



Replacing an Image

How to replace your image:

- Click the image you wish to replace.
- Under the Format pane, go to the Image tab and click Replace.
- To create a black and white image, lower the color saturation to -100%.



Reading and Writing CSV Files in Python

Opening and Modifying Files



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Read CSVs with Python's CSV Package



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Overview

What is a CSV

Reading CSVs

Writing CSVs

Reading from External

Comma-Separated Values (CSV)

A delimited text file that uses a comma to separate values. Each line of the file is a separate record.

A delimiter is a value used to separate the values.

Delimiters

CSV is a loose term, with delimiters allowed to be almost anything

comma_delimited.csv

```
index,col_1,col_2,col_3
1,true,blue,3
2,true,red,3
3,false,red,2
4,true,yellow,1
```

pipe delimited.csv

```
index|col_1|col_2|col_3
1|true|blue|3
2|true|red|3
3|false|red|2
4|true|yellow|1
```

Some Delimiter Options

Comma, tab, pipe are common

Need to be careful with data containing strings

Can use any unicode symbol with appropriate decoder

'\u0001' is ctrl-A with utf-8 decoder

CSV != Excel



Excel is a Special Case

While data is stored with delimiter

Additional information on formatting

Will show in next module how to load

When reading csv files, it is important to understand the data and what delimiter is being used.



Reading CSVs

We Have Two Things

Open File

`f = open(filename)`

Do Something

Let's read the file



CSV Module Steps

1. Open file
2. Read file using csv module
3. Iterate over file
4. Do something with each line

```
with open(filename):  
    csv_reader = csv.reader(csv_file)  
    for row in csv_reader:  
        print(row)
```

Read and Iterate

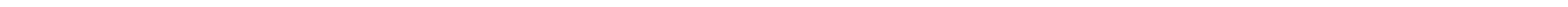
You can create a runtime context using “with” to safely enter and exit the file.
Will need to iterate over the file to perform actions.

Writing CSVs

Writing is Similar to Reading

Similarities are to open the file and do something with it. Most of the steps are similar.

There are additional methods to write in the files.



Primary Methods

`csv.writer()`

`csv.DictWriter()`

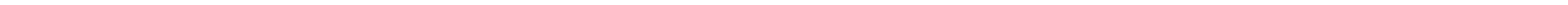
There are multiple output formats and data types you can write to files depending on your needs.



Reading from External CSVs

Requests Module

Requests is a simple, yet elegant, HTTP library. This module is useful in many Python applications where it is necessary to connect to an external service.



Primary HTTP Methods

Get

Request data from specified resource with query in URL.

Post

Send data to server to create/update a resource. Data will be stored in request body.

**Files imported through HTTP
requests will come through
as a binary and will need to
be unpacked as a string.**

Process for Handling a File

Identify location of
the file

Open the file

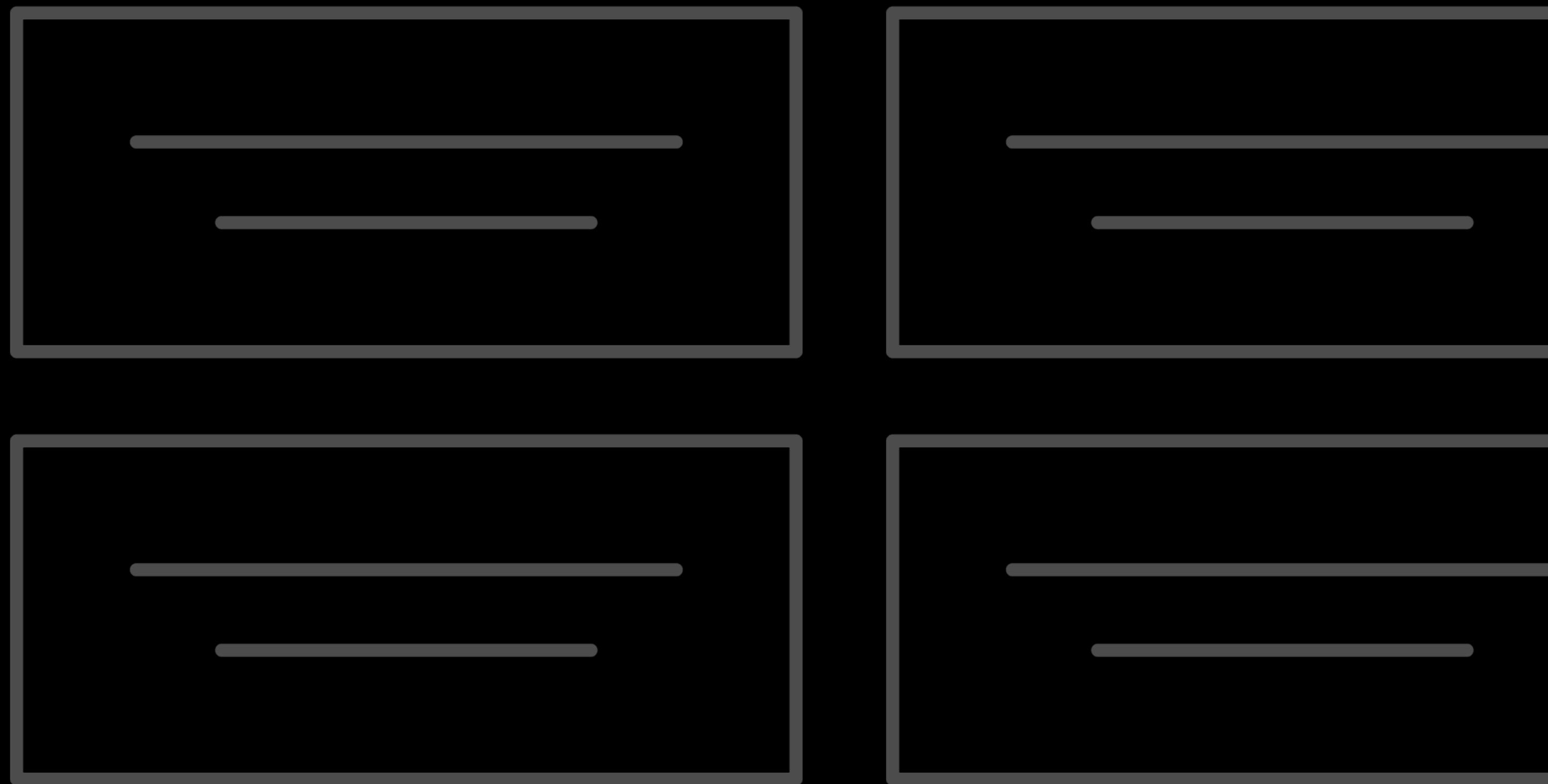
Do something while
file is open

```
filename = 'name_of_file.txt'  
f = open(filename)  
  
# And then do something with `f`
```

Opening the file

**Using the `open` method works similar to opening a drawer.
If you want to look pull stuff out of the drawer you need to do another action.
After opening a file, you need to do a follow-on step**

Text Chunking



Text Chunking: Two Items with Headers

Talking point one

**Be concise and keep the
text to four lines or fewer**

Talking point two

**Be concise and keep the
text to four lines or fewer**

Text Chunking: Two Items

**Be concise and keep the
text to four lines or fewer**

**Be concise and keep the
text to four lines or fewer**

Text Chunking: Two Items Outlined

**Be concise and keep the
text to four lines or fewer**

**Be concise and keep the
text to four lines or fewer**

Text Chunking: Three Items

**This is the first
talking point**

**This is the second
talking point**

**This is the third
talking point**

Text Chunking: Three Items Outlined

**This is the first
talking point**

**This is the second
talking point**

**This is the third
talking point**

Text Chunking: Four Items

This is the first talking point

This is the second talking point

This is the third talking point

This is the fourth talking point

Text Chunking: Four Items Outlined

This is the first talking point

This is the second talking point

This is the third talking point

This is the fourth talking point

Text Chunking: Five Items

This is the first talking point

This is the second talking point

This is the third talking point

This is the fourth talking point

This is the fifth talking point

Text Chunking: Five Items Outlined

This is the first talking point

This is the second talking point

This is the third talking point

This is the fourth talking point

This is the fifth talking point

Text Chunking: Six Items

Thing 1

Thing 2

Thing 3

Thing 4

Thing 5

Thing 6

Text Chunking: Six Items Outlined

Thing 1

Thing 2

Thing 3

Thing 4

Thing 5

Thing 6

Image Chunking

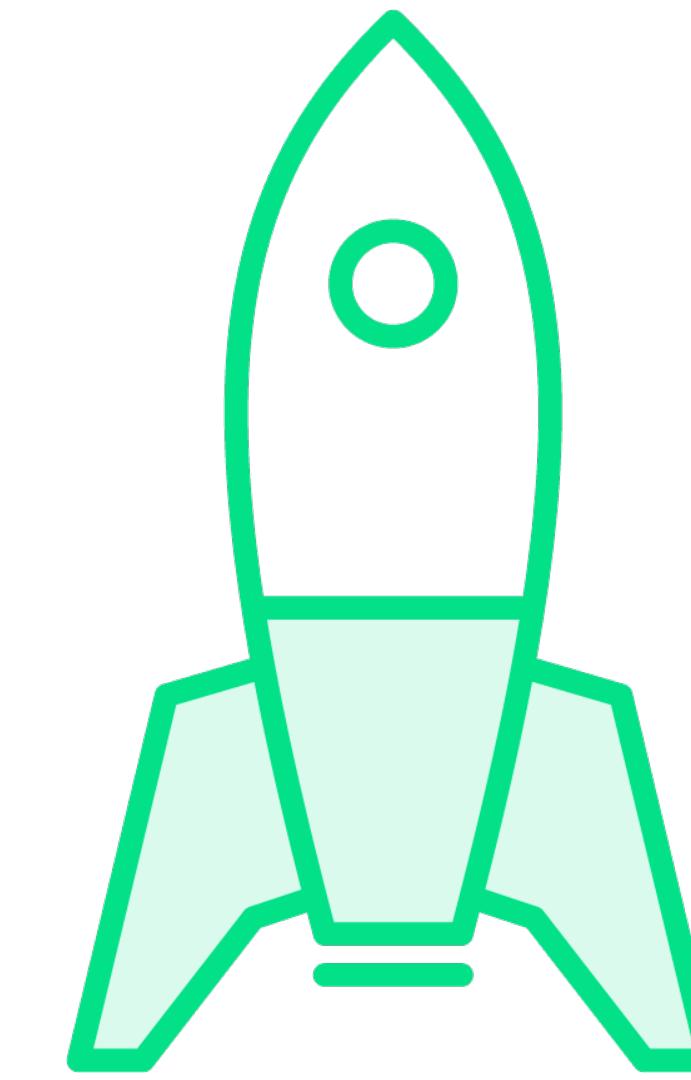


Icon or Image Chunking: Two Items with Headers



Informative Title

Some information about this graphic goes here and four lines or fewer is best



Informative Title

Some information about this graphic goes here and four lines or fewer is best

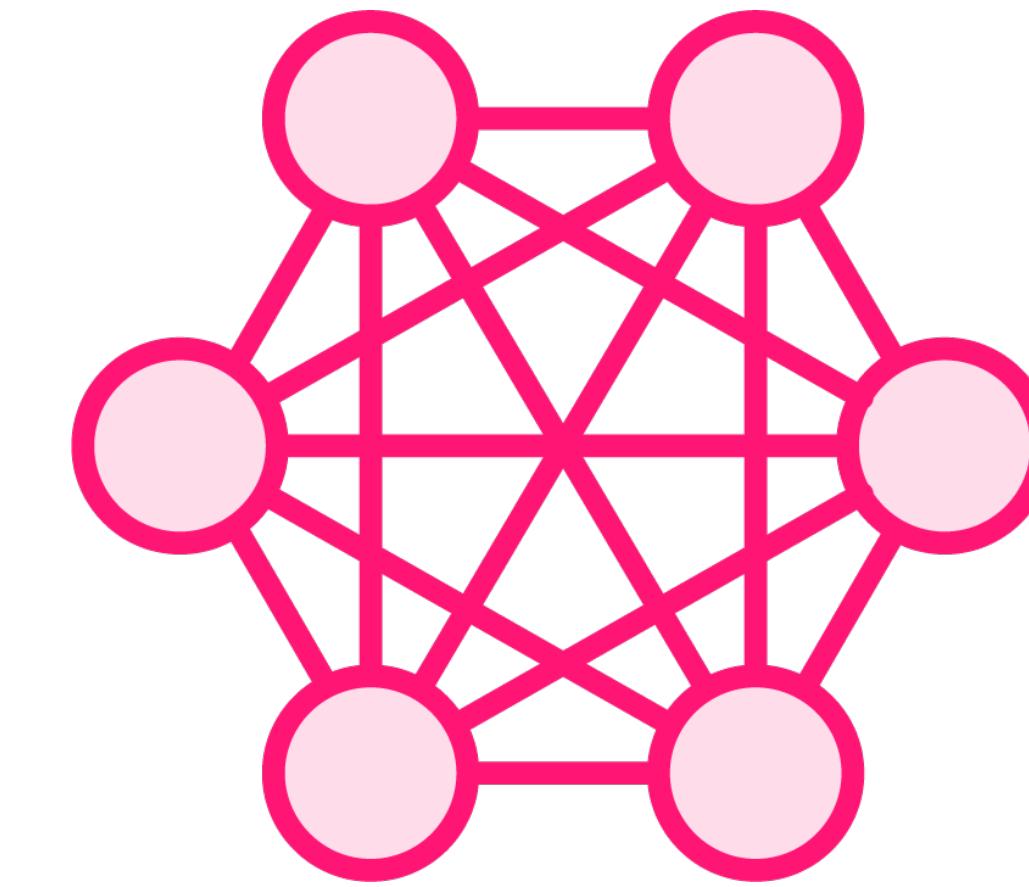
Icon or Image Chunking: Three Items



Some information about
this graphic goes here



Some information about
this graphic goes here

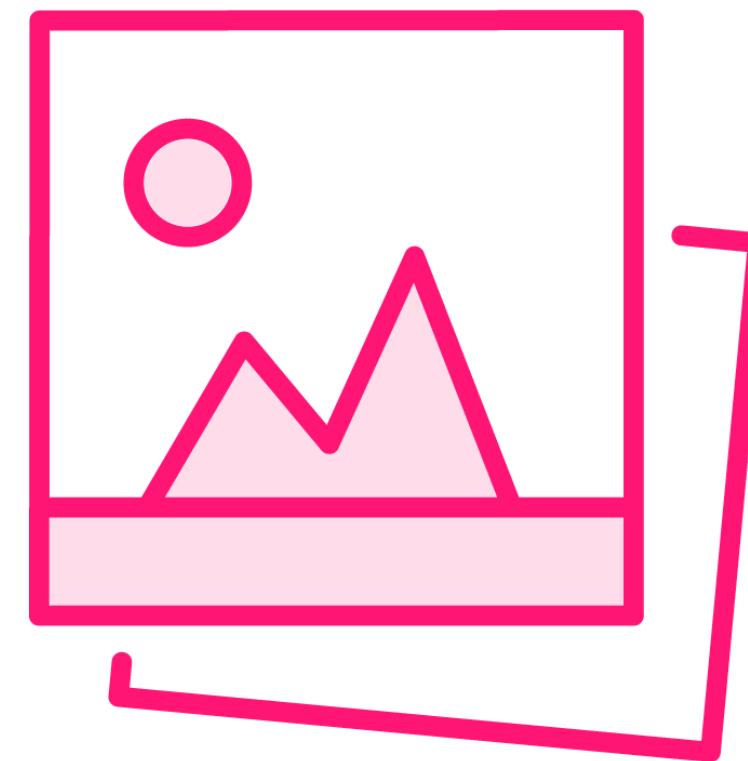


Some information about
this graphic goes here

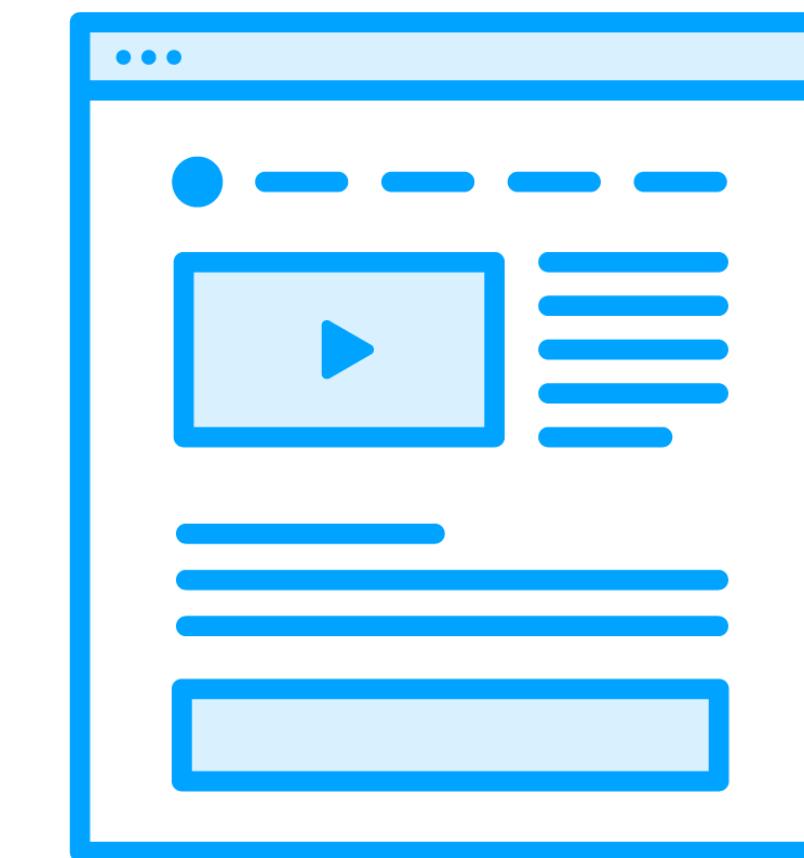
Icon or Image Chunking: Four Items



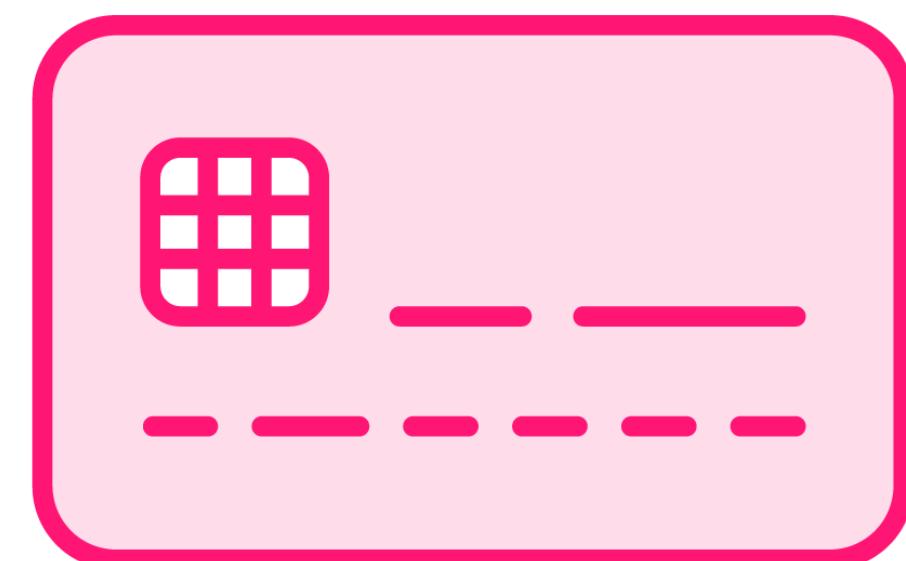
Some info goes here; three lines or fewer is best



Some info goes here; three lines or fewer is best

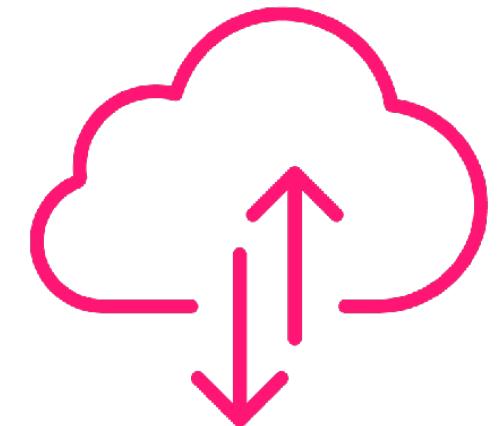


Some info goes here; three lines or fewer is best



Some info goes here; three lines or fewer is best

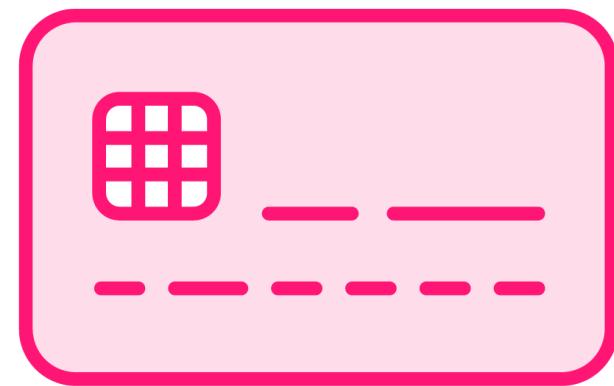
Icon Only Image Chunking: Six Items



Cloud transfer



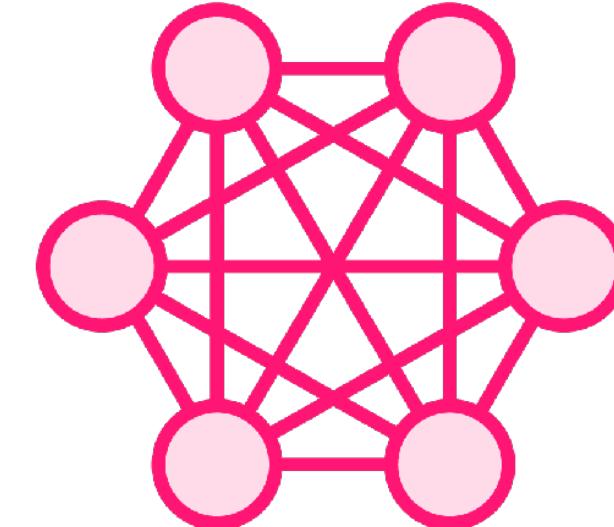
Email



ID card



Game controller



Network map



VR headset

Icon or Image Chunking: Two Items with Headers



Partner pairing

Some information about this graphic goes here and four lines or fewer is best



Brainstorming ideas

Some information about this graphic goes here and four lines or fewer is best

Circle Icon or Image Chunking: Two Items



Partner pairing



Brainstorming ideas

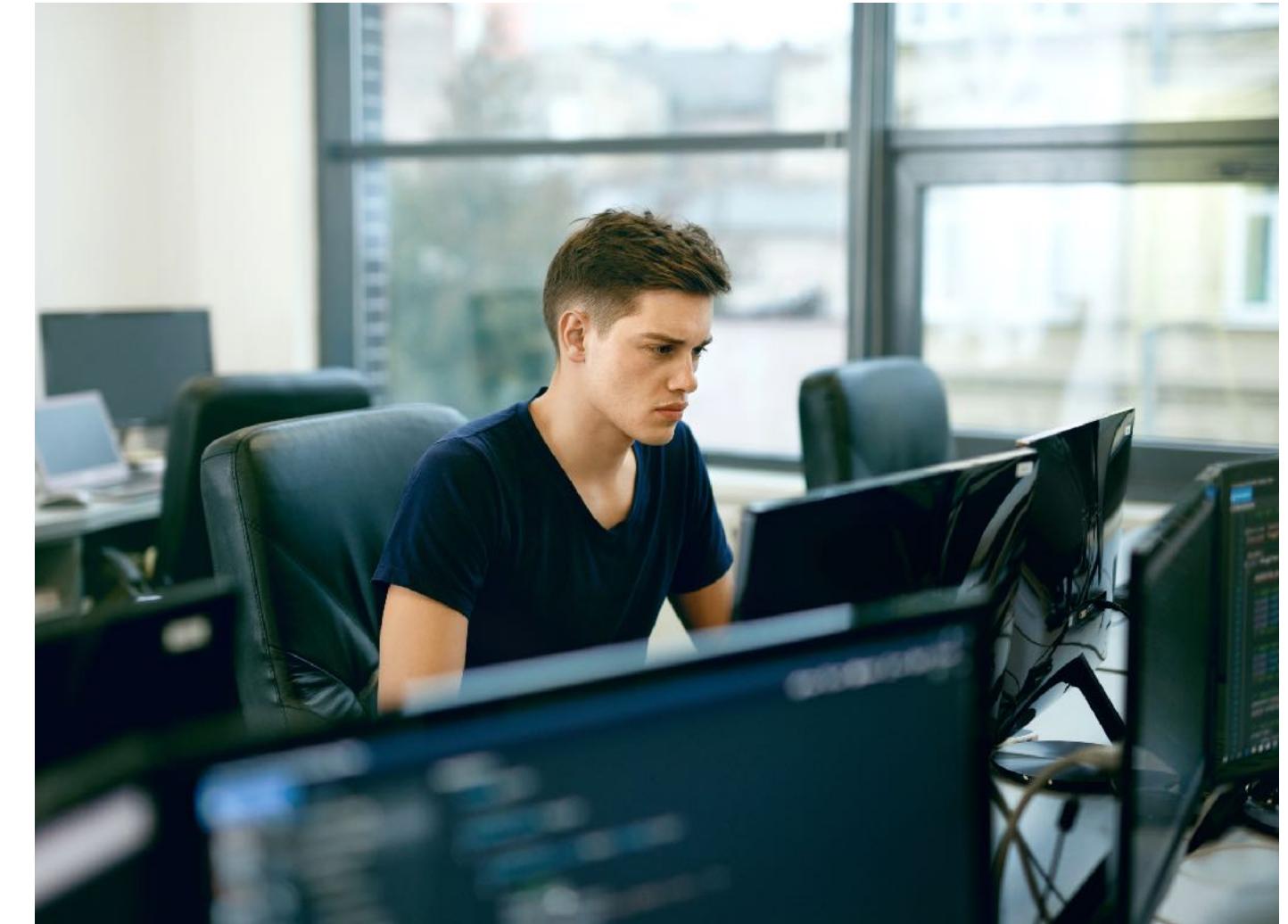
Icon or Image Chunking: Three Items



Work together



Phone a colleague



Write the code

Circle Image Chunking: Four Items



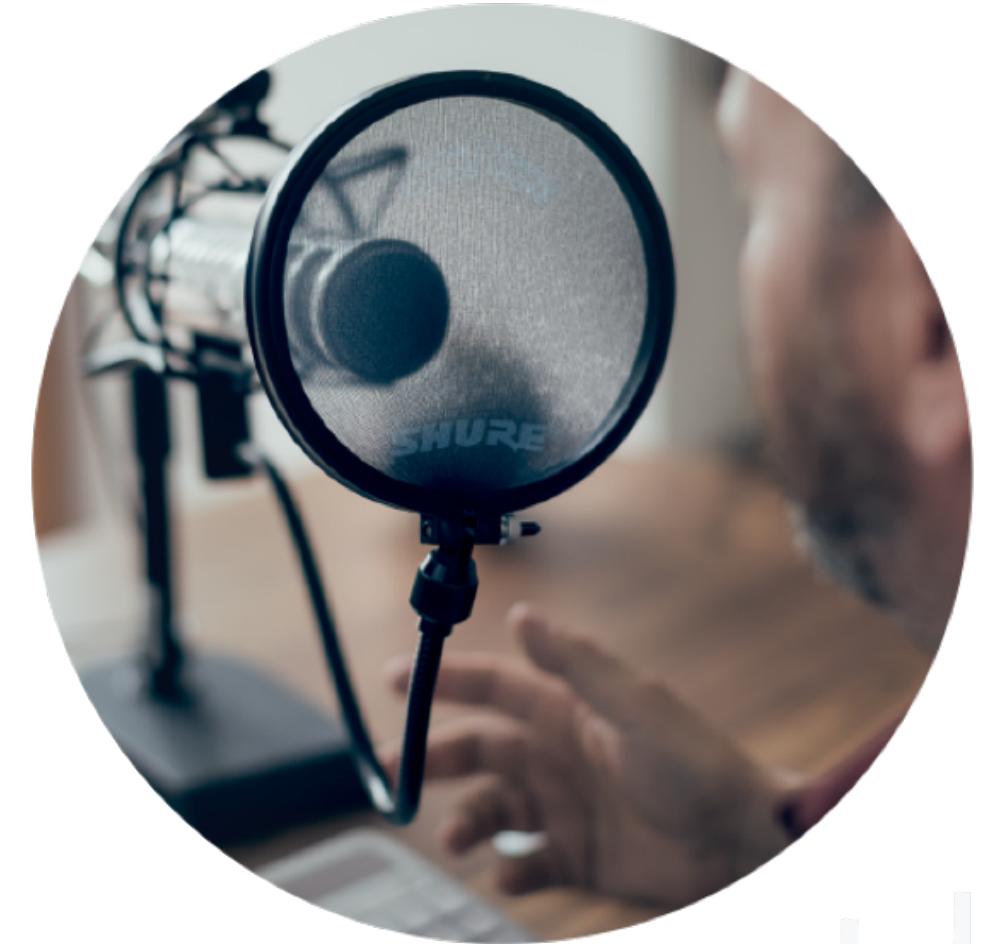
Write a script



Review it



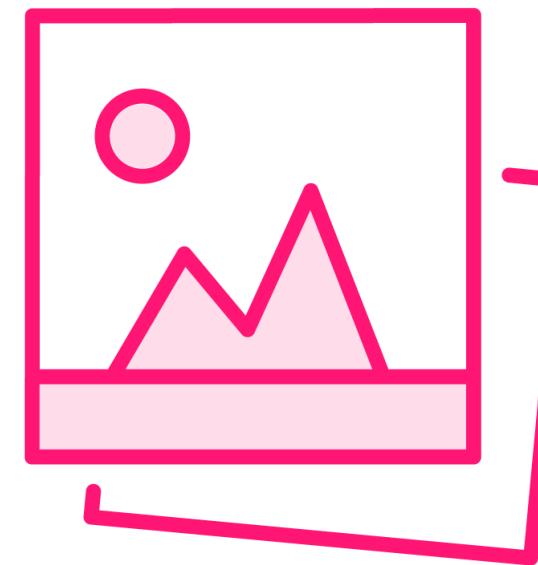
Record audio



Create a demo

Description Text and Three Item Icons with Headers

Add a short bit of description text in this area. Keep it short and simple.



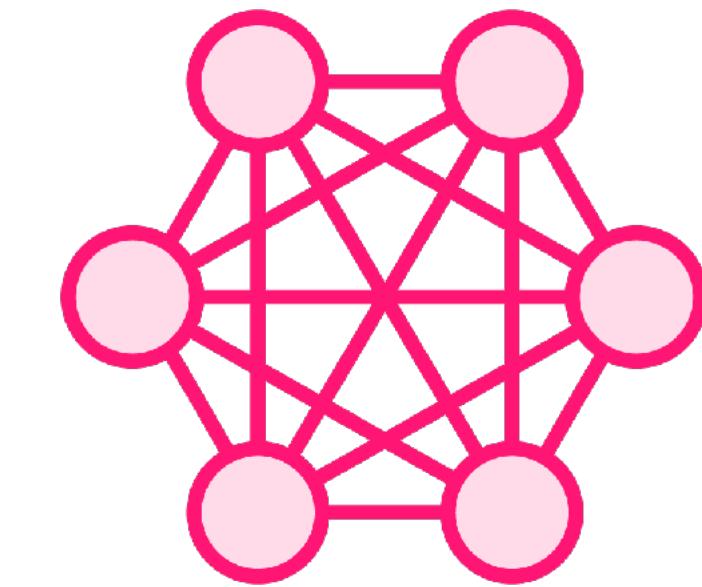
Analysis

Add a description here on these lines. Keep it short and simple.



Process

Add a description here on these lines. Keep it short and simple.



Work List

Add a description here on these lines. Keep it short and simple.

Bullet Lists

- - -
- - -
- - -
- - -
- - -
- - -
- - -

Animation built in

Bullet alternative

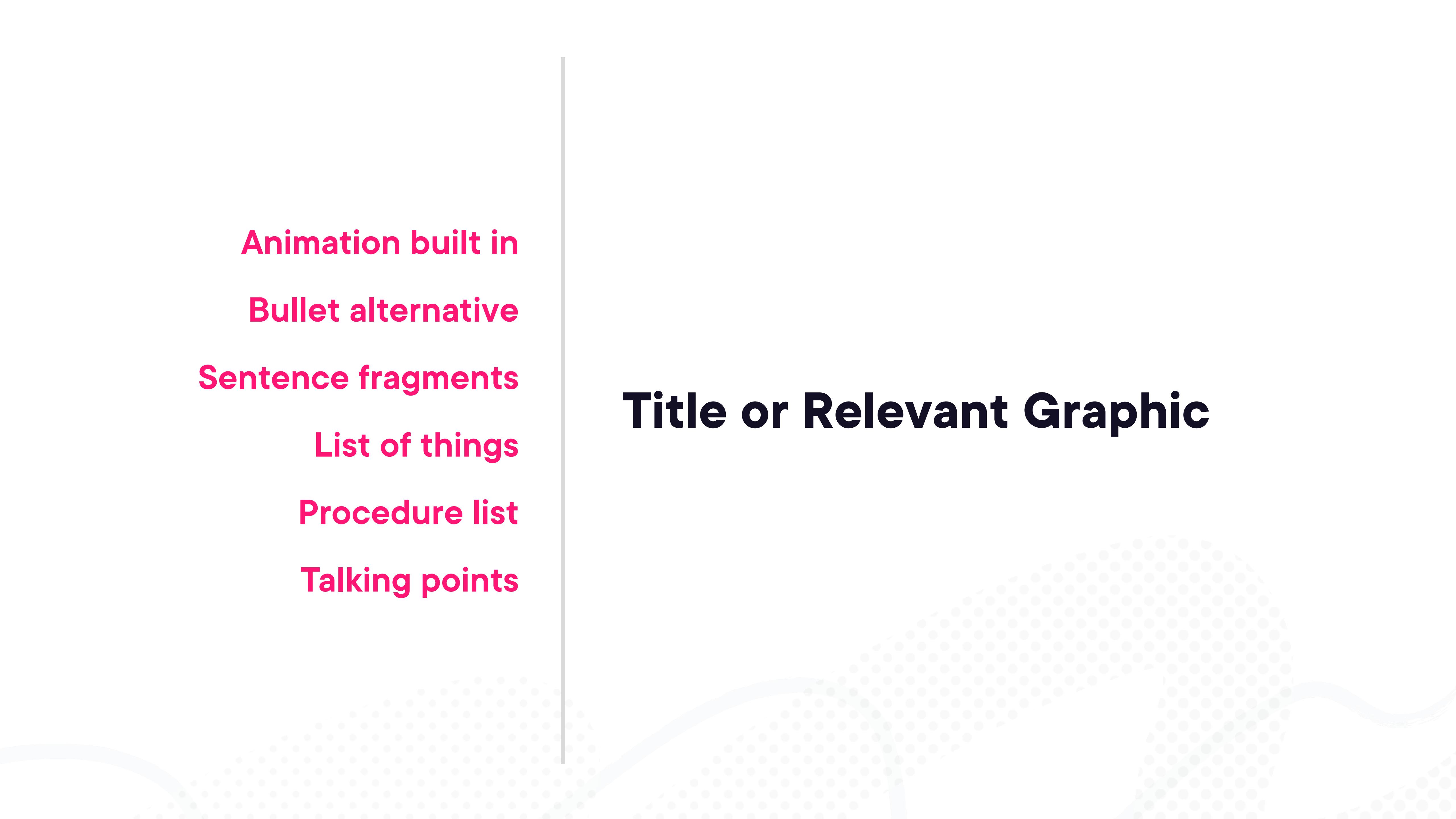
Sentence fragments

List of things

Procedure list

Talking points

Title or Relevant Graphic



Animation built in

Bullet alternative

Sentence fragments

List of things

Procedure list

Talking points



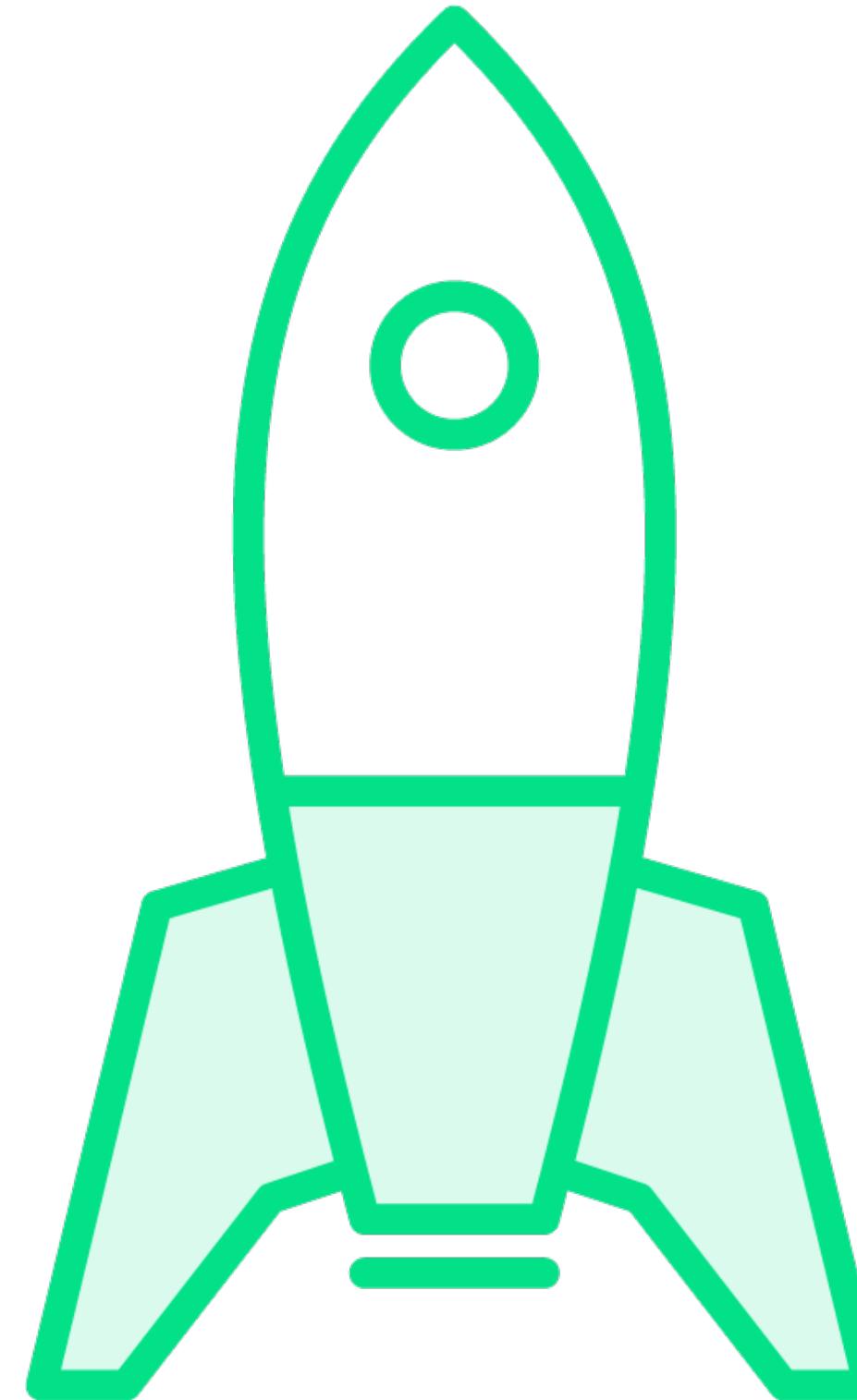
Title or Relevant Graphic

Animation built in

Room for a bit more text

Use this layout for:

- Longer sentence fragments
- List of things
- Procedure list
- Talking points



Animation built in

Room for a bit more text

Use this layout for:

- Longer sentence fragments
- List of things
- Procedure list
- Talking points

Title | Image Left | Bullets Right



Animation built in

Room for a bit more text

Use this layout for:

- Longer sentence fragments
- List of things
- Procedure list
- Talking points

Title | Image Right | Bullets Left

Animation built in
Room for a bit more text
Use this layout for:
Longer sentence fragments
List of things
Procedure list
Talking points





Photo Circle with Text

Works better with photos than with icons

Photos must be high-quality and copyright-safe

**Re-center text boxes vertically once text
is entered**



The main image bleeds off three edges

Graphic should fill the entire space

- Graphic must be high-quality and copyright-safe

Text animation is built in



Left Image with Title

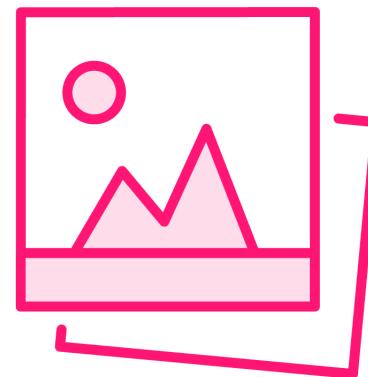
The main image bleeds off three edges

Graphic should fill the entire space

- Graphic must be high-quality and copyright-safe

Text animation is built in

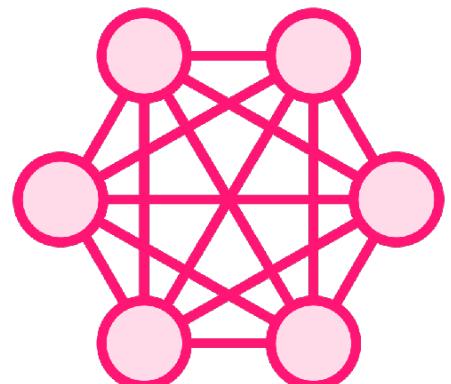
Three Item List with Icons



An image chunking option for when you have longer text



Be concise and keep each bullet to 3 lines or fewer

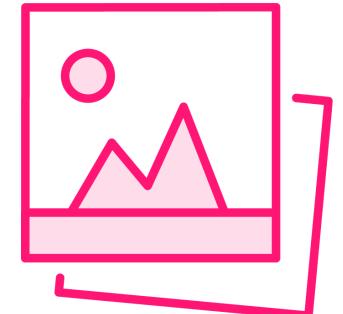


Add relevant icons on the left for each text item on the right

Four Item List with Icons



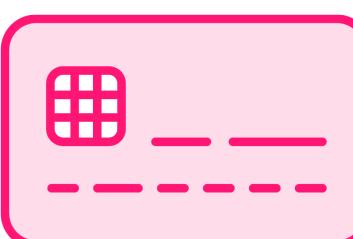
An image chunking option for when you have longer text



Be concise and keep each bullet to 2 lines or fewer



Add relevant icons on the left for each text item on the right



An alternative to bullets

Five Item List with Icons



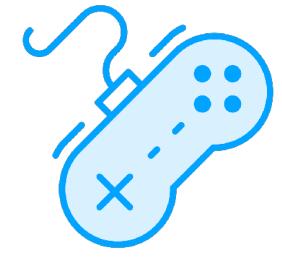
An image chunking option for when you have longer text



Sometimes four of these items aren't enough



Add relevant icons on the left for each text item on the right

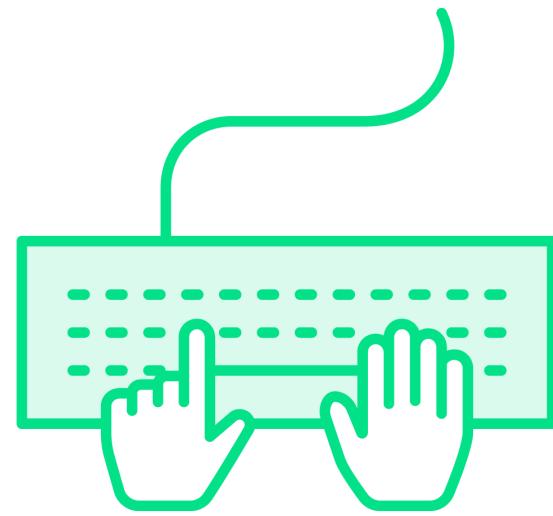


An image chunking option for when you have longer text



Be concise and limit the text to one line

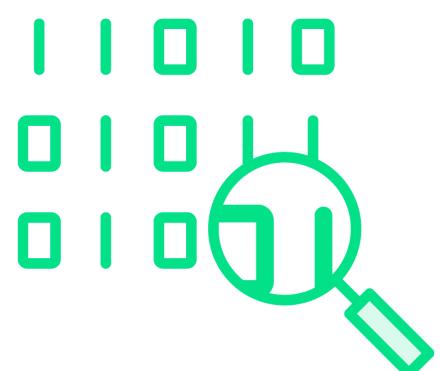
Two Column Six Item List with Icons



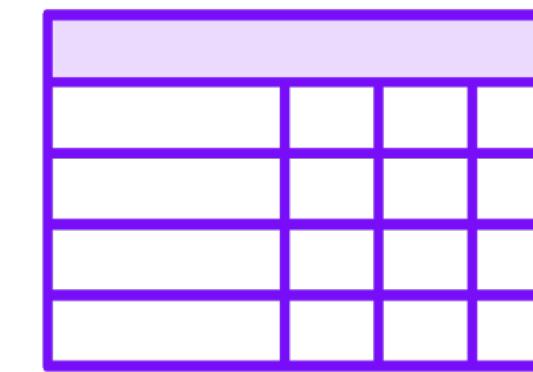
Program



Take a break and read



Check the data



Export all that data



Write up a case study



It's all under control

Code

Refer to [Author Kit](#) for additional guidance

Code Snippet | Light

```
<div class="row carousel-indicators">
    <div style="background-color:red;" class="col-md-4" data-target="#homeCarousel"
data-slide-to="0" class="active">
        </div>
    <div style="background-color:green;" class="col-md-4" data-
target="#homeCarousel" data-slide-to="1" class="active">
        </div>
</div>
```

Code Snippet | Dark

```
<div class="row carousel-indicators">
    <div style="background-color:red;" class="col-md-4" data-target="#homeCarousel"
data-slide-to="0" class="active">
        </div>
    <div style="background-color:green;" class="col-md-4" data-
target="#homeCarousel" data-slide-to="1" class="active">
        </div>
</div>
```

```
filename = 'name_of_file.txt'  
f = open(filename)  
  
# And then do something with `f`
```

Opening the file

**Using the `open` method works similar to opening a drawer.
If you want to look pull stuff out of the drawer you need to do another action.
After opening a file, you need to do a follow-on step**

```
<div class="row carousel-indicators">
  <div style="background-color:red;" class="col-md-4" data-target="#homeCarousel" data-slide-to="0" class="active">
    </div>
  <div style="background-color:green;" class="col-md-4" data-target="#homeCarousel" data-slide-to="1" class="active">
    </div>
</div>
```

Code Snippet with Info | Dark

Information about the code above. Code should be in Roboto Mono font, while slide title and supplemental text should remain in PS TT Commons.

```
// Put code on this side
```

```
let website = {  
    name: 'Pluralsight',  
    url: 'https://pluralsight.com'  
};
```

```
function makeUrl() {}
```

```
let sites = []  
sites.push(website)
```

```
console.log(sites[0].name)
```

◀ Line up with these notes

◀ Create an object

◀ Define a function

◀ Add the object to an array

◀ Log the site name to the console

```
// Put code on this side
```

```
let website = {  
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  url: 'https://pluralsight.com'  
};
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◀ Line up with these notes

◀ Create an object

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◀ Add the object to an array

◀ Log the site name to the console

Title and Tab for Filename

Add a line of text here if needed

Filename.code

```
<div class="row carousel-indicators">
    <div style="background-color:red;" class="col-md-4" data-target="#homeCarousel"
data-slide-to="0" class="active">
        </div>
    <div style="background-color:green;" class="col-md-4" data-
target="#homeCarousel" data-slide-to="1" class="active">
        </div>
</div>
```

Title and Tab for Filename

Add a line of text here if needed

Filename.code

```
<div class="row carousel-indicators">
    <div style="background-color:red;" class="col-md-4" data-target="#homeCarousel"
data-slide-to="0" class="active">
        </div>
    <div style="background-color:green;" class="col-md-4" data-
target="#homeCarousel" data-slide-to="1" class="active">
        </div>
</div>
```

Title and Two Tabs

Add a line of text here if needed

Filename.here

```
<div style="background-color:red;"  
      class="col-md-4" data-  
      target="#homeCarousel" data-slide-  
      to="0"  
      class="active">  
</div>
```

Filename.here

```
<div style="background-color:red;"  
      class="col-md-4" data-  
      target="#homeCarousel" data-slide-  
      to="0"  
      class="active">  
</div>
```

Title and Two Tabs

Add a line of text here if needed

Filename.here

```
<div style="background-color:red;"  
      class="col-md-4" data-  
      target="#homeCarousel" data-slide-  
      to="0"  
      class="active">  
</div>
```

Filename.here

```
<div style="background-color:red;"  
      class="col-md-4" data-  
      target="#homeCarousel" data-slide-  
      to="0"  
      class="active">  
</div>
```

Title and Tab with Output | Vertical

Add a line of text here if needed

Filename.here

```
<div class="row carousel-indicators">
  <div style="background-color:red;" class="col-md-4" data-target="#homeCarousel" data-slide-to="0" class="active">
    </div>
  <div style="background-color:green;" class="col-md-4" data-target="#homeCarousel" data-slide-to="1" class="active">
    </div>
</div>
```

> Console

Title and Tab with Output | Vertical

Filename.nere

```
<div class="row carousel-indicators">
  <div style="background-color:red;" class="col-md-4" data-target="#homeCarousel" data-slide-to="0" class="active">
    </div>
    <div style="background-color:green;" class="col-md-4" data-target="#homeCarousel" data-slide-to="1" class="active">
      </div>
</div>
```

> Console

Title and Tab with Output | Horizontal

Add a line of text here if needed

Filename.here

```
<div style="background-color:red;"  
      class="col-md-4" data-  
      target="#homeCarousel" data-slide-to="0"  
      class="active">  
</div>
```

> Code output or other items

Title and Tab with Output | Horizontal

Add a line of text here if needed

Filename.here

```
<div style="background-color:red;"  
      class="col-md-4" data-  
      target="#homeCarousel" data-slide-to="0"  
      class="active">  
</div>
```

> Code output or other items

Title Left and Filename at top

Filename.here

```
<div class="row carousel-indicators">
    <div style="background-color:red;" class="col-md-4" data-target="#homeCarousel" data-slide-to="0" class="active">
        </div>
    <div style="background-color:green;" class="col-md-4" data-target="#homeCarousel" data-slide-to="1" class="active">
        </div>
</div>
```

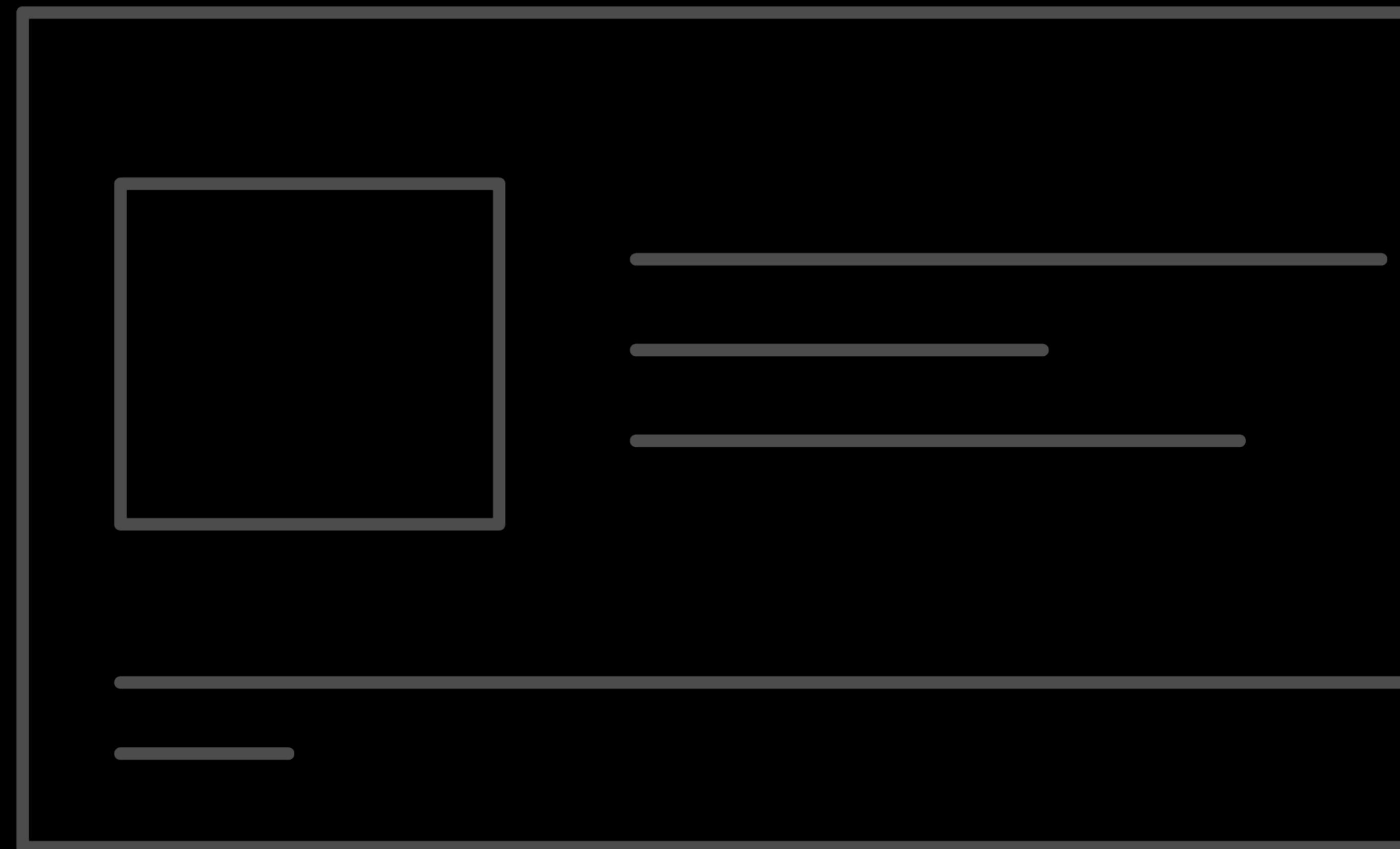
Title Left and Filename at top

Filename.here

```
<div class="row carousel-indicators">
    <div style="background-color:red;" class="col-md-4" data-target="#homeCarousel" data-slide-to="0" class="active">
        </div>
    <div style="background-color:green;" class="col-md-4" data-target="#homeCarousel" data-slide-to="1" class="active">
        </div>
</div>
```

Citations

Refer to [Author Kit](#) for additional guidance



Citation Option

Add text here

More Information

Title of Pluralsight Course

Author Name



Resources Referenced in this Course

Microsoft Docs, [Update Management Overview](#)

Stephen Covey, **The 7 Habits of Highly Effective People**

Add relevant icons on the left for each text item on the right

Author/Source, Title, Link/Short URL

Comparison Slides

Comparison: Point-by-Point

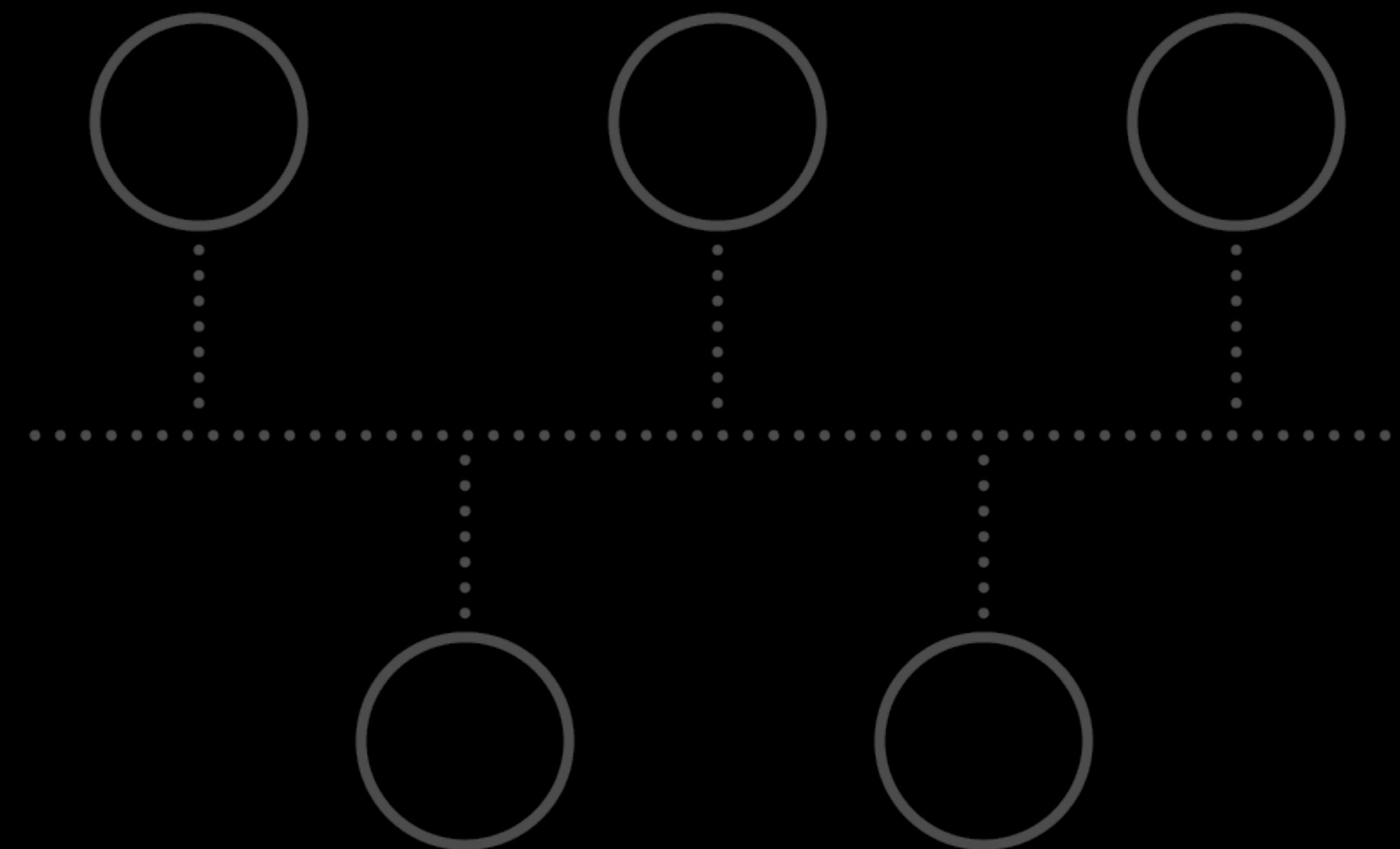
Functional Group	VS	Objectives
Configure and administer security		Manage vSphere storage
Configure advanced networking		Configure software-defined storage
Configure advanced storage		Configure vSphere storage multi-pathing and failover
Administer and manage resources		Perform advanced VMFS and NFS configurations and upgrades
Configure availability solution		Configure software-defined storage

Comparison: By Item

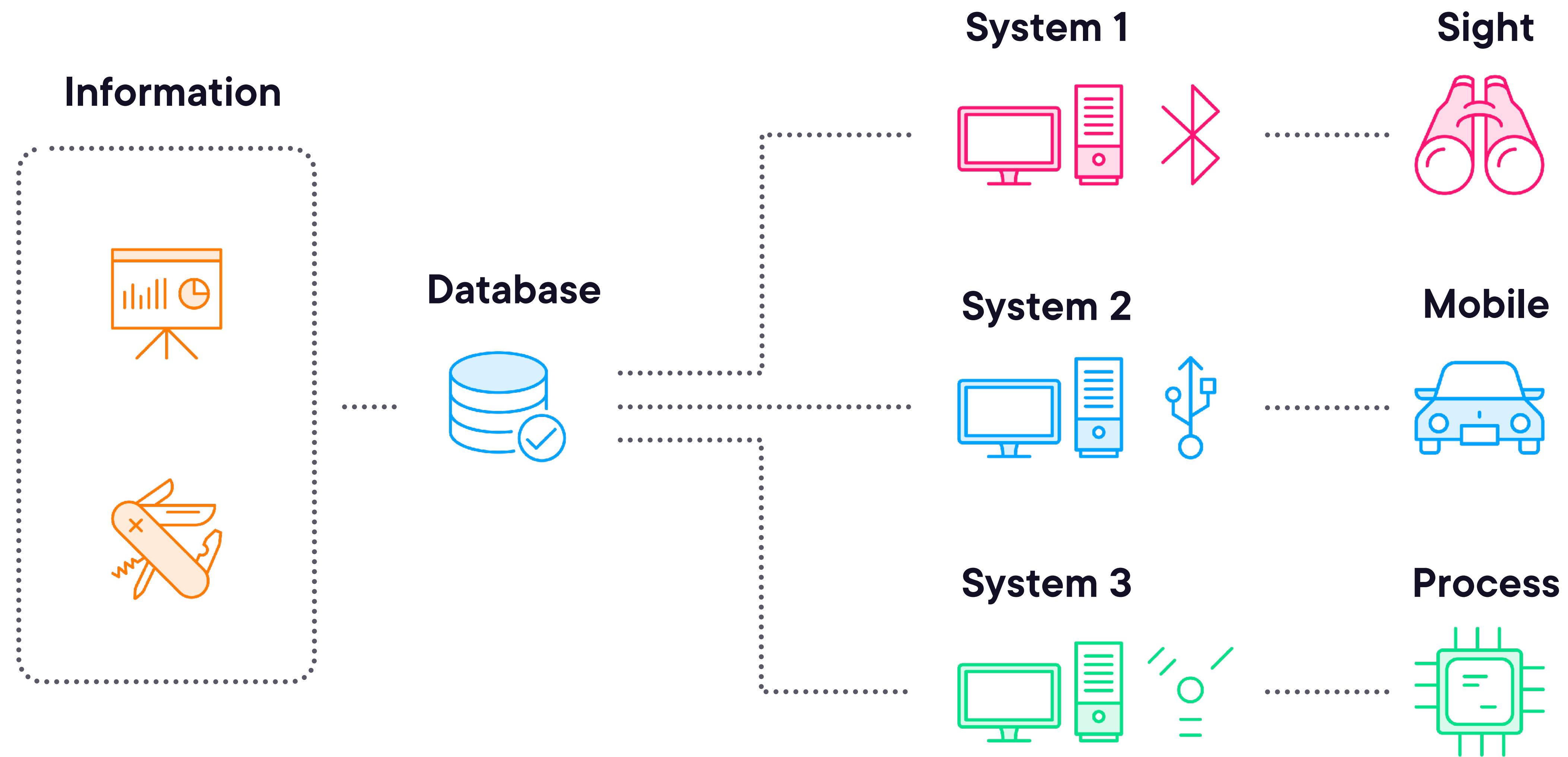
Functional Group	VS	Objectives
Configure and administer security		Manage vSphere storage
Configure advanced networking		Configure software-defined storage
Configure advanced storage		Configure vSphere storage multi-pathing and failover
Administer and manage resources		Perform advanced VMFS and NFS configurations and upgrades
Configure availability solution		Configure software-defined storage

Diagrams

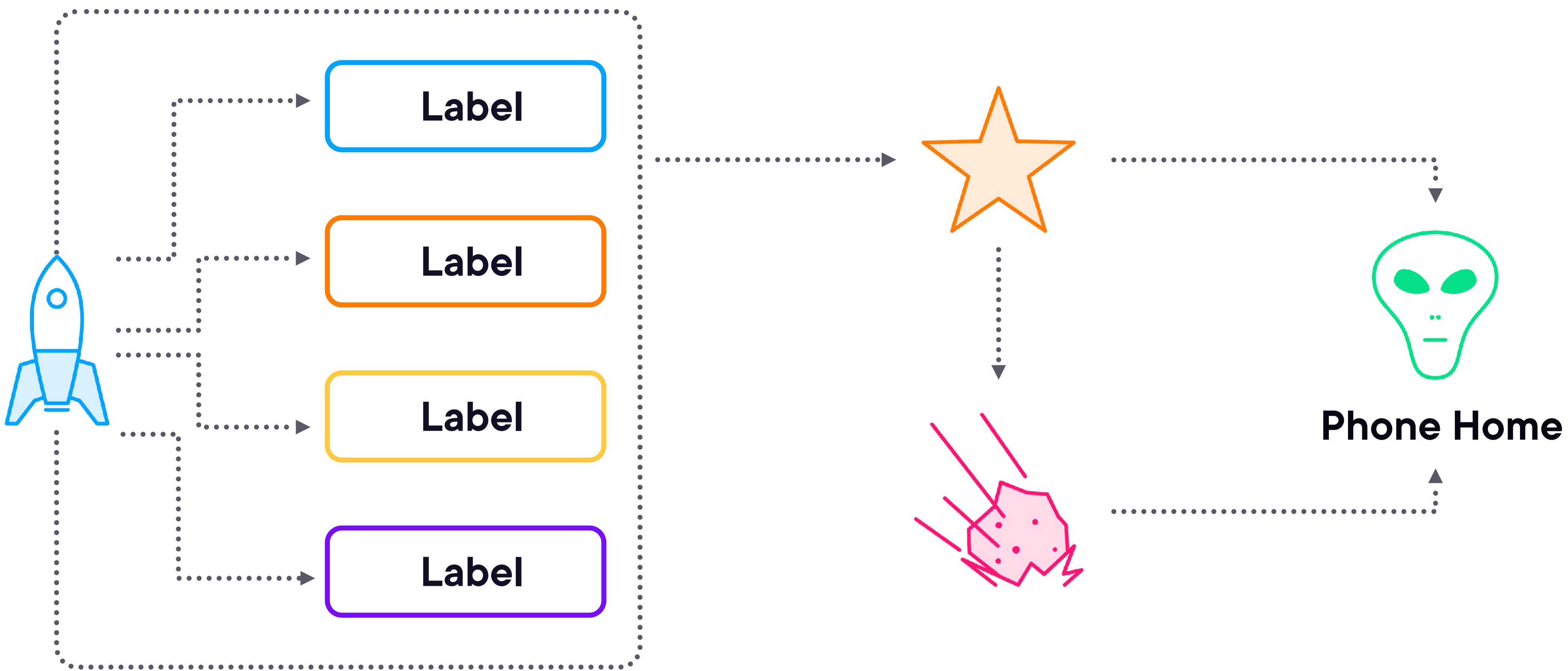
Refer to [Author Kit](#) for additional guidance

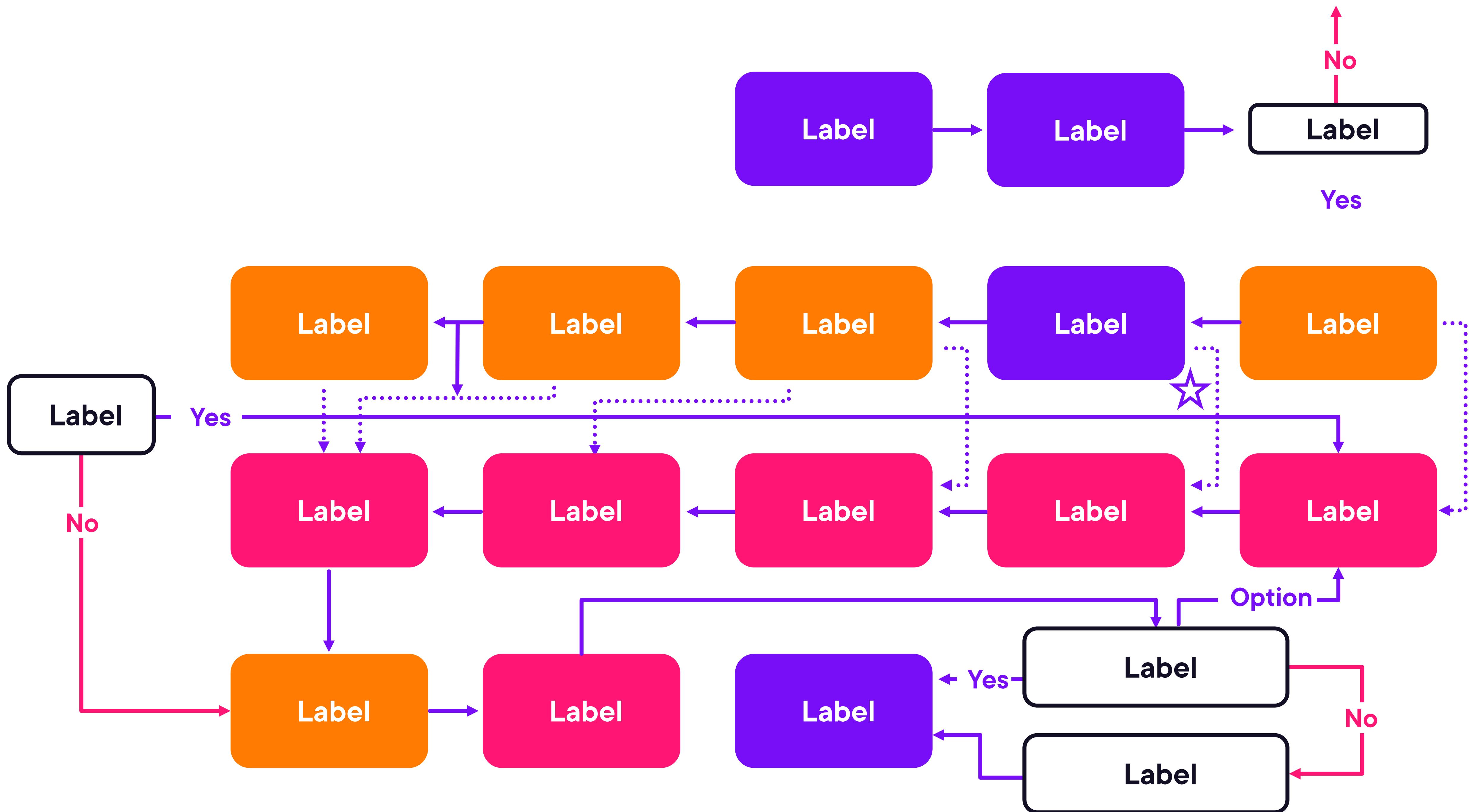


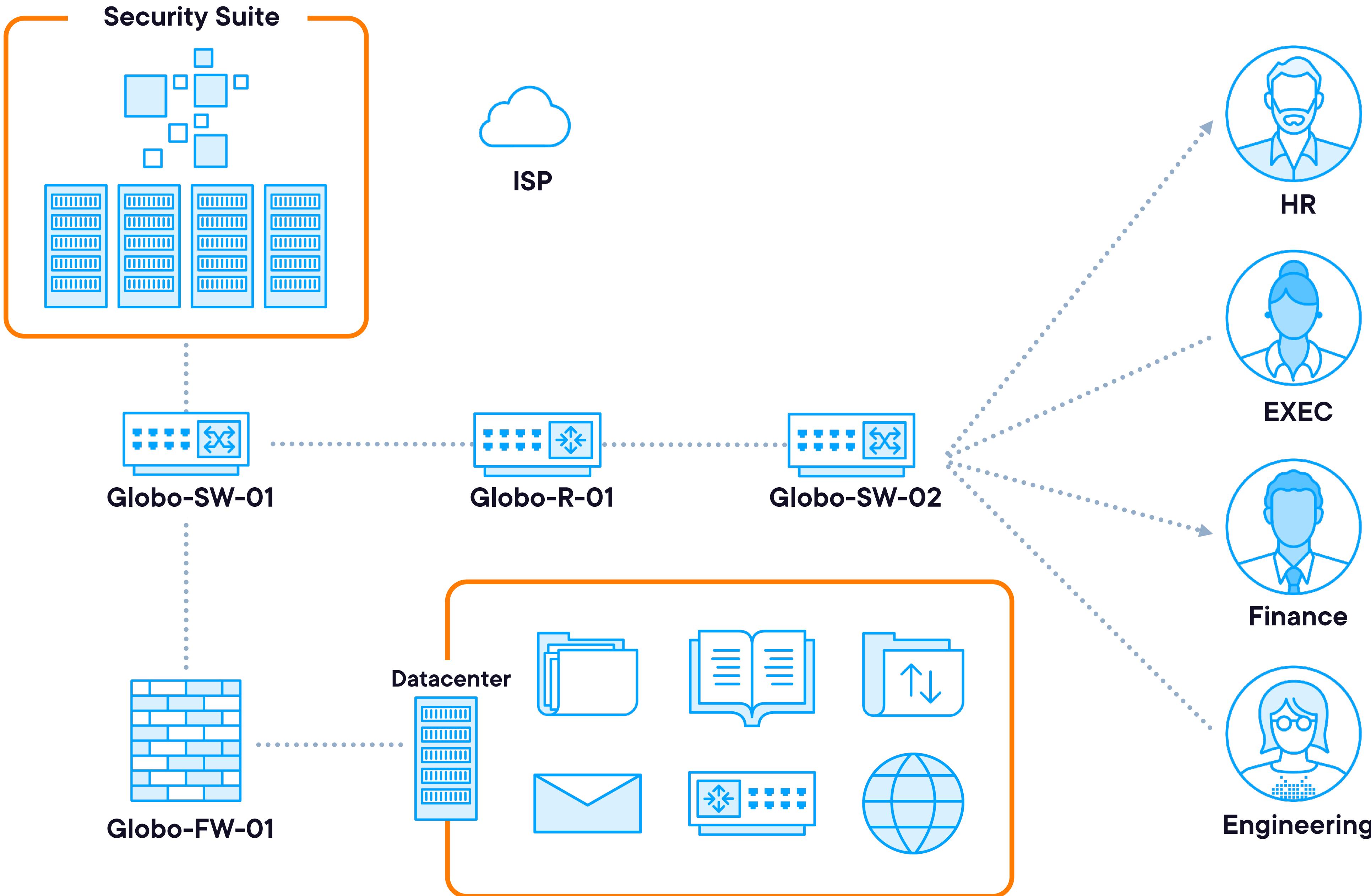
Basic Diagram



Basic Diagram

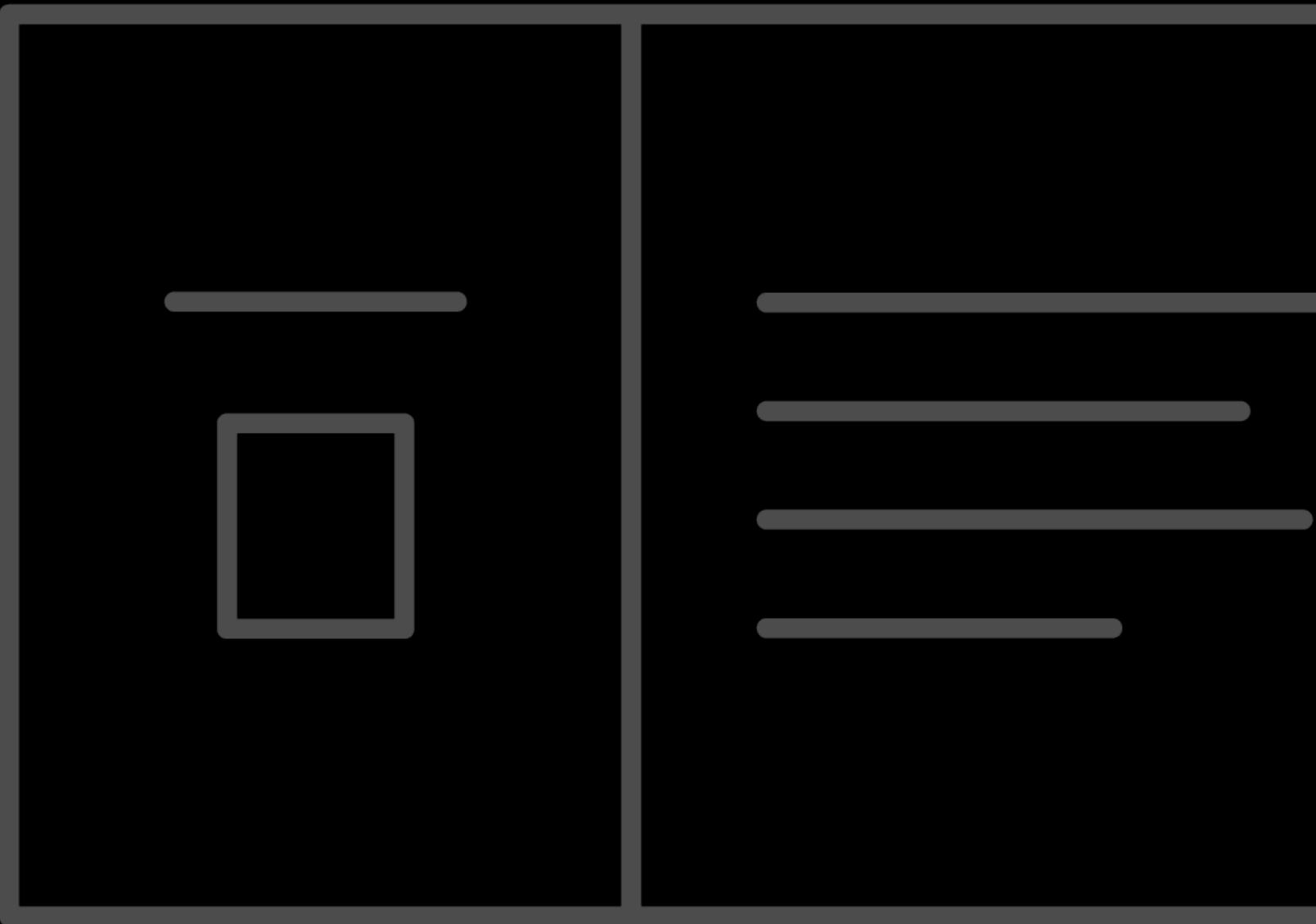
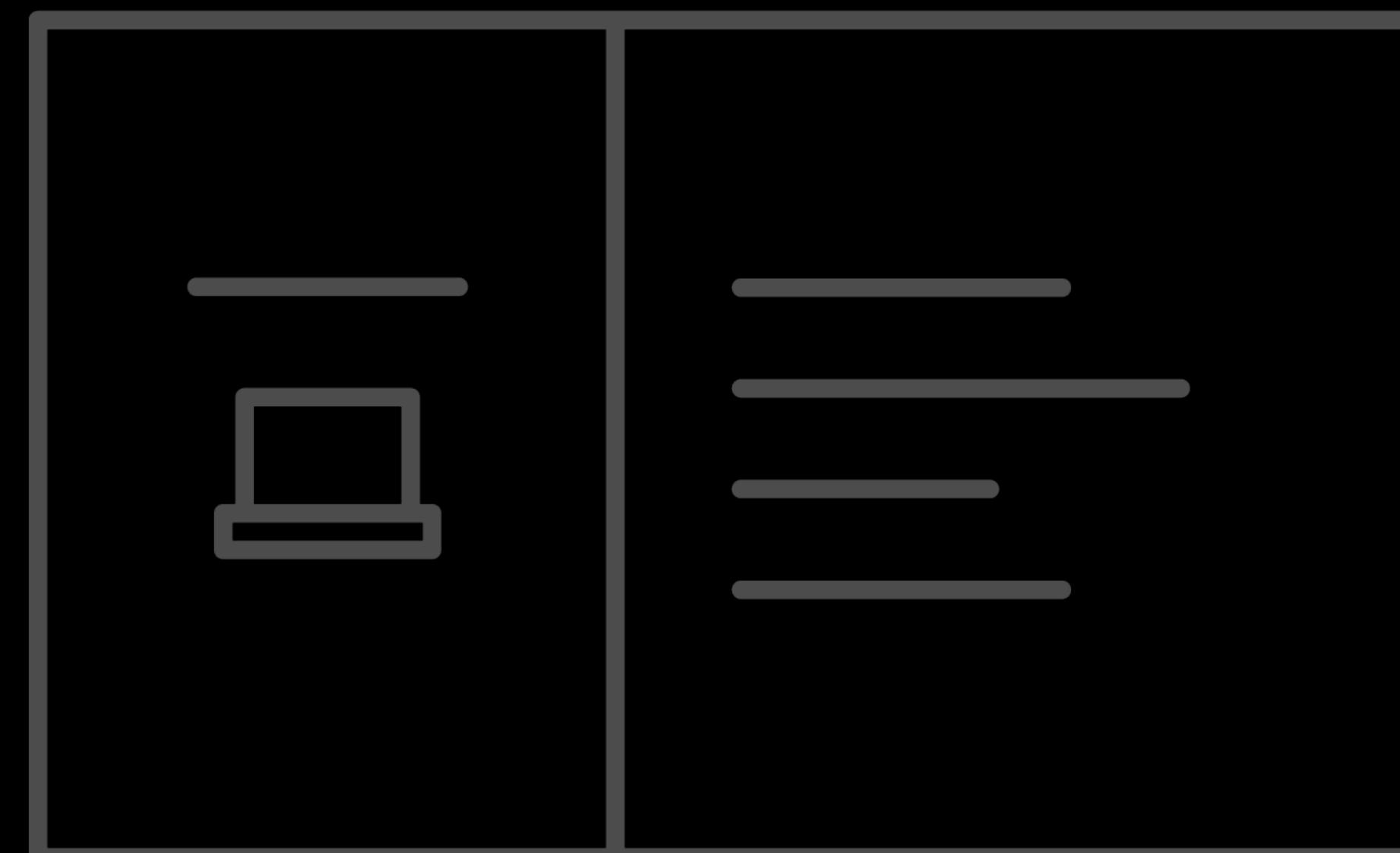






Slide Transitions

Refer to [Author Kit](#) for additional guidance



Timeline of Events with Fade Transition

1940s

McCulloch and Pitts

Neural network theory

1968

Ken Thompson

First in computing

1986

Henry Spencer

Regex library

1956

Stephen Cole Kleene

Regular events/sets



1973

Ken Thompson

First release of grep

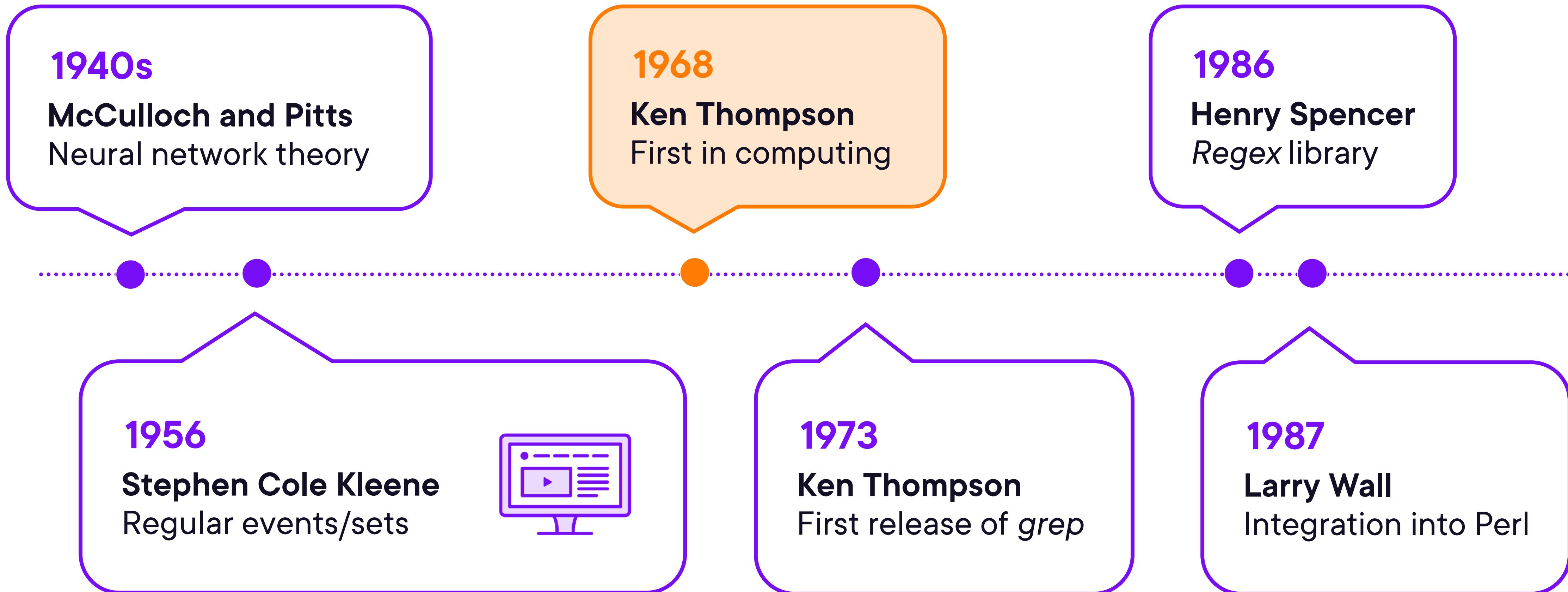
1987

Larry Wall

Integration into Perl

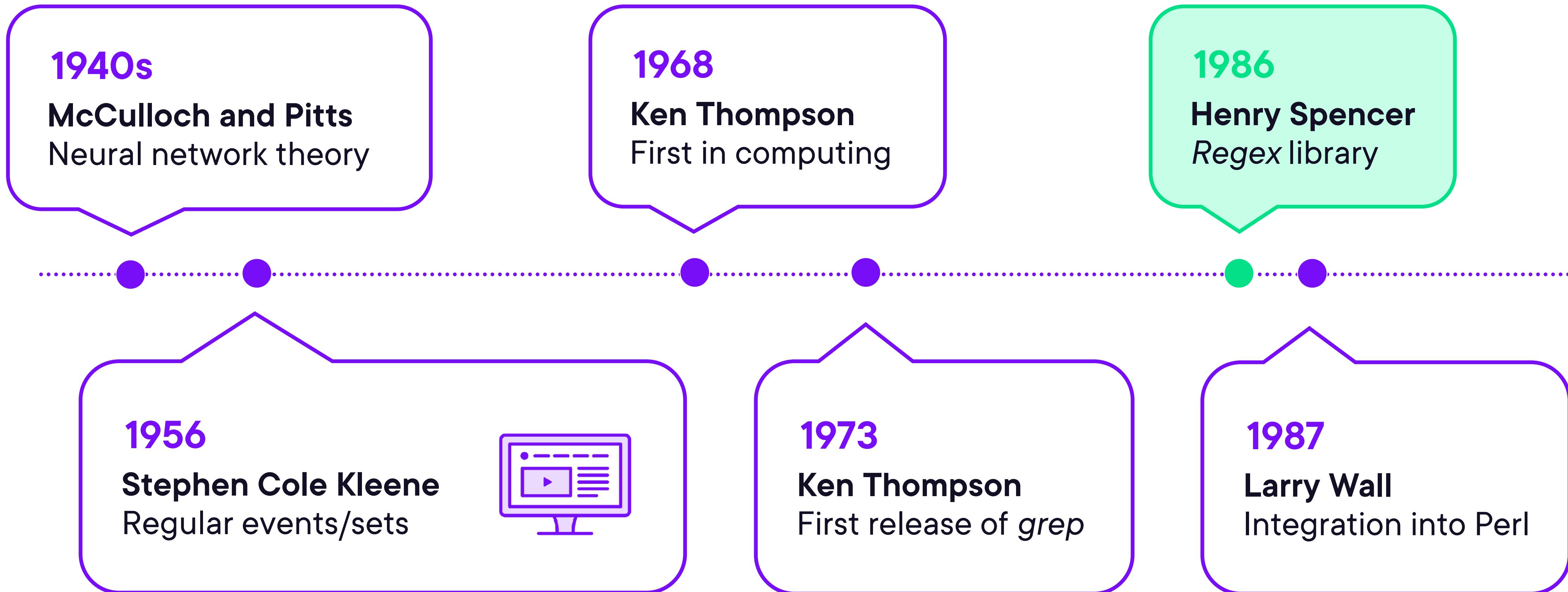
*View in presentation mode

Timeline of Events with Fade Transition



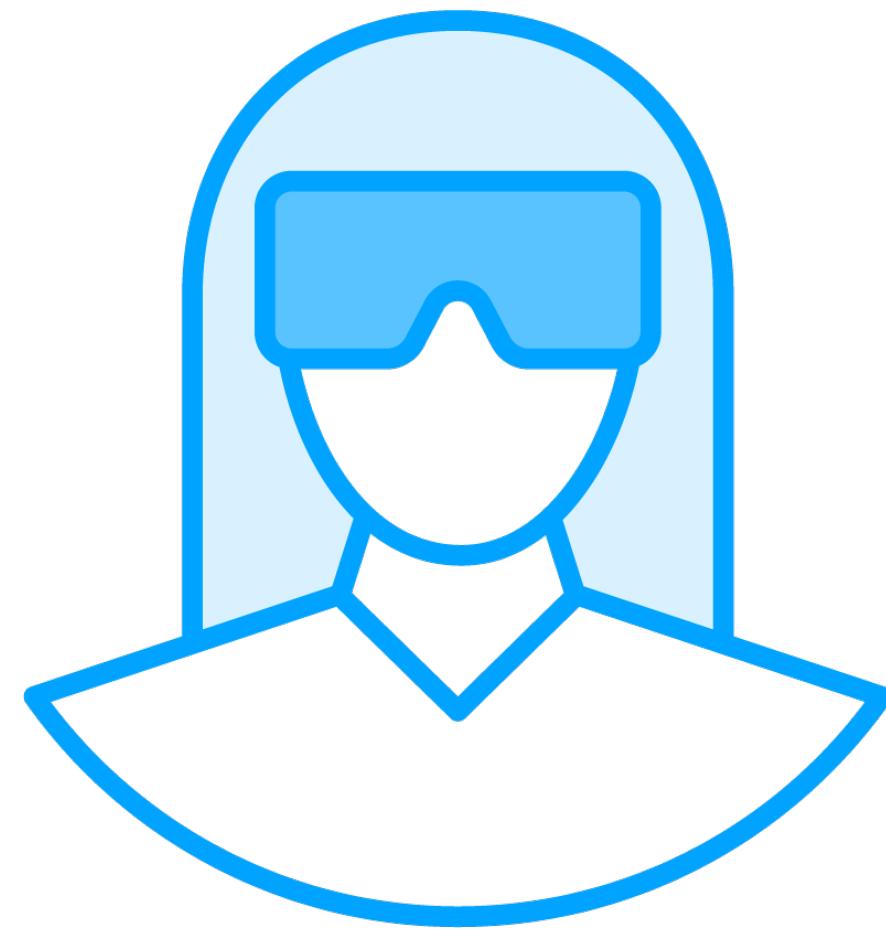
*View in presentation mode

Timeline of Events with Fade Transition



*View in presentation mode

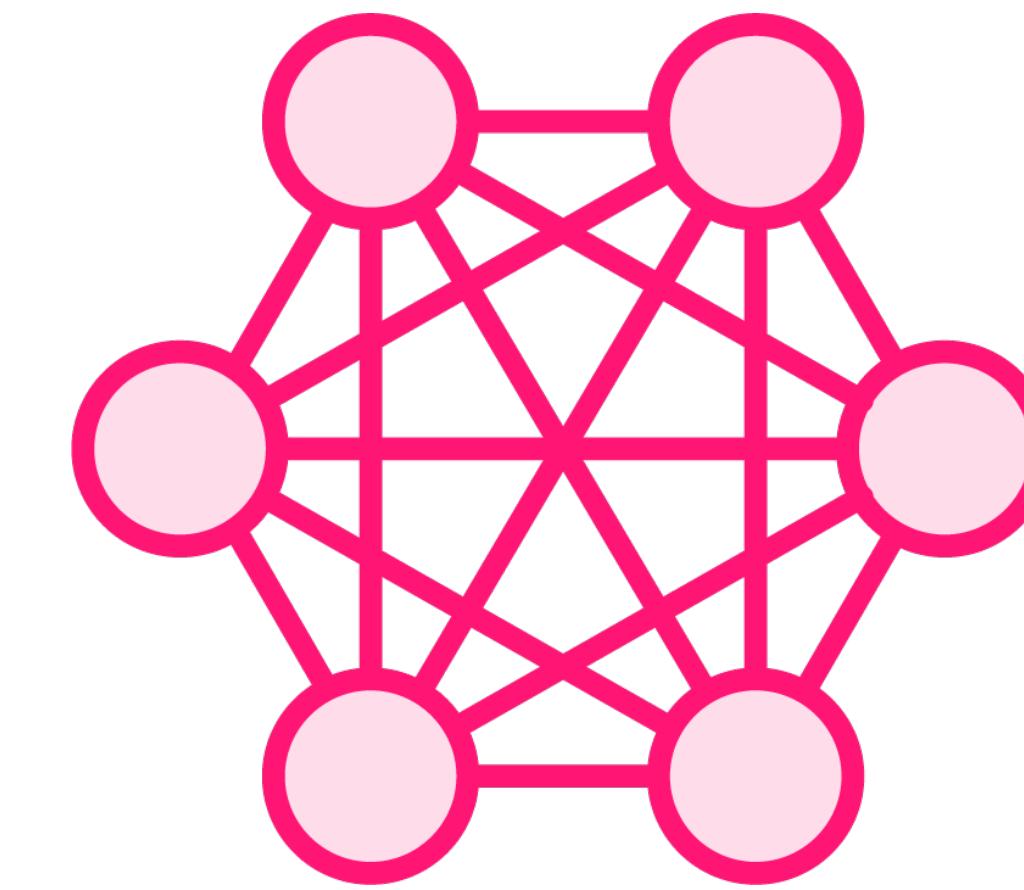
Cover/Uncover Transition



Some information about
this graphic goes here



Some information about
this graphic goes here



Some information about
this graphic goes here

**Make a statement or
highlight an idea here
between the transition.**

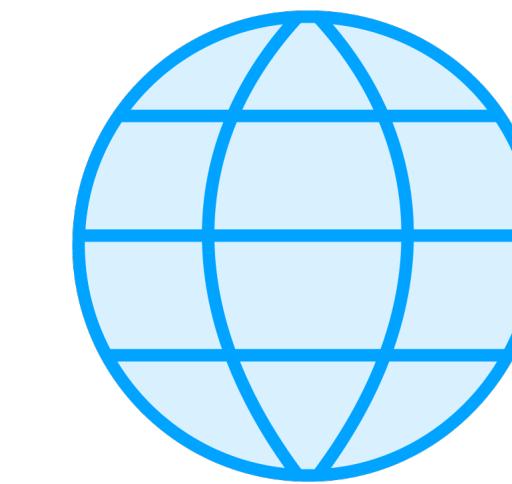
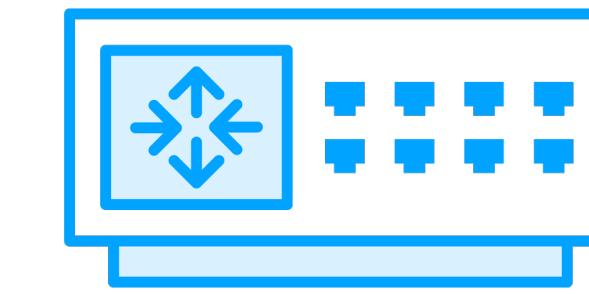
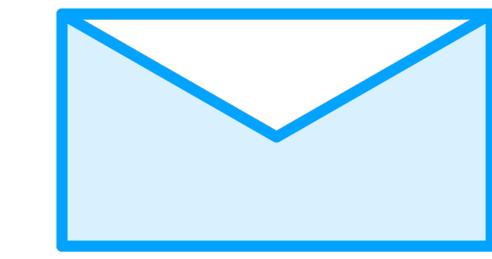
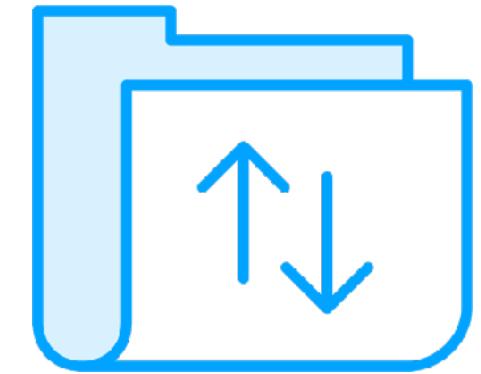
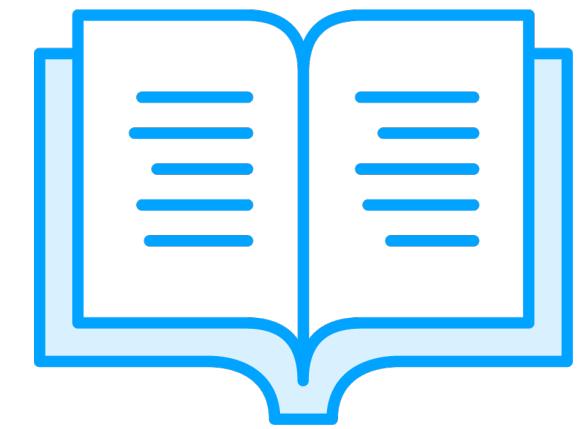
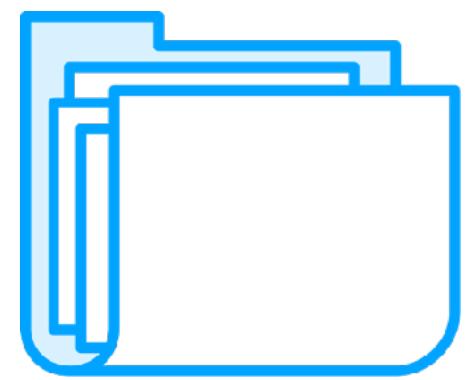
Push Transition: Step 1

Push transition: Let's have lots of fun.

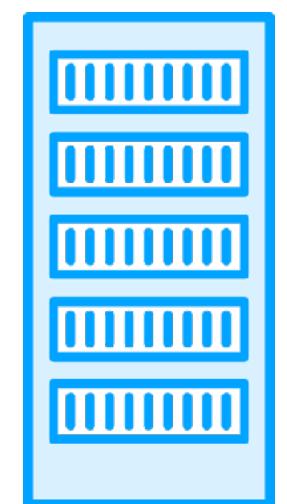
Push Transition: Step 2

There's so much you can do.

Morph Slide Transition



Datacenter



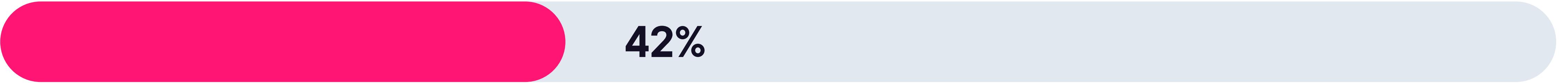
Morph Slide Transition



Morph Slide Transition

Q1

People who love pineapple on pizza



42%

A horizontal progress bar consisting of a red rounded rectangle on the left and a light gray rounded rectangle on the right. The red section is filled to the 42% mark, which is explicitly labeled in black text.

People who loathe pineapple on pizza



56%

A horizontal progress bar consisting of a purple rounded rectangle on the left and a light gray rounded rectangle on the right. The purple section is filled to the 56% mark, which is explicitly labeled in black text.

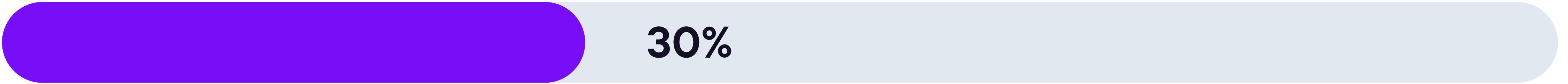
Morph Slide Transition

Q2

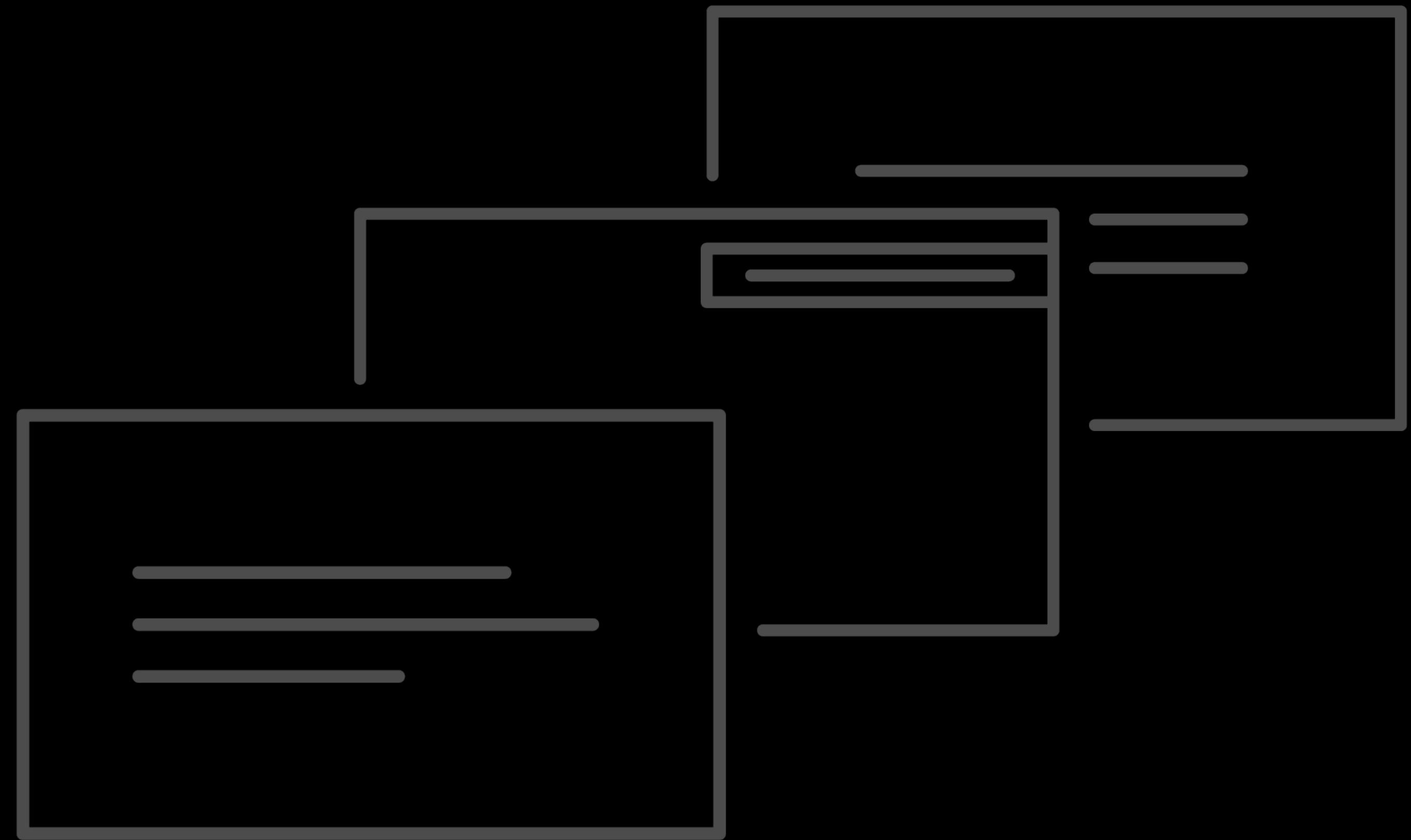
People who love pineapple on pizza



People who loathe pineapple on pizza



Other Slides



Word to Define

Here is where you put the definition. This is one of the few places where complete sentences are appropriate. Be sure to cite your source.

Word to Define

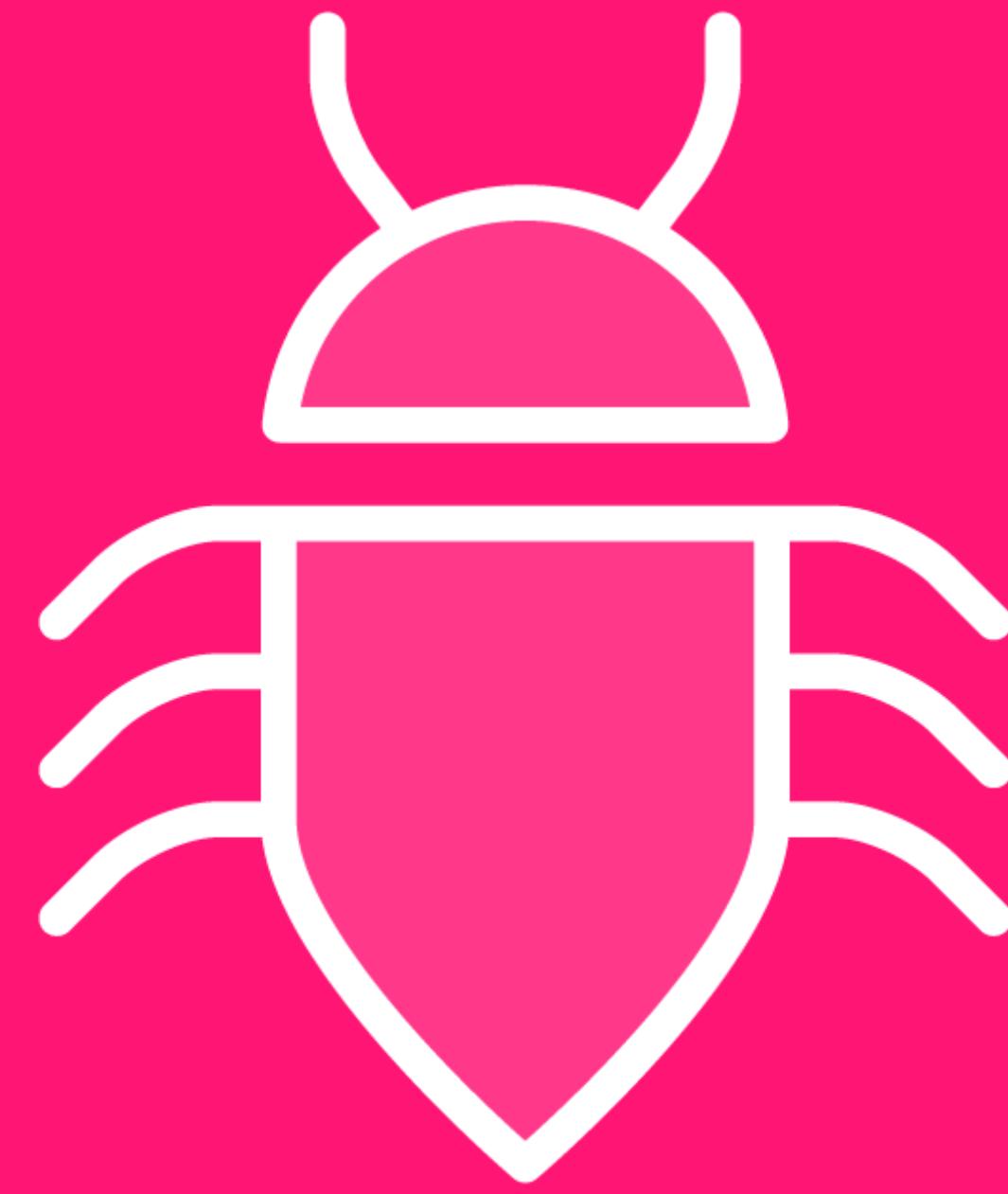
Here is where you put the definition. This is one of the few places where complete sentences are appropriate. Be sure to cite your source.

James Baldwin

**“It is true that the more one
learns the less one knows.”**

Anaïs Nin

“Insert a long or short quote
right here.”



Bugs, Bugs, Everywhere!

Add a short bit of description text in this area. This should be a quick intro slide to an idea without a lot of text. Stick to a few sentences.



Bugs, Bugs, Everywhere!

Add a short bit of description text in this area.
This should be a quick intro slide to an idea
without a lot of text. Stick to a few sentences.

**This is a short, important
statement to bring
attention to something.**

**This is a short, important
statement to bring
attention to something.**

A vibrant hot air balloon with a multi-colored envelope (purple, yellow, red, blue) is the central focus, positioned on the left side of the frame. It is flying over a lush green vineyard with numerous rows of grapevines. In the background, there are rolling hills covered in dense green forests under a vast sky transitioning from blue to warm orange and yellow hues of a setting sun.

You can use full-screen images too