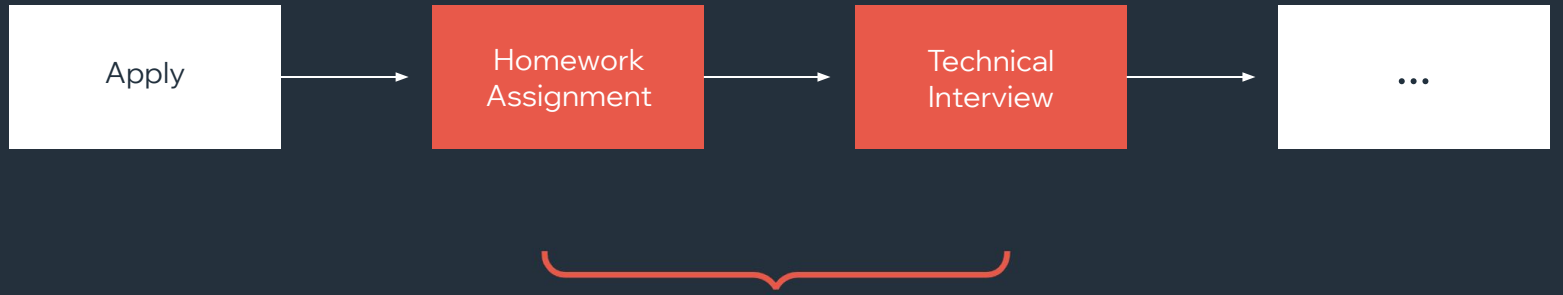
MARCH 2021

Wix Grow

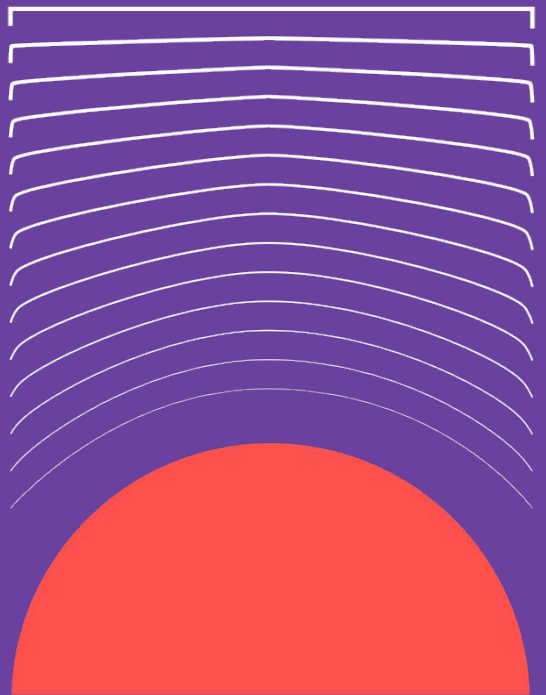
Technical Parts

What does this cover?



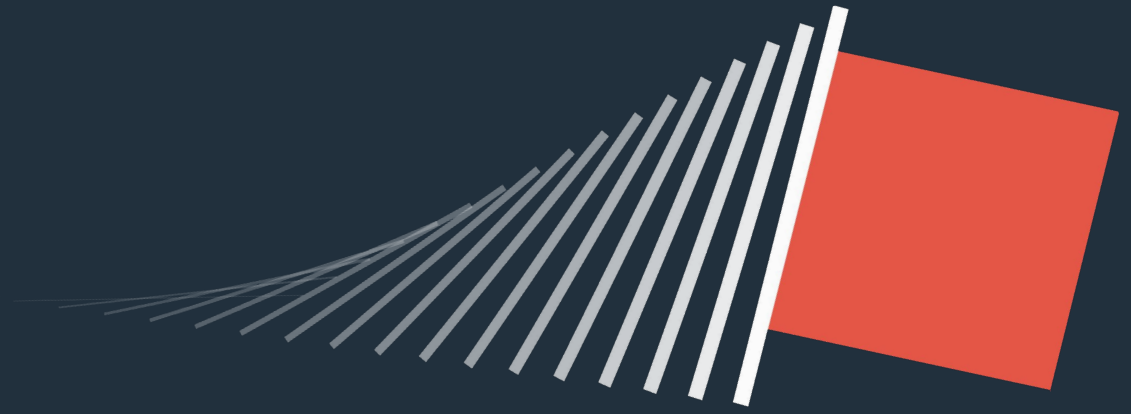
for mobile, front-end, back-end

Some Context



The Guilds

- Mobile
- Front-end
- Back-end



Teams in Vilnius

Blog	MFB
Events	MFB
Forum	MFB
Members	MFB
One App	MFB
Paid Plans	MFB
People	MFB
Promote	MFB
Wix Data	MFB
Wix Search	MFB
Innovation	MFB
Components	MFB
Metasite	MFB
DevEx	MFB
Scala FW	MFB
CTOO	MFB

Technologies we use (plus more)

Mobile

Front-end

Back-end

Allowed languages for home assignments

Mobile

Front-end

… and any "front-end" language

Back-end

… and any "modern" language

Important Practices

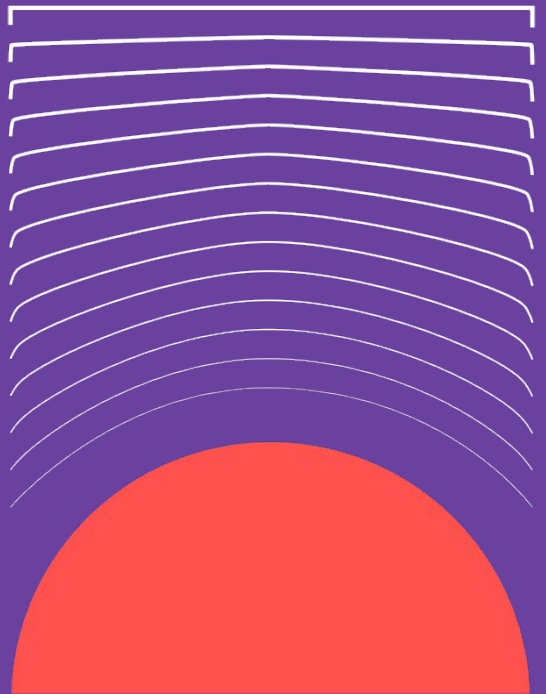
(which we follow)

- Test everything
- Automate everything
- Simple over "smart"
- Designing for code reusability

...it all boils down to: we have a big system to maintain.

Programming Skills

- OK not to know much.
- OK not to have design skills.
- BUT what you do use, you should know well.
- Programming fundamentals and practices!



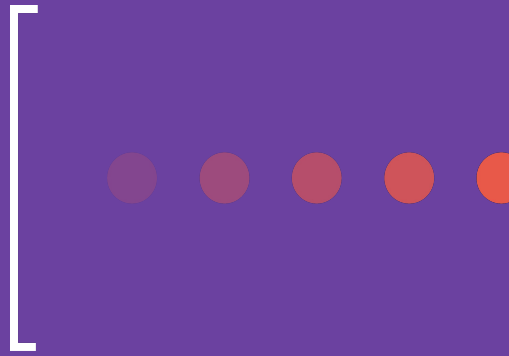
Learning

- OK not to be learning 24/7.
- OK not to have side-projects.
- OK not to have special interests.

We just want you be actively improving:

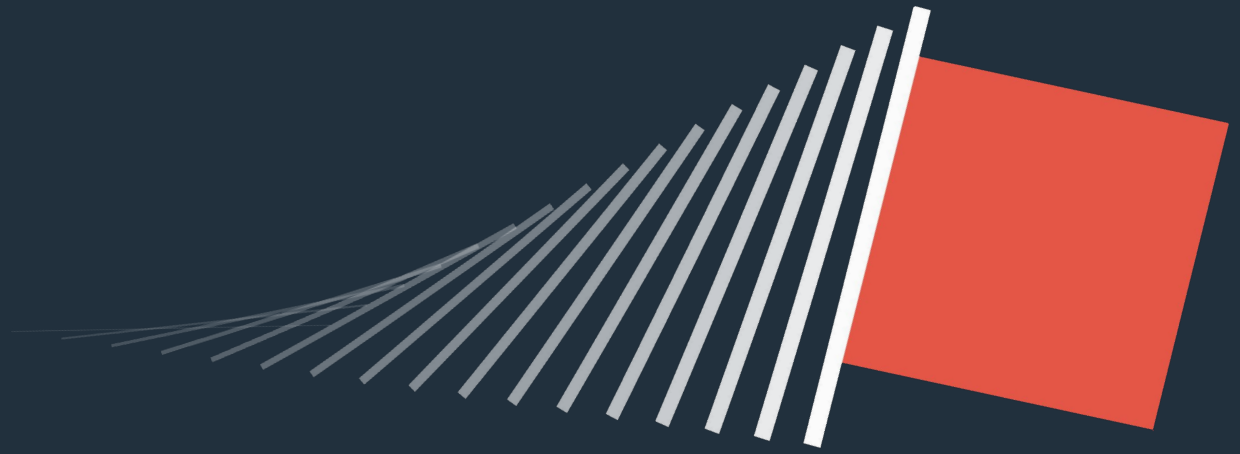
- Looking for opportunities.
- Willing to face roadblocks.
- Be very collaborative!

Communication



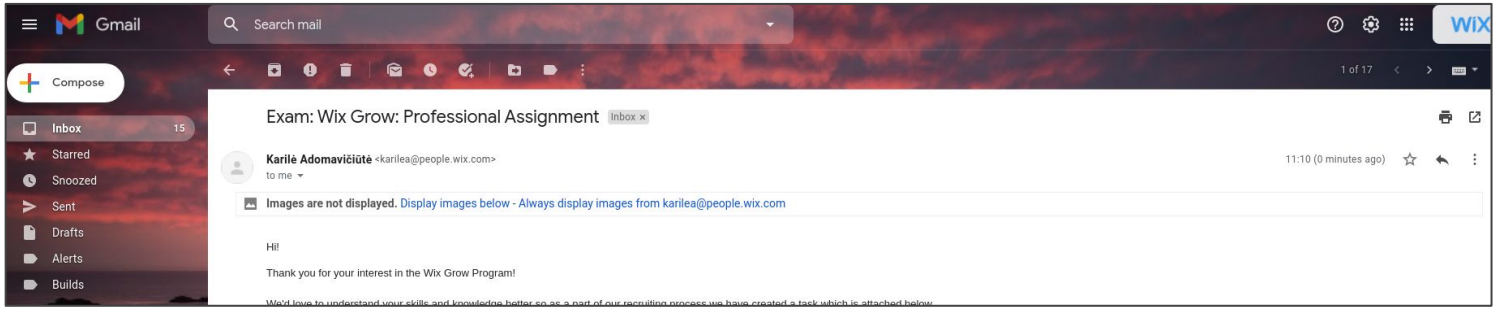
- Not the same as being extravert!
- You should freely communicate your ideas.
- Asking questions is part of "communication".
- One hard requirement: being comfortable communicating in English.

Homework Assignment



Task via Email

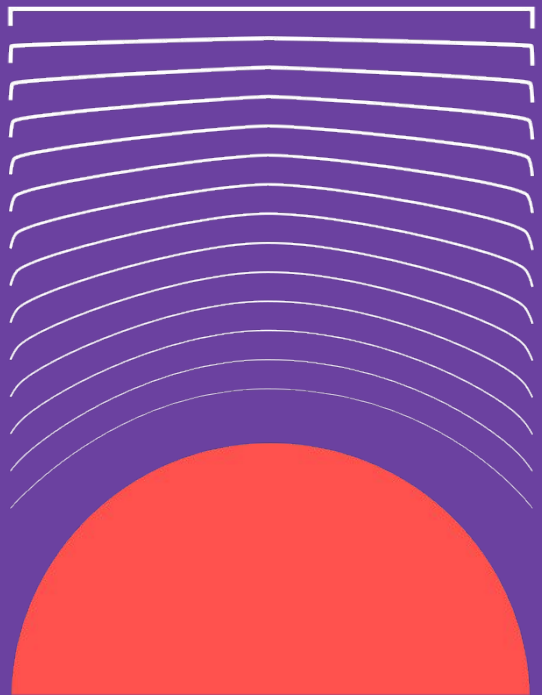
- It is important, do not delete or ignore it!



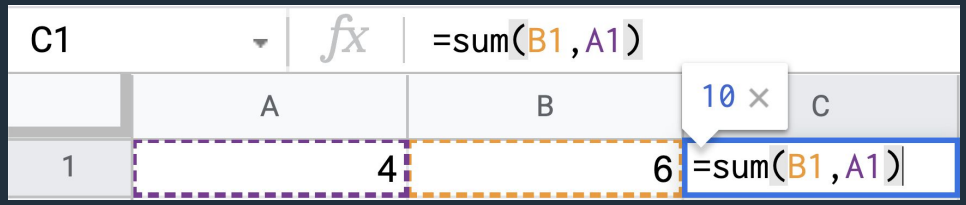
Problem Definition

Full instructions

View



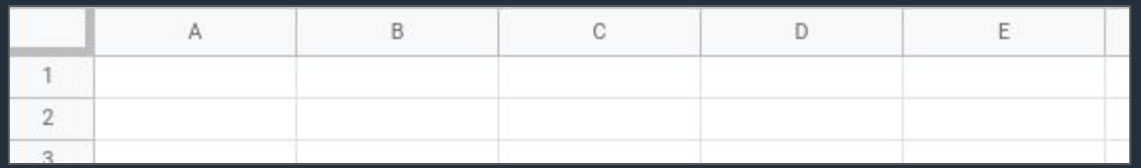
Spreadsheet Evaluator



Take spreadsheet, compute values.

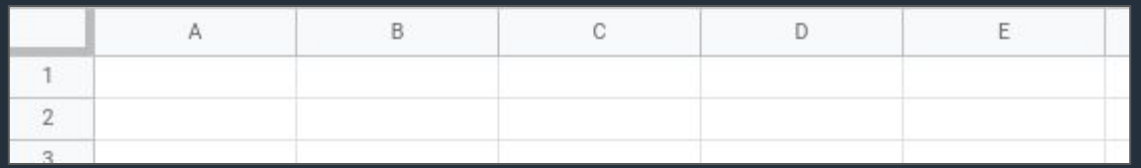
What is a spreadsheet?

```
[
  [ ... ], Row 1
  [ ... ]  Row 2
]
```



What is a spreadsheet?

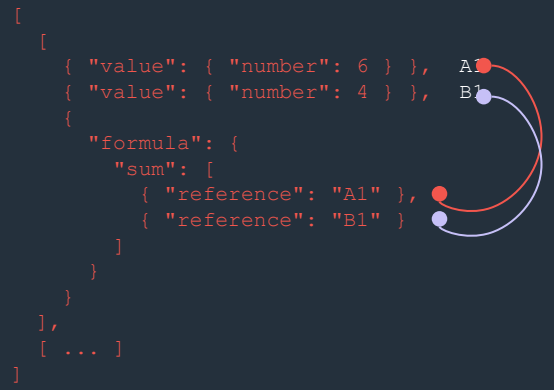
```
[
  [
    { ... }, A1
    { ... }, B1
    { ... }  C1
  ],
  [
    { ... }, A2
    { ... }, B2
    { ... }  C2
  ]
]
```

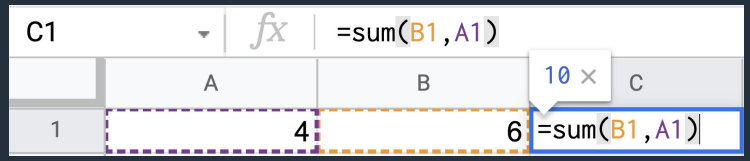


	A	B	C	D	E
1					
2					
3					

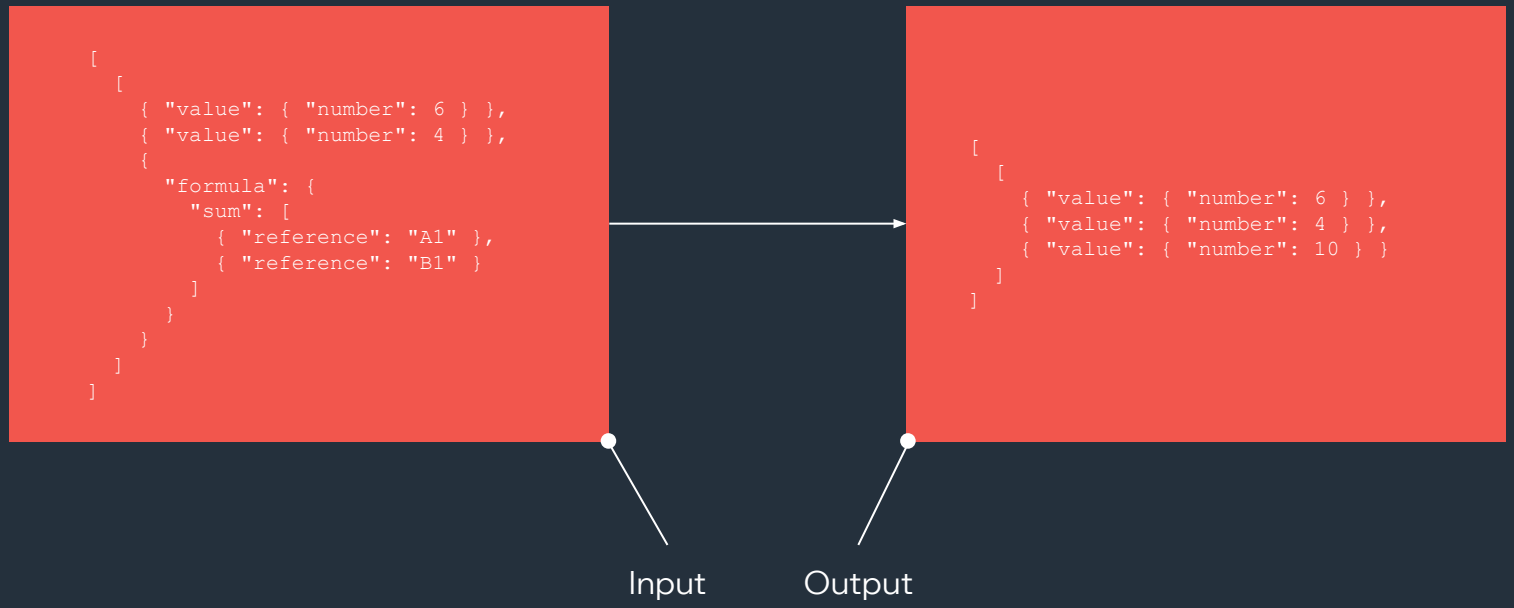
A1 Notation

What is a spreadsheet?





Core of the task



Cells

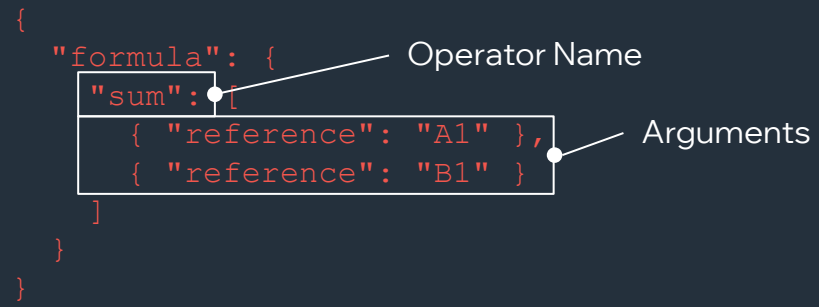
- Value
  - Number
  - Text
  - Boolean
- Error
- Formula *only in input

```
{ "value": { "number": 123 } }
{ "value": { "text": "abc" } }
{ "value": { "boolean": true } }
```

```
{ "error": "invalid reference" }
```

```
{ "formula": { ... } }
```

Formulas



Exceptions

```
{ "formula": { "value": { "number": 123 } } }
{ "formula": { "value": { "text": "abc" } } }
{ "formula": { "value": { "boolean": false } } }
```

```
{ "formula": { "error": "Banana" } }
```

```
{ "formula": { "reference": "A1" } }
```

Leaf Operators

Formulas

Some Simple Examples

`=SUM(A1, B1)`

```
{
  "formula": {
    "sum": [
      { "reference": "A1" },
      { "reference": "B1" }
    ]
  }
}
```

`=SUM(6, 4)`

```
{
  "formula": {
    "sum": [
      { "value": { "number": 6 } },
      { "value": { "number": 4 } }
    ]
  }
}
```

`=SUM(6, SUM(6, 4))`

```
{
  "formula": {
    "sum": [
      { "value": { "number": 6 } },
      {
        "sum": [
          { "value": { "number": 6 } },
          { "value": { "number": 4 } },
        ]
      }
    ]
  }
}
```

Formulas: Operators

sum

multiply

divide

is_greater

is_equal

not

and

or

if

concat

Plan Ahead

01

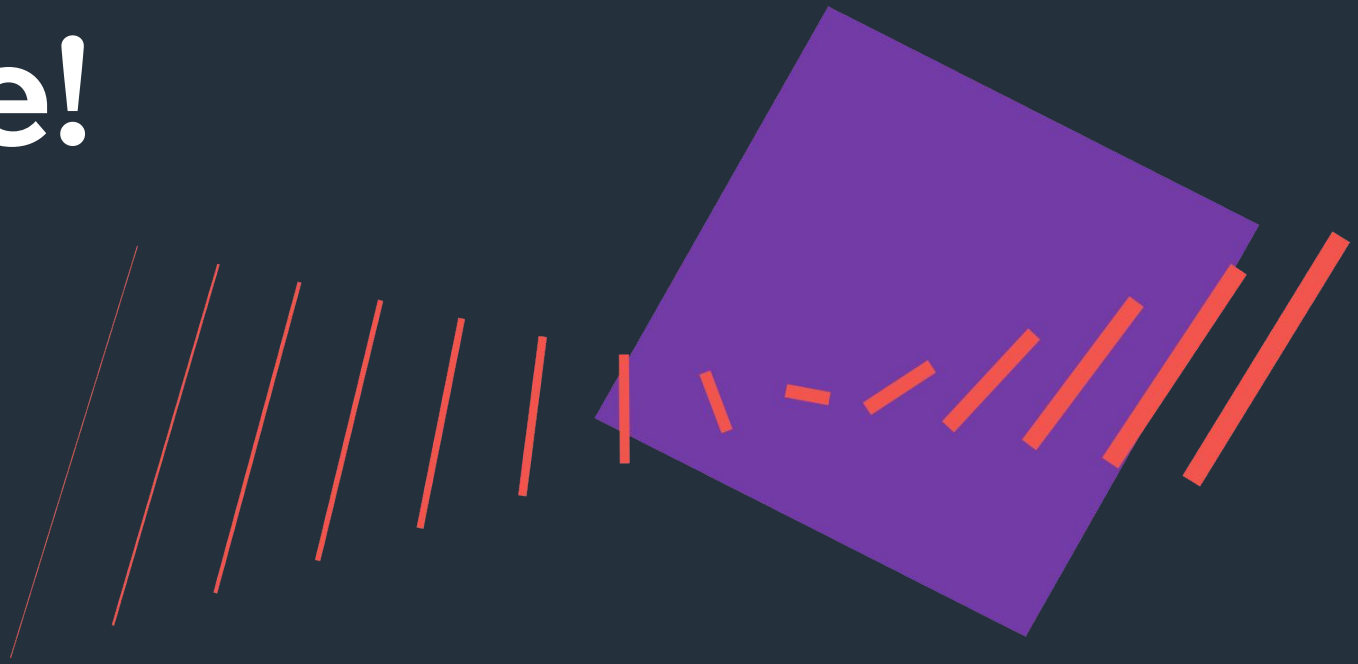
How are references going to be resolved?

02

How to handle errors?

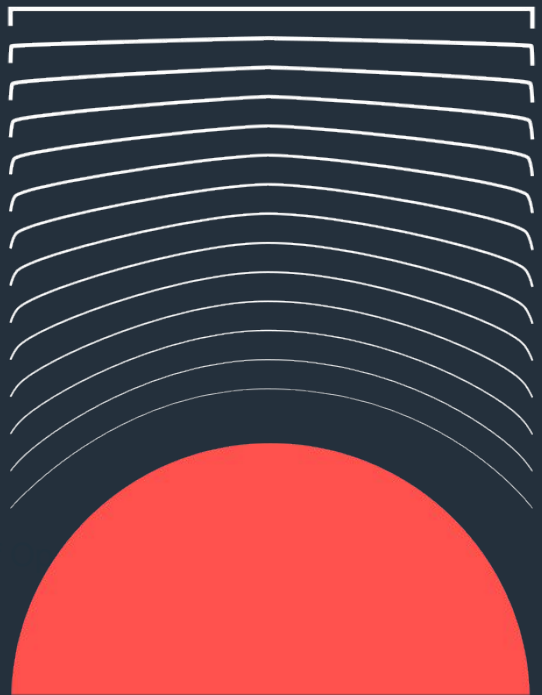
Assume something is not going to work and you'll have to figure it out.

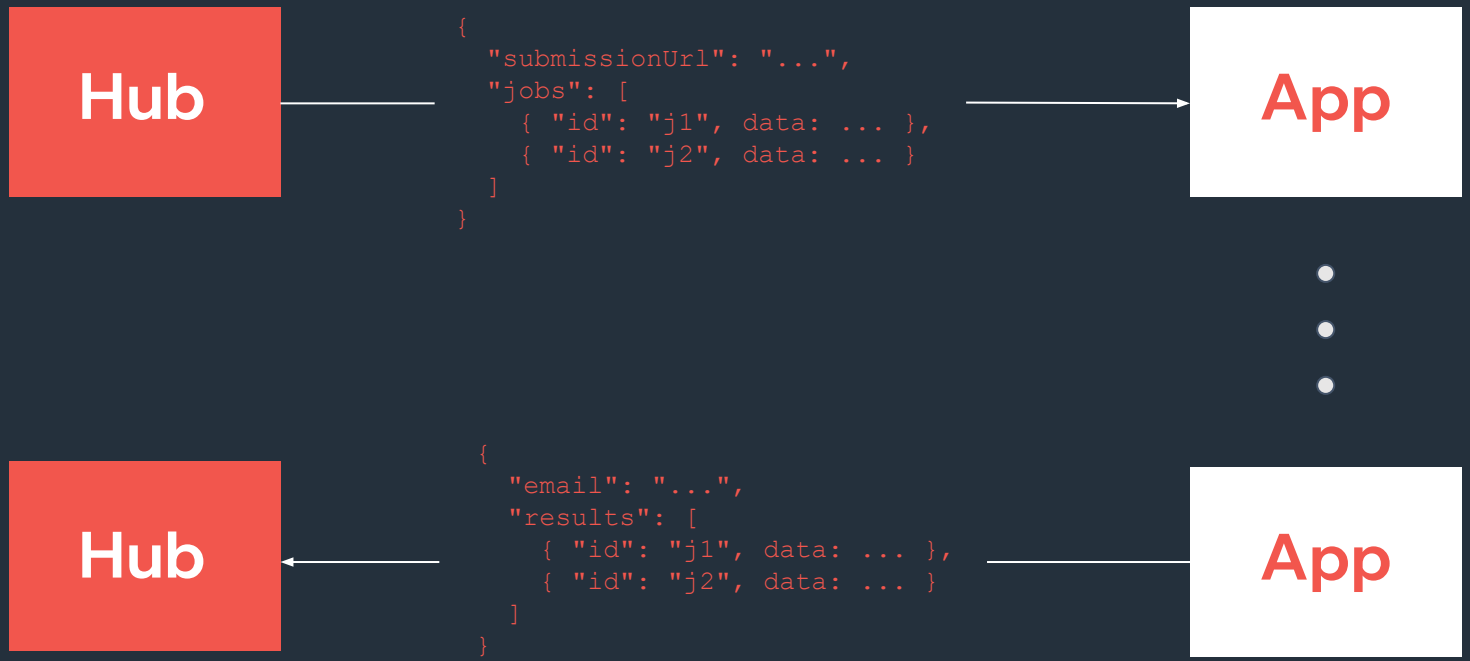
There's more!

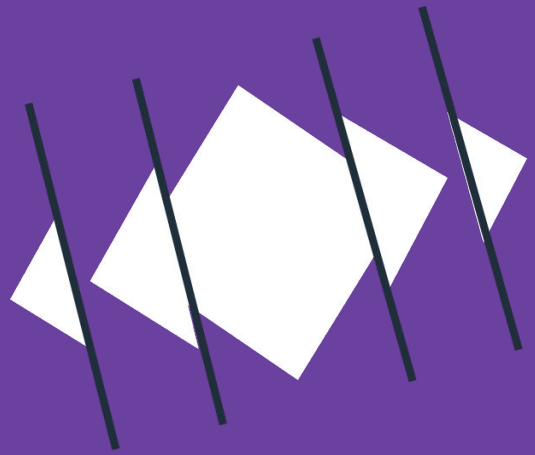


"The hub"

Your application is "**a worker**"

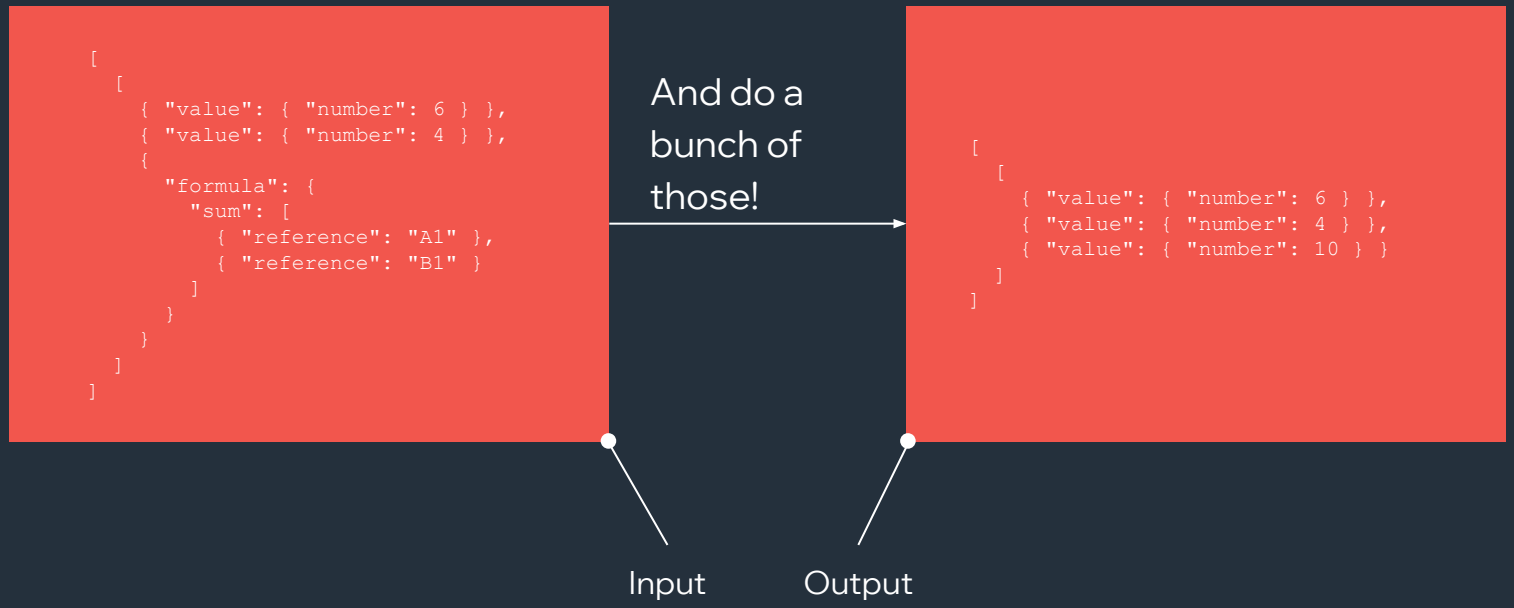



Hub
{
"submissionUrl": "...",
"jobs": [
{ "id": "j1", data: ... },
{ "id": "j2", data: ... }
]
}
App
Hub
{
"email": "...",
"results": [
{ "id": "j1", data: ... },
{ "id": "j2", data: ... }
]
}
App

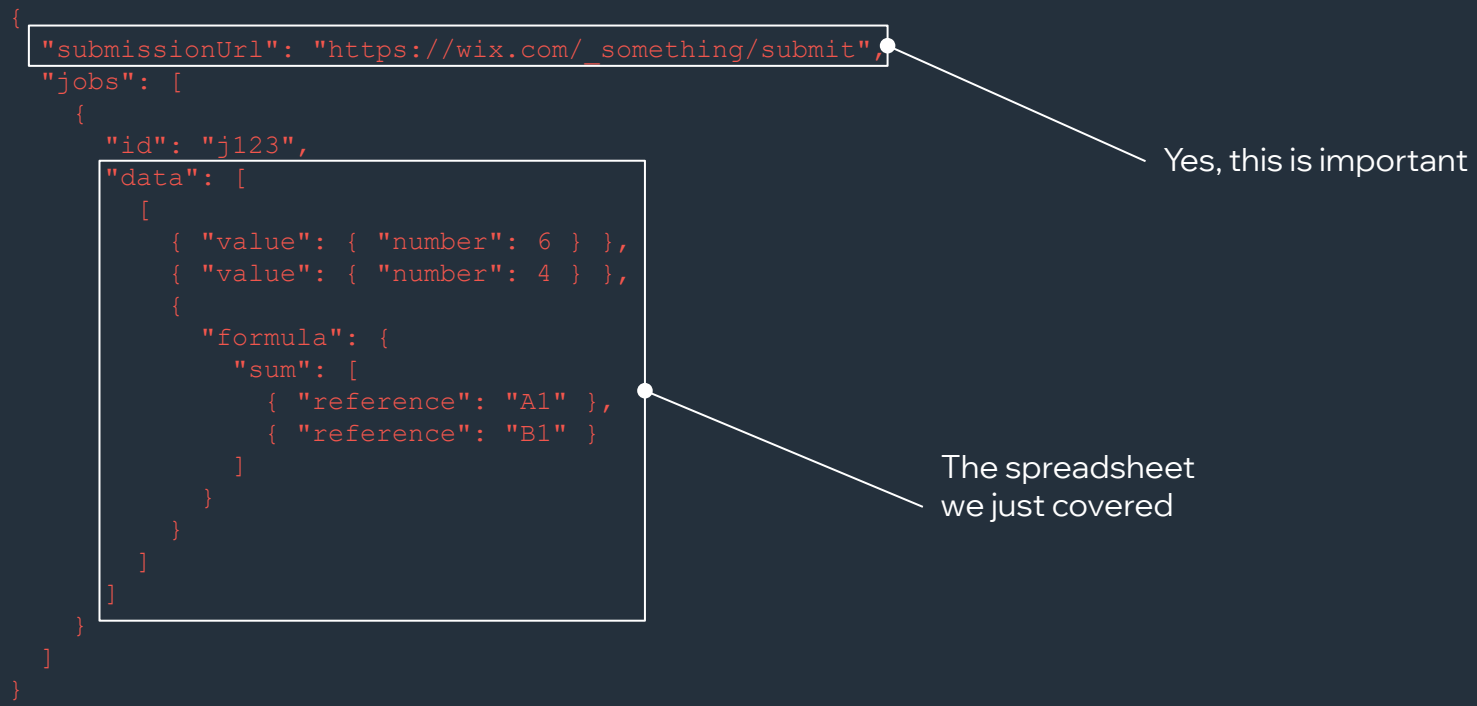


Making the requests is part of your application!

Core of the task



Getting Jobs



Posting Jobs

`POST <url_you_got_previously>`

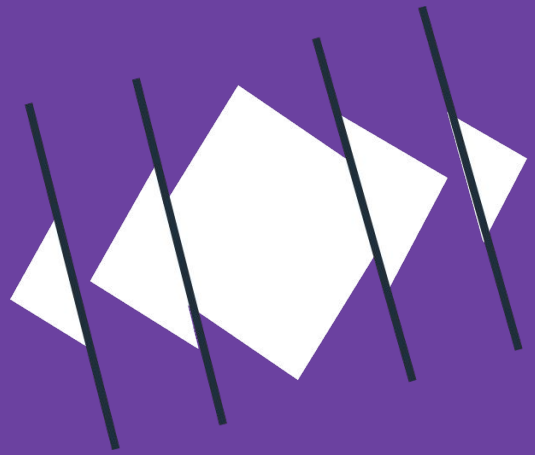
```
{
  "email": "pijusn@wix.com",
  "results": [
    {
      "id": "j123",
      "data": [
        [
          { "value": { "number": 6 } },
          { "value": { "number": 4 } },
          { "value": { "number": 10 } },
        ]
      ]
    }
  ]
}
```

Success / Failure

```
{
  "message": "All results are correct. You can clean up and submit your source code now."
}
```

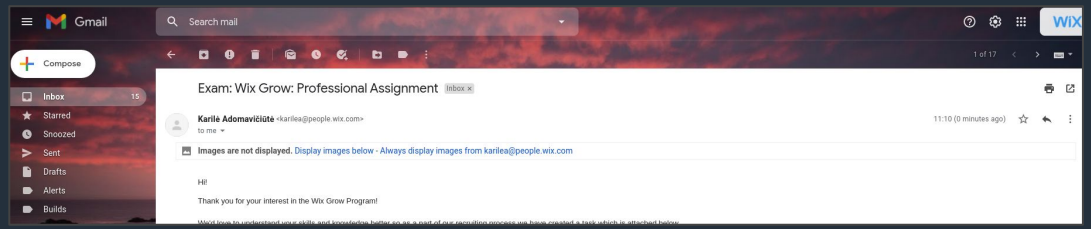
or

```
{
  "error": "invalid job-2 result: invalid cell B1: content does not match"
}
```



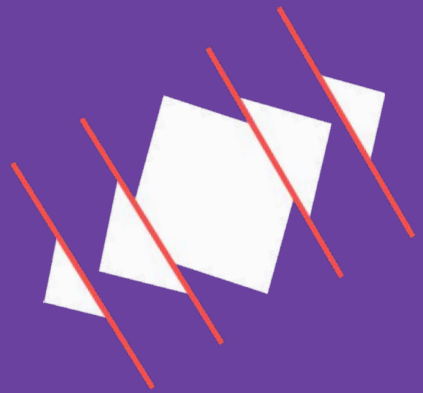
You can use hub as much as you want.
Submitting jobs multiple times has no penalty!

Tech Support



Use "Reply"

Definition of "Done"



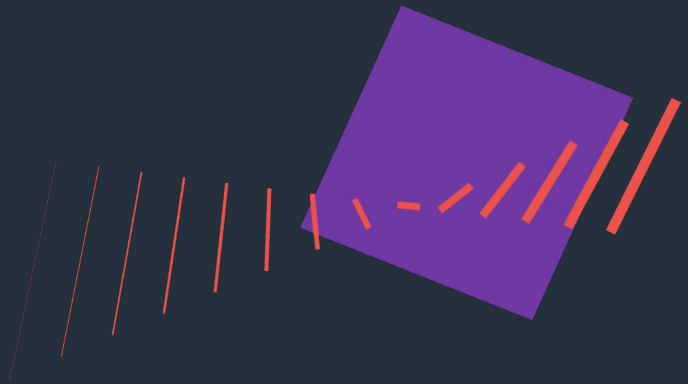
01

Job results are accepted (see the response)

02

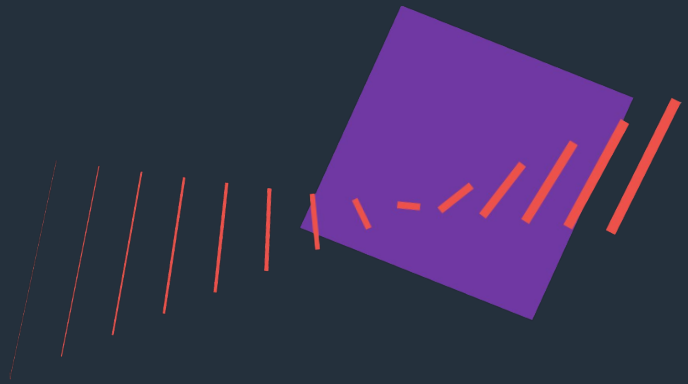
You are happy with the code

Evaluation



- Requirements satisfied?
- Readable code?
- Code structure?
- Simple design?

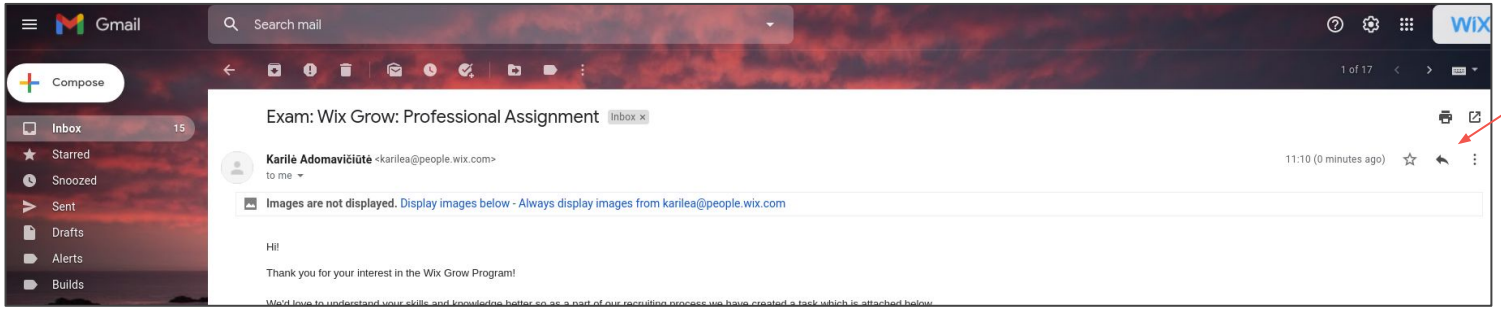
Side-note



- 3rd parties allowed

Submitting Code

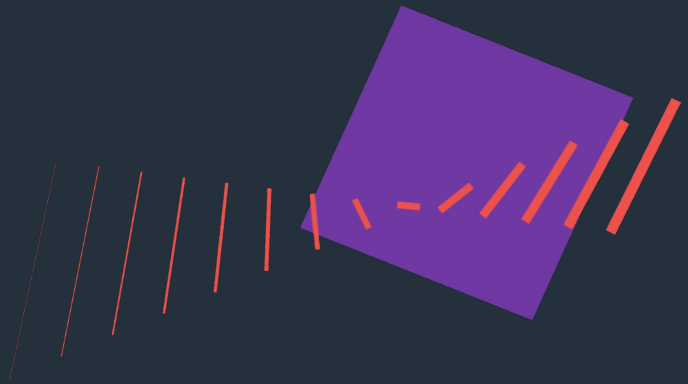
- ZIP it, then attach it by replying to instructions email!
- Clean it up before ZIPing. Only the source code!



Use "Reply"

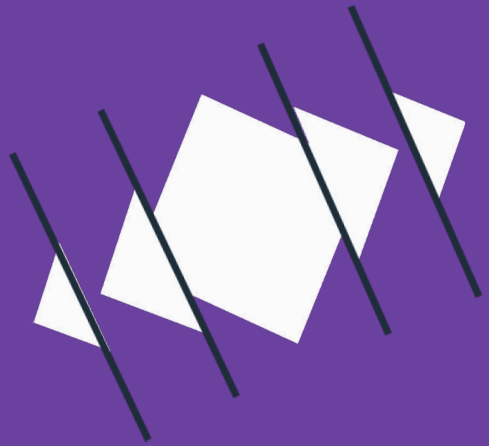
Technical Interview

What's going to happen?



- Will talk a little about you.
- Will talk a little about Wix.
- Will do some live coding.

What do we expect?

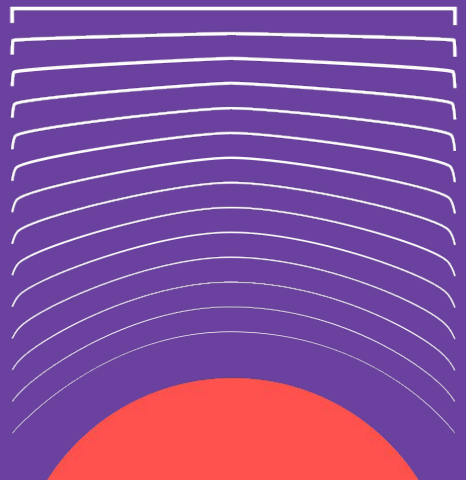


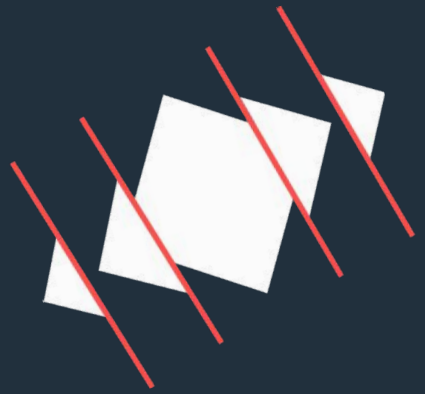
- You can write code.
- You can reason about your code.
- You can express your ideas.
- You know what you are doing.
- You can solve basic problems

What should you expect?

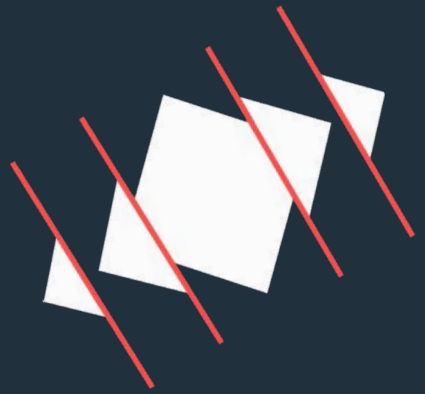
- Not to know all the answers.
  - OK to use your own words.
  - OK to "think through" the answer.
- Be asked obvious questions.
- Be asked stupid questions.

Stay Calm
Keep Talking





No detailed feedback :(



Let's move on to Q&A