

Setting up your Project with Virtual Environments



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Overview



Why virtual environments

Create and explore a virtual environment

Using virtual environments with projects

Project dependencies



Problems with System-wide Installs

Multiple projects with
conflicting dependencies

Conflicts with system
dependencies

Multi-user systems

Testing code against different
python and library versions



Virtual Environments



Isolated context for installing packages

Always work inside a virtual environment

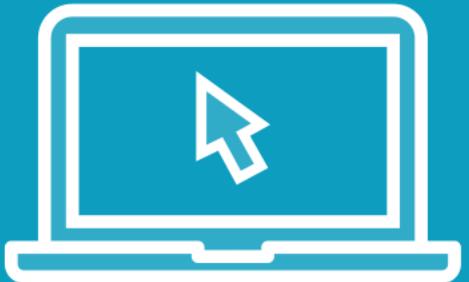
- No global installs anymore
- Create a virtual env. for every project

Isolate project dependencies

- No more conflicts with other projects



Demo

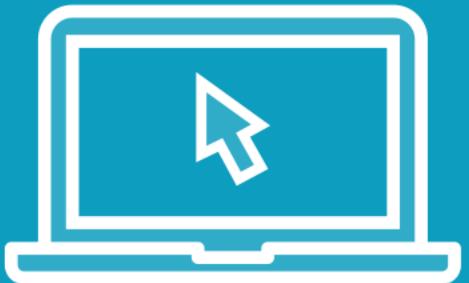


Starting a project

- Create a virtual environment
- Explore the virtual environment



Demo



Working inside a virtual environment

- Activating the environment
- Running python and pip
- Installing a package
- Deactivate



Creating a Virtual Environment

```
virtualenv myenv
```

```
# Need to install virtualenv package first
```

```
# Included with python >= 3.3: venv
```

```
python -m venv myvenv
```

```
# Deprecated
```

```
pyvenv myvenv
```



Activating a Virtual Environment

```
# Run the activate script inside the virtual environment  
# On linux/Mac OS:  
reindert@pc:~/dev/$ . myvenv/bin/activate  
  
# On Windows:  
C:\Users\reindert\dev> myvenv\Scripts\activate.bat
```

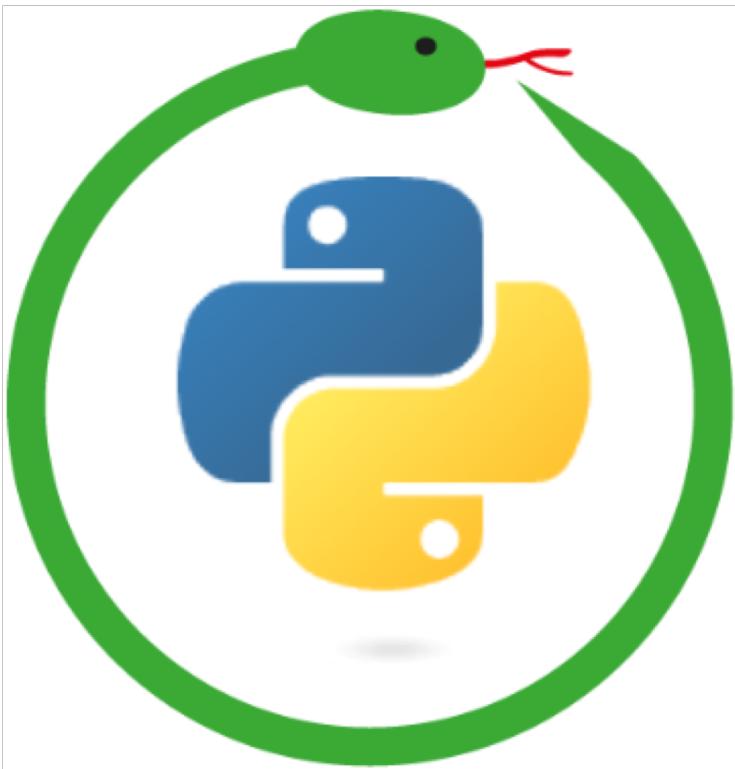


After Activation

```
# The prompt will show the name of the active venv  
(myenv) reindert@pc:~/dev/$  
  
# You are now ready to install packages  
  
# And work on your project  
  
# When you're done, leave the virtual environment  
(myenv) reindert@pc:~/dev/$ deactivate  
  
# To remove a virtual env., simply delete the directory
```



In an Active Virtual Environment



python refers to interpreter in venv

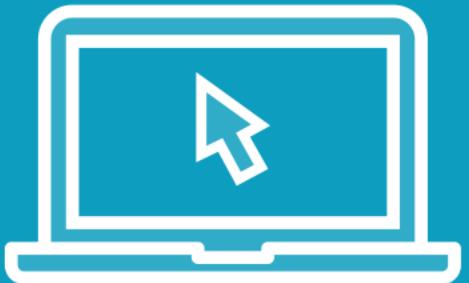
- Same for pip

Packages are installed inside the venv

- Don't interfere with other projects



Demo



Requirements

- Syncing dependencies with your team



Projects and Virtualenvs



Projects

- Contain source code
- Are under version control

Virtual environments

- Contain packages, tools, python, etc.
- Keep them separate from your projects
- Usually: 1 venv per project
- Can have multiple venvs per project
- Or a single venv for multiple projects



requirements.txt

```
# After installing packages
```

```
python -m pip freeze > requirements.txt
```

```
# Resulting file (put this in version control):
```

```
certifi==2018.11.29
```

```
chardet==3.0.4
```

```
idna==2.8  (..etc..)
```

```
# To install all dependencies
```

```
python -m pip install -r requirements.txt
```



Specifying Versions

```
docopt == 0.6.1 # Must be version 0.6.1
```

```
keyring >= 4.1.1 # Minimum version 4.1.1
```

```
coverage != 3.5 # Anything except version 3.5
```



Versions and Pip

```
python -m pip install flask==0.9
```

```
python -m pip install 'Django<2.0'      # Mind the quotes!
```

```
# Upgrade to latest version
```

```
python -m pip install -U flask
```

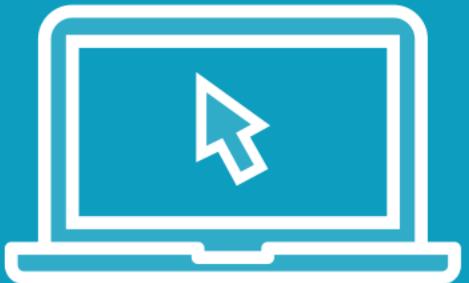
```
# Upgrade pip itself
```

```
# Take care not to overwrite system pip
```

```
python -m pip install -U pip
```



Demo



A real-world github project



Overview



Why virtual environments

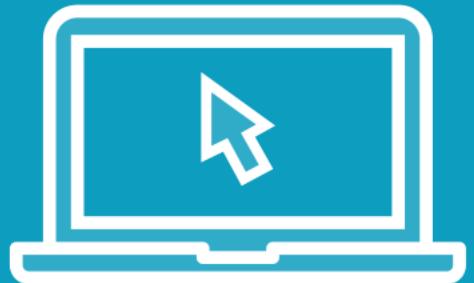
Create and explore a virtual environment

Using virtual environments with projects

Project dependencies



Demo



This bullet list is preset with animations

Use this layout to introduce your demo

How to do this one thing

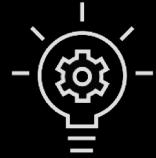
- Why we do it
- How we do it

Then there's that thing

Don't forget to do this

We'll finish it off with this thing





Using the **Image Chunking** Slides

A slide template with a title bar and two image placeholders. Each placeholder contains a small icon and the text "Click to add image". Below each placeholder is a text box labeled "Click to add text".

Two Image Chunking

A slide template with a title bar and three image placeholders. Each placeholder contains a small icon and the text "Click to add image". Below each placeholder is a text box labeled "Click to add text".

Three Image Chunking

A slide template with a title bar and four image placeholders. Each placeholder contains a small icon and the text "Click to add image". Below each placeholder is a text box labeled "Click to add text".

Four Image Chunking

A slide template with a title bar and six image placeholders. Each placeholder contains a small icon and the text "Click to add image". Below each placeholder is a text box labeled "Click to add text".

Six Image Chunking

These layouts can be used as an alternative to a bulleted list.

They're built specifically for **photos** or **graphics** and look especially awesome when you incorporate icons from the **Pluralsight Icon Library**.

See them in action in the next 4 slides.



Example of Image Chunking Two Items



Jill Anderson

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



John Doe

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



Example of Image Chunking Three Items



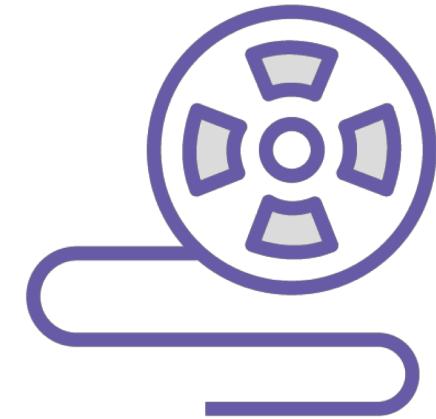
Clipboard

Some information
goes here; three lines
or fewer is best



Book

Some information
goes here; three lines
or fewer is best



Film

Some information
goes here; three lines
or fewer is best



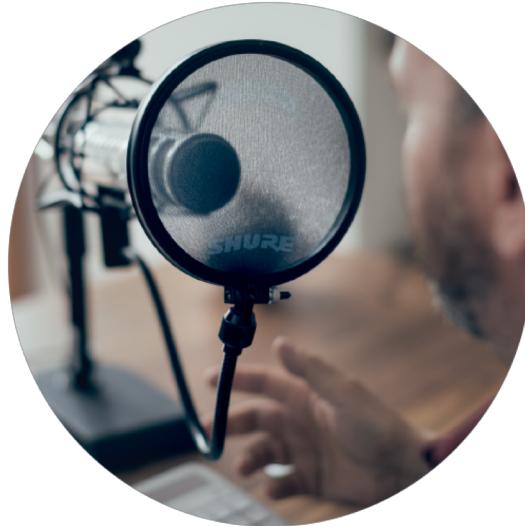
Example of Image Chunking Four Items



Write



Create



Record



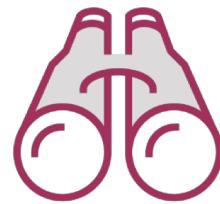
Learn



Example of Image Chunking Six Items



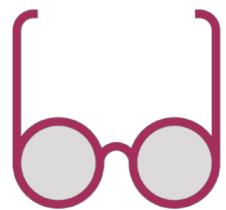
Address book



Binoculars



Camera



Eyeglasses



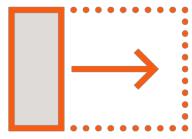
Megaphone



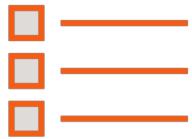
World



Icons with Bullets



An image chunking option for when you have longer text



Be concise and keep the text to 3 lines or shorter



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



Icons with Bullets



An image chunking option for when you have longer text



Two whole lines of text per image also fits nicely however, you should avoid using three lines

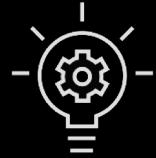


Add relative icons on the left for each text item on the right



An alternative to bullets

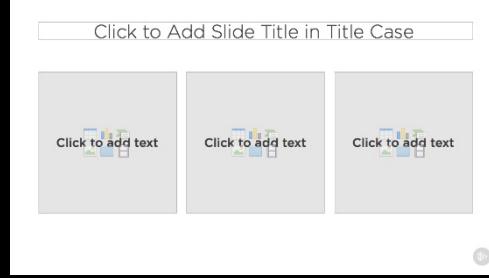




Using the **Text Chunking Slides**



Two Text Chunking



Three Text Chunking

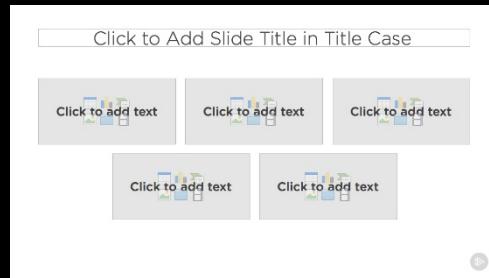
These layouts are intended to group chunks of text. Among other uses, they can be a great alternative to a bullet list.

Use **animations** to bring focus to the point you're speaking on one at a time, and/or use **color** to group points together.

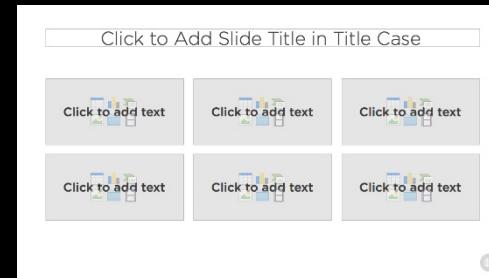
If you have more than six points to discuss, you may want to use a standard bullet list.



Four Text Chunking



Five Text Chunking



Six Text Chunking

We have provided some **example uses** of these layouts in the next few slides.



Text Chunking Two Items

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 Three Items

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

Talking point three

Be concise and keep
the text to four lines
or fewer



Text Chunking Four Items

This is the first talking point
that should be kept to three
lines or fewer

This is the second talking
point that should be kept to
three lines or fewer

This is the third talking point
that should be kept to three
lines or fewer

This is the fourth talking point
that should be kept to three
lines or fewer



Text Chunking Five Items

Talking point one

Keep the text to three
lines or fewer

Talking point two

Keep the text to three
lines or fewer

Talking point three

Keep the text to three
lines or fewer

Talking point four

Keep the text to three
lines or fewer

Talking point five

Keep the text to three
lines or fewer



Today's Mobile World

iPhone

Nexus 5

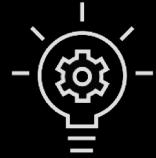
Lumia 950 XL

iPad

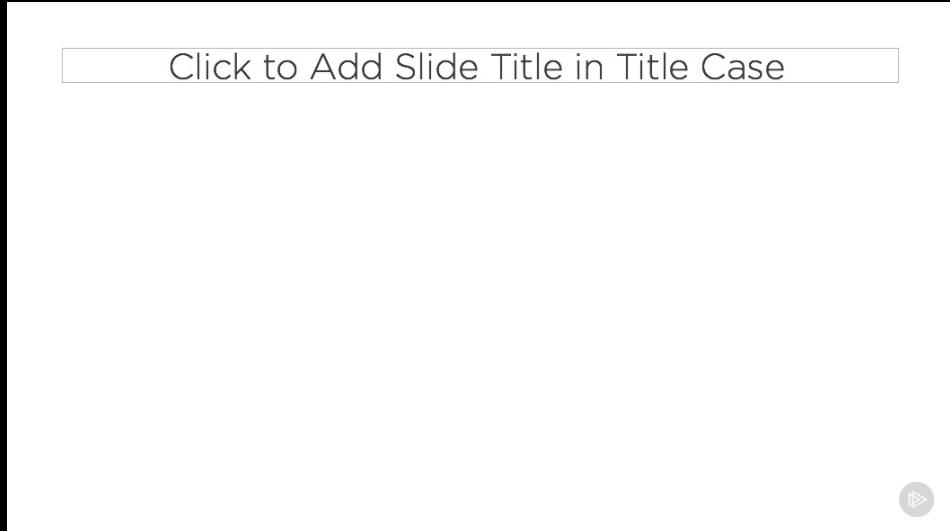
Nexus 7

Surface





Using the **Title Only Slide**



Title Only

This is the slide you'll want to use when you just need a big space for a diagram, chart, or graphic.

Make sure you check out the training videos available on the **Author Kit** for design best practices.

If you need help bringing your ideas for this space to life, contact your Editor about getting help from one of our **Content Graphic Designers**. In most cases, you just need to submit a rough outline and let our designers work their magic. However, in some special cases, your Editor can get you in touch with a designer directly.

We included some possible starting points for you in the next few slides.



Remember, we are here to help!



Customer Acquisition and Loyalty

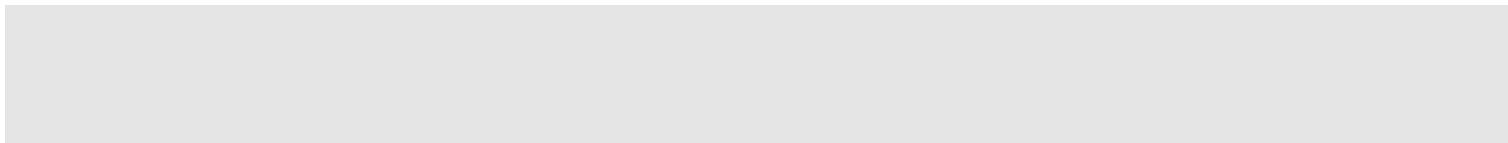
Observed higher sales



42%



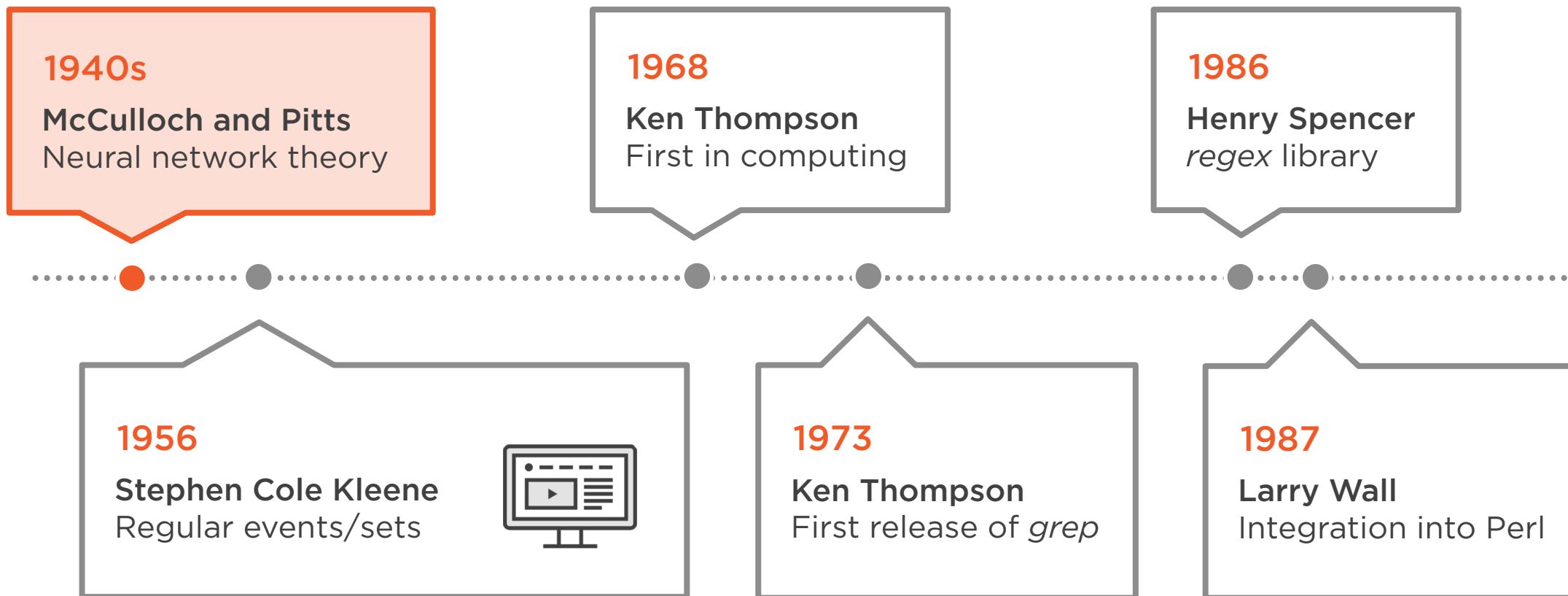
Observed more loyal customers



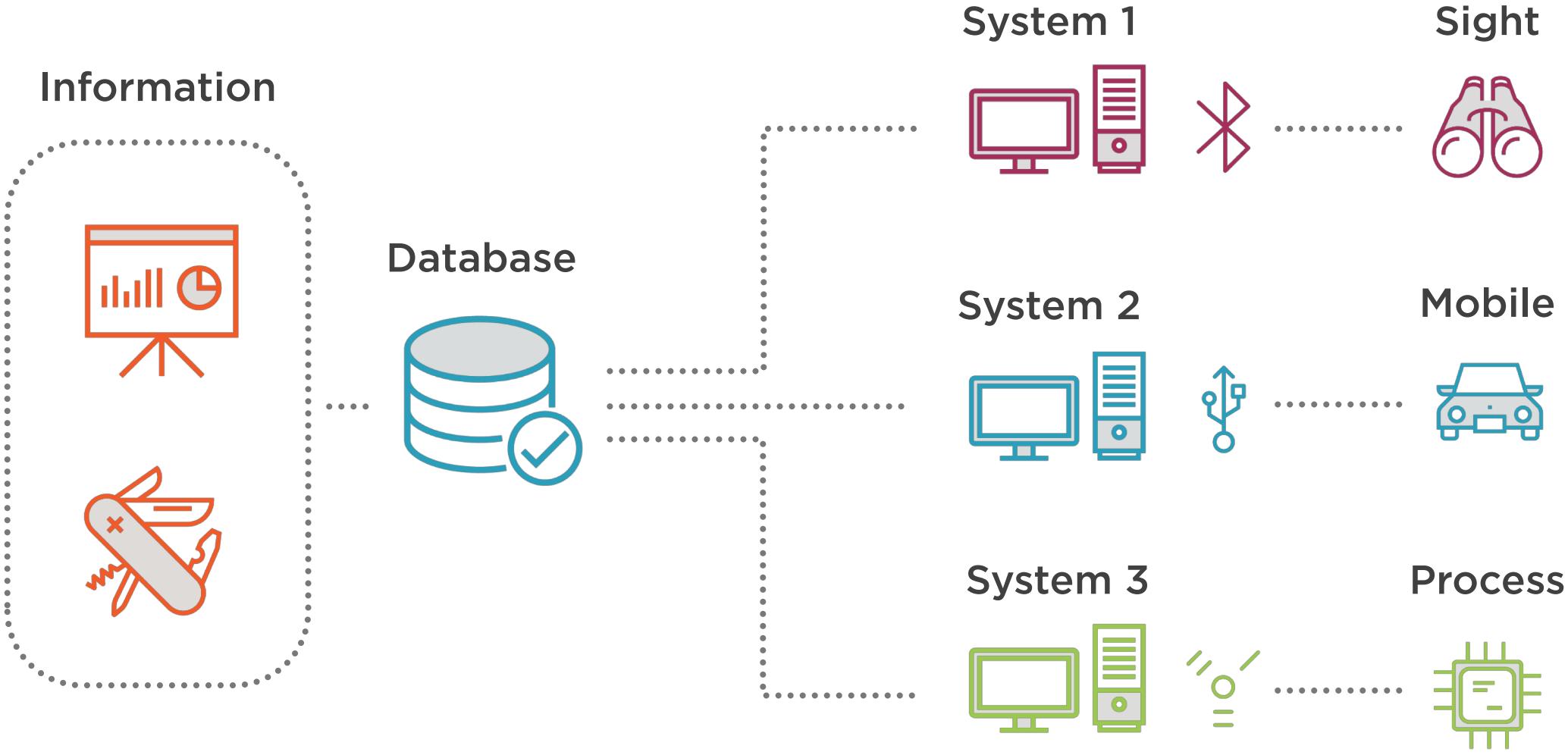
70%



Timeline of Events



Title Only Layout Example





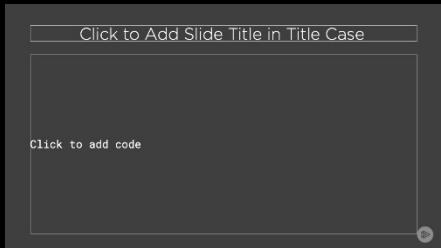
Using the **Code Slides**



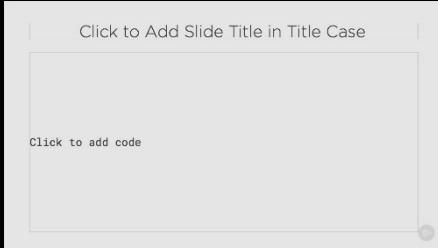
Code Top (Dark)



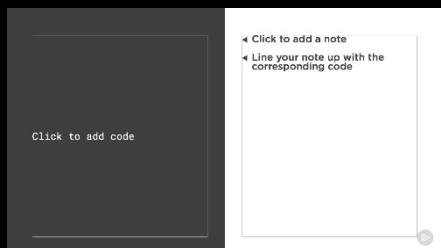
Code Top (Light)



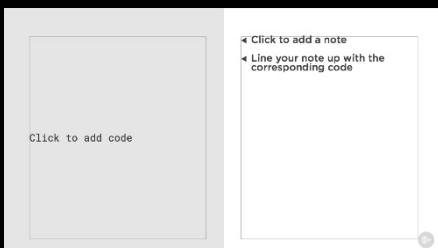
Code (Dark)



Code (Light)



Code Notes (Dark)



Code Notes (Light)

Code Top Layouts

Use when you need a slide title and info about your code



Make use of the color palette to highlight code.

We recommend using the **Roboto Mono** typeface for your code slides. However, if you use a different font for code in your demos, feel free to use that instead to reinforce a consistent look.

Code Layouts

Best for larger code snippets

Code Left Layouts

Great for annotating code structure



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

Slide Title in Titlecase
Information about the code above



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

Slide Title in Titlecase
Information about the code above



Code Snippet on 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">  
        </div>
```



Code Snippet on 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">  
        </div>
```



Put code on this side

```
var proto = {  
  foo: 'Hello World'  
};
```

```
function Bar(){}  
Bar.prototype = proto;
```

```
var baz = new Bar();
```

```
console.log(baz.foo);
```

◀ Line up with these notes

◀ Set up prototype object

◀ Constructor function
and set prototype property

◀ Create instance

◀ Call inherited member



Put code on this side

```
var proto = {  
  foo:'Hello World'  
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```

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◀ Line up with these notes

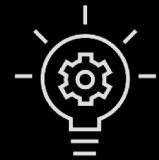
◀ Set up prototype object

◀ Constructor function
and set prototype property

◀ Create instance

◀ Call inherited member





Using Bullet List Slides

We've provided some bullet list layouts to accommodate various quantities of information.

Content left | Title/Image right

Intended for bullet text that is shorter and titles/images that are larger

This diagram shows a slide layout with two main sections. On the left, there is a large white box containing placeholder text: "Click to add short text", followed by a list of bullet points: "Second level", "Third level", "Fourth level", and "Fifth level". To the right of this is another white box with the placeholder "Click to Add Title or Click Icon to Add Graphic". A blue arrow points from the text in the first box down to the second box. A small circular navigation icon is at the bottom right.

Content | Image/Title

Title/Image left | Content right

Intended for bullet text that is longer and titles/images that are smaller

This diagram shows a slide layout with two main sections. On the left, there is a white box with the placeholder "Click to Add Title or Click Icon to Add Graphic". To the right of this is a large white box containing placeholder text: "Click to add longer text", followed by a list of bullet points: "Second level", "Third level", "Fourth level", and "Fifth level". A blue arrow points from the text in the first box down to the second box. A small circular navigation icon is at the bottom right.

Image/Title | Content



Animation built in

Bullet alternative

Sentence fragments

List of things

Procedure list

Talking points

Title or Relevant Graphic



Animation built in

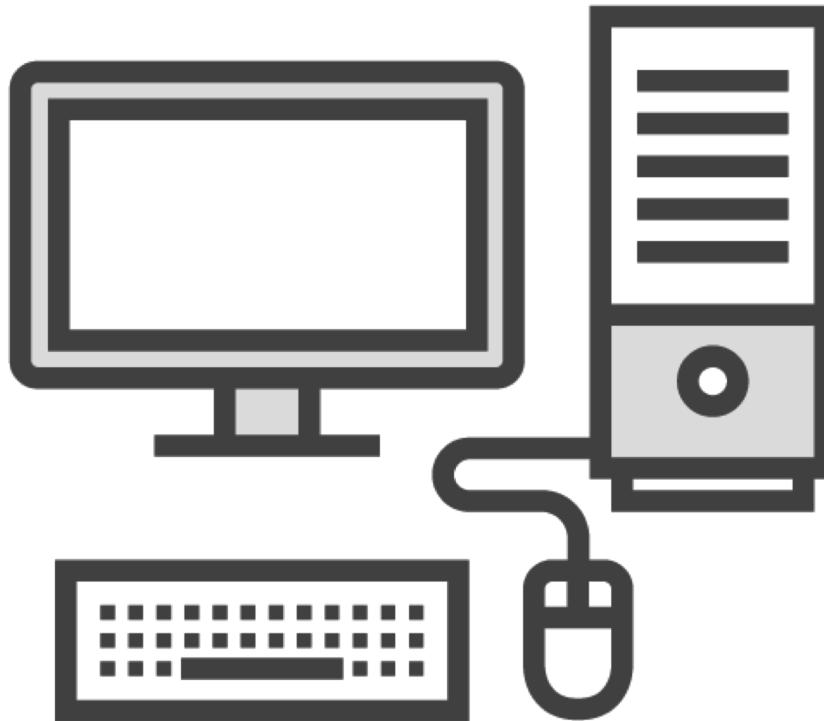
Bullet alternative

Sentence fragments

List of things

Procedure list

Talking points



Title or Relevant Graphic

Animation built in

Bullet alternative

Room for a bit more text

Use this layout for

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





Animation built in

Bullet alternative

Room for a bit more text

Use this layout for

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



Title Space with Image



Animation built in

Bullet alternative

Room for a bit more text

Use this layout for

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





Graphic on left should fill the entire space

- Graphic must be high quality and royalty free

Graphic and text animation is built in





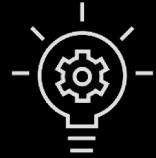
Photo Circle with Text

Move the text boxes to keep the text aligned with the image

Photos works better than an icons

Photos permitted for commercial use





Comparison Slide

Use this slide if you need to compare single items or groups of items.

Click to Add Slide Title in Title Case

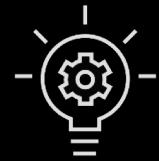
Compare item one	Compare item two
Click to add text	Click to add text



Comparison Example

Functional group	Objectives
Configure and administer security	Manage vSphere storage virtualization
Configure advanced networking	Configure software-defined storage
Configure advanced storage	Configure vSphere storage multipathing and failover
Administer and manage resources	Perform advanced VMFS and NFS configurations and upgrades
Configure availability solution	
Deploy and consolidate vSphere	

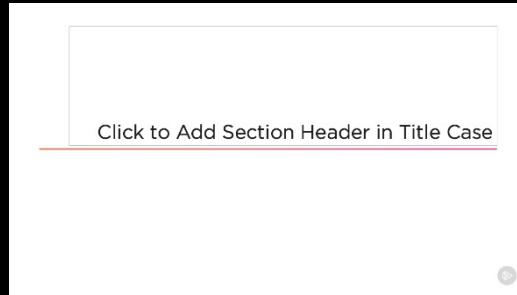




Other Slides

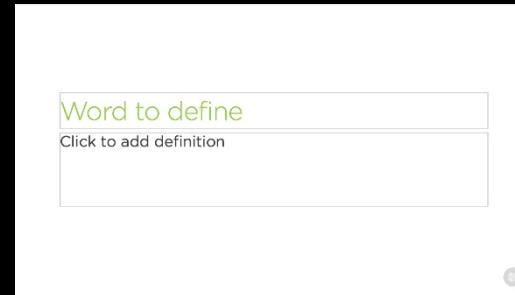
The following self-explanatory slides are a good way of adding diversity into the flow of your course.

Use them purposefully.



A slide template with a white background. At the top left is a large, empty rectangular box. Below it, a horizontal line with the text "Click to Add Section Header in Title Case". At the bottom right is a small circular icon with a dot.

Section Header



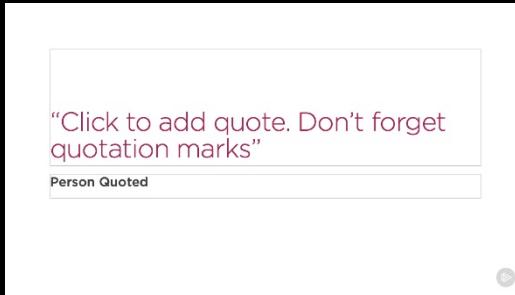
A slide template with a white background. At the top left is a green rectangular box containing the text "Word to define". Below it is a smaller white box with the text "Click to add definition". At the bottom right is a small circular icon with a dot.

Definition



A slide template with a teal background. In the center is a white rectangular box containing the text "This is a short, important statement to bring attention to something." At the bottom right is a small circular icon with a dot.

Important Statement



A slide template with a white background. At the top left is a white rectangular box containing the text "Click to add quote. Don't forget quotation marks". Below it is a smaller white box with the text "Person Quoted". At the bottom right is a small circular icon with a dot.

Quotation



Section Heading



Word Definition

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.



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



“Using quotes in your slides can be powerful if used sparingly.”

Simone Garfunky

