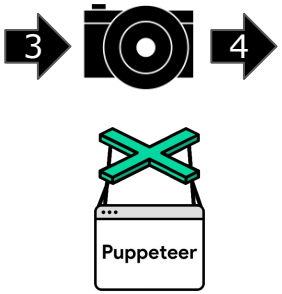
Frontend Application

2

Headless Browser

1

Test Specs



ANGULAR ARCHITECTS
INSIDE KNOWLEDGE

Puppetteer

- Headless Browser
- Special Jest Configuration required
  - No TestBed
  - Completely isolated from application
- Can run in debug mode
- PlayWright as upcoming competitor

ANGULAR ARCHITECTS
INSIDE KNOWLEDGE

Main Challenges

1. Pixel Matching
2. Component Isolation

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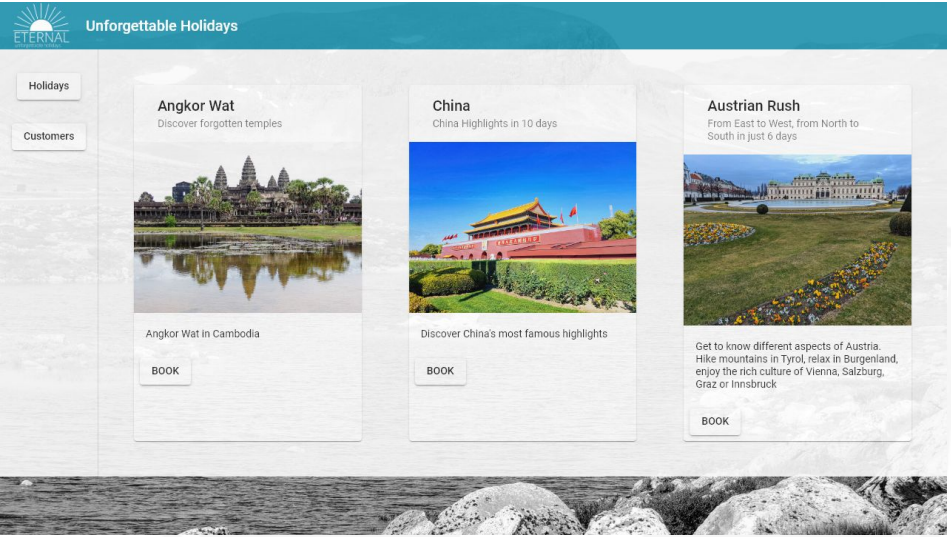
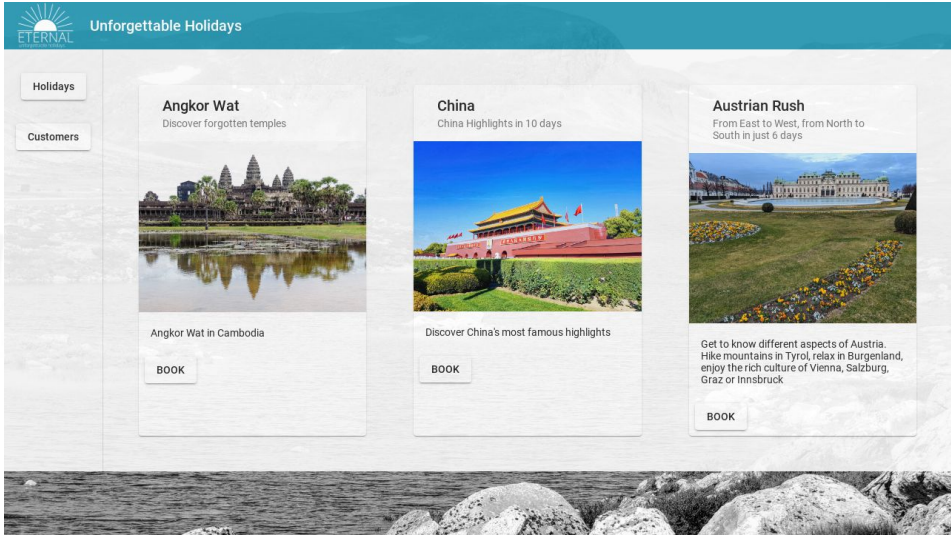
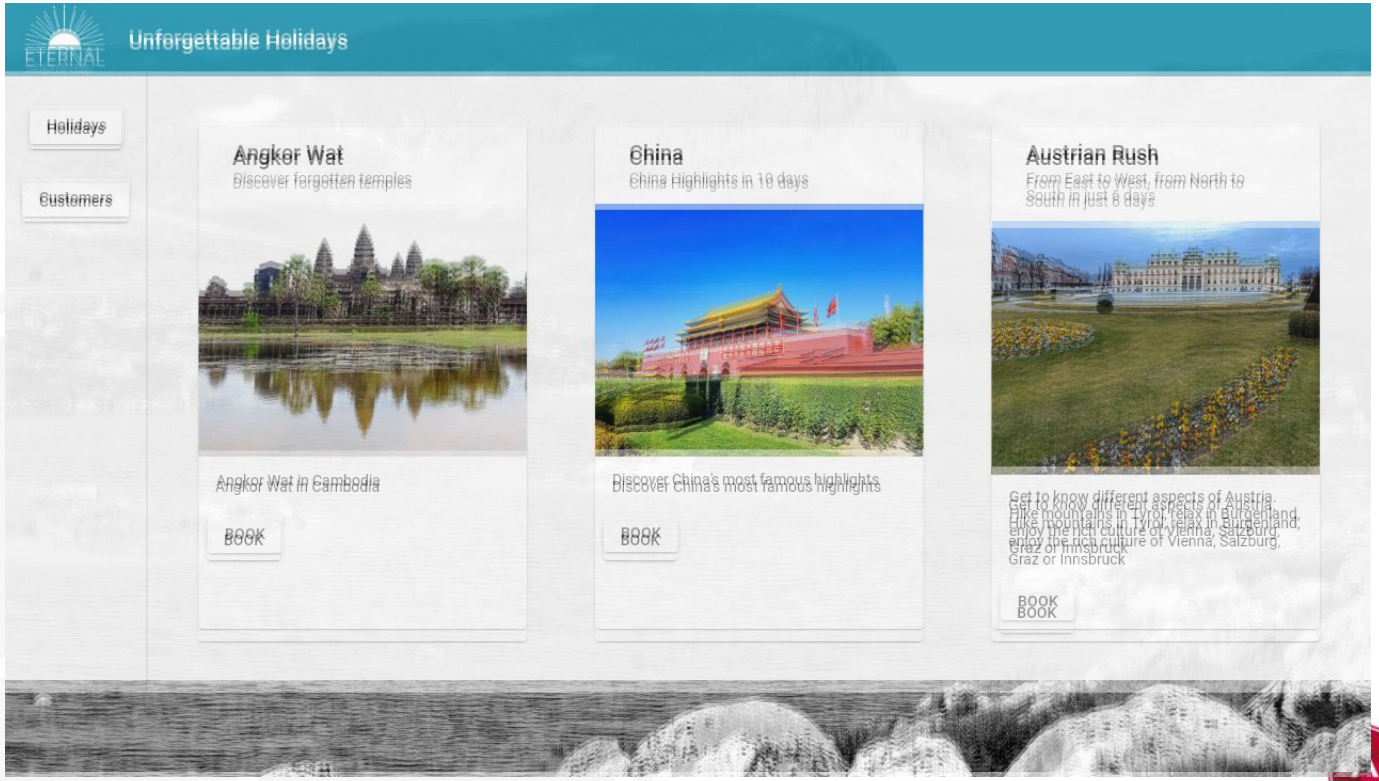
Spot the difference





ANGULAR ARCHITECTS
INSIDE KNOWLEDGE

Spot the difference



ANGULAR ARCHITECTS
INSIDE KNOWLEDGE

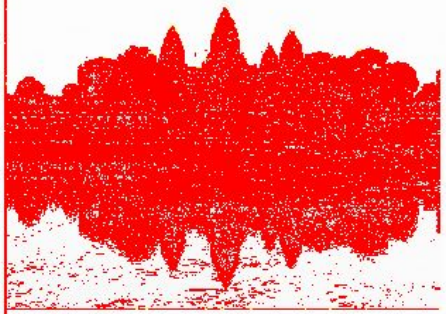
Unforgettable Holidays

Holidays

Customers

Angkor Wat

Discover forgotten temples

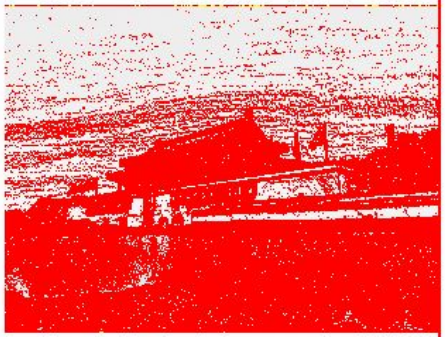


Angkor Wat in Cambodia

BOOK

China

China Highlights in 10 days

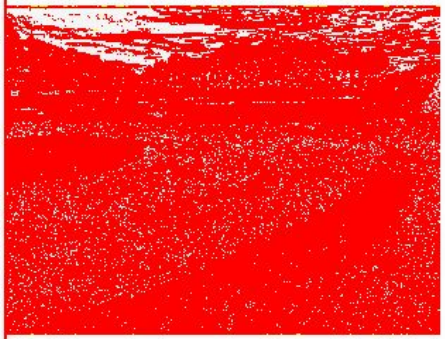


Discover China's most famous highlights

BOOK

Austrian Kush

From East to West, from North to South in just 6 days



Get to know different aspects of Austria. Hike mountains in Tyrol, relax in Burgenland, enjoy the rich culture of Vienna, Salzburg, Graz or Innsbruck

BOOK

We want **isolated**
Component Tests

ANGULAR
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INSIDE KNOWLEDGE

Introducing Storybook

ANGULAR ARCHITECTS
INSIDE KNOWLEDGE

Jest

Frontend Application

2

Headless Browser

1

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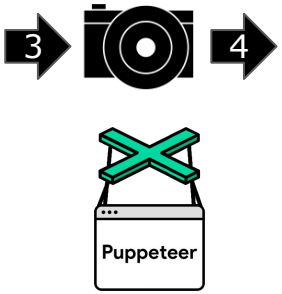

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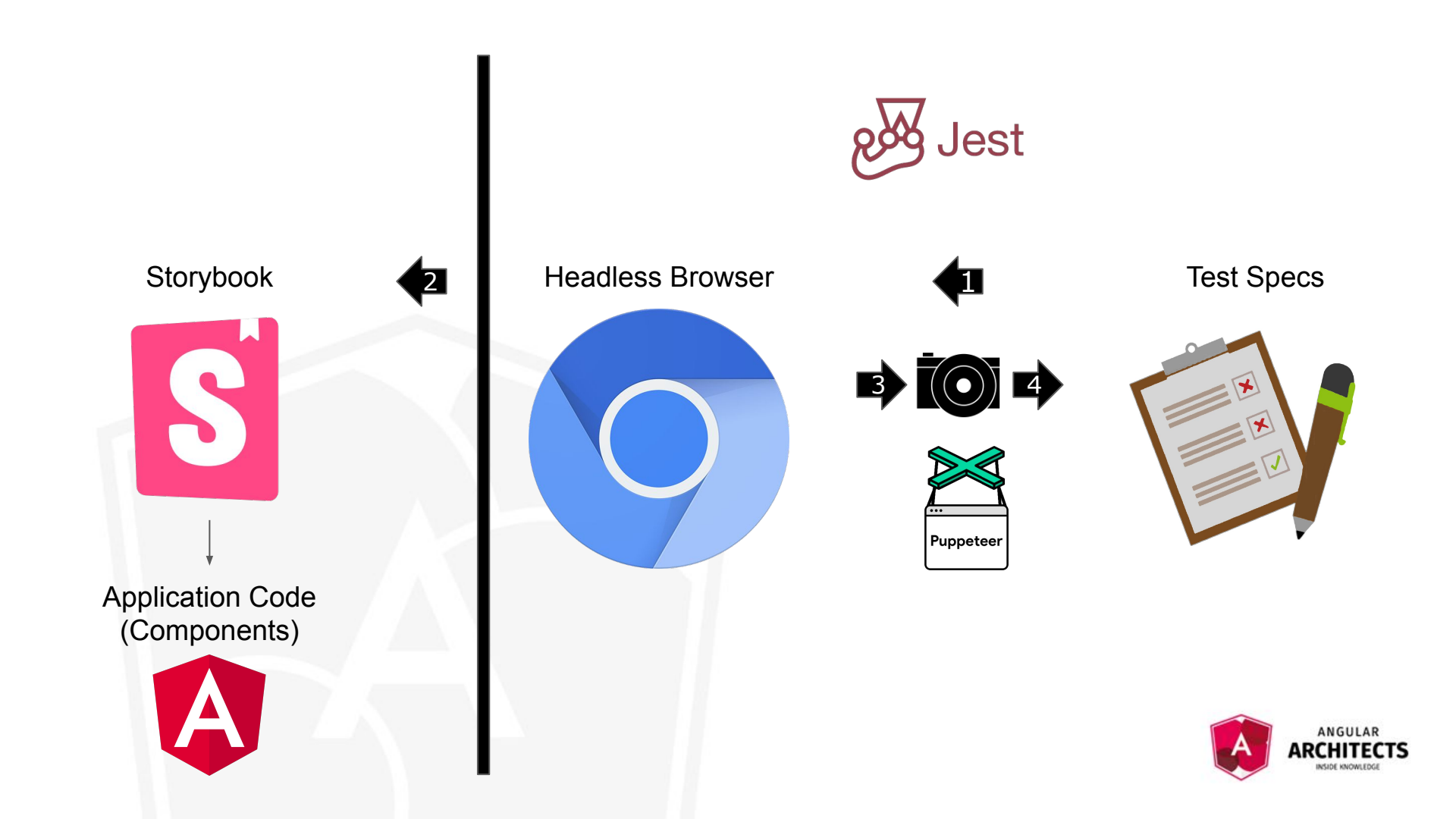
INSIDE KNOWLEDGE


Jest
Storybook
2
Headless Browser
1
Test Specs
3
4
Puppeteer
Application Code
(Components)
ANGULAR
ARCHITECTS
INSIDE KNOWLEDGE

Storybook

- Allows to isolate Components
- Not Angular Specific
- Configure a Component for various states
- Can also used for visual widget library (not just testing)

ANGULAR ARCHITECTS
INSIDE KNOWLEDGE

Storybook Setup - "Module" Configuration - 1/3

```
export default {

  title: 'Eternal/HolidayCard',

  component: HolidayCardComponent,

  decorators: [moduleMetadata({ imports: [MatButtonModule, MatCardModule] })],

  argTypes: { holiday: { name: 'Holiday', description: 'JSON object for the Holiday' } }

} as Meta;
```

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INSIDE KNOWLEDGE

Storybook Setup - Template - 2/3

```
const Template: Story<HolidayCardComponent> = (args: HolidayCardComponent) => ({
  component: HolidayCardComponent,
  props: args
});
```

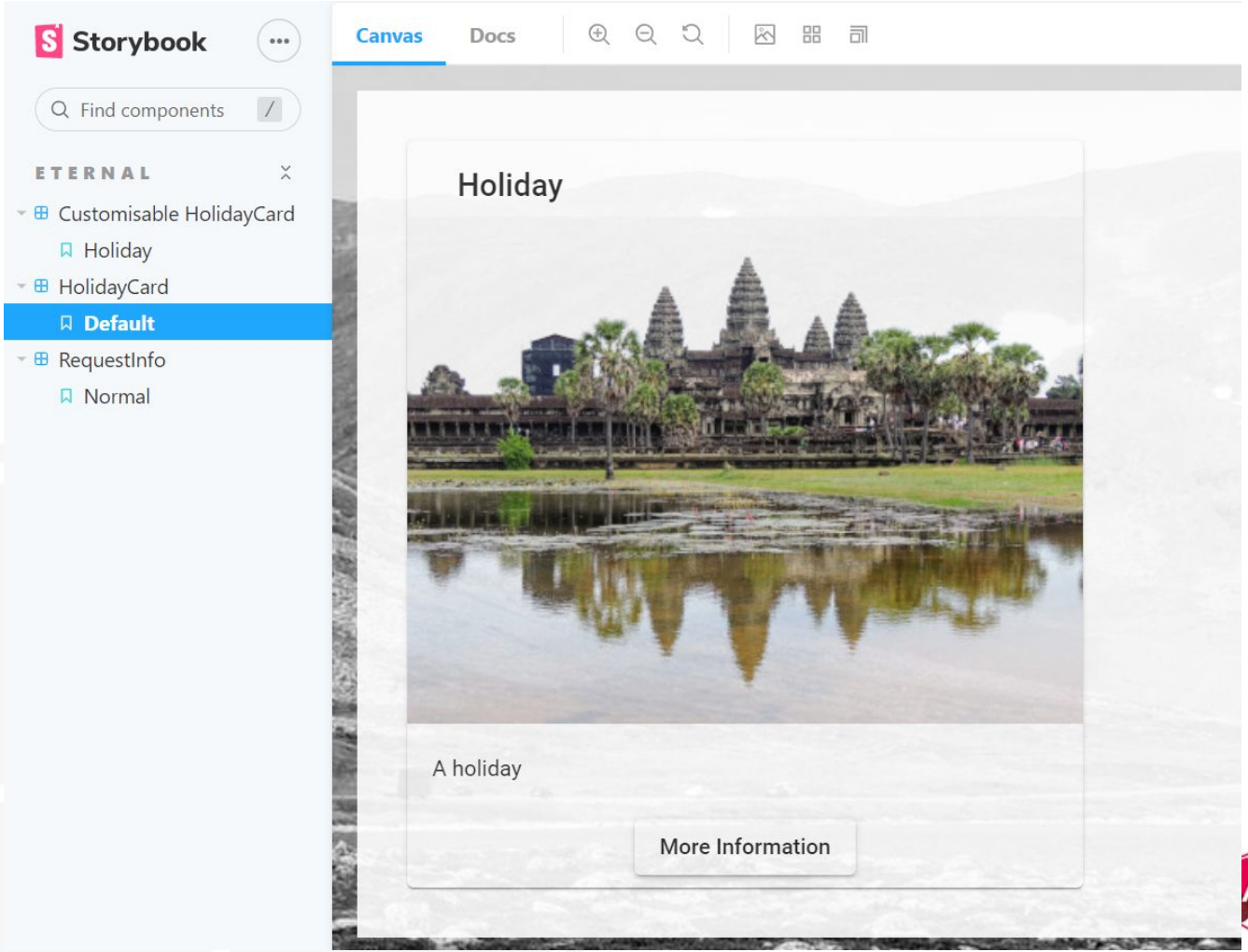
ANGULAR ARCHITECTS
INSIDE KNOWLEDGE

Storybook Setup - Variation - 3/3

```
export const Default = Template.bind({});

Default.args = {
  holiday: {
    id: 1,
    title: 'Holiday',
    description: 'A holiday',
    imageUrl: 'https://eternal-app.s3.eu-central-1.amazonaws.com/assets/AngkorWatSmall.jpg'
  }
};
```

ANGULAR ARCHITECTS
INSIDE KNOWLEDGE



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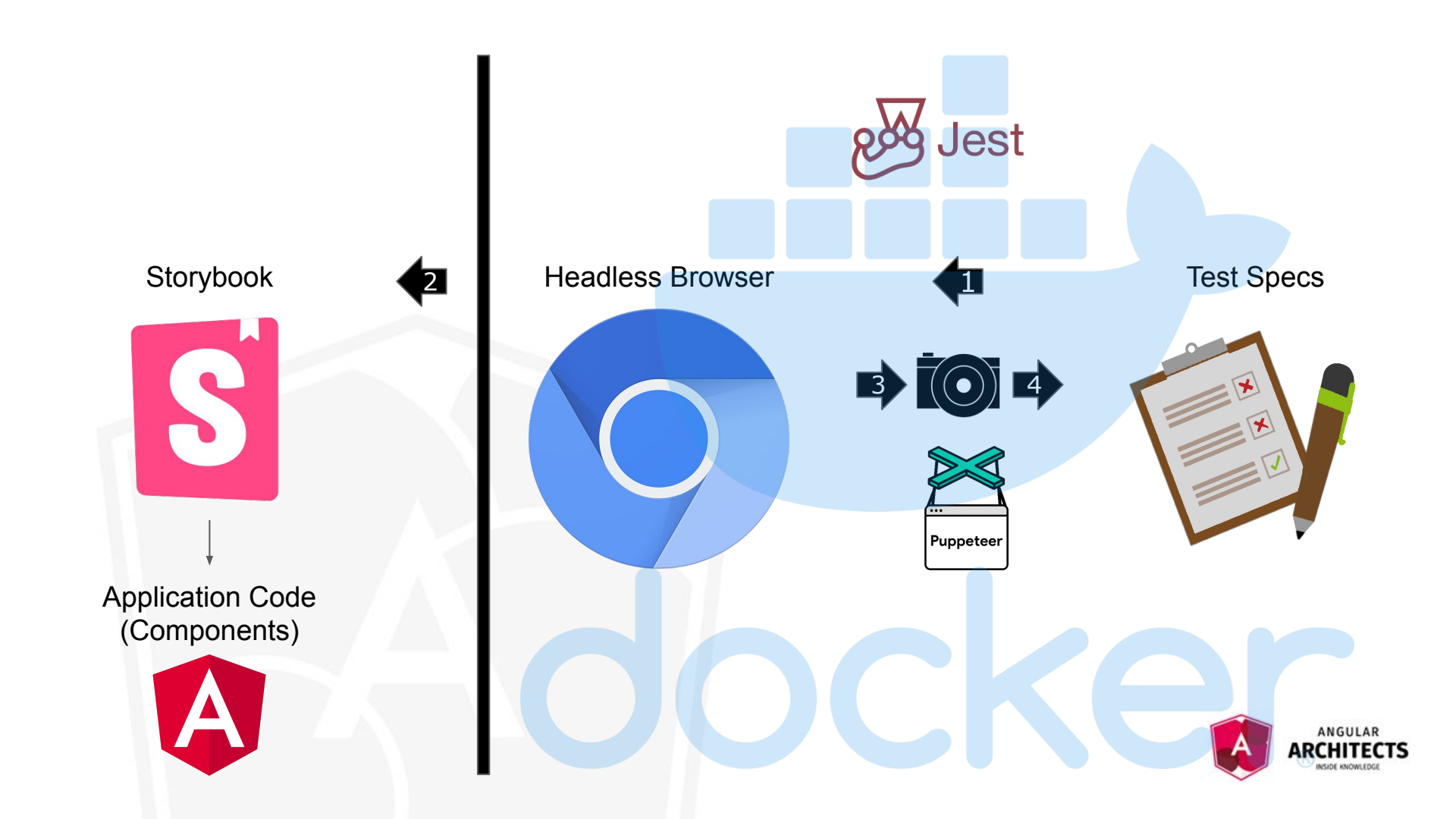
INSIDE KNOWLEDGE

What about Pixel Matching???


Storybook
2
Headless Browser
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Test Specs
Jest
3
4
Puppeteer
Application Code
(Components)
docker
ANGULAR
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Lab Time