

Disclaimer

Disclaimer

This talk is not
about the front end

Disclaimer

This talk is about
software architecture

Disclaimer

This talk is about
software architecture

(Yes, at 18:00 on a Saturday. Sorry not sorry)



We asked for
responsibilities



The Art(?) of
Front-end Architecture



Hi! I'm Adrià Fontcuberta



Senior(?) Software Engineer @ **Holaluz**

Member of the official **Vue Test Utils**

Member of **Testing Library**

Co-organizer of **VueJS Barcelona**

@afontq

afontcu.dev

holcluz

HLFF20

What are* we aiming for?

What are* we aiming for?

Write maintainable,
scalable apps

What are* we aiming for?

Write maintainable,
scalable apps

Stay away from the
framework

What are* we aiming for?

Write maintainable,
scalable apps

Stay away from the
framework

Share knowledge
between teams and areas

What are* we aiming for?

Write maintainable,
scalable apps

Stay away from the
framework

Share knowledge
between teams and areas

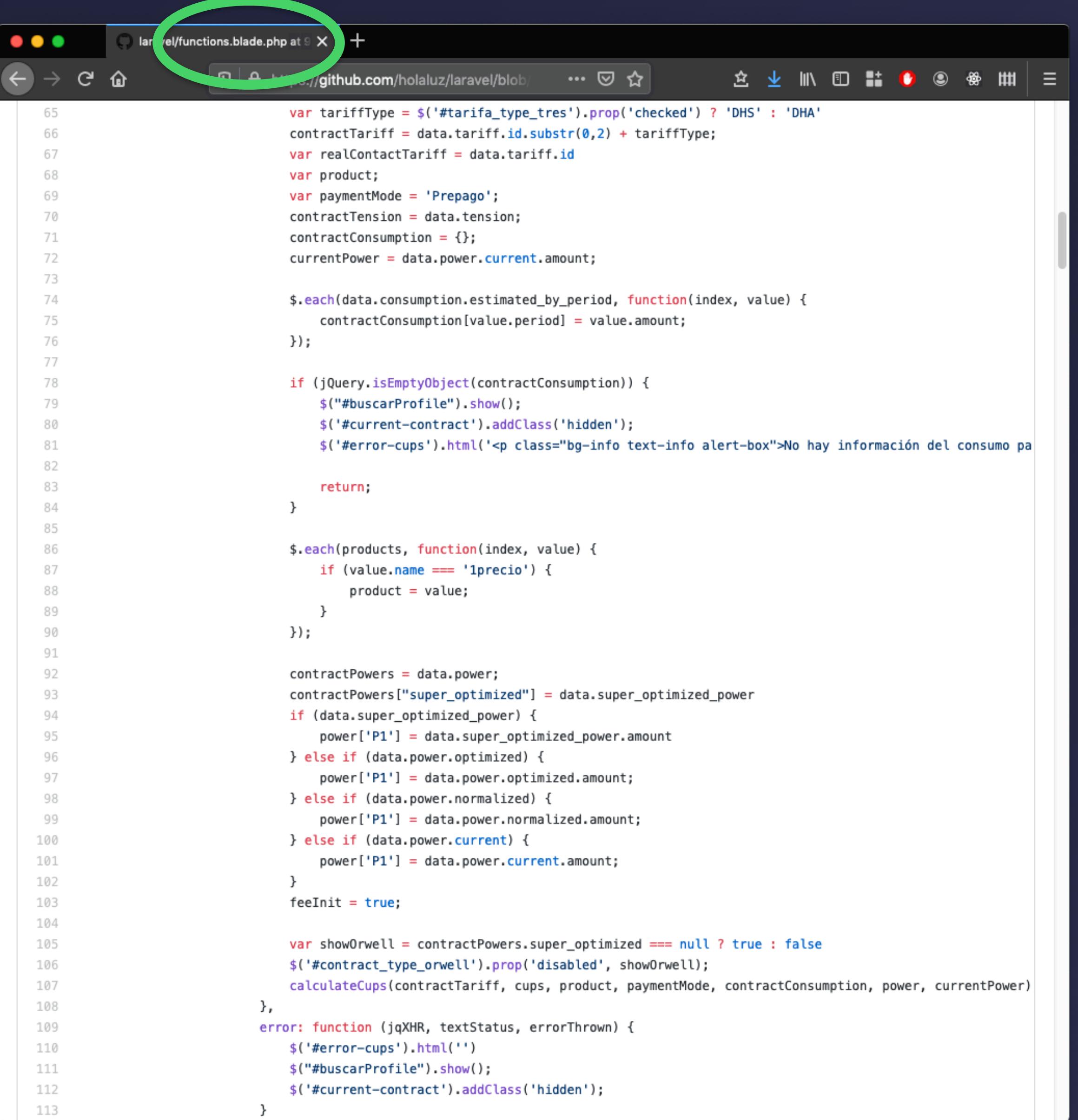
Reduce the gap between
Front and Back

This is not about writing good
software, but how to build software
that can **change over time**

P A R E N T A L
ADVISORY
EXPLICIT CONTENT

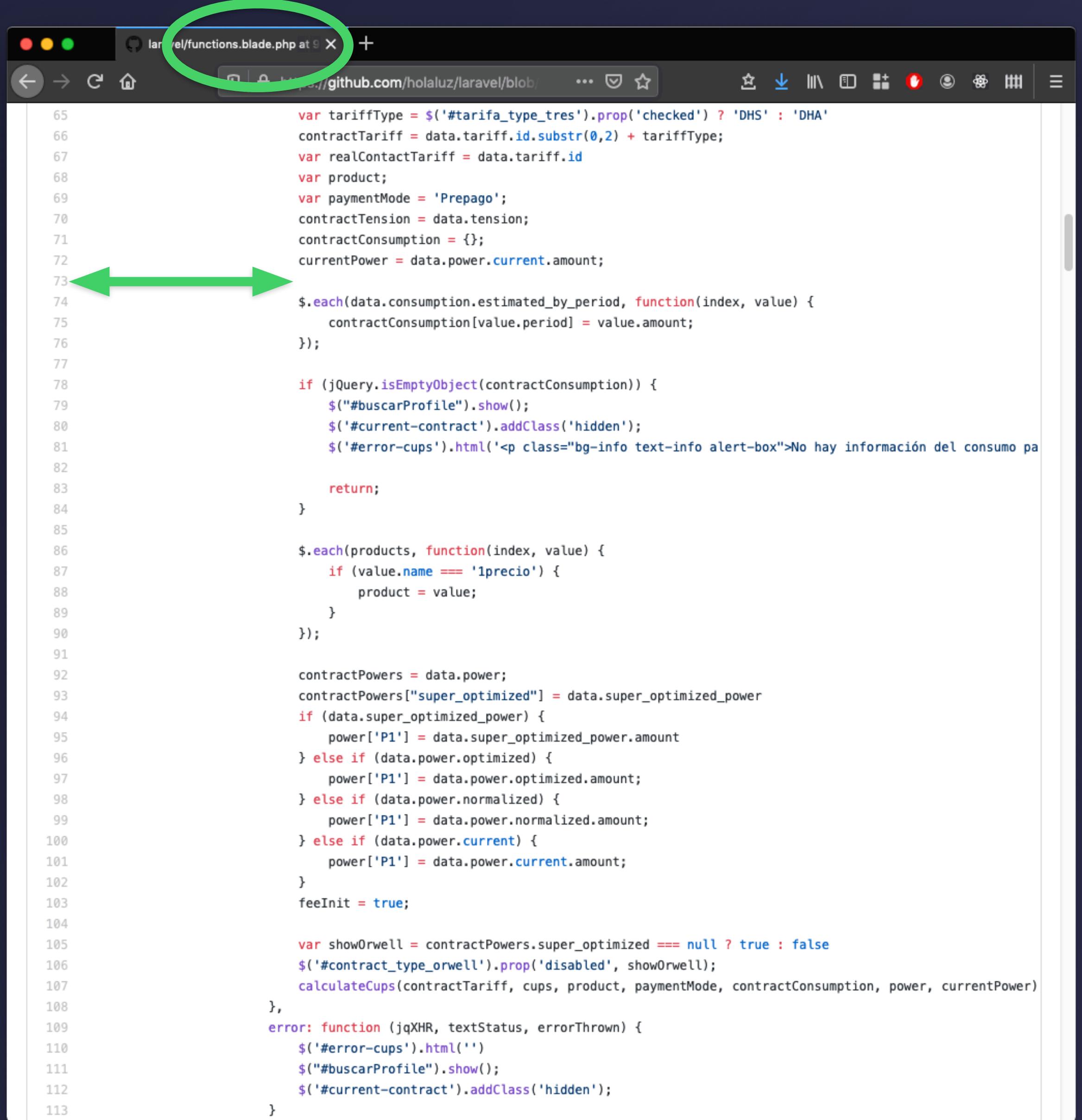
A screenshot of a web browser window displaying a GitHub repository page. The URL in the address bar is <https://github.com/holaluz/laravel/blob/>. The page content is a block of JavaScript code, likely a Blade template, with line numbers from 65 to 113 on the left. The code handles tariff selection, consumption data processing, product selection, power optimization, and error handling for consumption information.

```
65         var tariffType = $('#tarifa_type_tres').prop('checked') ? 'DHS' : 'DHA'
66         contractTariff = data.tariff.id.substr(0,2) + tariffType;
67         var realContactTariff = data.tariff.id
68         var product;
69         var paymentMode = 'Prepago';
70         contractTension = data.tension;
71         contractConsumption = {};
72         currentPower = data.power.current.amount;
73
74         $.each(data.consumption.estimated_by_period, function(index, value) {
75             contractConsumption[value.period] = value.amount;
76         });
77
78         if (jQuery.isEmptyObject(contractConsumption)) {
79             $("#buscarProfile").show();
80             $('#current-contract').addClass('hidden');
81             $('#error-cups').html('<p class="bg-info text-info alert-box">No hay información del consumo pa
82
83             return;
84         }
85
86         $.each(products, function(index, value) {
87             if (value.name === '1precio') {
88                 product = value;
89             }
90         );
91
92         contractPowers = data.power;
93         contractPowers["super_optimized"] = data.super_optimized_power
94         if (data.super_optimized_power) {
95             power['P1'] = data.super_optimized_power.amount
96         } else if (data.power.optimized) {
97             power['P1'] = data.power.optimized.amount;
98         } else if (data.power.normalized) {
99             power['P1'] = data.power.normalized.amount;
100        } else if (data.power.current) {
101            power['P1'] = data.power.current.amount;
102        }
103        feeInit = true;
104
105        var showOrwell = contractPowers.super_optimized === null ? true : false
106        $('#contract_type_orwell').prop('disabled', showOrwell);
107        calculateCups(contractTariff, cups, product, paymentMode, contractConsumption, power, currentPower)
108    },
109    error: function (jqXHR, textStatus, errorThrown) {
110        $('#error-cups').html('')
111        $("#buscarProfile").show();
112        $('#current-contract').addClass('hidden');
113    }
}
```



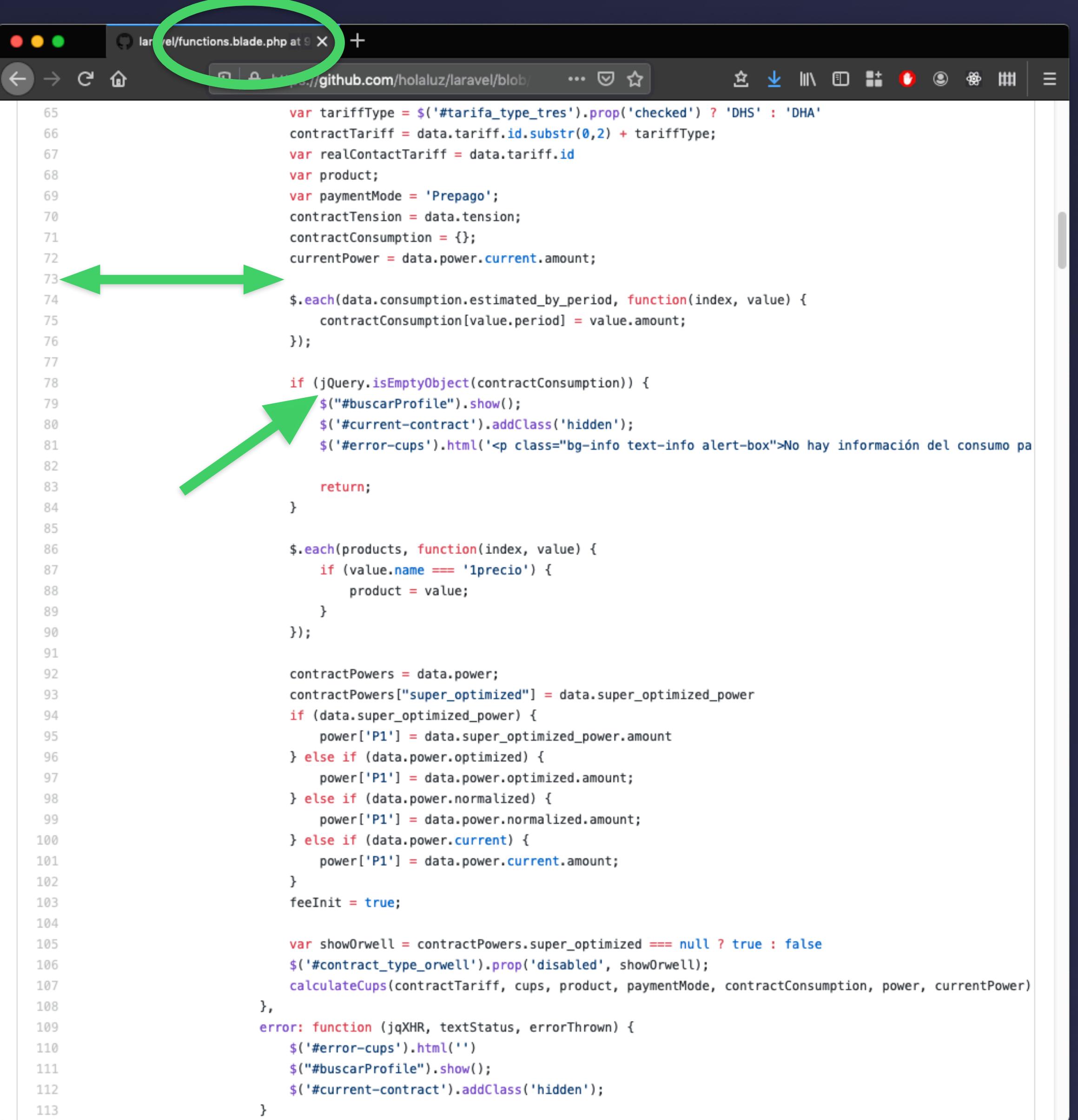
A screenshot of a web browser window displaying a code editor. The tab bar at the top shows the file name "laravel/functions.blade.php at 9". A green circle highlights the tab bar area. The main content area contains a block of JavaScript code with line numbers from 65 to 113.

```
65     var tariffType = $('#tarifa_type_tres').prop('checked') ? 'DHS' : 'DHA'
66     contractTariff = data.tariff.id.substr(0,2) + tariffType;
67     var realContactTariff = data.tariff.id
68     var product;
69     var paymentMode = 'Prepago';
70     contractTension = data.tension;
71     contractConsumption = {};
72     currentPower = data.power.current.amount;
73
74     $.each(data.consumption.estimated_by_period, function(index, value) {
75         contractConsumption[value.period] = value.amount;
76     });
77
78     if (jQuery.isEmptyObject(contractConsumption)) {
79         $("#buscarProfile").show();
80         $('#current-contract').addClass('hidden');
81         $('#error-cups').html('<p class="bg-info text-info alert-box">No hay información del consumo pa
82
83         return;
84     }
85
86     $.each(products, function(index, value) {
87         if (value.name === '1precio') {
88             product = value;
89         }
90     });
91
92     contractPowers = data.power;
93     contractPowers["super_optimized"] = data.super_optimized_power
94     if (data.super_optimized_power) {
95         power['P1'] = data.super_optimized_power.amount
96     } else if (data.power.optimized) {
97         power['P1'] = data.power.optimized.amount;
98     } else if (data.power.normalized) {
99         power['P1'] = data.power.normalized.amount;
100    } else if (data.power.current) {
101        power['P1'] = data.power.current.amount;
102    }
103    feeInit = true;
104
105    var showOrwell = contractPowers.super_optimized === null ? true : false
106    $('#contract_type_orwell').prop('disabled', showOrwell);
107    calculateCups(contractTariff, cups, product, paymentMode, contractConsumption, power, currentPower)
108 },
109 error: function (jqXHR, textStatus, errorThrown) {
110     $('#error-cups').html('')
111     $("#buscarProfile").show();
112     $('#current-contract').addClass('hidden');
113 }
```



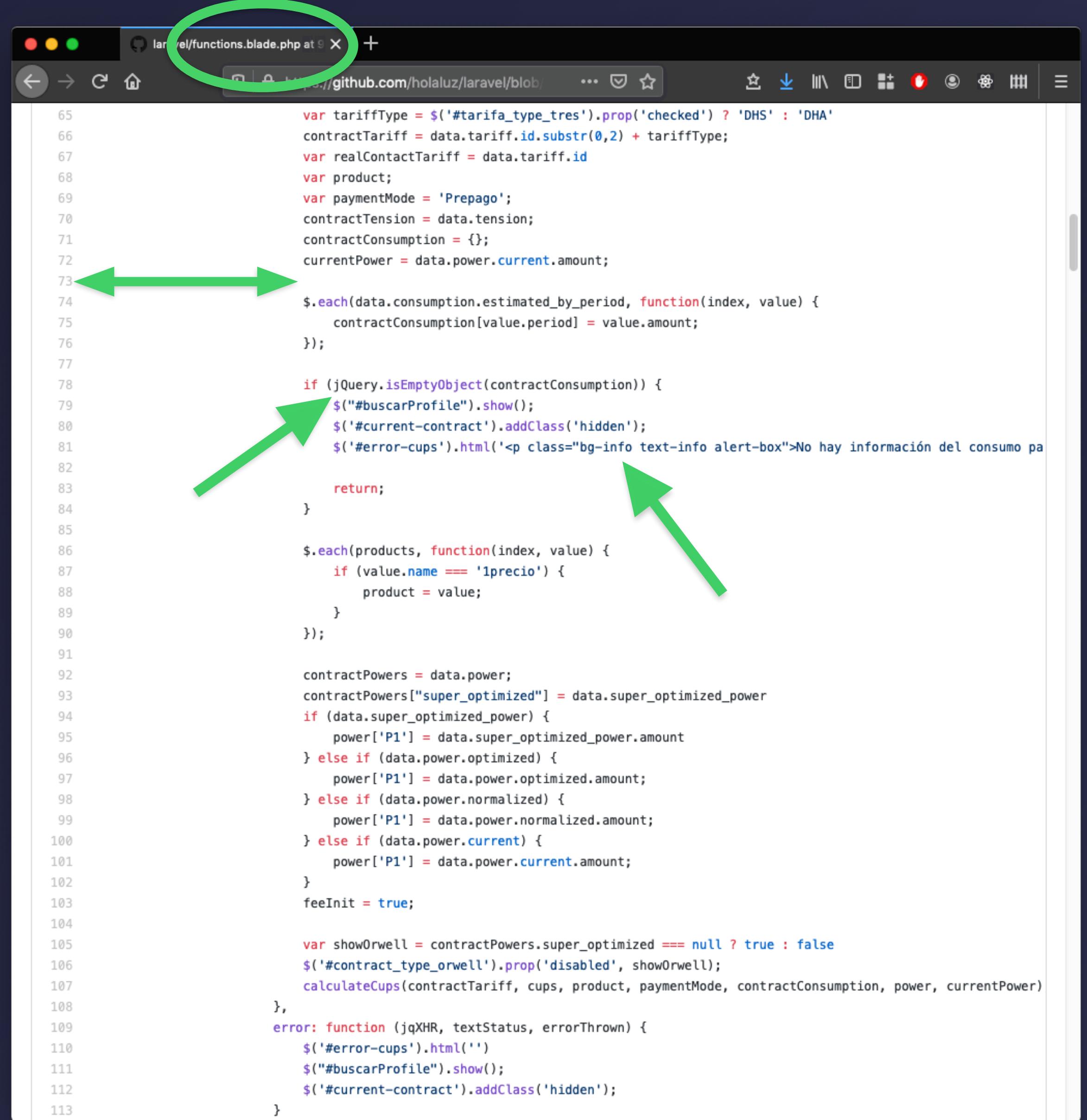
laravel/functions.blade.php at 9

```
65         var tariffType = $('#tarifa_type_tres').prop('checked') ? 'DHS' : 'DHA'
66         contractTariff = data.tariff.id.substr(0,2) + tariffType;
67         var realContactTariff = data.tariff.id
68         var product;
69         var paymentMode = 'Prepago';
70         contractTension = data.tension;
71         contractConsumption = {};
72         currentPower = data.power.current.amount;
73         $.each(data.consumption.estimated_by_period, function(index, value) {
74             contractConsumption[value.period] = value.amount;
75         });
76
77         if (jQuery.isEmptyObject(contractConsumption)) {
78             $("#buscarProfile").show();
79             $('#current-contract').addClass('hidden');
80             $('#error-cups').html('<p class="bg-info text-info alert-box">No hay información del consumo pa
81
82             return;
83         }
84
85         $.each(products, function(index, value) {
86             if (value.name === '1precio') {
87                 product = value;
88             }
89         });
90
91         contractPowers = data.power;
92         contractPowers["super_optimized"] = data.super_optimized_power
93         if (data.super_optimized_power) {
94             power['P1'] = data.super_optimized_power.amount
95         } else if (data.power.optimized) {
96             power['P1'] = data.power.optimized.amount;
97         } else if (data.power.normalized) {
98             power['P1'] = data.power.normalized.amount;
99         } else if (data.power.current) {
100             power['P1'] = data.power.current.amount;
101         }
102         feeInit = true;
103
104         var showOrwell = contractPowers.super_optimized === null ? true : false
105         $('#contract_type_orwell').prop('disabled', showOrwell);
106         calculateCups(contractTariff, cups, product, paymentMode, contractConsumption, power, currentPower)
107     },
108     error: function (jqXHR, textStatus, errorThrown) {
109         $('#error-cups').html('')
110         $("#buscarProfile").show();
111         $('#current-contract').addClass('hidden');
112     }
113 }
```



The screenshot shows a browser window with the title "laravel/functions.blade.php at 9" highlighted by a green oval. A green double-headed horizontal arrow is positioned below the title bar, spanning the width of the code editor area. A green arrow points from the left margin towards the code at line 83.

```
65         var tariffType = $('#tarifa_type_tres').prop('checked') ? 'DHS' : 'DHA'
66         contractTariff = data.tariff.id.substr(0,2) + tariffType;
67         var realContactTariff = data.tariff.id
68         var product;
69         var paymentMode = 'Prepago';
70         contractTension = data.tension;
71         contractConsumption = {};
72         currentPower = data.power.current.amount;
73
74         $.each(data.consumption.estimated_by_period, function(index, value) {
75             contractConsumption[value.period] = value.amount;
76         });
77
78         if (jQuery.isEmptyObject(contractConsumption)) {
79             $("#buscarProfile").show();
80             $('#current-contract').addClass('hidden');
81             $('#error-cups').html('<p class="bg-info text-info alert-box">No hay información del consumo pa
82
83             return;
84         }
85
86         $.each(products, function(index, value) {
87             if (value.name === '1precio') {
88                 product = value;
89             }
90         });
91
92         contractPowers = data.power;
93         contractPowers["super_optimized"] = data.super_optimized_power
94         if (data.super_optimized_power) {
95             power['P1'] = data.super_optimized_power.amount
96         } else if (data.power.optimized) {
97             power['P1'] = data.power.optimized.amount;
98         } else if (data.power.normalized) {
99             power['P1'] = data.power.normalized.amount;
100        } else if (data.power.current) {
101            power['P1'] = data.power.current.amount;
102        }
103        feeInit = true;
104
105        var showOrwell = contractPowers.super_optimized === null ? true : false
106        $('#contract_type_orwell').prop('disabled', showOrwell);
107        calculateCups(contractTariff, cups, product, paymentMode, contractConsumption, power, currentPower)
108    },
109    error: function (jqXHR, textStatus, errorThrown) {
110        $('#error-cups').html('')
111        $("#buscarProfile").show();
112        $('#current-contract').addClass('hidden');
113    }
}
```



The screenshot shows a browser window with the title "laravel/functions.blade.php at 9" highlighted by a green oval. Two green arrows point to specific lines of code: one arrow points to line 73, and another points to line 83.

```
65         var tariffType = $('#tarifa_type_tres').prop('checked') ? 'DHS' : 'DHA'
66         contractTariff = data.tariff.id.substr(0,2) + tariffType;
67         var realContactTariff = data.tariff.id
68         var product;
69         var paymentMode = 'Prepago';
70         contractTension = data.tension;
71         contractConsumption = {};
72         currentPower = data.power.current.amount;
73         $.each(data.consumption.estimated_by_period, function(index, value) {
74             contractConsumption[value.period] = value.amount;
75         });
76
77
78         if (jQuery.isEmptyObject(contractConsumption)) {
79             $("#buscarProfile").show();
80             $('#current-contract').addClass('hidden');
81             $('#error-cups').html('<p class="bg-info text-info alert-box">No hay información del consumo pa
82
83             return;
84         }
85
86         $.each(products, function(index, value) {
87             if (value.name === '1precio') {
88                 product = value;
89             }
90         );
91
92         contractPowers = data.power;
93         contractPowers["super_optimized"] = data.super_optimized_power
94         if (data.super_optimized_power) {
95             power['P1'] = data.super_optimized_power.amount
96         } else if (data.power.optimized) {
97             power['P1'] = data.power.optimized.amount;
98         } else if (data.power.normalized) {
99             power['P1'] = data.power.normalized.amount;
100        } else if (data.power.current) {
101            power['P1'] = data.power.current.amount;
102        }
103        feeInit = true;
104
105        var showOrwell = contractPowers.super_optimized === null ? true : false
106        $('#contract_type_orwell').prop('disabled', showOrwell);
107        calculateCups(contractTariff, cups, product, paymentMode, contractConsumption, power, currentPower)
108    },
109    error: function (jqXHR, textStatus, errorThrown) {
110        $('#error-cups').html('')
111        $("#buscarProfile").show();
112        $('#current-contract').addClass('hidden');
113    }
}
```

```
laravel/functions.blade.php at 9:1 +  
https://github.com/holaluz/laravel/blob/...  
65         var tariffType = $('#tarifa_type_tres').prop('checked') ? 'DHS' : 'DHA'  
66         contractTariff = data.tariff.id.substr(0,2) + tariffType;  
67         var realContactTariff = data.tariff.id  
68         var product;  
69         var paymentMode = 'Prepago';  
70         contractTension = data.tension;  
71         contractConsumption = {};  
72         currentPower = data.power.current.amount;  
73         $.each(data.consumption.estimated_by_period, function(index, value) {  
74             contractConsumption[value.period] = value.amount;  
75         });  
76  
77         if (jQuery.isEmptyObject(contractConsumption)) {  
78             $("#buscarProfile").show();  
79             $('#current-contract').addClass('hidden');  
80             $('#error-cups').html('<p class="bg-info text-info alert-box">No hay información del consumo pa  
81             return;  
82         }  
83  
84         $.each(products, function(index, value) {  
85             if (value.name === '1precio') {  
86                 product = value;  
87             }  
88         });  
89  
90         contractPowers = data.power;  
91         contractPowers["super_optimized"] = data.super_optimized_power  
92         if (data.super_optimized_power) {  
93             power['P1'] = data.super_optimized_power.amount  
94         } else if (data.power.optimized) {  
95             power['P1'] = data.power.optimized.amount;  
96         } else if (data.power.normalized) {  
97             power['P1'] = data.power.normalized.amount;  
98         } else if (data.power.current) {  
99             power['P1'] = data.power.current.amount;  
100        }  
101        feeInit = true;  
102  
103        var showOrwell = contractPowers.super_optimized === null ? true : false  
104        $('#contract_type_orwell').prop('disabled', showOrwell);  
105        calculateCups(contractTariff, cups, product, paymentMode, contractConsumption, power, currentPower)  
106    },  
107    error: function (jqXHR, textStatus, errorThrown) {  
108        $('#error-cups').html('')  
109        $("#buscarProfile").show();  
110        $('#current-contract').addClass('hidden');  
111    }  
112  
113 }
```

A screenshot of a web browser window displaying a GitHub code editor. The title bar shows the file path "laravel/functions.blade.php at 9". The address bar contains the URL "https://github.com/holaluz/laravel/blob/". The main content area is a code editor with syntax highlighting for JavaScript. The code is a function with several variables and conditional statements. The code starts with defining variables like tariffType, contractTariff, realContactTariff, product, paymentMode, contractTension, contractConsumption, currentPower, and contractPowers. It then processes data.consumption.estimated_by_period and products arrays. The function includes logic for calculating power values based on different types (super_optimized, optimized, normalized, current) and setting feeInit to true. It also handles showOrwell and error callbacks. The code ends with a closing brace at line 113.

```
65         var tariffType = $('#tarifa_type_tres').prop('checked') ? 'DHS' : 'DHA'
66         contractTariff = data.tariff.id.substr(0,2) + tariffType;
67         var realContactTariff = data.tariff.id
68         var product;
69         var paymentMode = 'Prepago';
70         contractTension = data.tension;
71         contractConsumption = {};
72         currentPower = data.power.current.amount;
73
74         $.each(data.consumption.estimated_by_period, function(index, value) {
75             contractConsumption[value.period] = value.amount;
76         });
77
78         if (jQuery.isEmptyObject(contractConsumption)) {
79             $("#buscarProfile").show();
80             $('#current-contract').addClass('hidden');
81             $('#error-cups').html('<p class="bg-info text-info alert-box">No hay información del consumo pa
82
83             return;
84         }
85
86         $.each(products, function(index, value) {
87             if (value.name === '1precio') {
88                 product = value;
89             }
90         );
91
92         contractPowers = data.power;
93         contractPowers["super_optimized"] = data.super_optimized_power
94         if (data.super_optimized_power) {
95             power['P1'] = data.super_optimized_power.amount
96         } else if (data.power.optimized) {
97             power['P1'] = data.power.optimized.amount;
98         } else if (data.power.normalized) {
99             power['P1'] = data.power.normalized.amount;
100        } else if (data.power.current) {
101            power['P1'] = data.power.current.amount;
102        }
103        feeInit = true;
104
105        var showOrwell = contractPowers.super_optimized === null ? true : false
106        $('#contract_type_orwell').prop('disabled', showOrwell);
107        calculateCups(contractTariff, cups, product, paymentMode, contractConsumption, power, currentPower)
108    },
109    error: function (jqXHR, textStatus, errorThrown) {
110        $('#error-cups').html('')
111        $("#buscarProfile").show();
112        $('#current-contract').addClass('hidden');
113    }
}
```

```
65         var tariffType = $('#tarifa_type_tres').prop('checked') ? 'DHS' : 'DHA'
66         contractTariff = data.tariff.id.substr(0,2) + tariffType;
67         var realContactTariff = data.tariff.id
68         var product;
69         var paymentMode = 'Prepago';
70         contractTension = data.tension;
71         contractConsumption = {};
72         currentPower = data.power.current.amount;
73
74         $.each(data.consumption.estimated_by_period, function(index, value) {
75             contractConsumption[value.period] = value.amount;
76         });
77
78         if (jQuery.isEmptyObject(contractConsumption)) {
79             $("#buscarProfile").show();
80             $('#current-contract').addClass('hidden');
81             $('#error-cups').html('<p class="bg-info text-info alert-box">No hay información del consumo pa
82
83             return;
84         }
85
86         $.each(products, function(index, value) {
87             if (value.name === '1precio') {
88                 product = value;
89             }
90         );
91
92         contractPowers = data.power;
93         contractPowers["super_optimized"] = data.super_optimized_power
94         if (data.super_optimized_power) {
95             power['P1'] = data.super_optimized_power.amount
96         } else if (data.power.optimized) {
97             power['P1'] = data.power.optimized.amount;
98         } else if (data.power.normalized) {
99             power['P1'] = data.power.normalized.amount;
100        } else if (data.power.current) {
101            power['P1'] = data.power.current.amount;
102        }
103        feeInit = true;
104
105        var showOrwell = contractPowers.super_optimized === null ? true : false
106        $('#contract_type_orwell').prop('disabled', showOrwell);
107        calculateCups(contractTariff, cups, product, paymentMode, contractConsumption, power, currentPower)
108    },
109    error: function (jqXHR, textStatus, errorThrown) {
110        $('#error-cups').html('')
111        $("#buscarProfile").show();
112        $('#current-contract').addClass('hidden');
113    }
}
```



```
laravel/functions.blade.php at 9 X +  
https://github.com/holaluz/laravel/blob/  
65     var tariffType = $('#tarifa_type_tres').prop('checked') ? 'DHS' : 'DHA'  
66     contractTariff = data.tariff.id.substr(0,2) + tariffType;  
67     var realContactTariff = data.tariff.id  
68     var product;  
69     var paymentMode = 'Prepago';  
70     contractTension = data.tension;  
71     contractConsumption = {};  
72     currentPower = data.power.current.amount;  
73  
74     $.each(data.consumption.estimated_by_period, function(index, value) {  
75         contractConsumption[value.period] = value.amount;  
76     });  
77  
78     if (jQuery.isEmptyObject(contractConsumption)) {  
79         $("#buscarProfile").show();  
80         $('#current-contract').addClass('hidden');  
81         $('#error-cups').html('<p class="bg-info text-info alert-box">No hay información del consumo pa  
82             return;  
83     }  
84  
85     $.each(products, function(index, value) {  
86         if (value.name === 'lprecio') {  
87             product = value;  
88         }  
89     });  
90  
91     contractPowers = data.power;  
92     contractPowers["super_optimized"] = data.super_optimized_power  
93     if (data.super_optimized_power) {  
94         power['P1'] = data.super_optimized_power.amount  
95     } else if (data.power.optimized) {  
96         power['P1'] = data.power.optimized.amount;  
97     } else if (data.power.normalized) {  
98         power['P1'] = data.power.normalized.amount;  
99     } else if (data.power.current) {  
100        power['P1'] = data.power.current.amount;  
101    }  
102    feeInit = true;  
103  
104    var showOrwell = contractPowers.super_optimized === null ? true : false  
105    $('#contract_type_orwell').prop('disabled', showOrwell);  
106    calculateCups(contractTariff, cups, product, paymentMode, contractConsumption, power, currentPower)  
107  
108 },  
109 error: function (jqXHR, textStatus, errorThrown) {  
110     $('#error-cups').html('')  
111     $("#buscarProfile").show();  
112     $('#current-contract').addClass('hidden');  
113 }
```



```
laravel/functions.blade.php at 9 X +  
https://github.com/holaluz/laravel/blob/  
65     var tariffType = $('#tarifa_type_tres').prop('checked') ? 'DHS' : 'DHA'  
66     contractTariff = data.tariff.id.substr(0,2) + tariffType;  
67     var realContactTariff = data.tariff.id  
68     var product;  
69     var paymentMode = 'Prepago';  
70     contractTension = data.tension;  
71     contractConsumption = {};  
72     currentPower = data.power.current.amount;  
73  
74     $.each(data.consumption.estimated_by_period, function(index, value) {  
75         contractConsumption[value.period] = value.amount;  
76     });  
77  
78     if (jQuery.isEmptyObject(contractConsumption)) {  
79         $("#buscarProfile").show();  
80         $('#current-contract').addClass('hidden');  
81         $('#error-cups').html('<p class="bg-info text-info alert-box">No hay información del consumo pa  
82             return;  
83     }  
84  
85     $.each(products, function(index, value) {  
86         if (value.name === 'lprecio') {  
87             product = value;  
88         }  
89     });  
90  
91     contractPowers = data.power;  
92     contractPowers["super_optimized"] = data.super_optimized_power  
93     if (data.super_optimized_power) {  
94         power['P1'] = data.super_optimized_power.amount  
95     } else if (data.power.optimized) {  
96         power['P1'] = data.power.optimized.amount;  
97     } else if (data.power.normalized) {  
98         power['P1'] = data.power.normalized.amount;  
99     } else if (data.power.current) {  
100        power['P1'] = data.power.current.amount;  
101    }  
102    feeInit = true;  
103  
104    var showOrwell = contractPowers.super_optimized === null ? true : false  
105    $('#contract_type_orwell').prop('disabled', showOrwell);  
106    calculateCups(contractTariff, cups, product, paymentMode, contractConsumption, power, currentPower)  
107  
108 },  
109 error: function (jqXHR, textStatus, errorThrown) {  
110     $('#error-cups').html('')  
111     $("#buscarProfile").show();  
112     $('#current-contract').addClass('hidden');  
113 }
```





```
laravel/functions.blade.php at 9 X +  
https://github.com/holaluz/laravel/blob/  
65 var tariffType = $('#tarifa_type_tres').prop('checked') ? 'DHS' : 'DHA'  
66 contractTariff = data.tariff.id.substr(0,2) + tariffType;  
67 var realContactTariff = data.tariff.id  
68 var product;  
69 var paymentMode = 'Prepago';  
70 contractTension = data.tension;  
71 contractConsumption = {};  
72 currentPower = data.power.current.amount;  
73  
74 $.each(data.consumption.estimated_by_period, function(index, value) {  
75     contractConsumption[value.period] = value.amount;  
76 });  
77  
78 if (jQuery.isEmptyObject(contractConsumption)) {  
79     $("#buscarProfile").show();  
80     $('#current-contract').addClass('hidden');  
81     $('#error-cups').html('<p class="bg-info text-info alert-box">No hay información del consumo pa  
82         return;  
83     }  
84  
85 $.each(products, function(index, value) {  
86     if (value.name === 'lprecio') {  
87         product = value;  
88     }  
89 });  
90  
91 contractPowers = data.power;  
92 contractPowers["super_optimized"] = data.super_optimized_power  
93 if (data.super_optimized_power) {  
94     power['P1'] = data.super_optimized_power.amount  
95 } else if (data.power.optimized) {  
96     power['P1'] = data.power.optimized.amount;  
97 } else if (data.power.normalized) {  
98     power['P1'] = data.power.normalized.amount;  
99 } else if (data.power.current) {  
100     power['P1'] = data.power.current.amount;  
101 }  
102 feeInit = true;  
103  
104  
105 var showOrwell = contractPowers.super_optimized === null ? true : false  
106 $('#contract_type_orwell').prop('disabled', showOrwell);  
107 calculateCups(contractTariff, cups, product, paymentMode, contractConsumption, power, currentPower)  
108 },  
109 error: function (jqXHR, textStatus, errorThrown) {  
110     $('#error-cups').html('')  
111     $("#buscarProfile").show();  
112     $('#current-contract').addClass('hidden');  
113 }
```











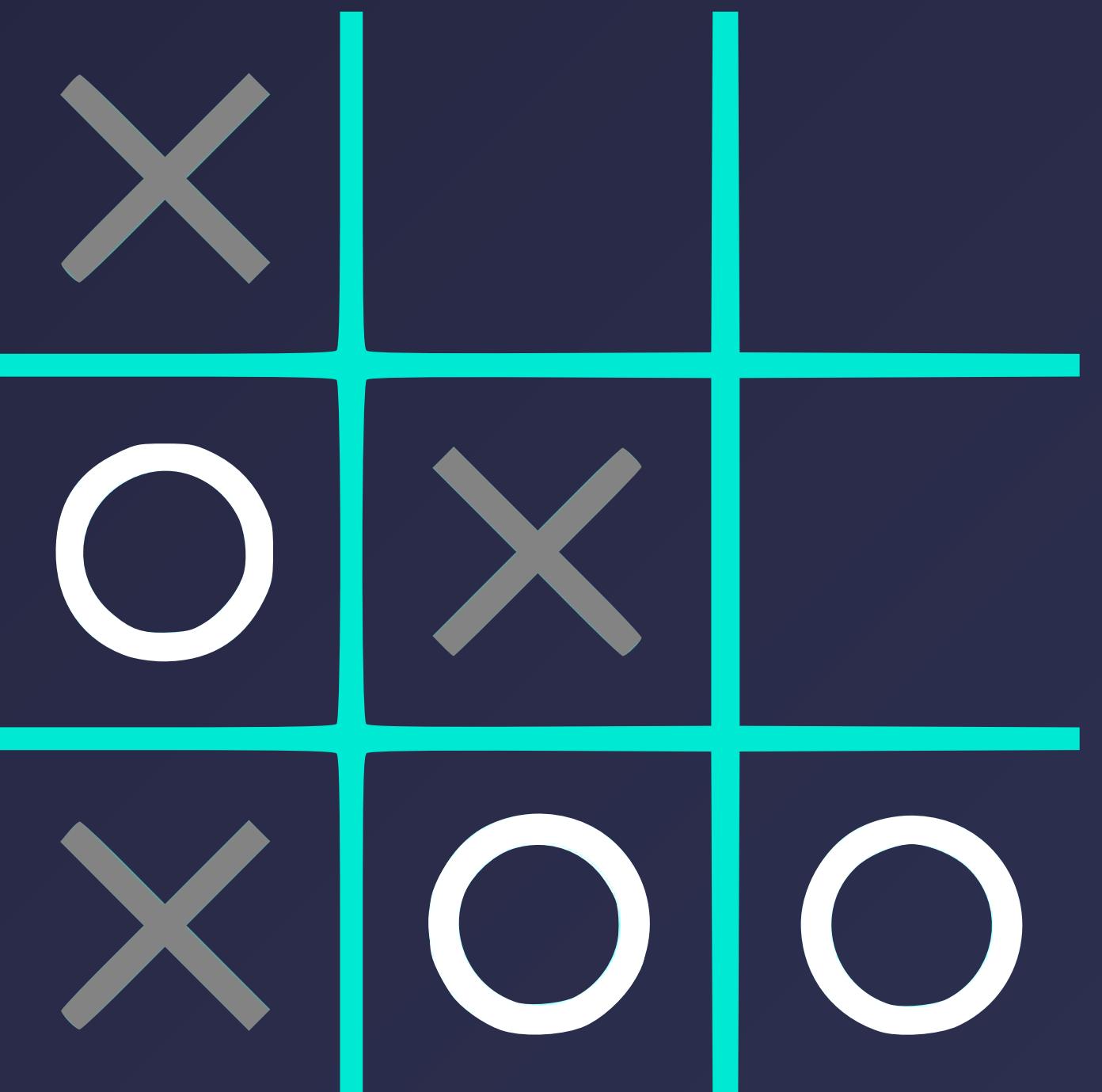




Business stuff

Delivery stuff







Business stuff

Delivery stuff





Business stuff

Delivery stuff

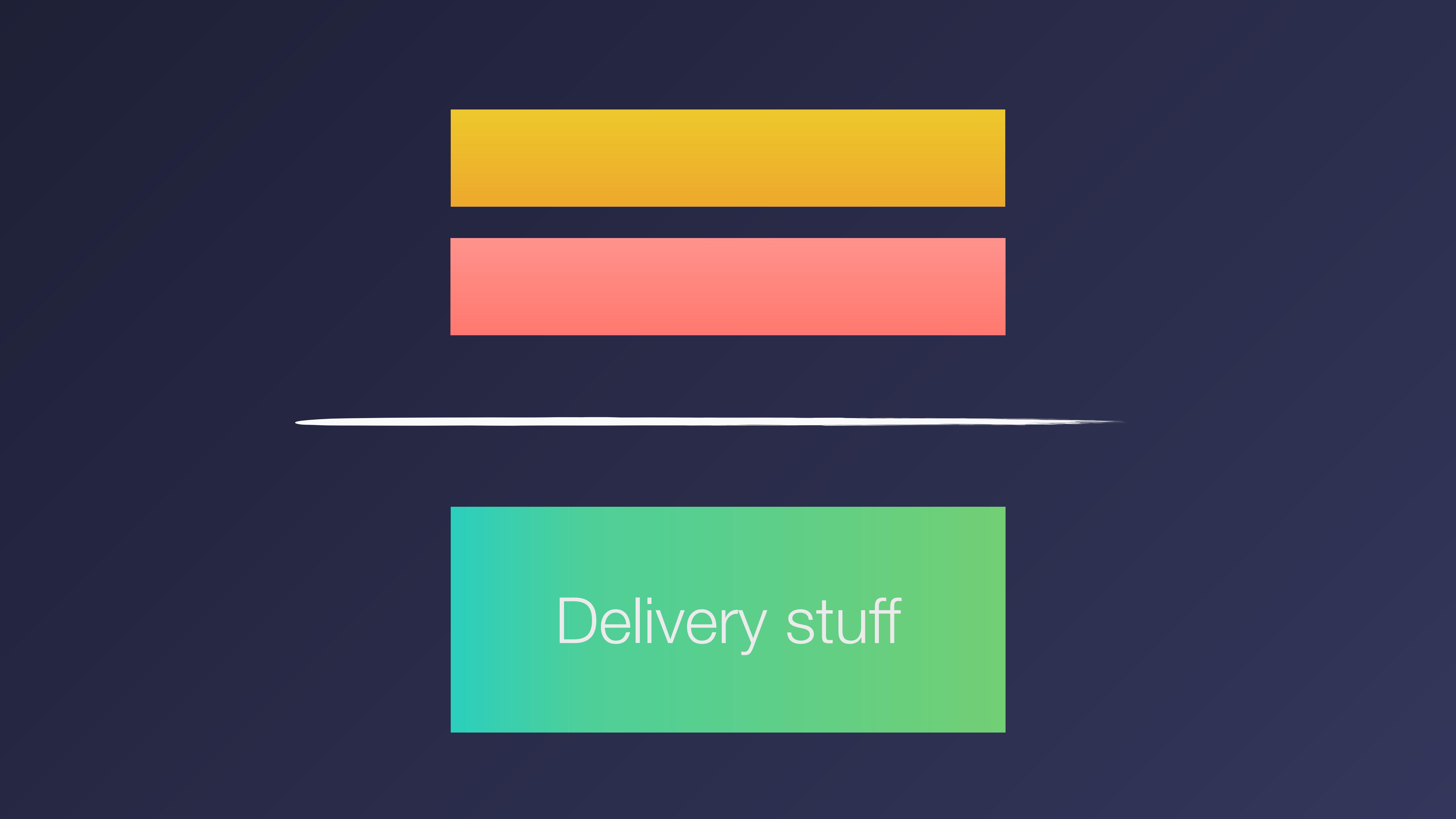




Business stuff

Delivery stuff





Delivery stuff

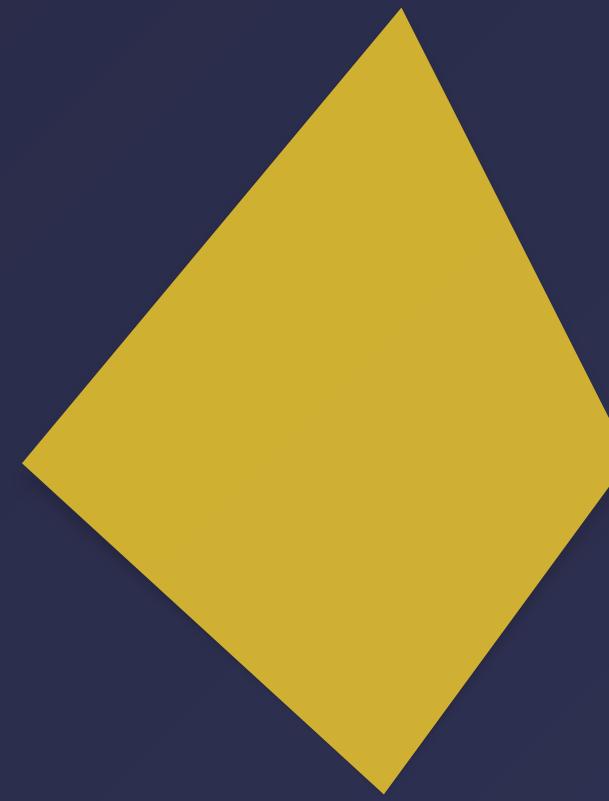
Domain

Use cases

Delivery stuff

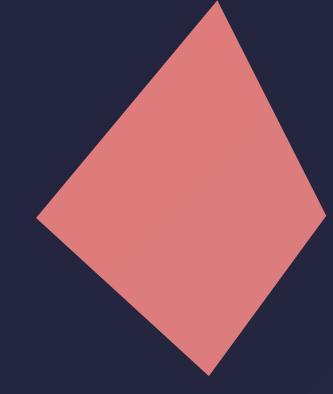


Domain

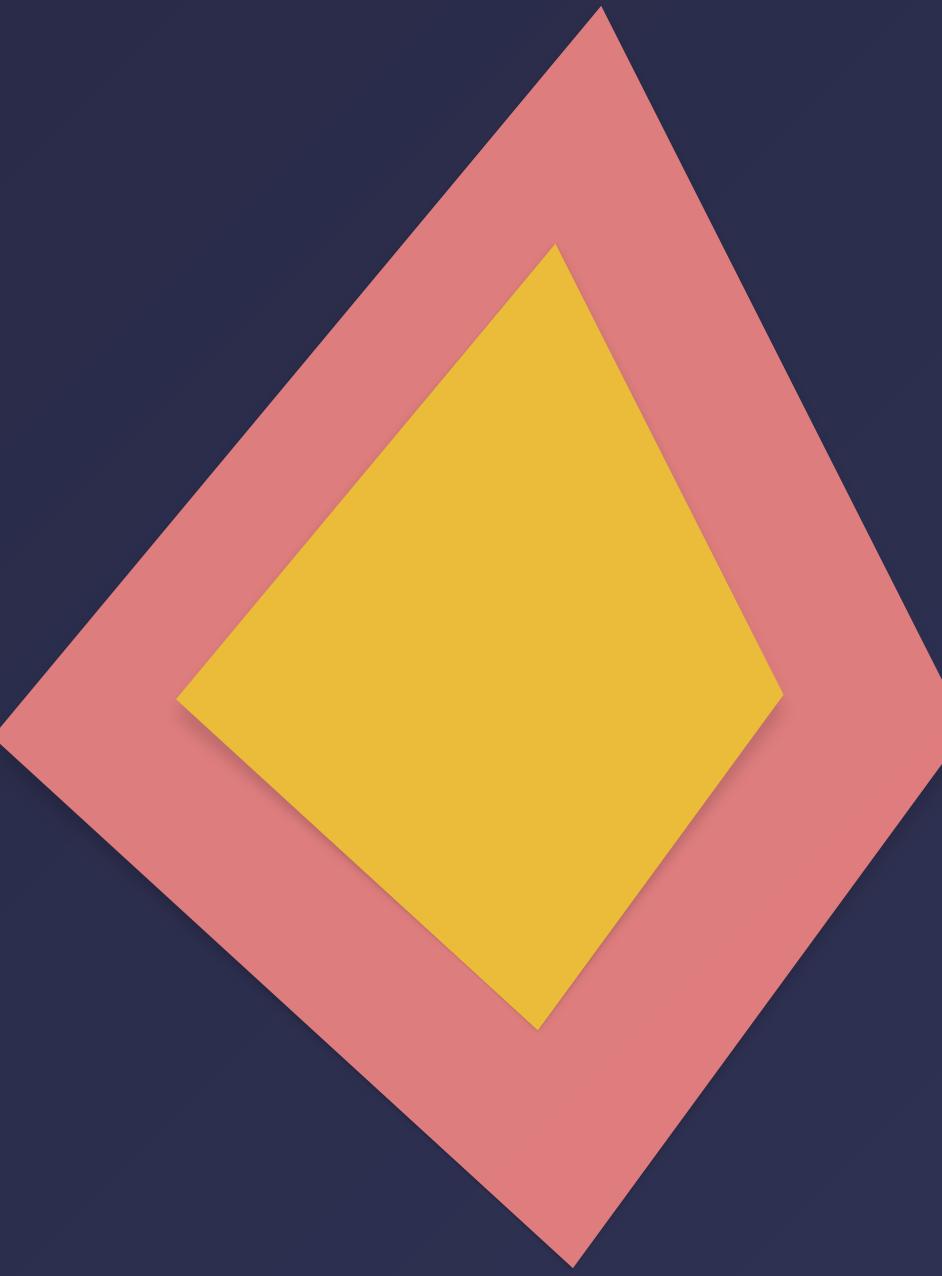




Domain

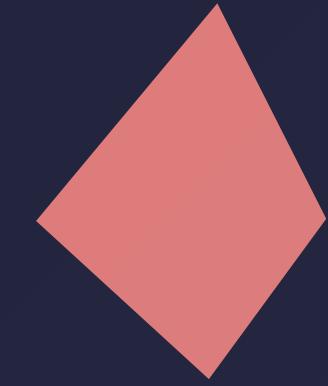


Use cases





Domain



Use cases

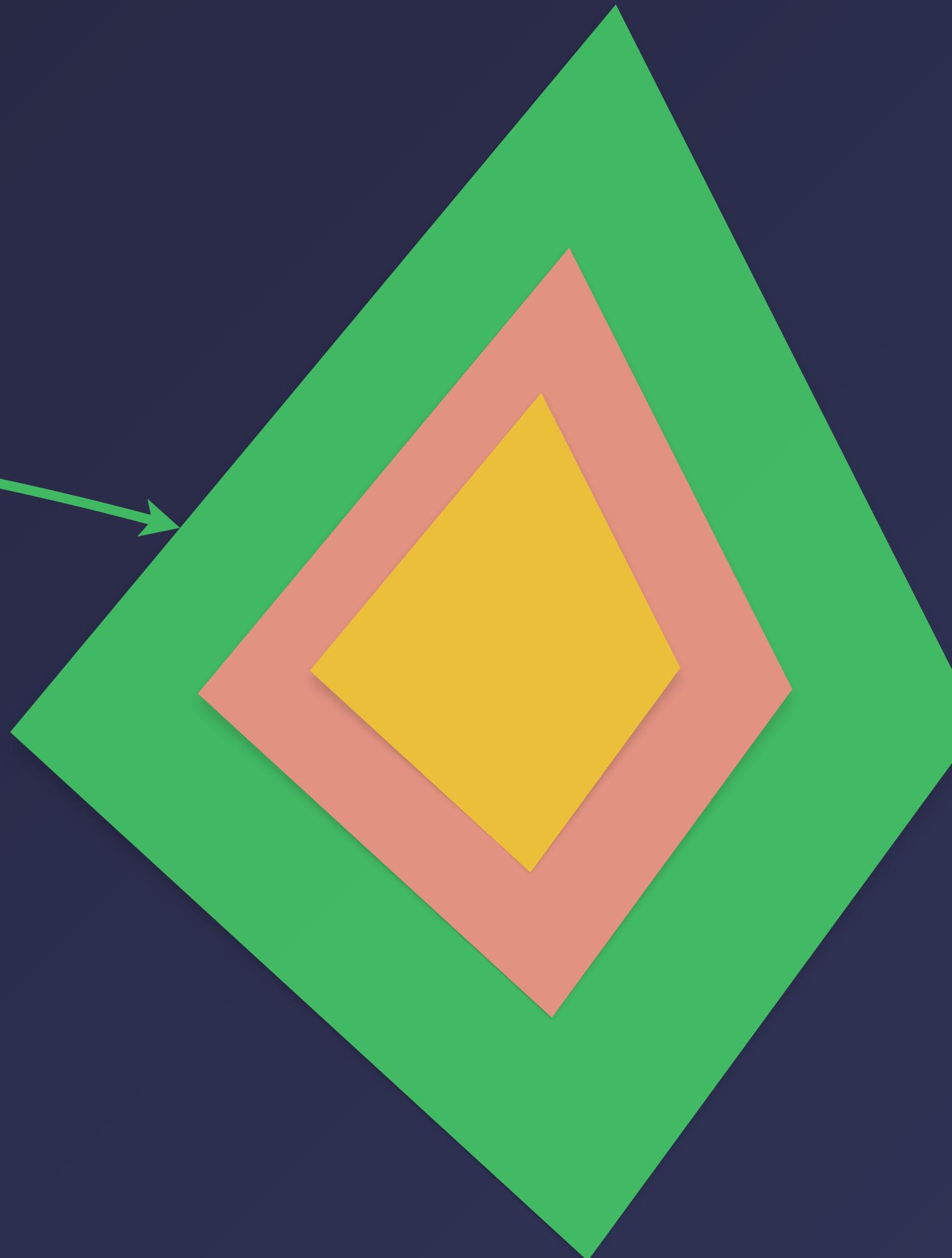


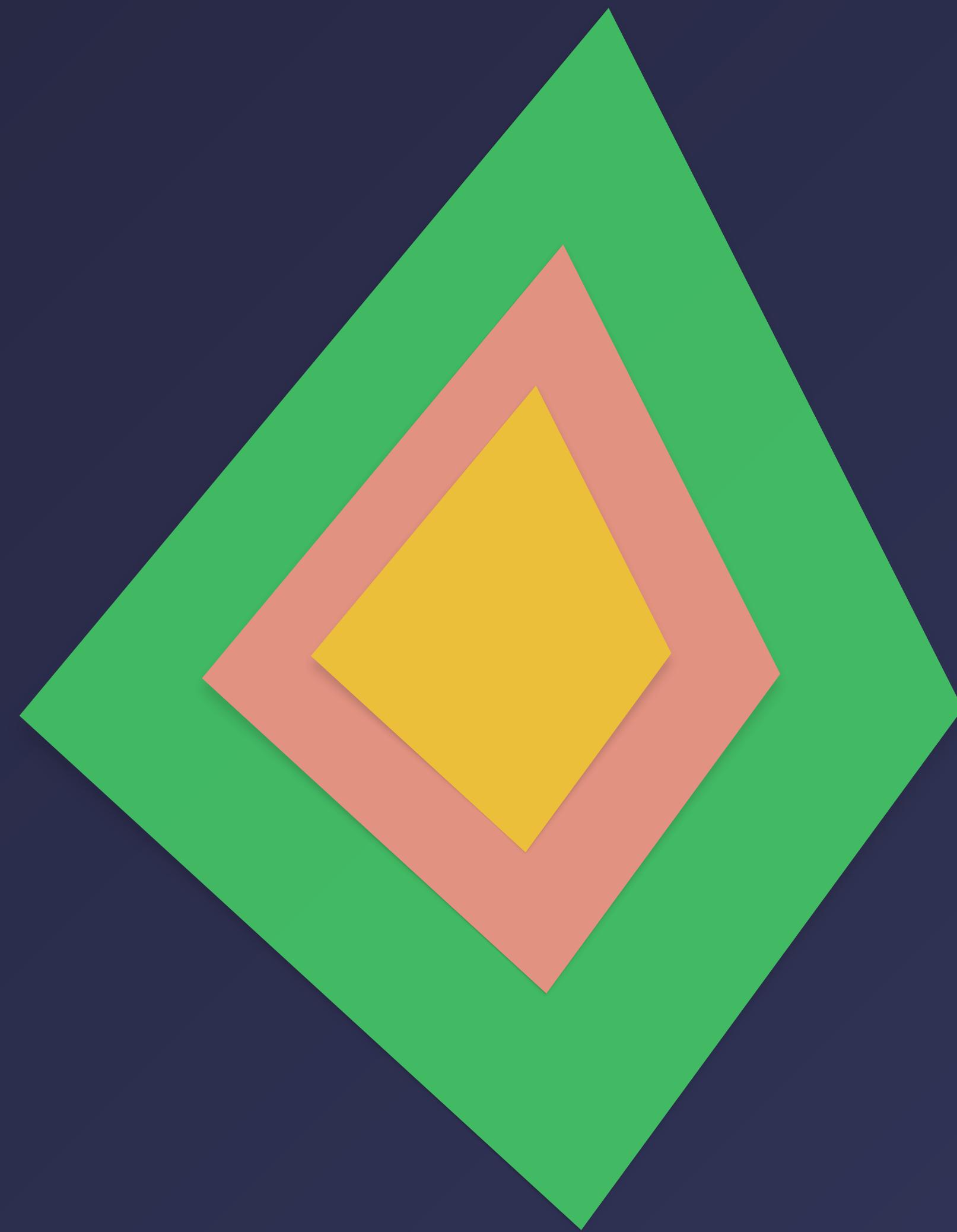
Delivery

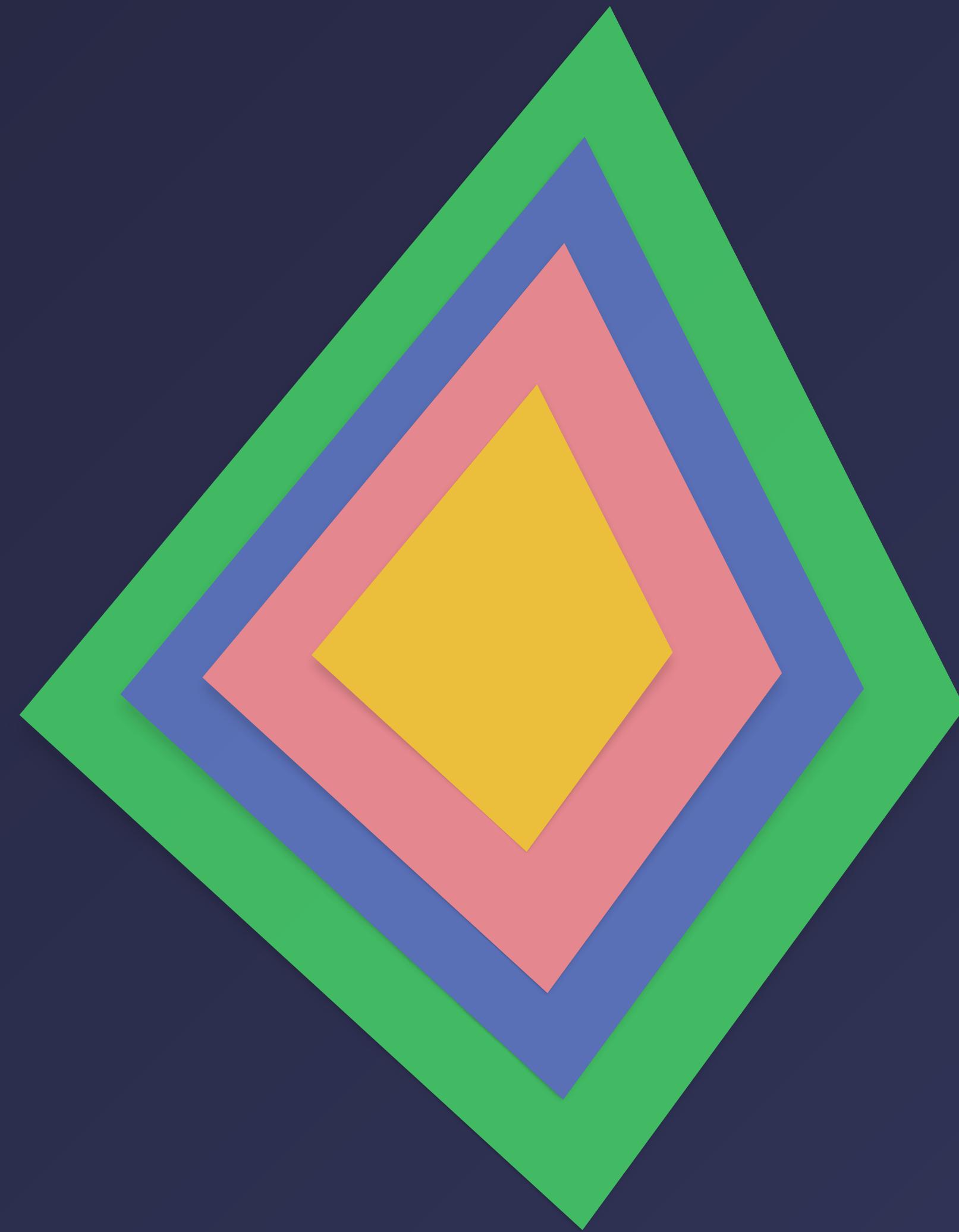




This layer has
two streams
of data

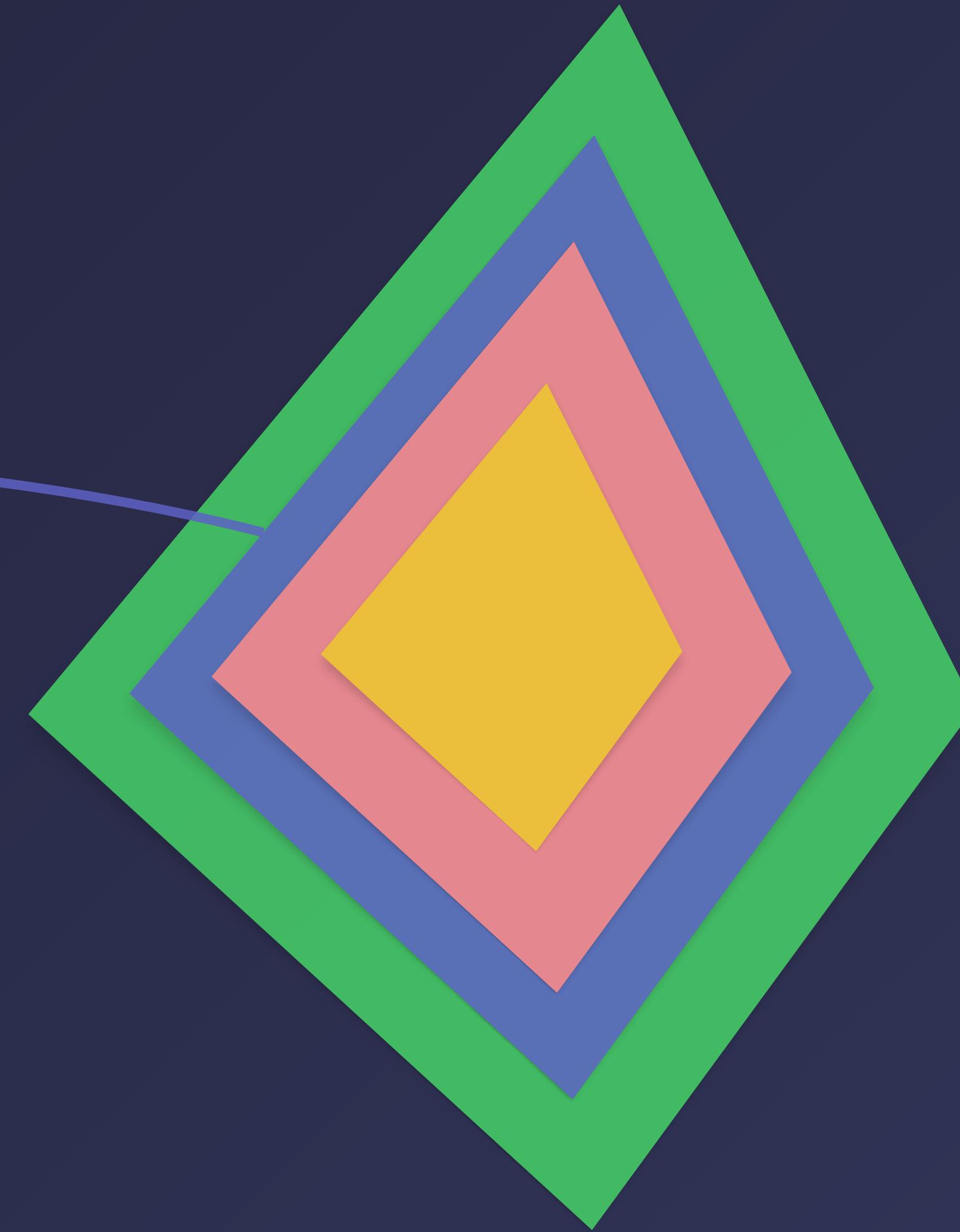








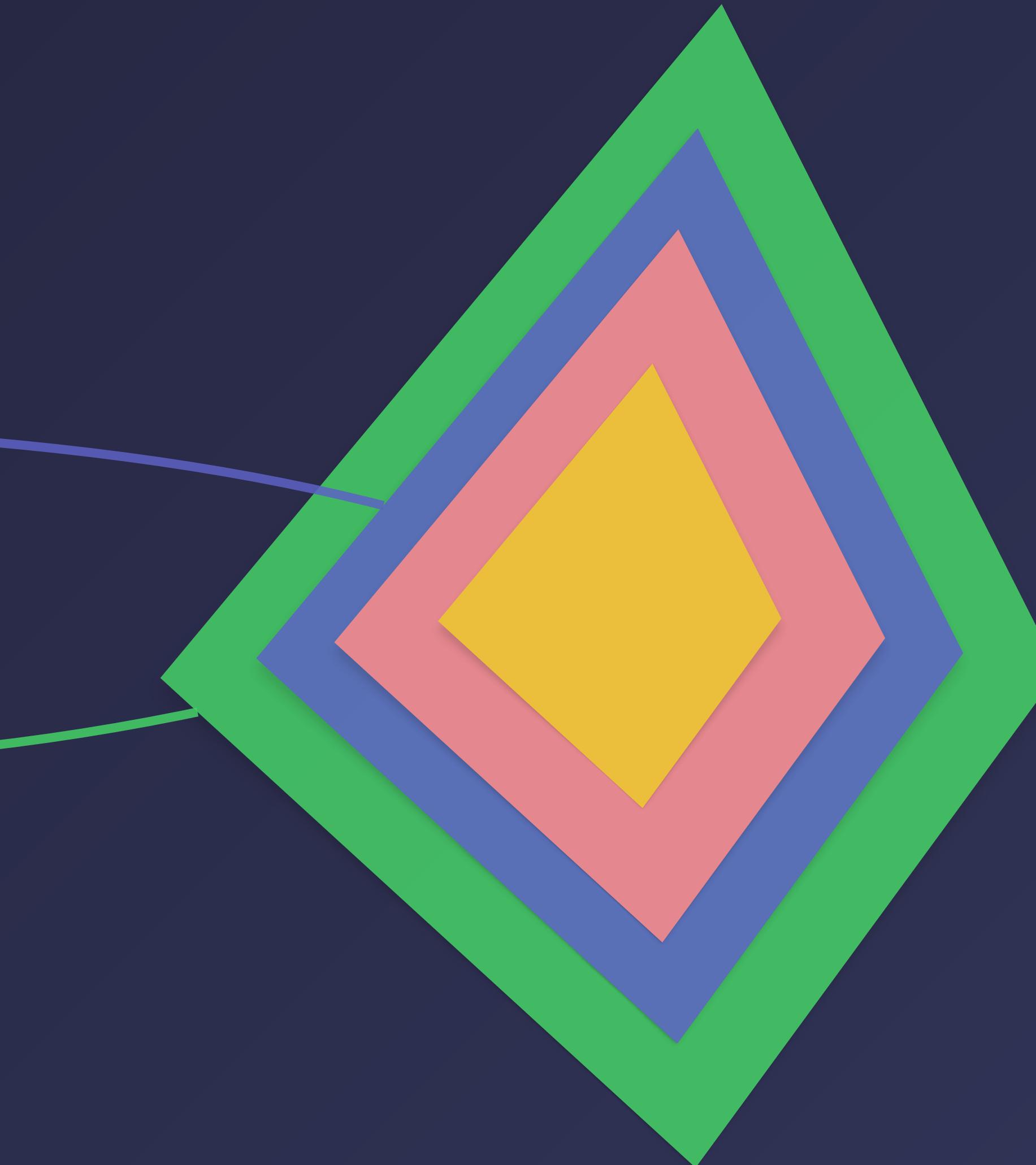
Infrastructure





Infrastructure

UI / Input





Infrastructure

API repositories

Cookies

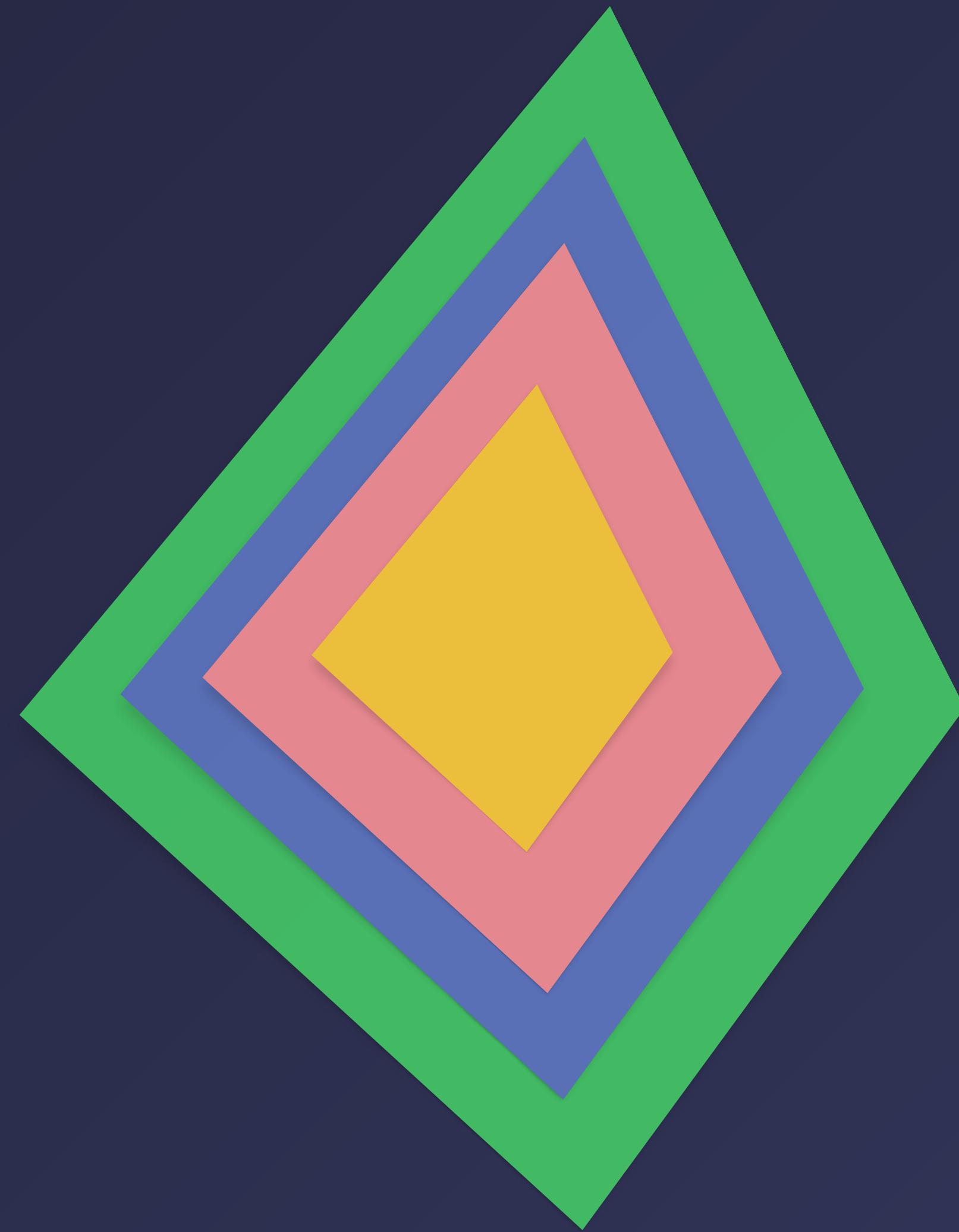
Web Storage



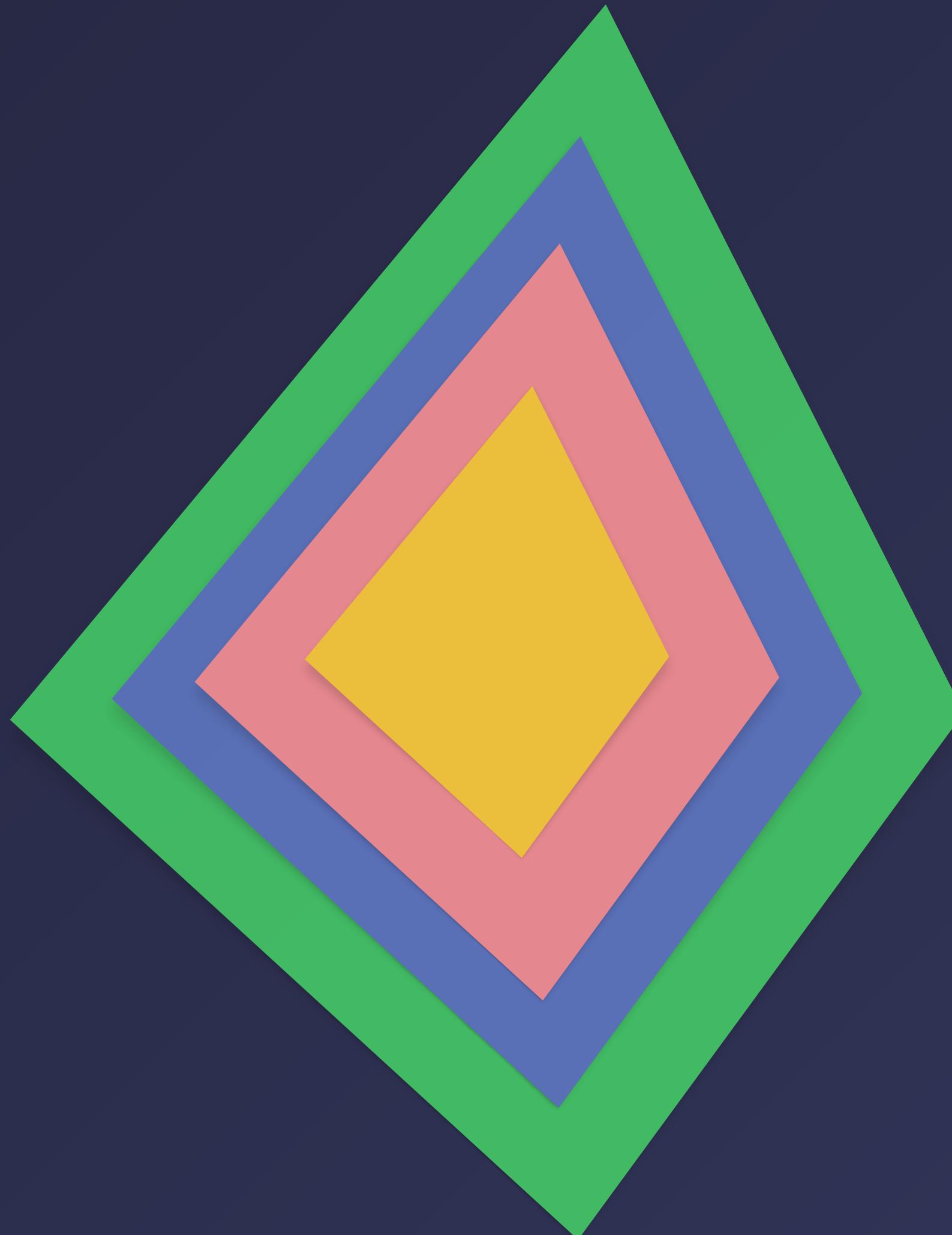
UI

\((\times)\)/

What does **layer**
really mean?

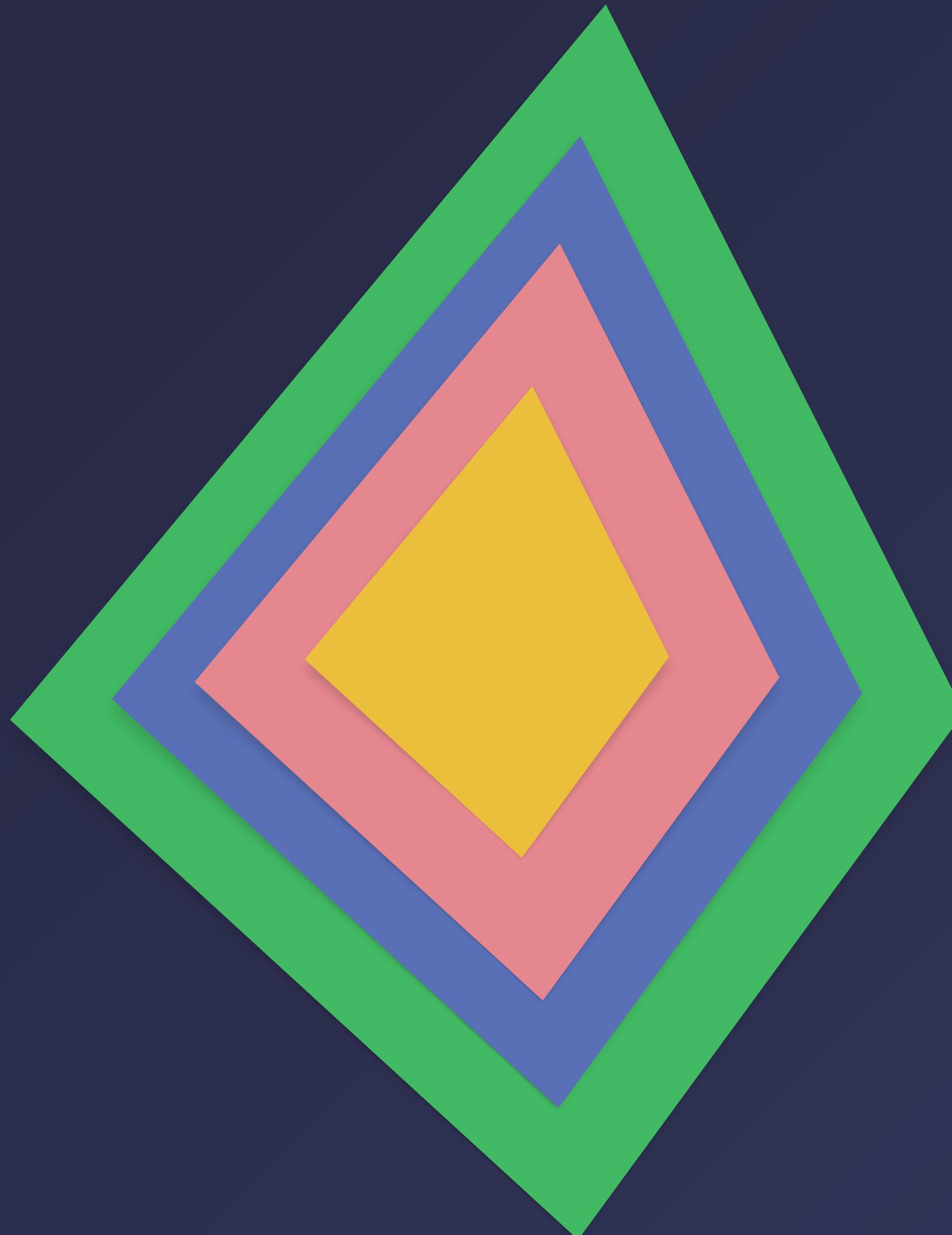


Dependencies only
point **inwards**



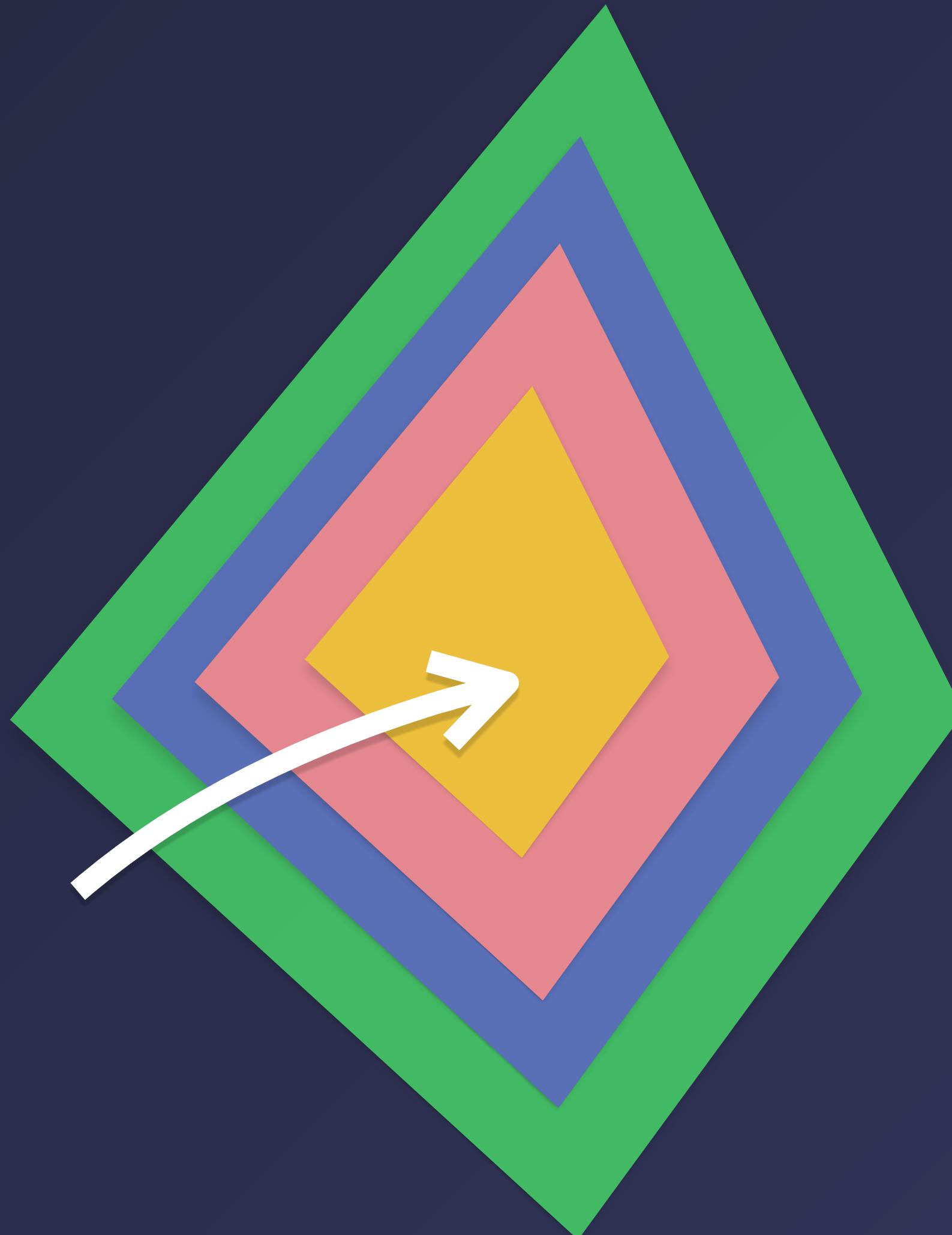
Dependencies only
point **inwards**

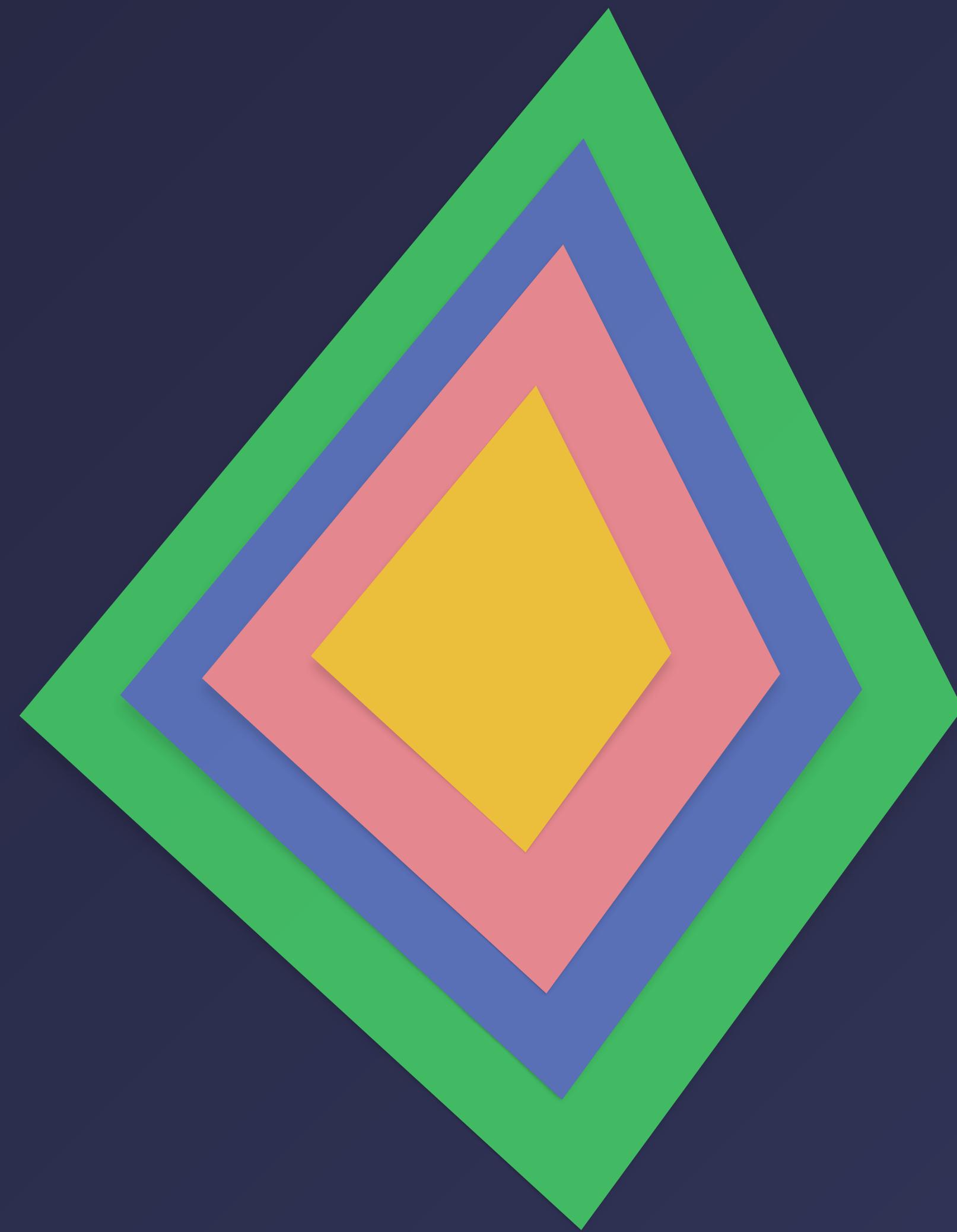
An inner layer **should**
never rely on anything
from an outer layer.

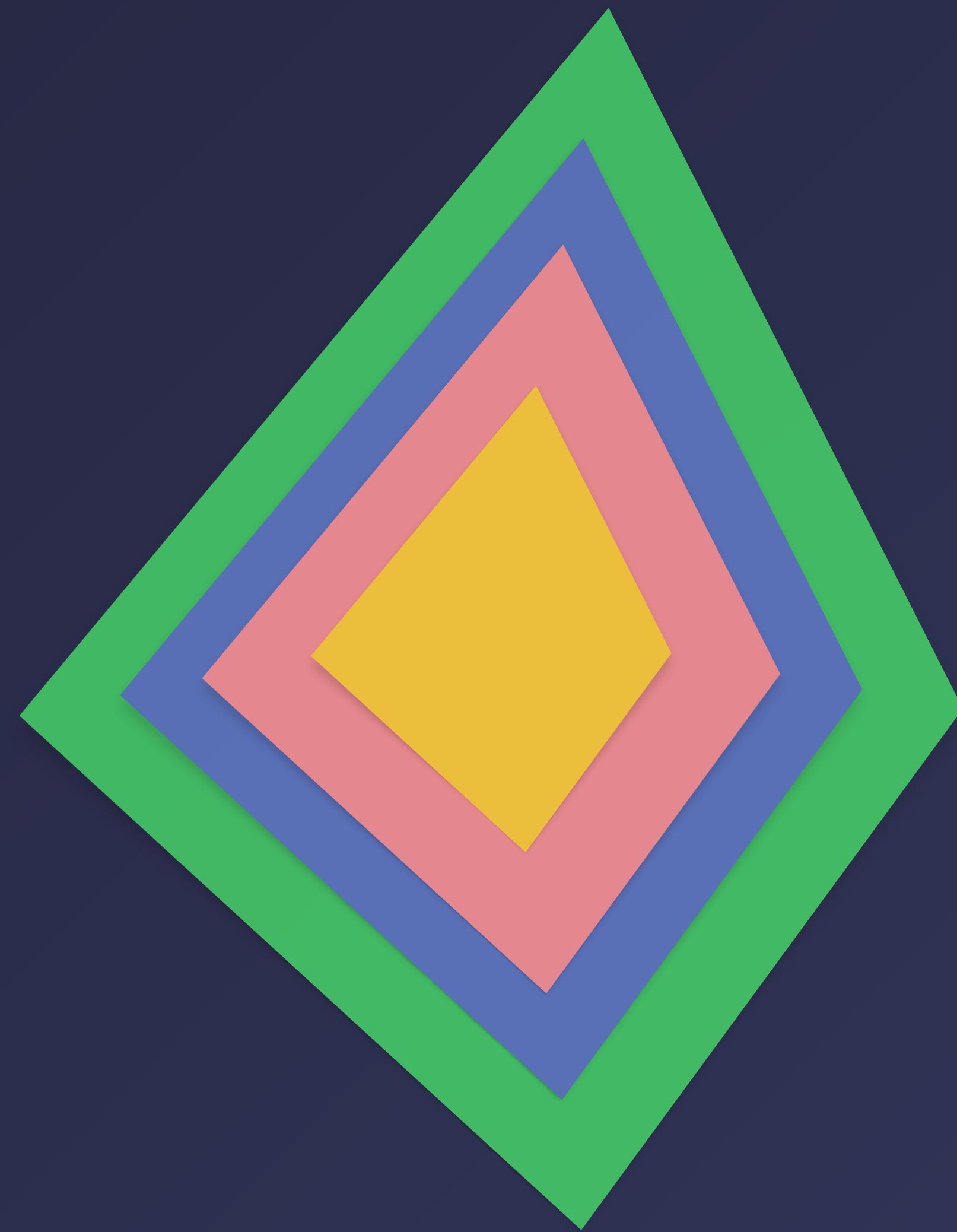


Dependencies only
point **inwards**

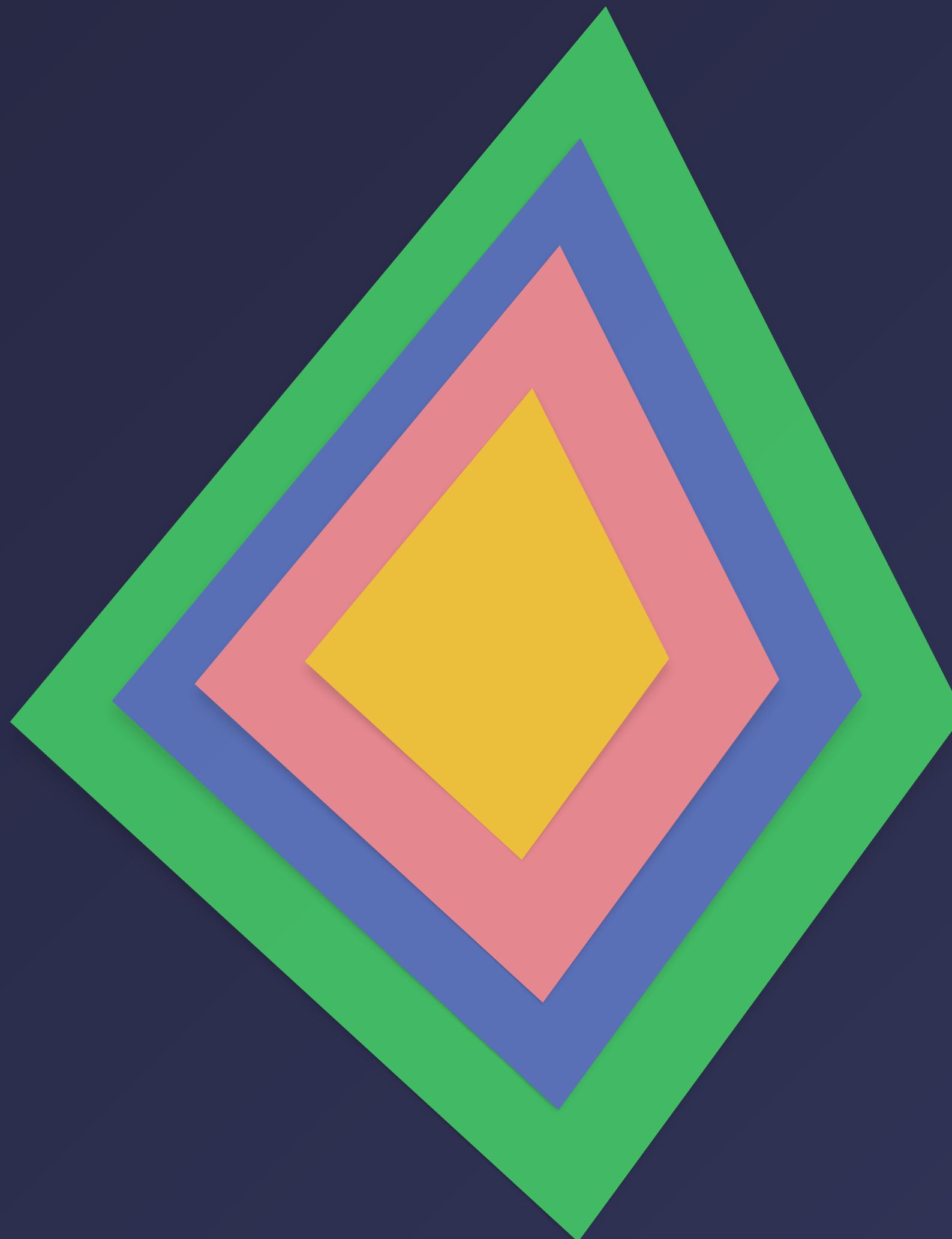
An inner layer **should**
never rely on anything
from an outer layer.

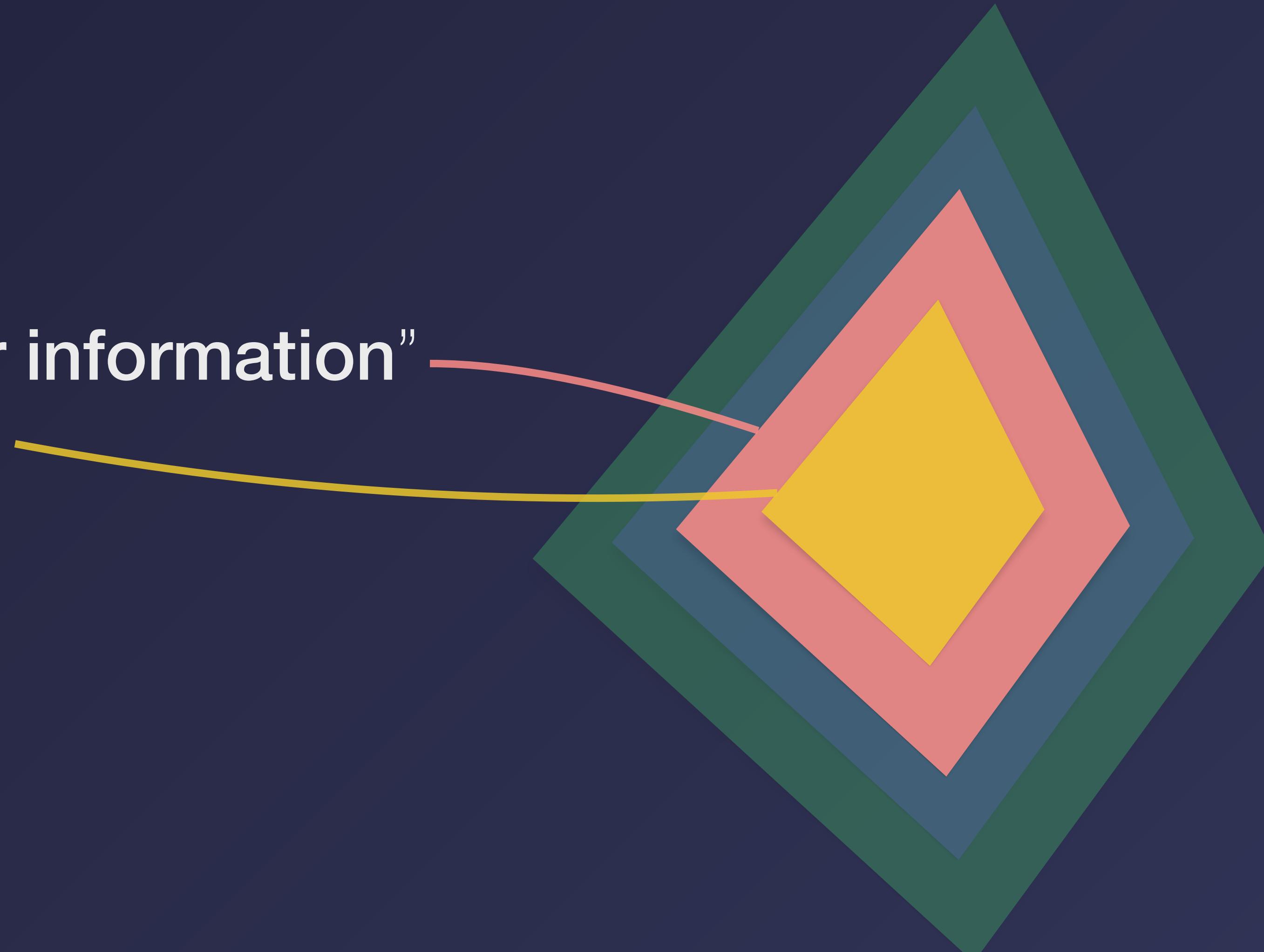






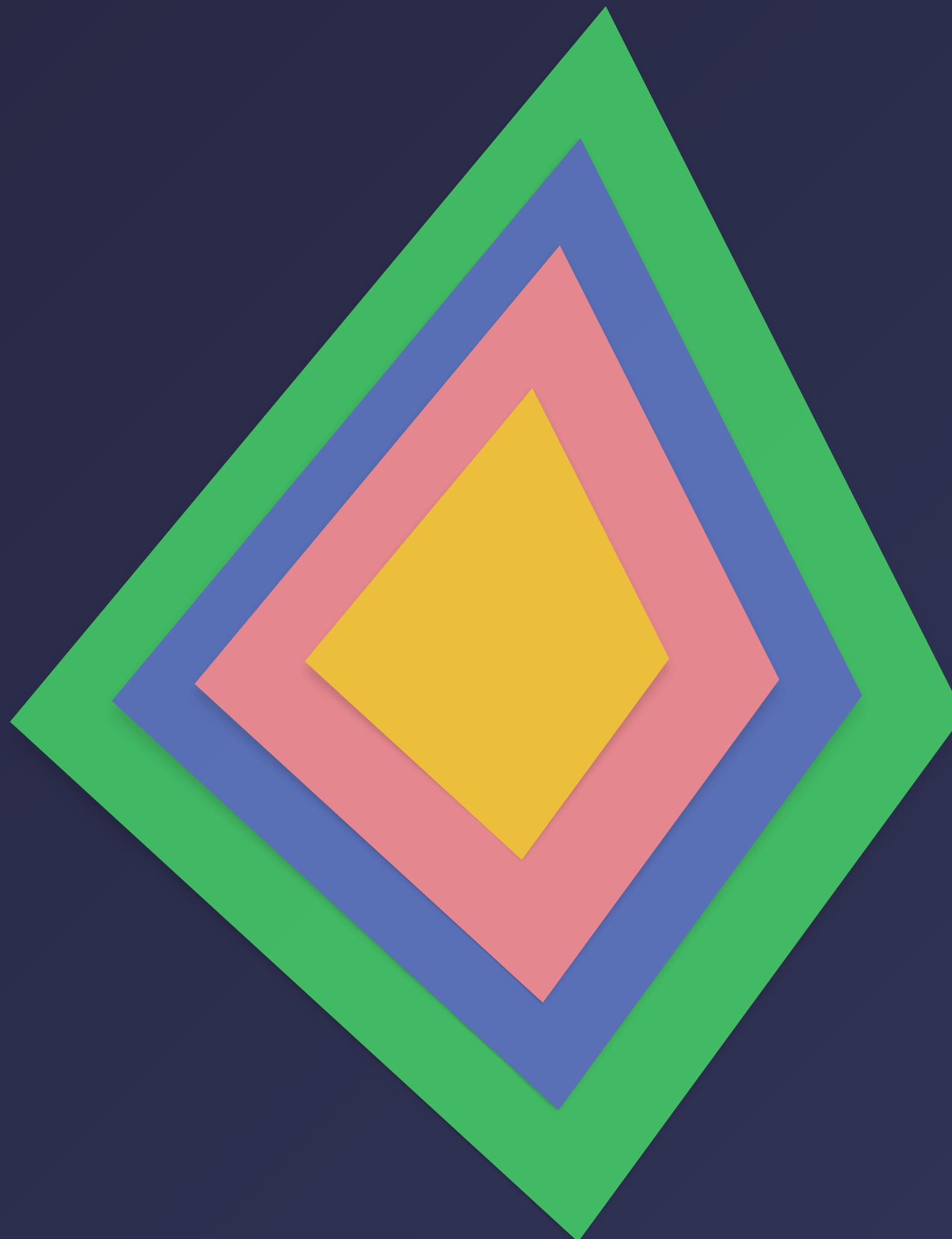
Use case “**Get user information**”
depends on “**User**”





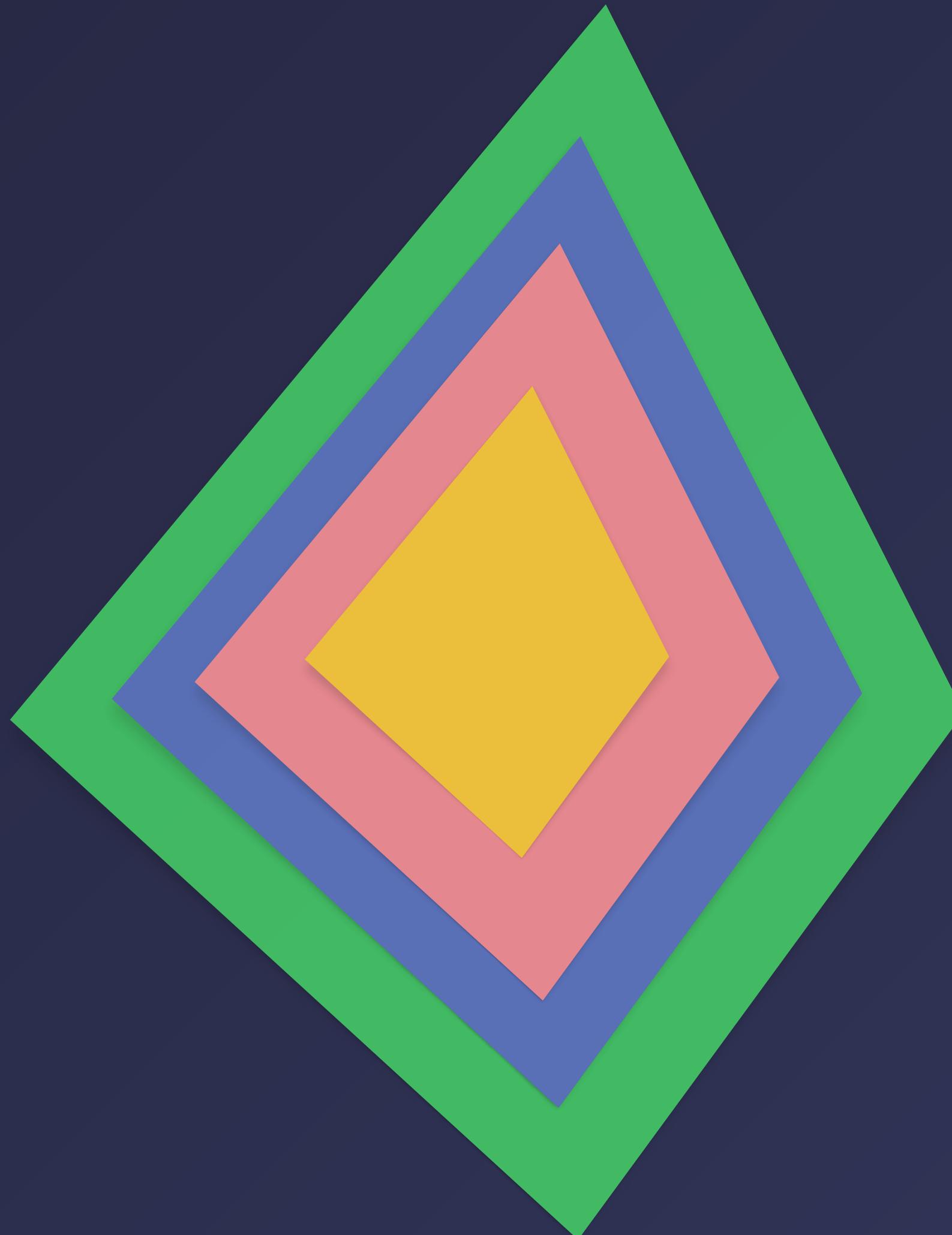
Use case “**Get user information**”
depends on “**User**”

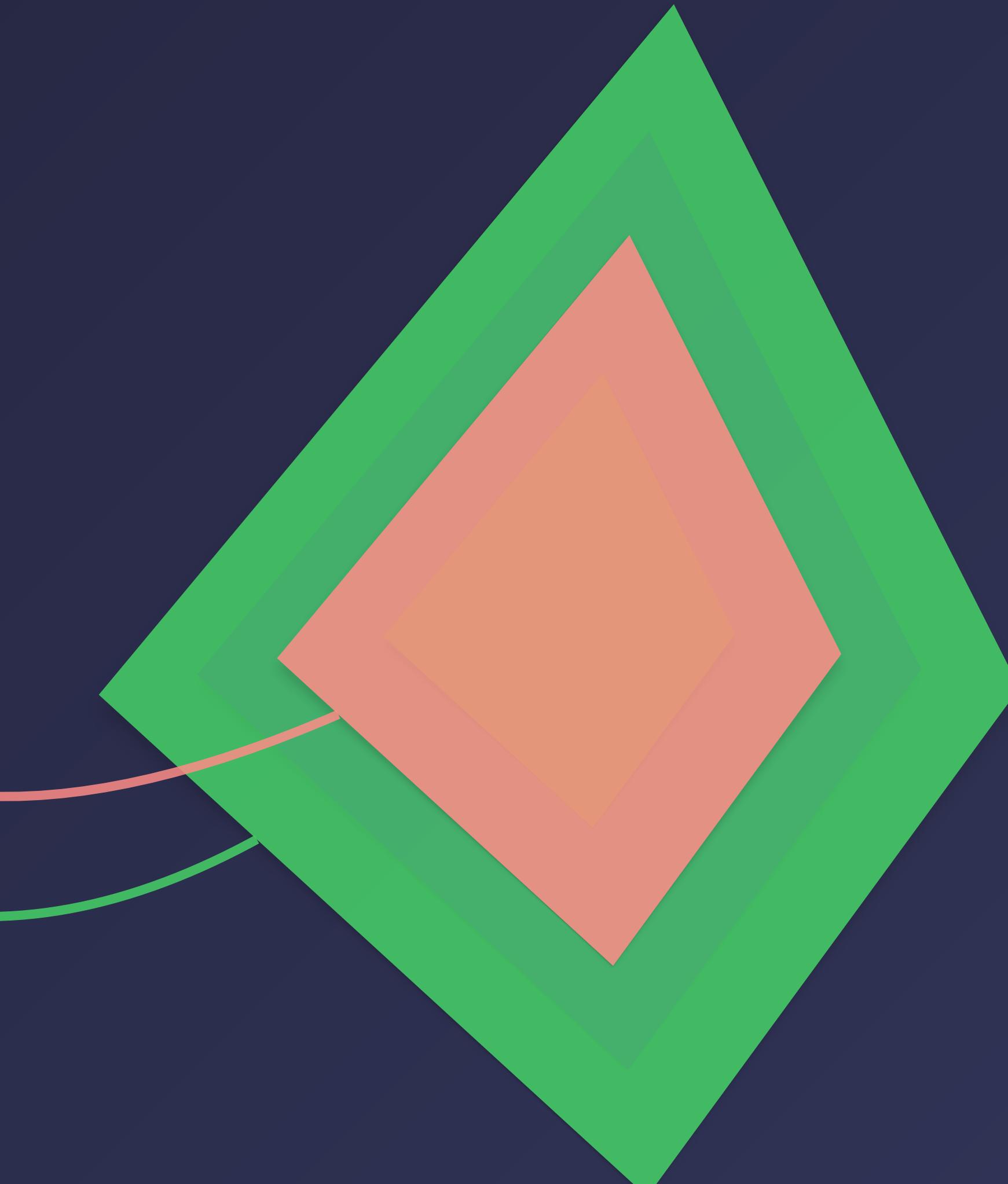
Use case “**Get user information**”
depends on “**User**”



Use case “**Get user information**”
depends on “**User**”

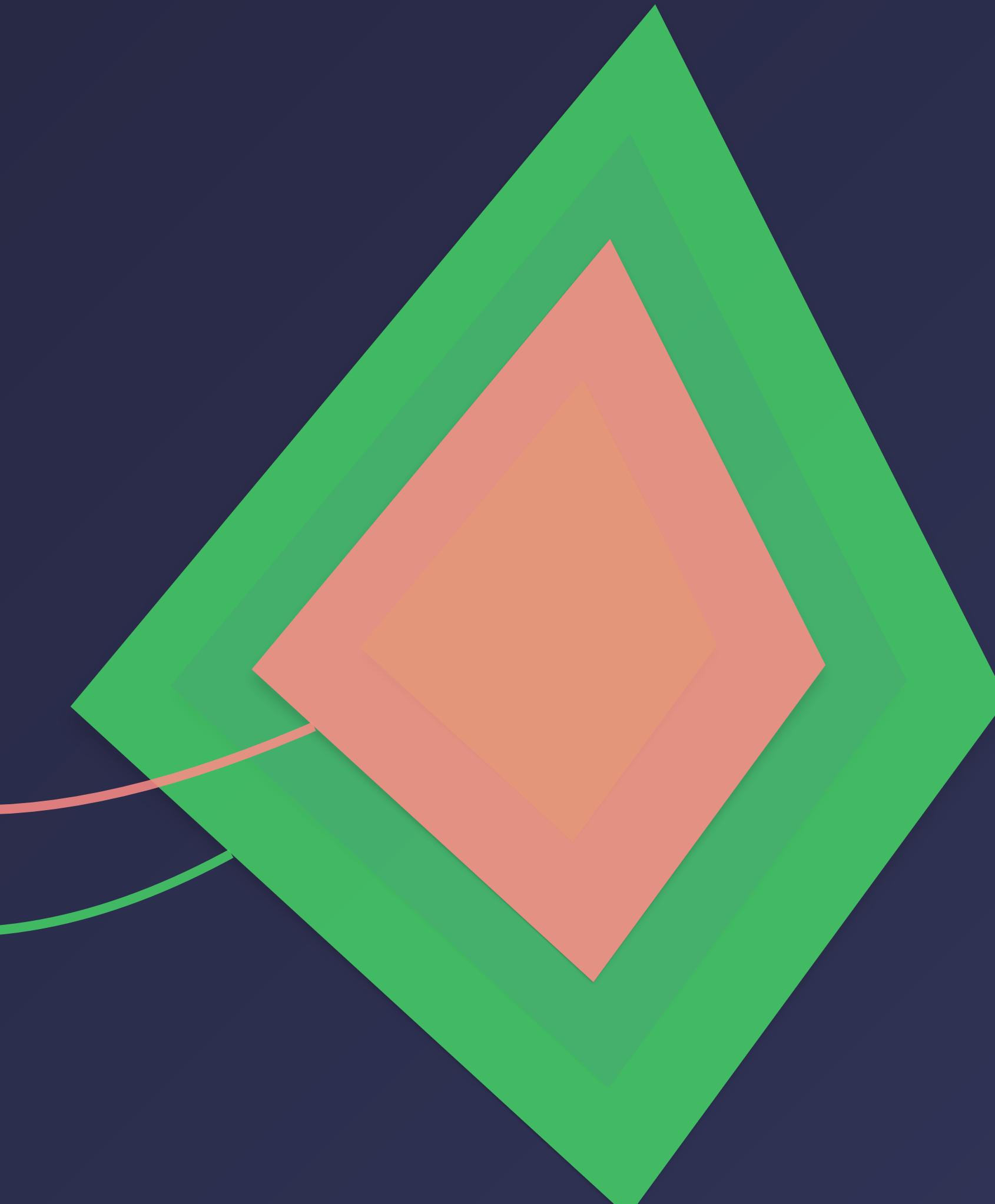
Use case “**Get user information**”
depends on the **UI framework**





Use case “**Get user information**”
depends on “**User**”

Use case “**Get user information**”
depends on the **UI framework**



Use case “**Get user information**”
depends on “**User**”



Use case “**Get user information**”
depends on the **Spring** framework



wow

much
en palabro
inglés

amaze diapositivas

100%

very wow



The Web is a
delivery
mechanism



It is not
the center.
It is external.



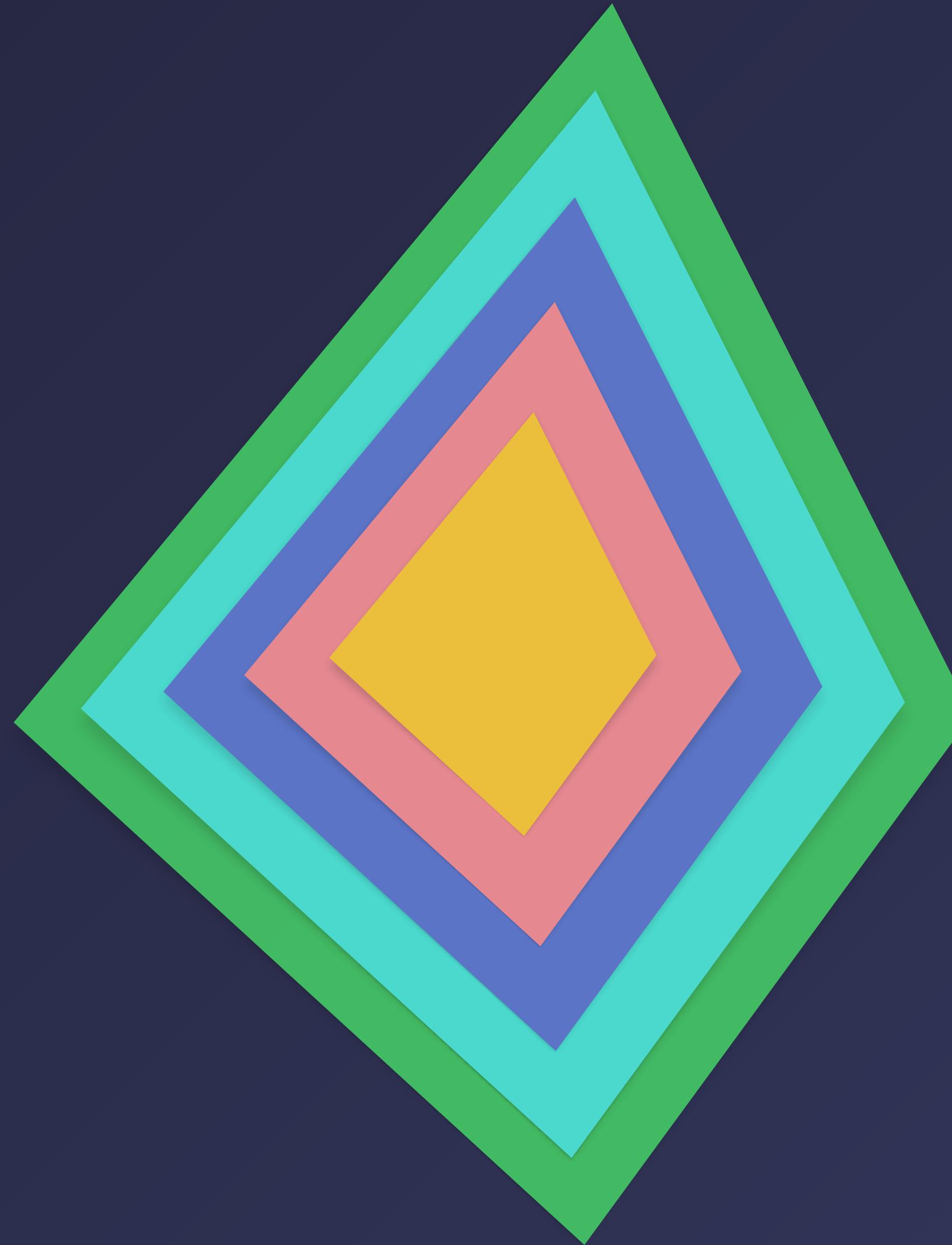
It is really,
really hard to
get it right



We need to
adapt its
content for our
inner layers

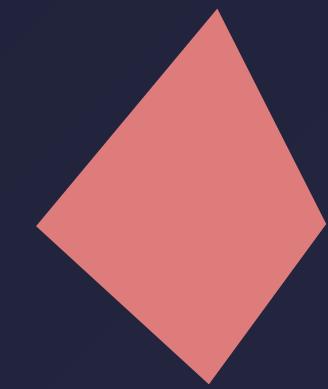


We need to
adapt its
content for our
inner layers





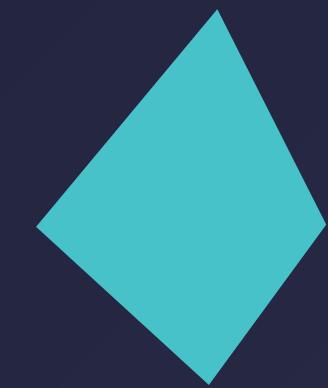
Domain



Use cases



Infrastructure



Adapter

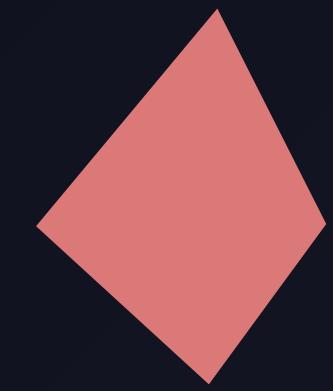


UI





Domain



Use cases



Infrastructure



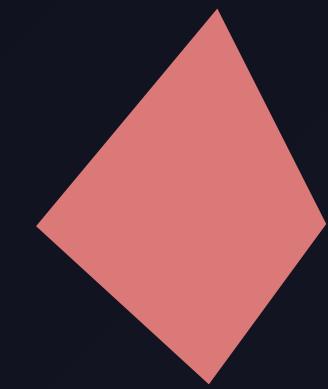
Adapter



UI



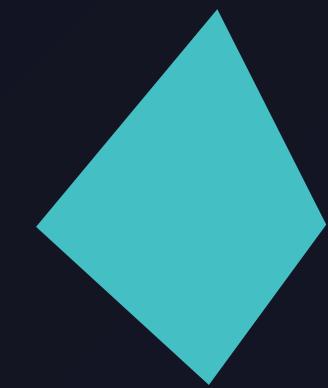
Domain



Use cases



Infrastructure

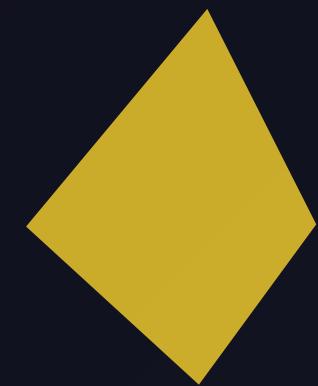


Adapter

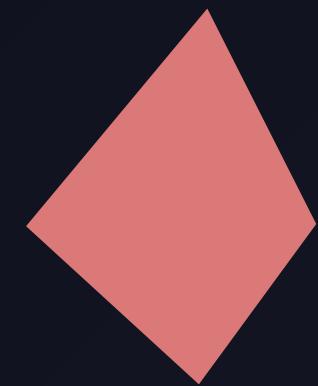


UI

Independent of
the framework



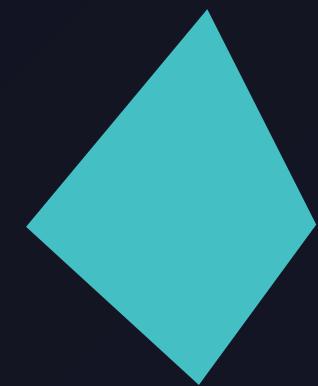
Domain



Use cases



Infrastructure



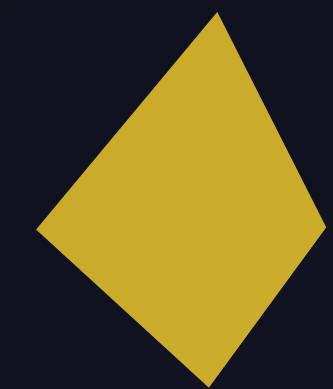
Adapter



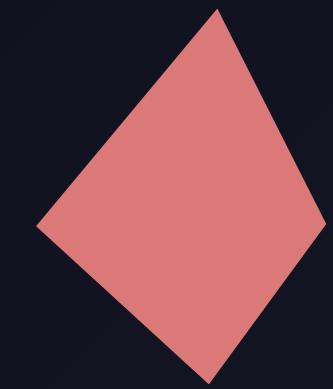
UI

Independent of
the framework

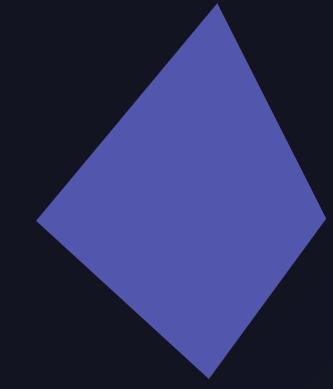
The framework™



Domain

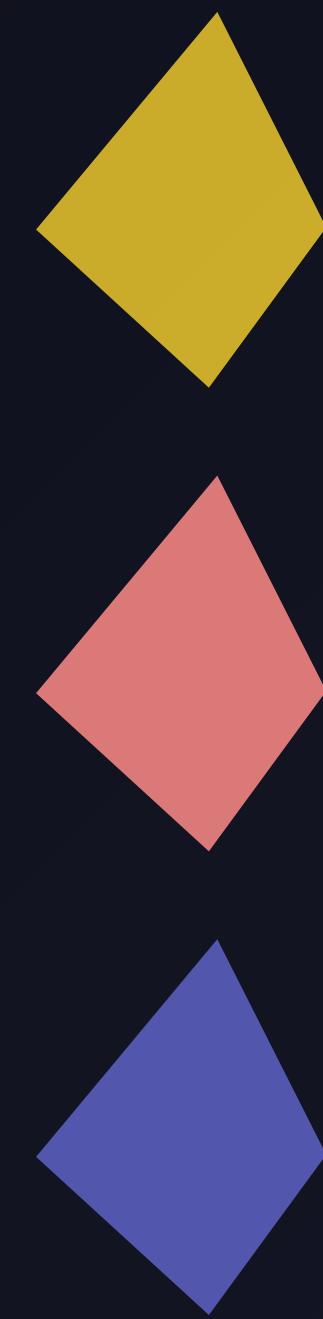


Use cases



Infrastructure

Independent of
the framework

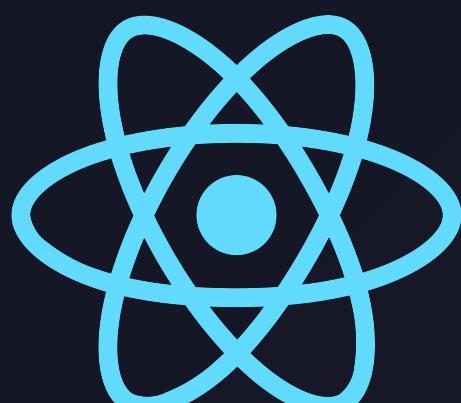


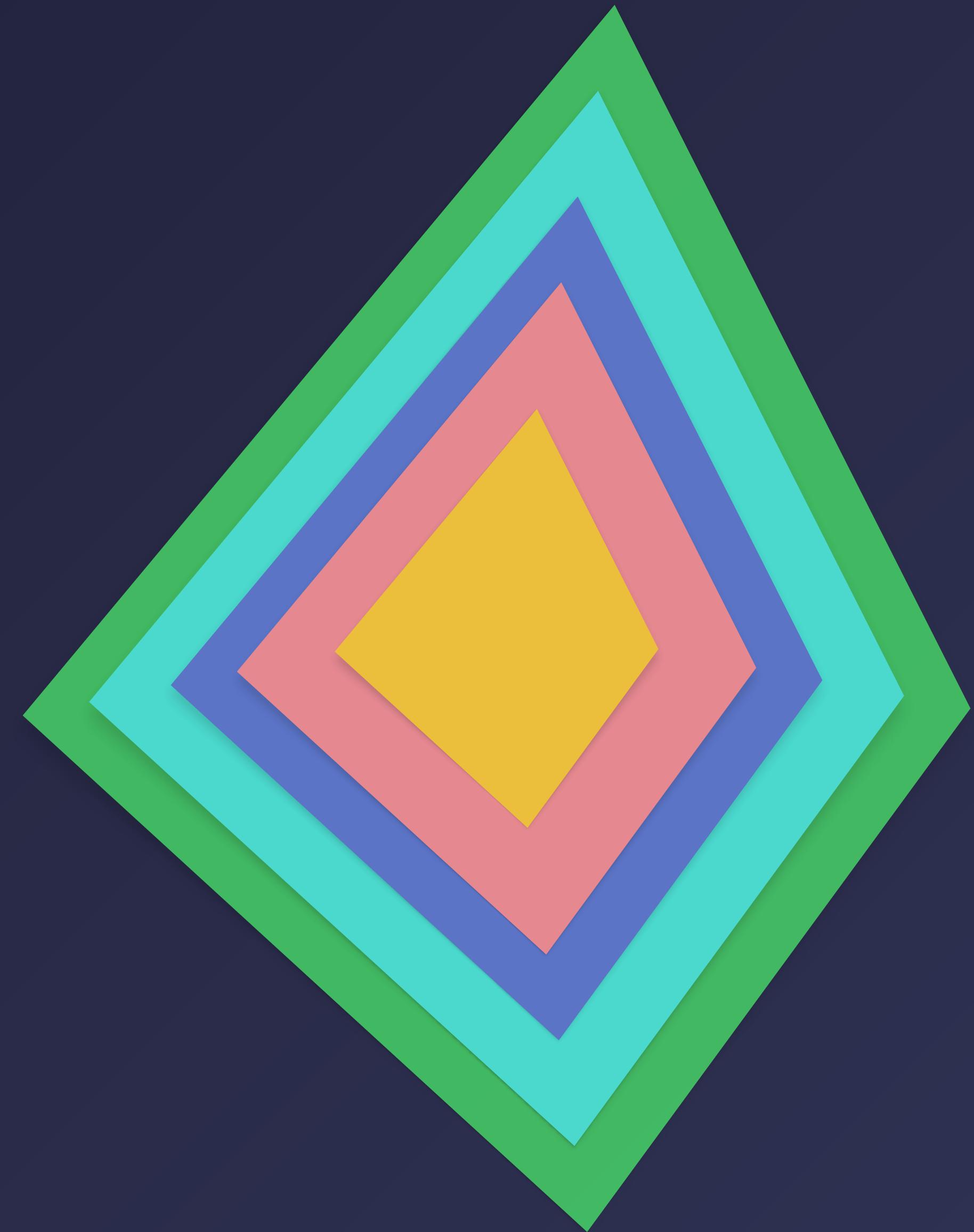
Domain

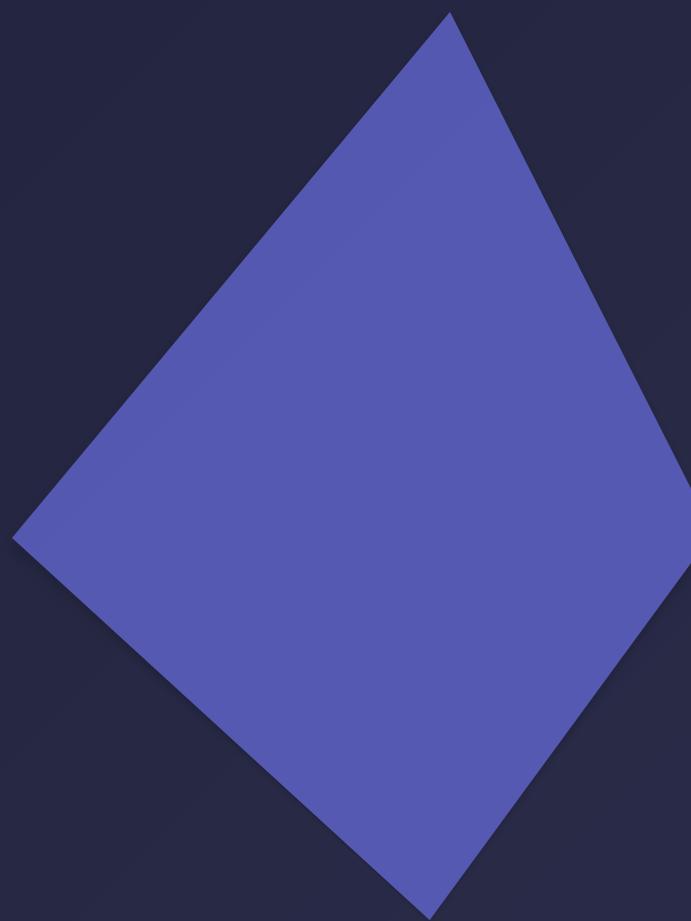
Use cases

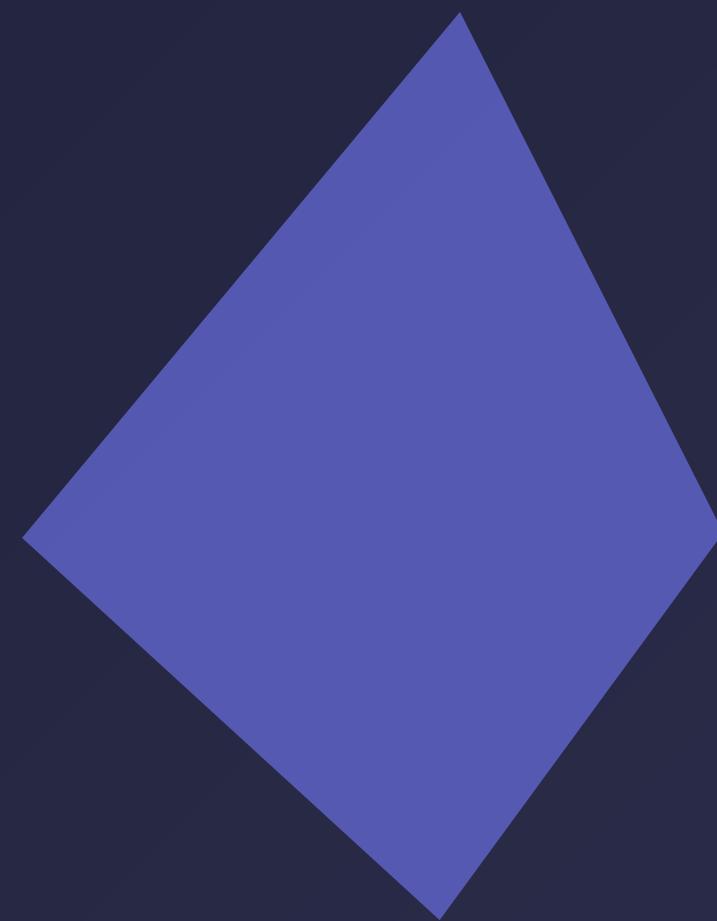
Infrastructure

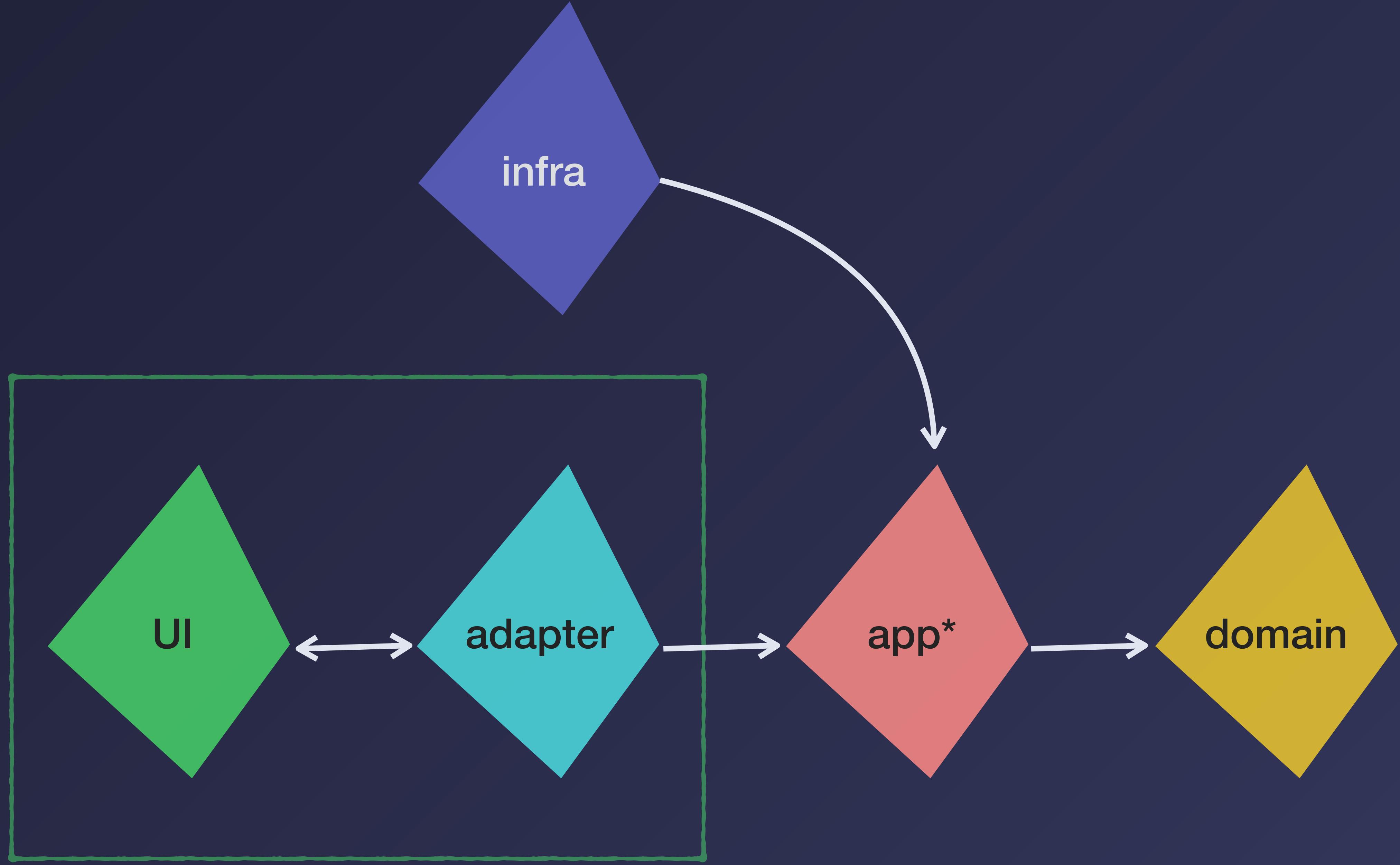
Independent of
the framework

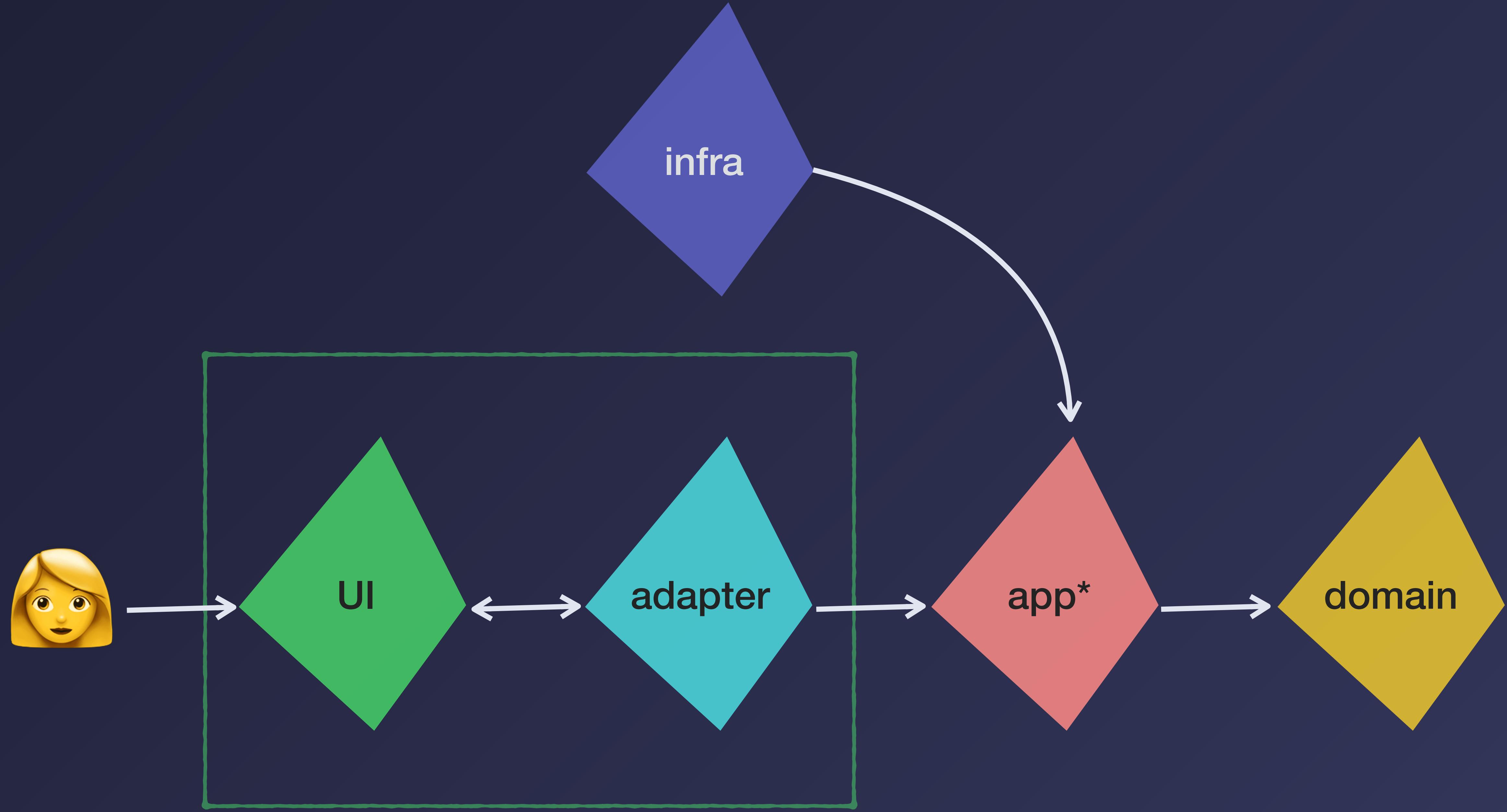


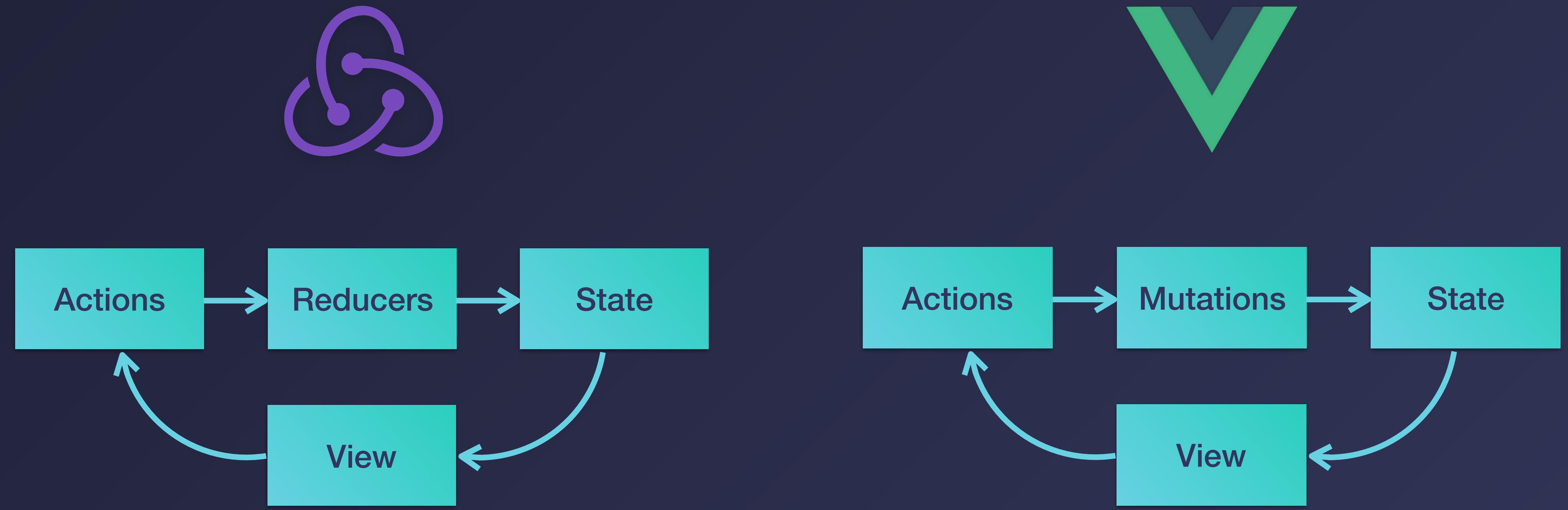


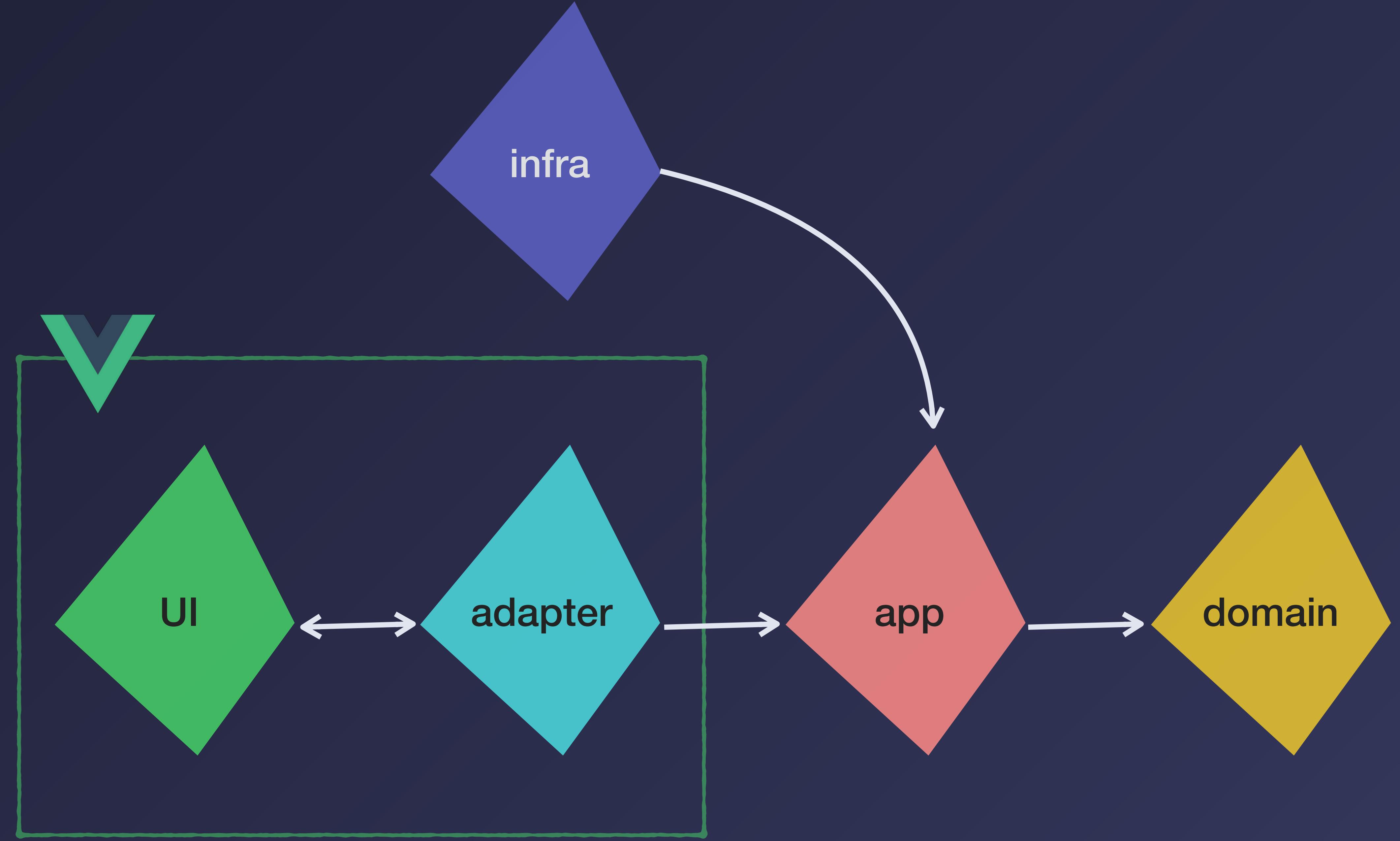


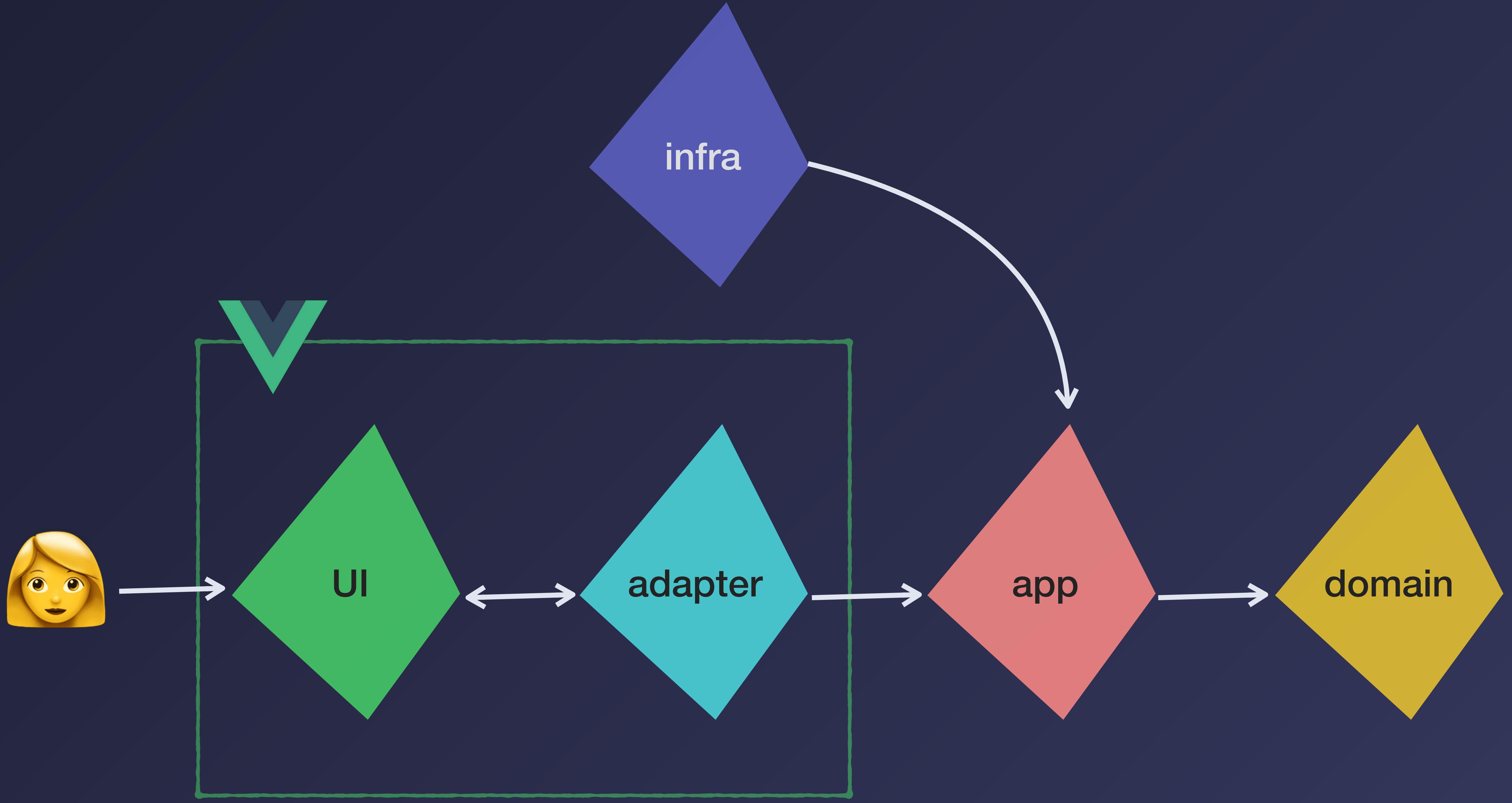


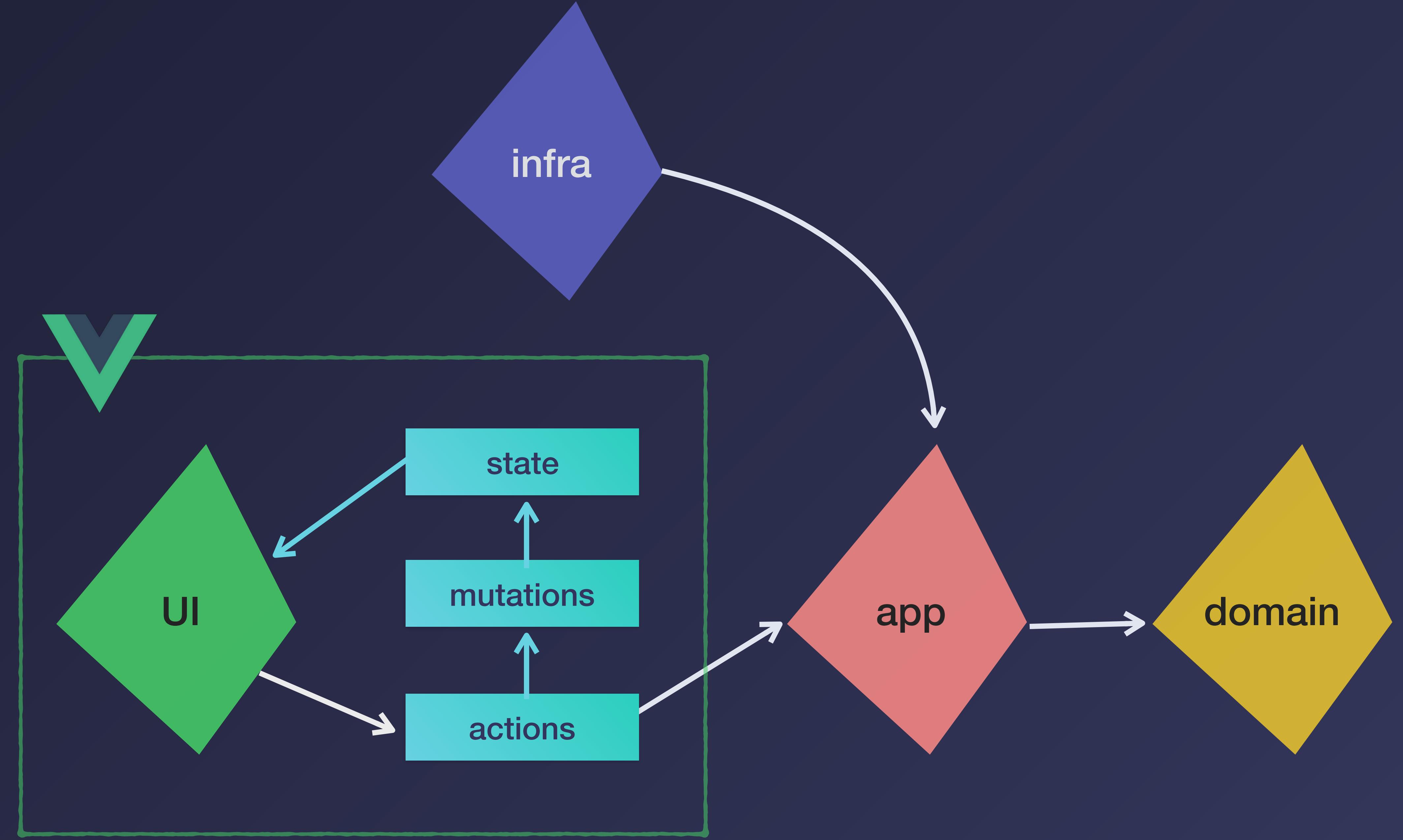


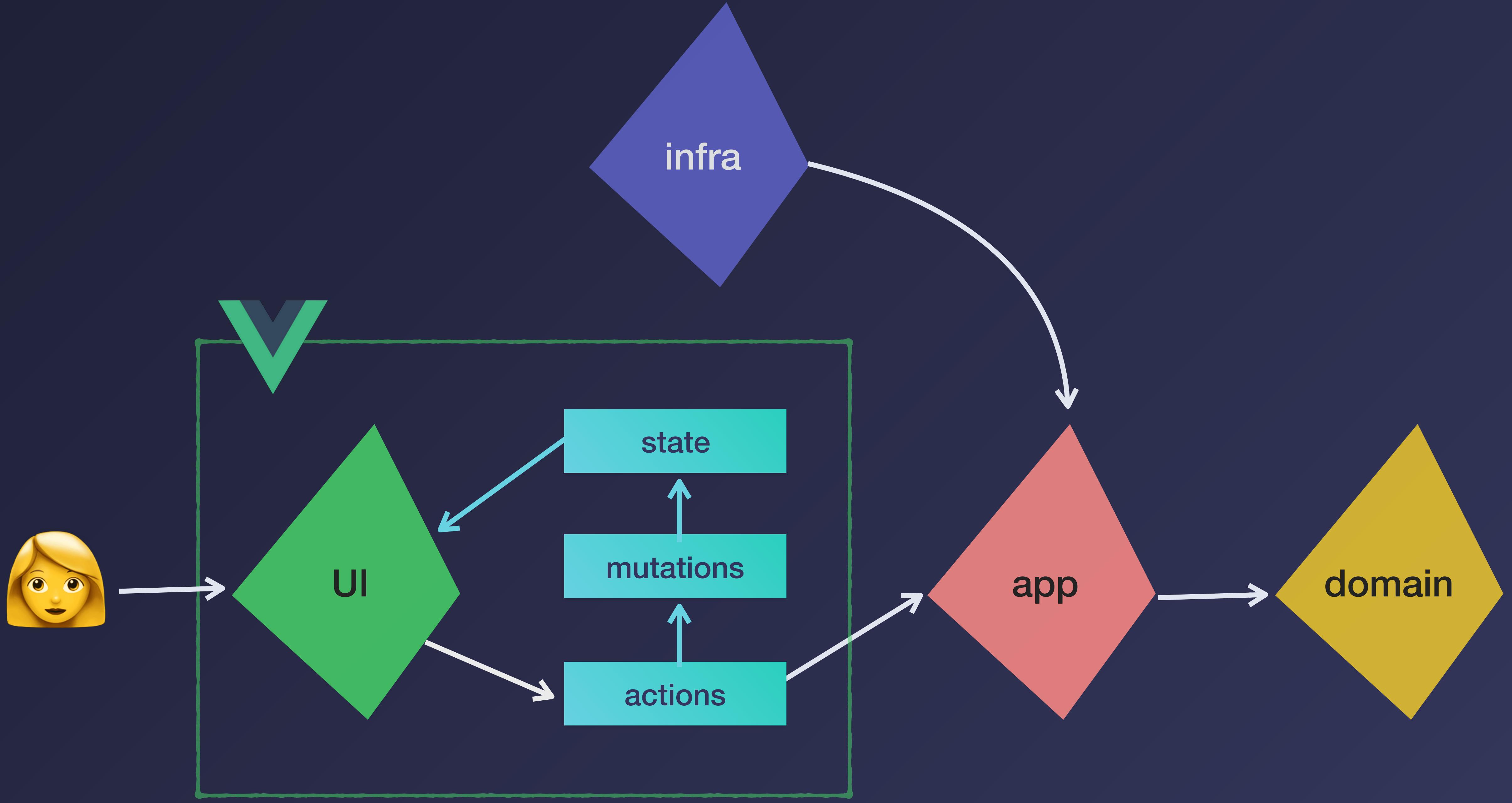












```
type Coordinate = 0 | 1 | 2
type Sign = "X" | "O" | ""

class Board {
    public isFull(): boolean {}
    public isPositionTaken(cell: Cell): boolean {}
    public fillPosition(cell: Cell, player: Player): void {}
}

class Cell {
    private row: Coordinate
    private col: Coordinate
}

class Player {
    public sign: Sign
    public equals(player: Player): boolean {}
}
```

```
type Coordinate = 0 | 1 | 2
type Sign = "X" | "O" | ""

class Board {
```

THIS IS NOT
"THE RITE WAY"

```
    equals(player: Player): boolean {}  
}
```

```
type Coordinate = 0 | 1 | 2
type Sign = "X" | "O" | ""

class Board {
    public isFull(): boolean {}
    public isPositionTaken(cell: Cell): boolean {}
    public fillPosition(cell: Cell, player: Player): void {}
}

class Cell {
    private row: Coordinate
    private col: Coordinate
}

class Player {
    public sign: Sign
    public equals(player: Player): boolean {}
}
```

```
class Game {  
    private board: Board  
    private isEnded: (): boolean  
    private getLastPlayer(): Player  
  
    public makeMove(player: Player, cell: Cell): void {  
        if (this.isEnded())  
            throw new FinishedGameException()  
  
        if (player.equals(this.getLastPlayer()))  
            throw new AlreadyPlayedException()  
  
        if (this.board.isPositionTaken(cell))  
            throw new AlreadyTakenException()  
  
        this.board.fillPosition(cell, player)  
    }  
}
```

```
function makeMoveUseCase({ game, player, cell }, { onSuccess, onError }) {
  try {
    game.makeMove(player, cell)
  } catch (error) {
    onError(error)
    return
  }

  onSuccess(player, cell)
}
```

```
function makeMoveUseCase({ game, player, cell } { onSuccess, onError }) {
  try {
    game.makeMove(player, cell)
  } catch (error) {
    onError(error)
    return
  }

  onSuccess(player, cell)
}
```

```
function makeMoveUseCase({ game, player, cell } { onSuccess, onError }) {
  try {
    game.makeMove(player, cell)
  } catch (error) {
    onError(error)
    return
  }

  onSuccess(player, cell)
}
```

```
import { makeMoveUseCase } from 'application/ ... '

const actions = {
  makeMove({ state, commit }, cell) {
    commit('MAKE_MOVE_REQUEST')

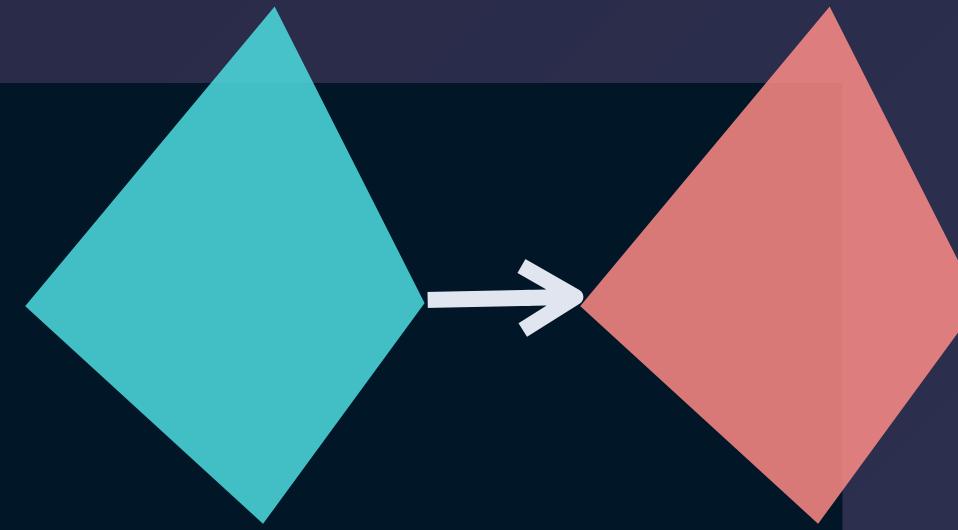
    makeMoveUseCase({
      player: state.currentPlayer,
      game: state.game,
      cell
    }, {
      onSuccess: (player) => commit('MAKE_MOVE_SUCCESS', player),
      onError: (error) => commit('MAKE_MOVE_ERROR', error.message)
    })
  }
}
```

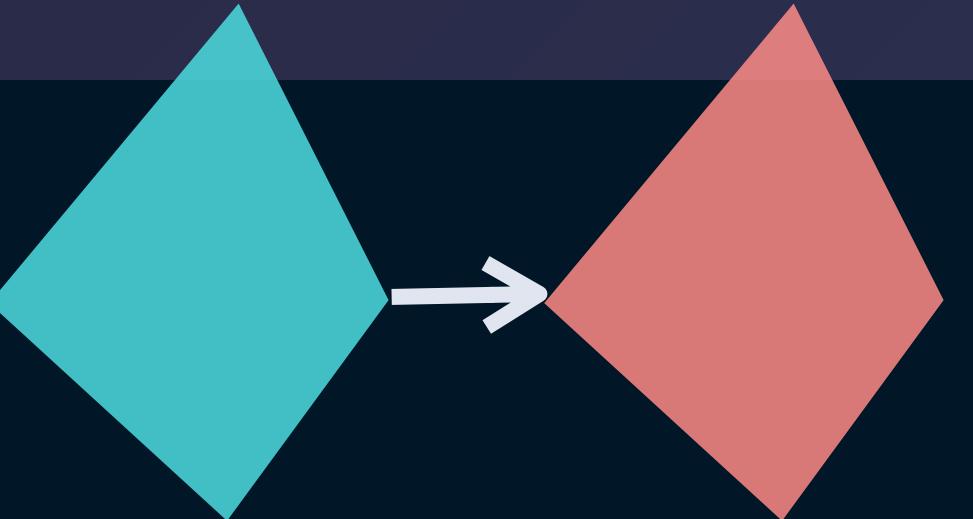
```
import { makeMoveUseCase } from 'application/ ... '



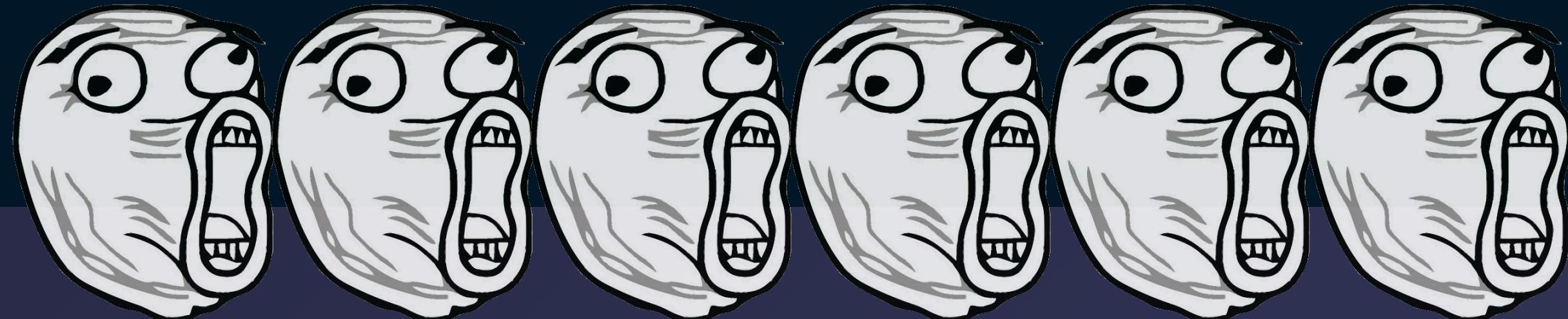
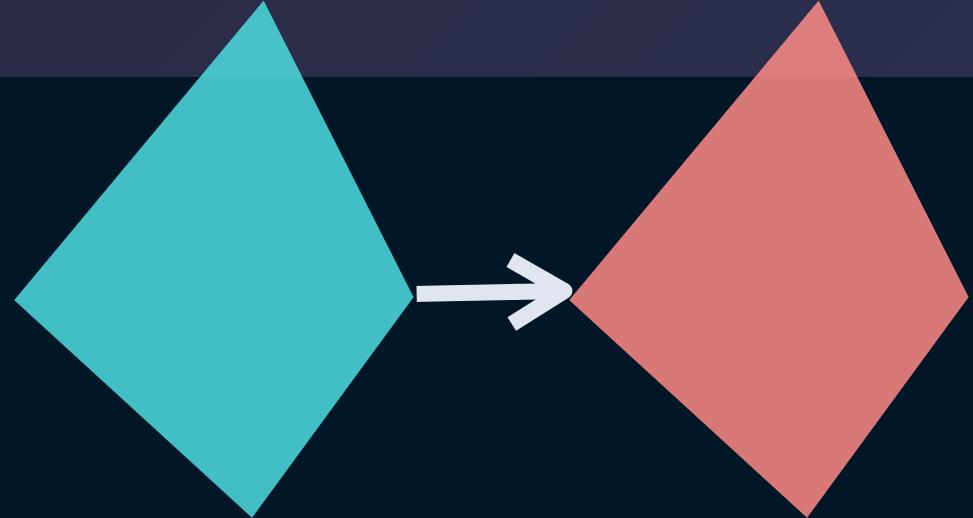
const actions = {
  makeMove({ state, commit }, cell) {
    commit('MAKE_MOVE_REQUEST')

    makeMoveUseCase({
      player: state.currentPlayer,
      game: state.game,
      cell
    }, {
      onSuccess: (player) => commit('MAKE_MOVE_SUCCESS', player),
      onError: (error) => commit('MAKE_MOVE_ERROR', error.message)
    })
  }
}
```

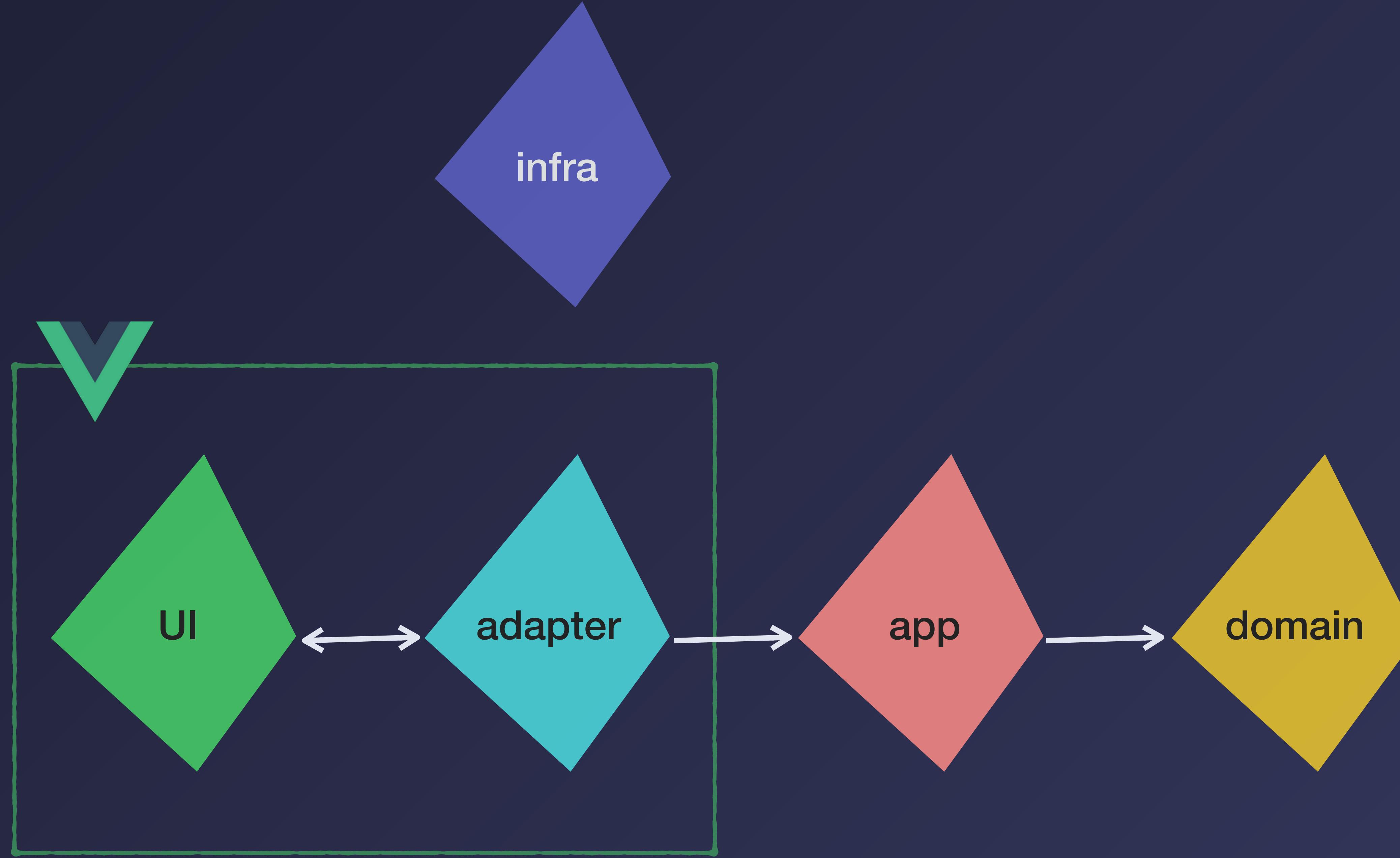


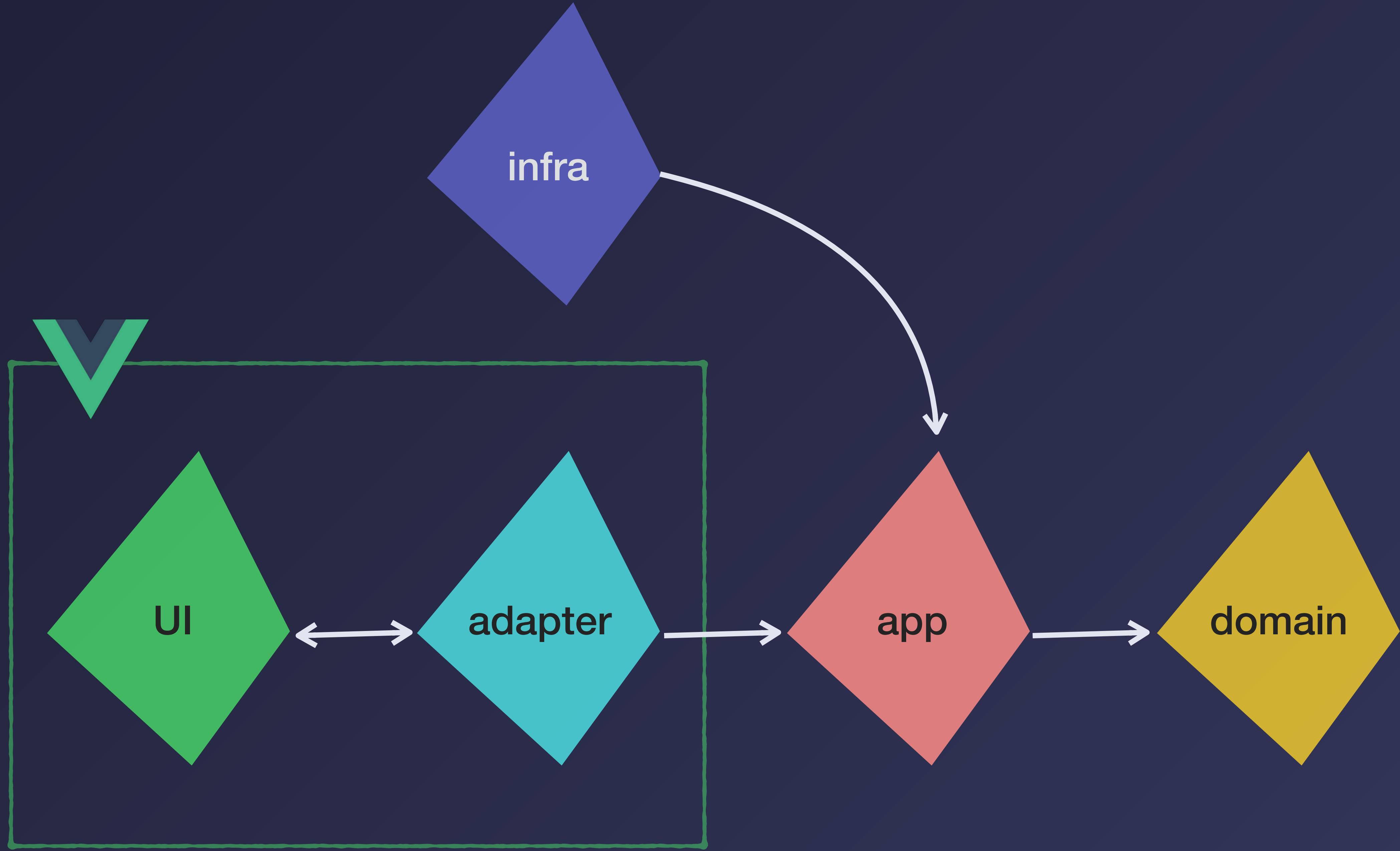
```
import { makeMoveUseCase } from 'application/ ... '   
$( '#submit_move' ).click( function() {  
  makeMoveUseCase(  
    {  
      player: $('#current_player').val(),  
      game: window.game,  
      cell: [$('#input[name="row"]').val(), $('#input[name="col"]').val()]  
    },  
    {  
      onSuccess: () => $('#success_message').fadeIn('slow'),  
      onError: () => window.alert('oops something went wrong')  
    }  
  )  
})
```

```
import { makeMoveUseCase } from 'application/ ... '  
  
$( '#submit_move' ).click( function() {  
  makeMoveUseCase(  
    {  
      player: $('#current_player').val(),  
      game: window.game,  
      cell: [$('#input[name="row"]').val(), $('#input[name="col"]').val()]  
    },  
    {  
      onSuccess: () => $('#success_message').fadeIn('slow'),  
      onError: () => window.alert('oops something went wrong')  
    }  
  )  
})
```



src/
domain/
application/
infrastructure/
ui/





Disclaimer #1

You **might** not need
any of this

Disclaimer #1

You **might want**
some parts of it

Disclaimer #2

This talk was **actually**
about the front end

Front-end development is
software development

Disclaimer #3

Nothing explained
here today is **new**



I Am Devloper
@iamdevloper

hi, I'm a javascript developer, I like to take software design patterns from the 70s and present them as new ideas to front-end developers

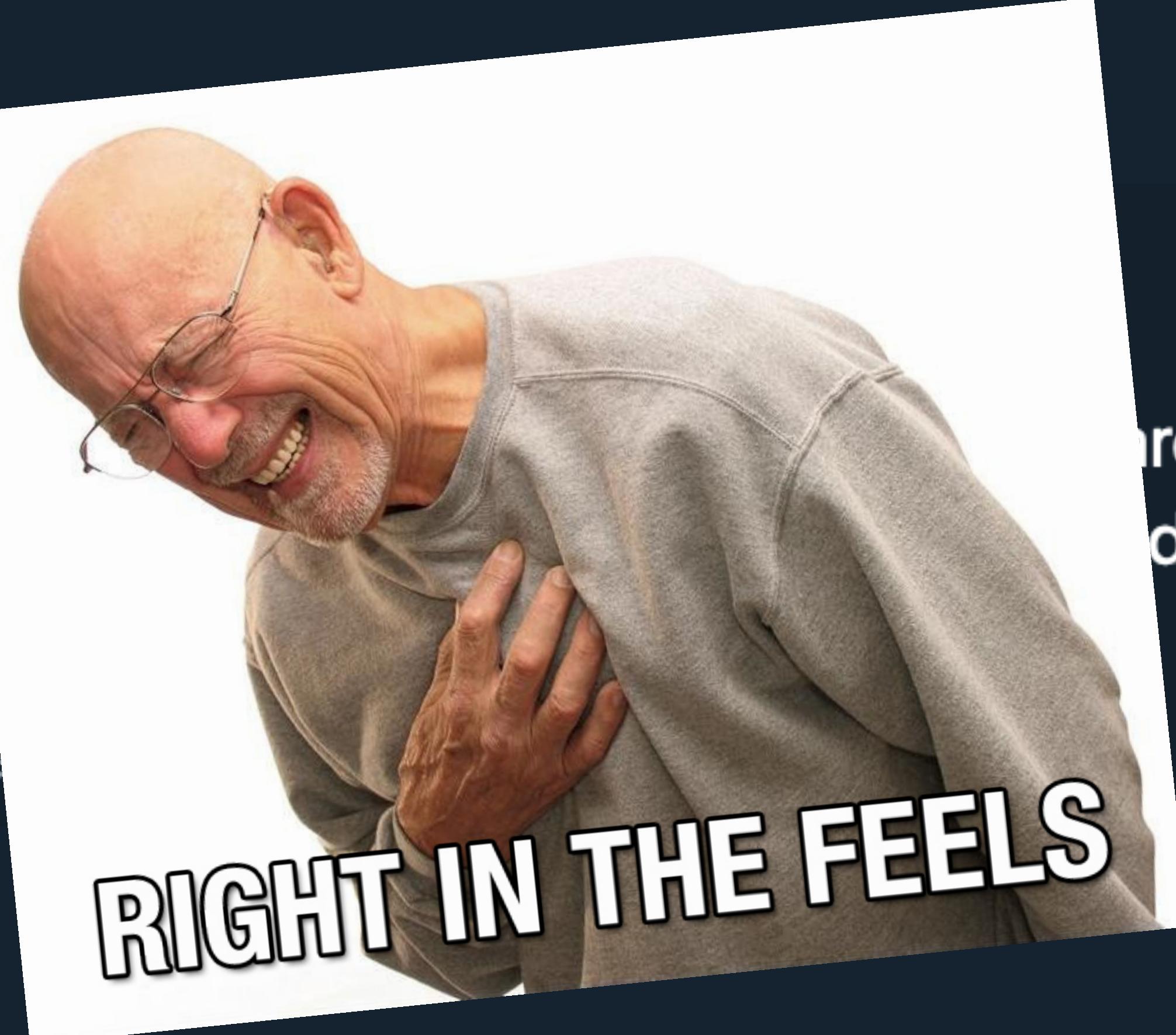
5:53 PM · Jan 19, 2020



I Am
@iam

hi, I'm a java
patterns fro
front-end d

5:53 PM · Jan 19



RIGHT IN THE FEELS

Wrapping up

Wrapping up

Organize code **around
business rules**, not
frameworks

Wrapping up

Organize code **around business rules**, not frameworks

Dependency Rule
Keep details away from the core

Wrapping up

Organize code **around business rules**, not frameworks

Dependency Rule
Keep details away from the core

Make everything easy to **test**

Wrapping up

Organize code **around business rules**, not frameworks

Dependency Rule
Keep details away from the core

Make everything easy to **test**

Front-end development is software development

This is not about writing good
software, but how to build software
that can **change over time**

Ok Adri this is cool

Where should I start?

Ok Adri this is cool

Where should I start?

noti.st/afontcu



That's all!

@afontq

afontcu.dev

noti.st/afontcu