

Dashboards

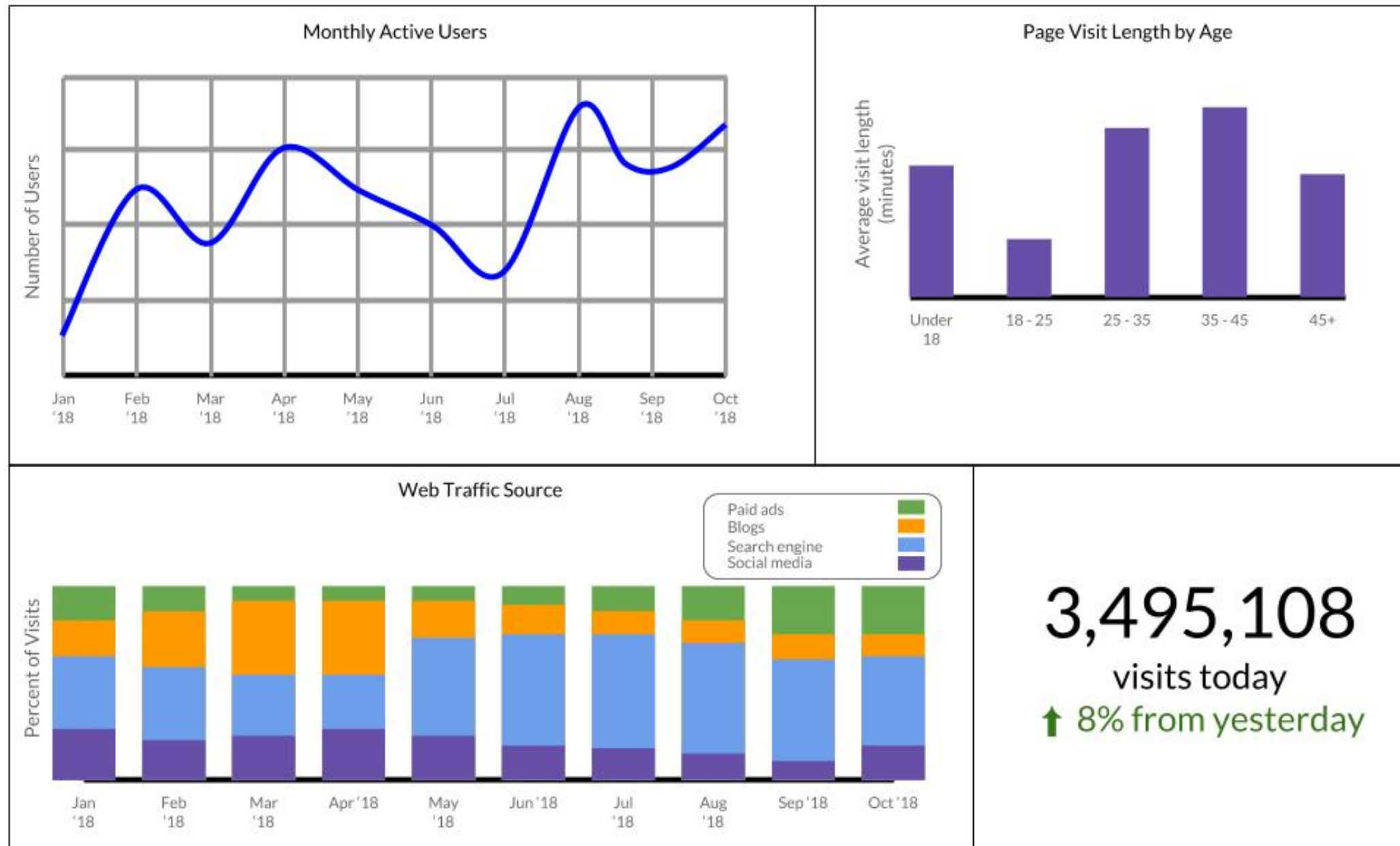
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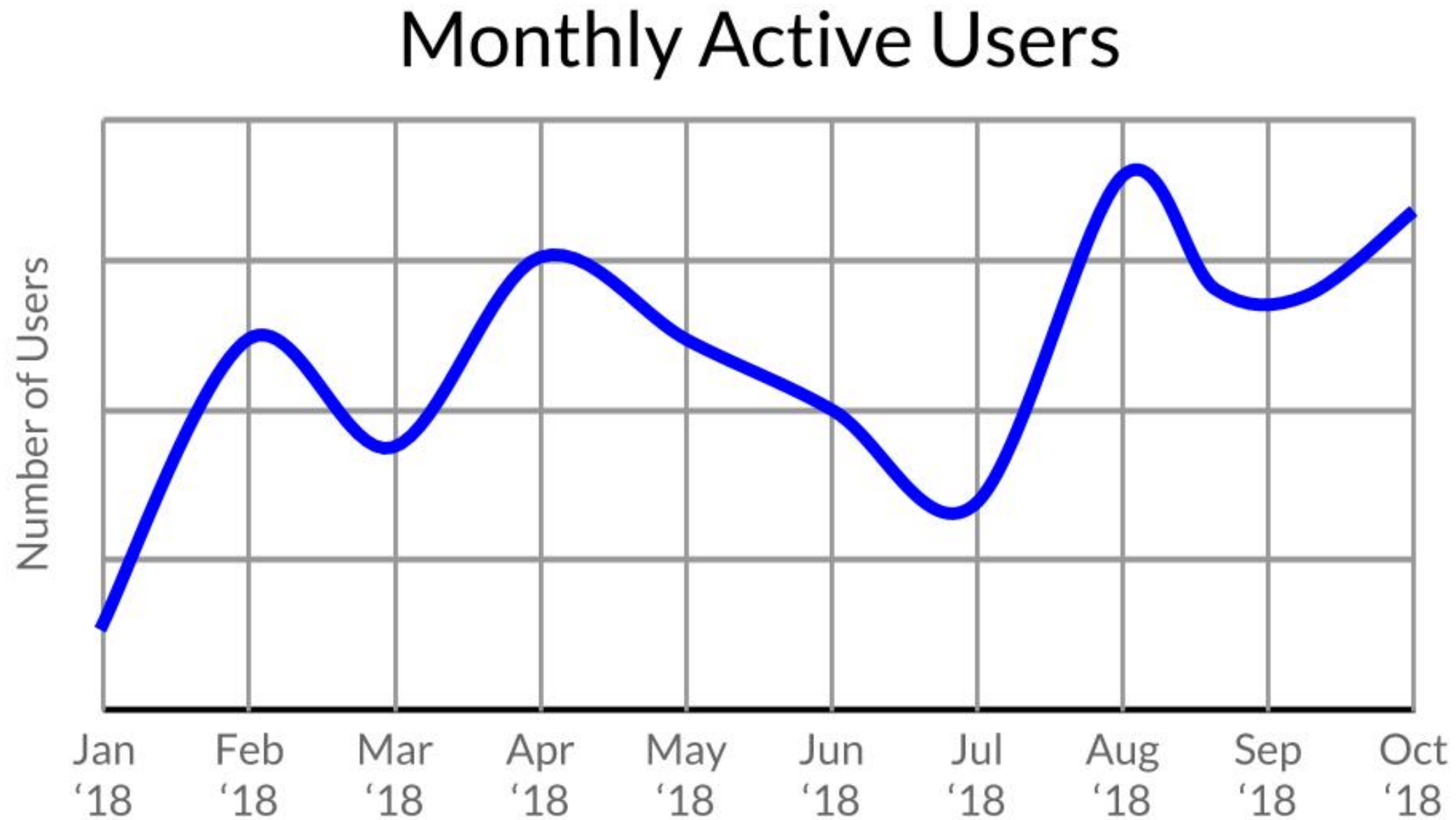
Kaelen Medeiros

Data Scientist at Medidata Solutions

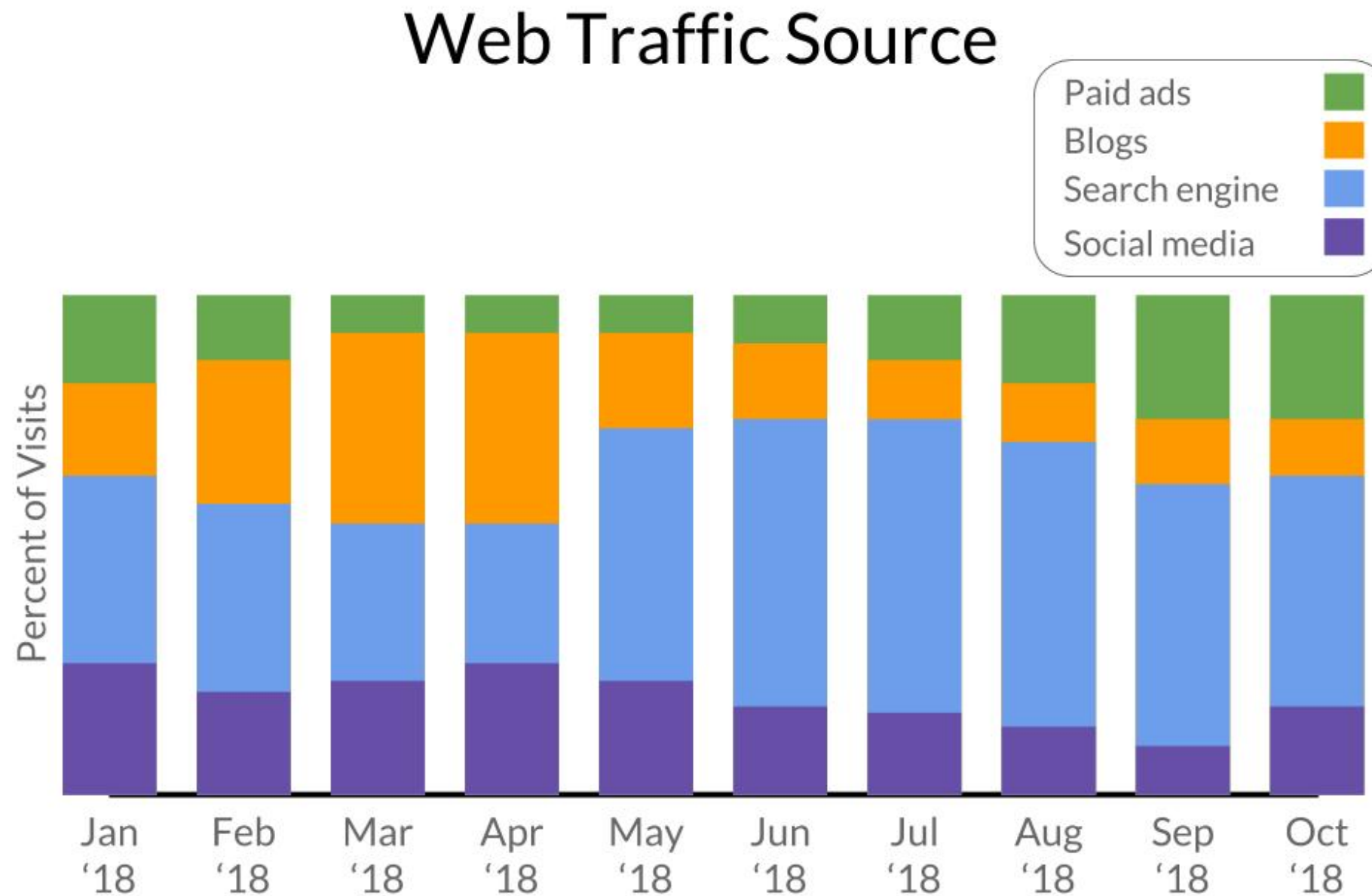
What is a dashboard?



Tracking a value over time

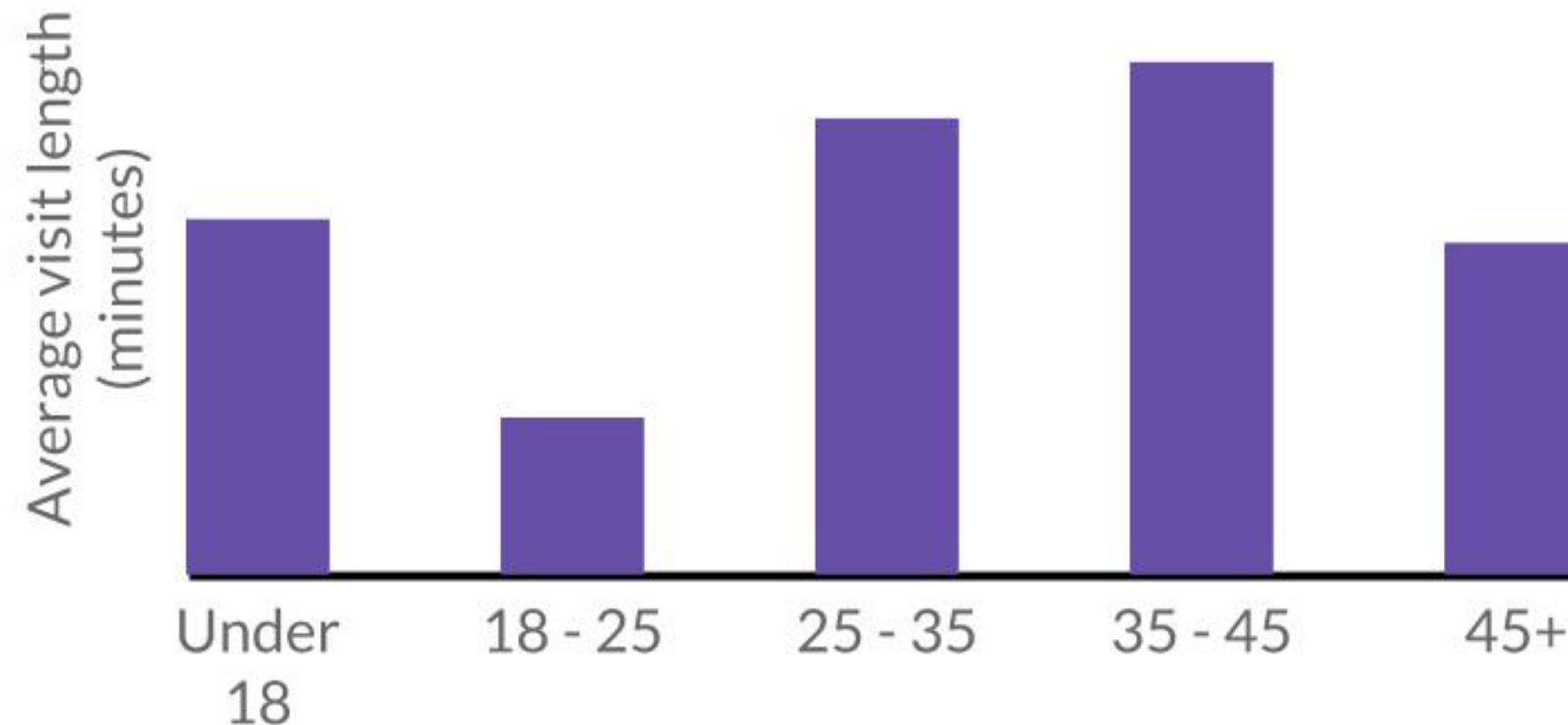


Tracking composition over time



Categorical comparison

Page Visit Length by Age



Data from the past 30 days

Highlighting a single number

3,495,108

visits today

↑ 8% from yesterday

Displaying text

Timestamp	Comment
Oct 9, 2018 12:57:05	Awesome website! Loved the new layout.
Oct 10 2018 03:16:00	Had trouble getting the website to load. I couldn't buy my favorite product!

Where can we build a dashboard?

- Spreadsheets: Excel or Google Sheets
- BI Tools: Power BI, Tableau, Looker
- Customized tools: R Shiny or d3.js

Be consistent across an organization!

Requesting a dashboard

Is a dashboard the correct solution?

- Will you use it multiple times?
 - Does it need to be updated daily or weekly?
 - Will the request always be the same?
- Be specific
 - Specify your use case

Let's practice!
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Ad hoc analysis

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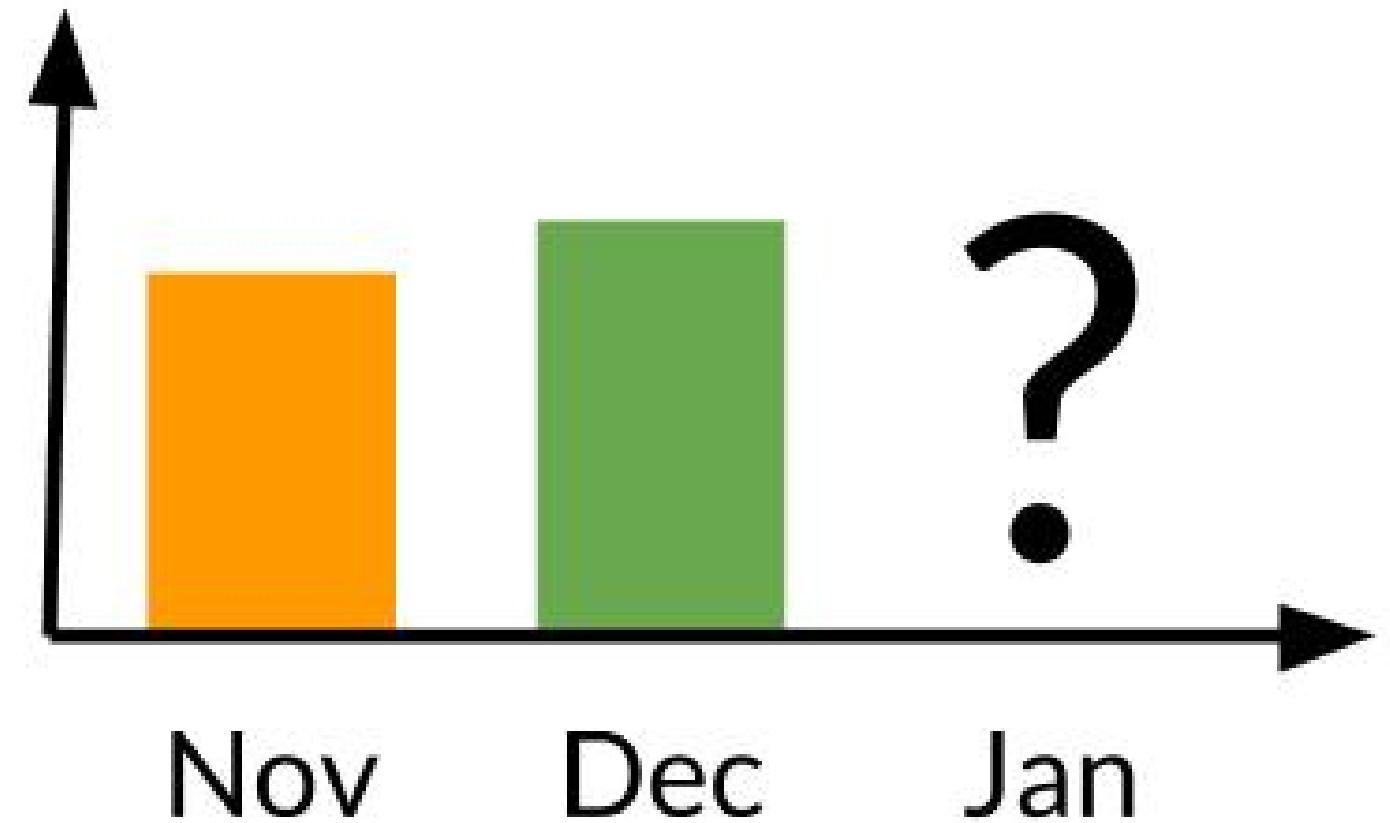
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What is an ad hoc request?

- **Not** repeated on a weekly or daily basis
- Can come from many places
 - Product
 - Finance
 - Engineering



Case study: ad campaign performance



Making an ad hoc request

- Be specific
- Include context
- Include a priority level and due date

Handling ad hoc requests

- Ticketing system
 - Ex: Trello, JIRA, Asana
- Require fields
 - Due date
 - Priority

Create a new ticket

Title

Request

We launched a New Year's Resolutions ad campaign in January.

How much revenue was generated by this campaign during that month?

Priority ▼

Due date

Create

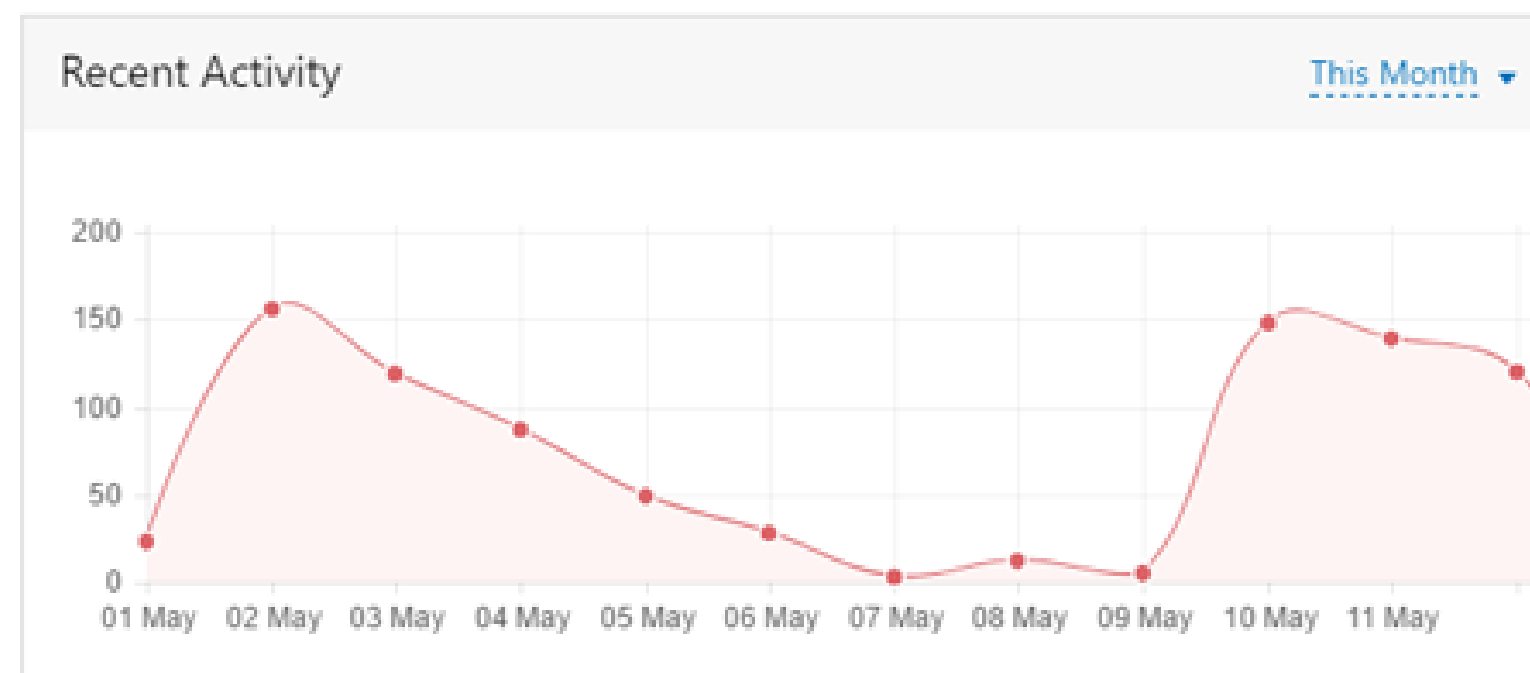
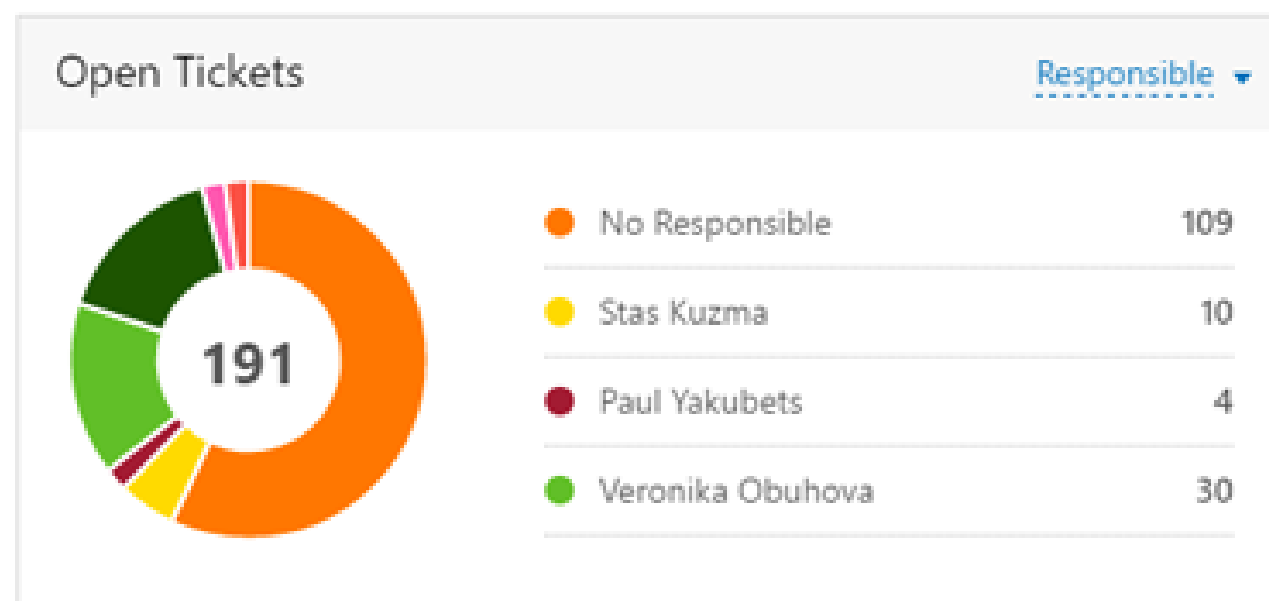
Meta-analysis of Ad Hoc Requests

New Tickets
29

My Assignments
14

Open Tickets
192

Unassigned Tickets
109



Let's practice!
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A/B Testing

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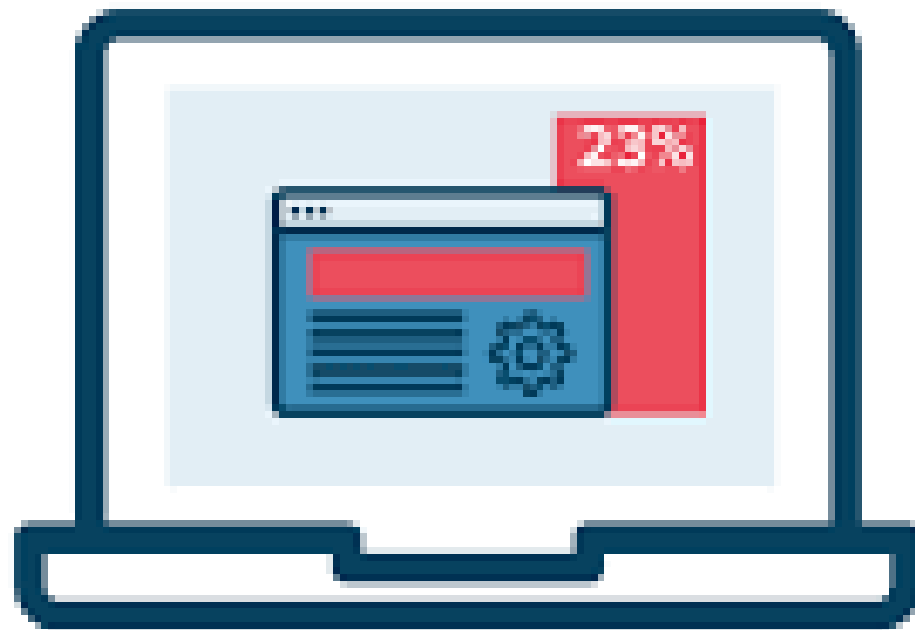


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What is A/B Testing?

A



CONTROL

B



VARIATION

Case study: article headlines

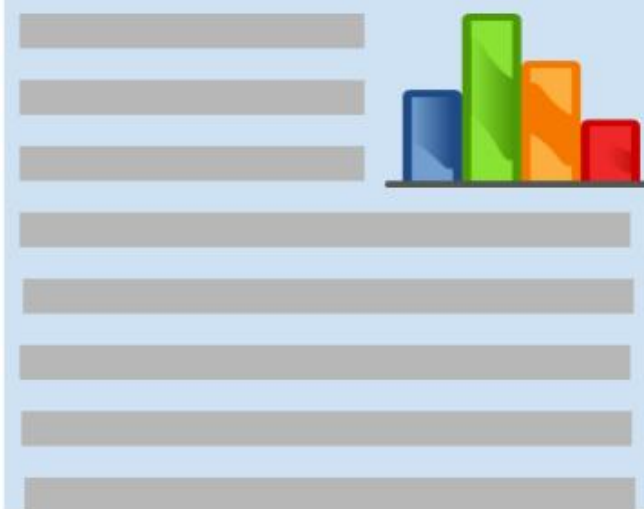
A

Become an expert Data Scientist with this one weird trick!



B

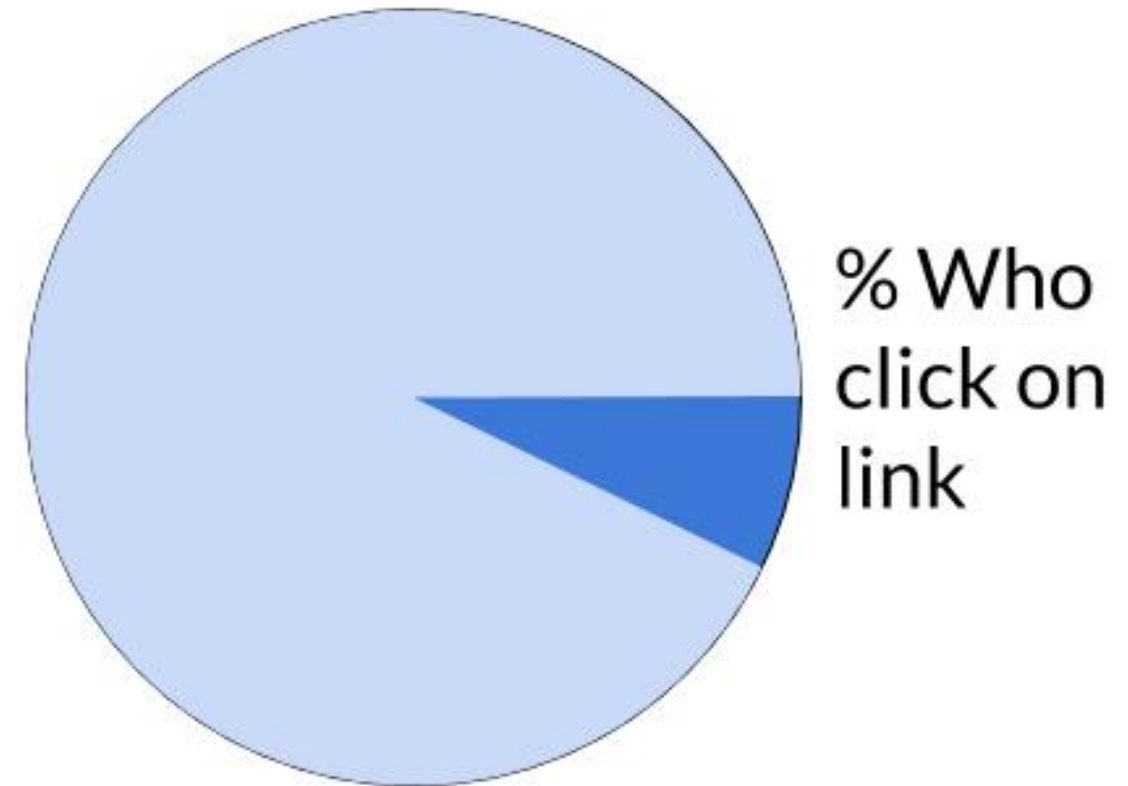
You won't believe these tips for becoming a Data Scientist!

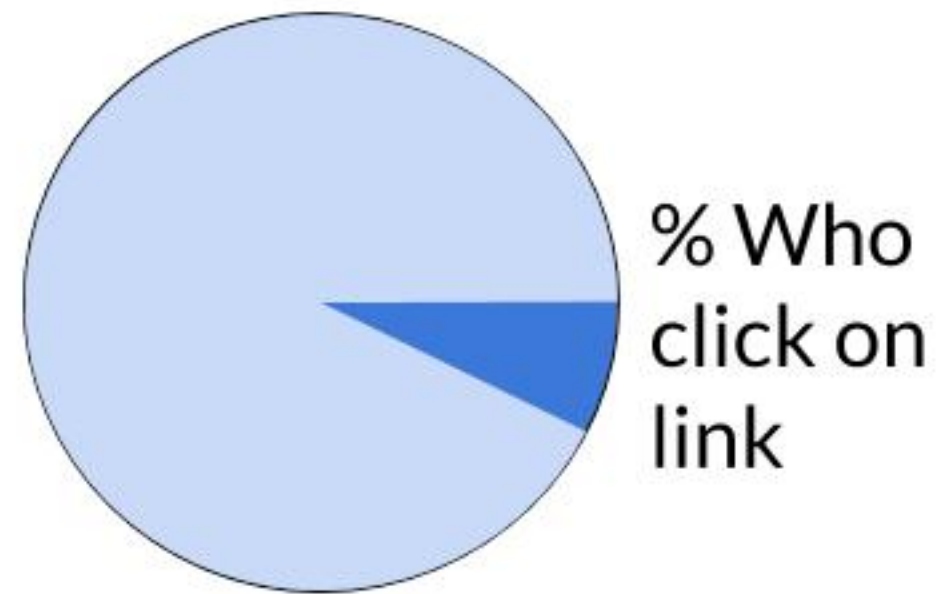
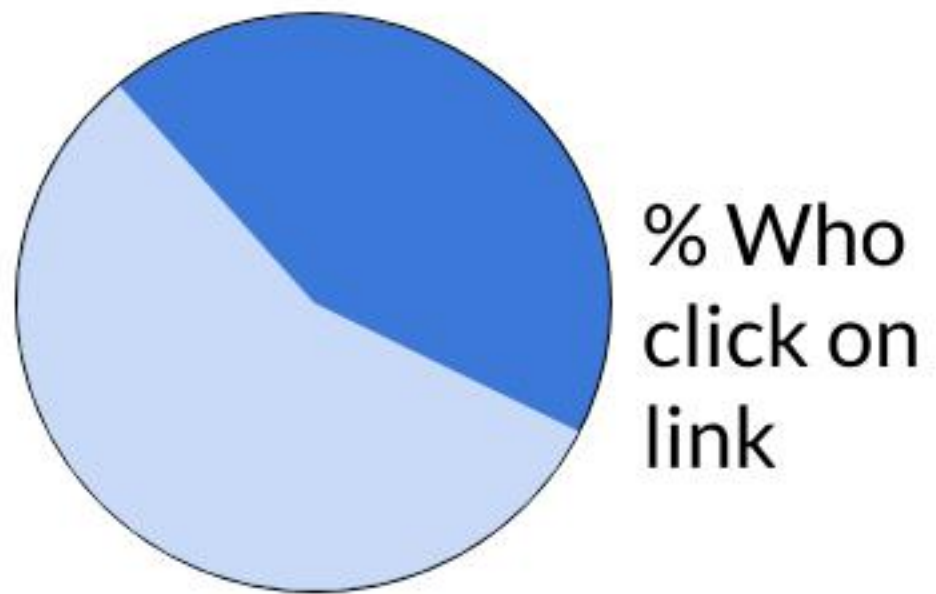


A/B Testing Steps

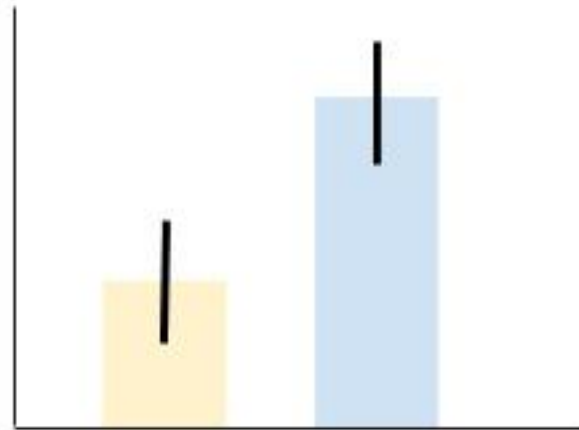
- Picking a metric to track
- Calculating sample size
- Running the experiment
- Checking for significance

Pick a metric to track





Low sensitivity, detects
large differences

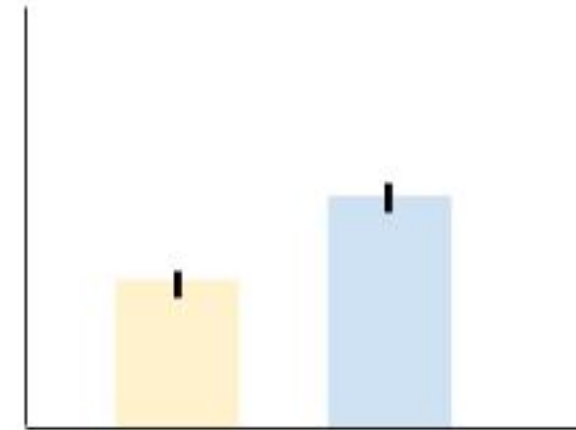


A

B



High sensitivity, detects
small differences



A

B

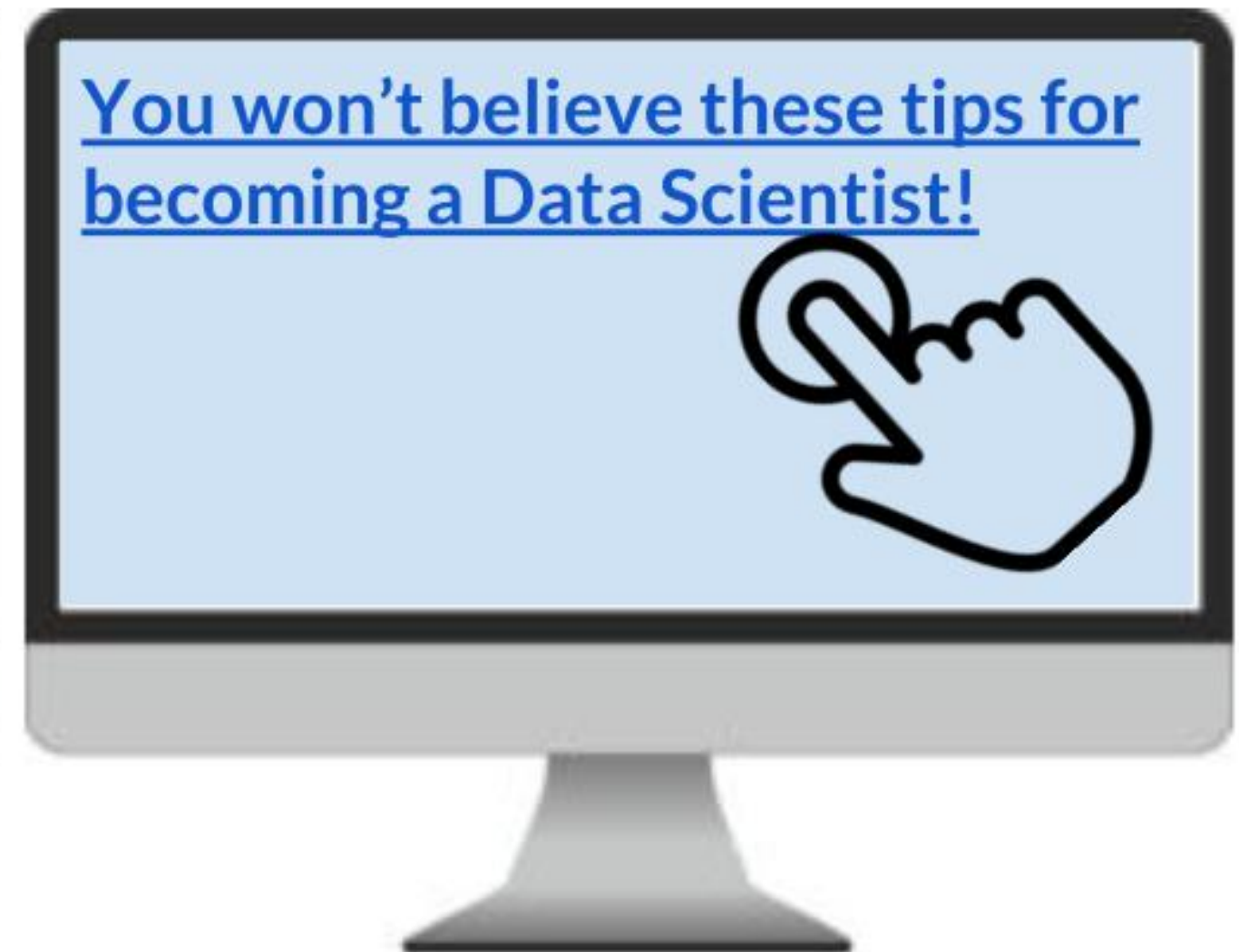


Run your experiment

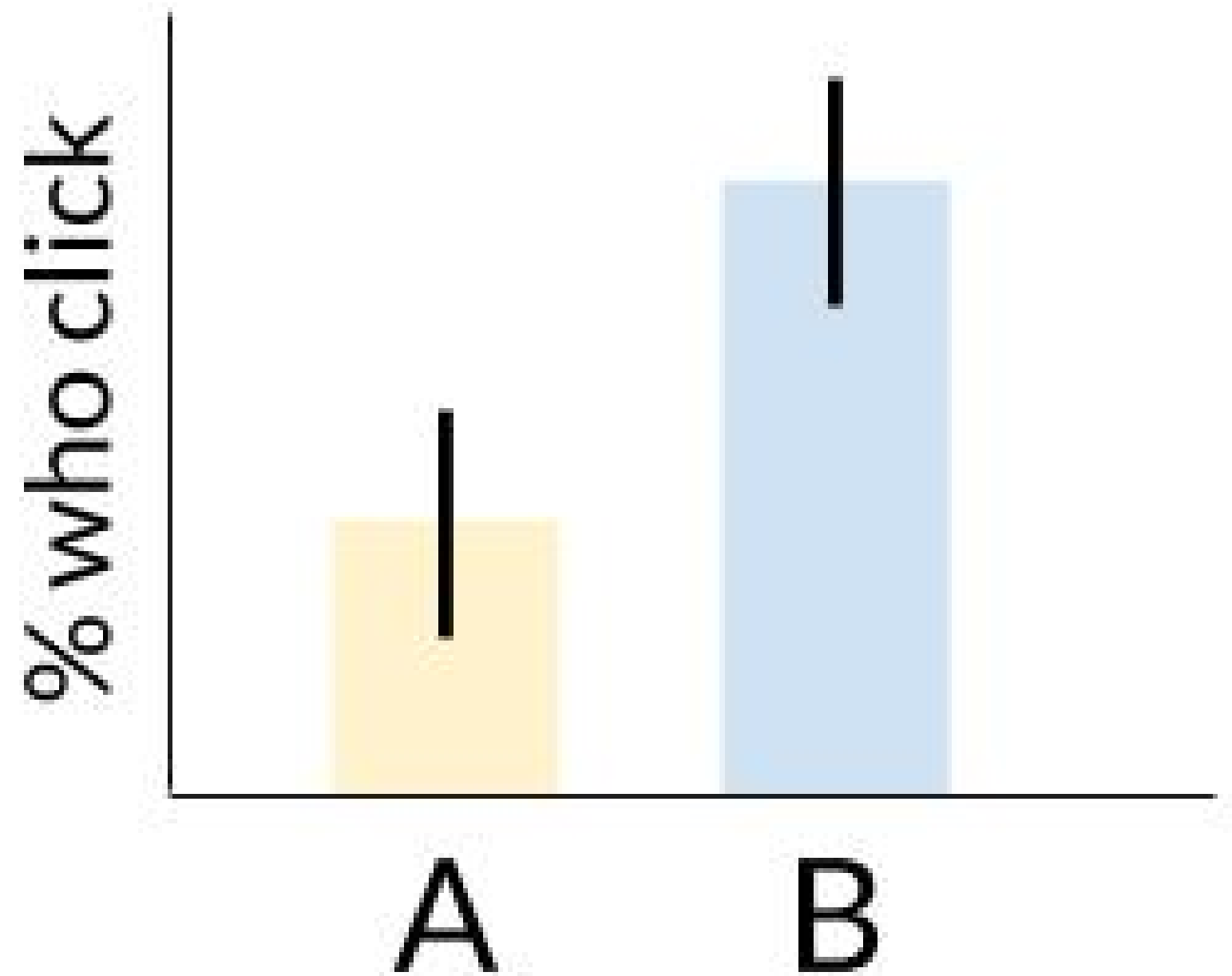
A



B



Check for significance



What if the results aren't significant?

- Difference is smaller than the threshold we chose
- Running our test longer won't help
- Still might be a difference; it's just small

Let's practice!
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