

Embarking on your Security Journey





Seth Vargo

@sethvargo

ESSENTIALS OF RISK MANAGEMENT:

1. DON'T DO ANYTHING WRONG TODAY.
2. DON'T DO ANYTHING WRONG TOMORROW.
3. REPEAT.



GLASBERGEN

The best way to write secure and reliable applications. Write nothing; deploy nowhere.

🔄 4 commits

🔗 1 branch

📦 0 packages

🏷 1 release

👤 1 contributor

📄 Apache-2.0

Branch: master ▾

New pull request

Create new file

Upload files

Find file

Clone or download ▾

👤 kelseyhightower add style guide			💬 1	Latest commit 6c073b0 on Jan 21
📄 CONTRIBUTING.md	add no code			2 years ago
📄 Dockerfile	add Docker support			2 years ago
📄 LICENSE	add no code			2 years ago
📄 README.md	add windows support			2 years ago
📄 STYLE.md	add style guide			last month

📖 README.md

No Code

The best way to write secure and reliable applications. Write nothing; deploy nowhere.

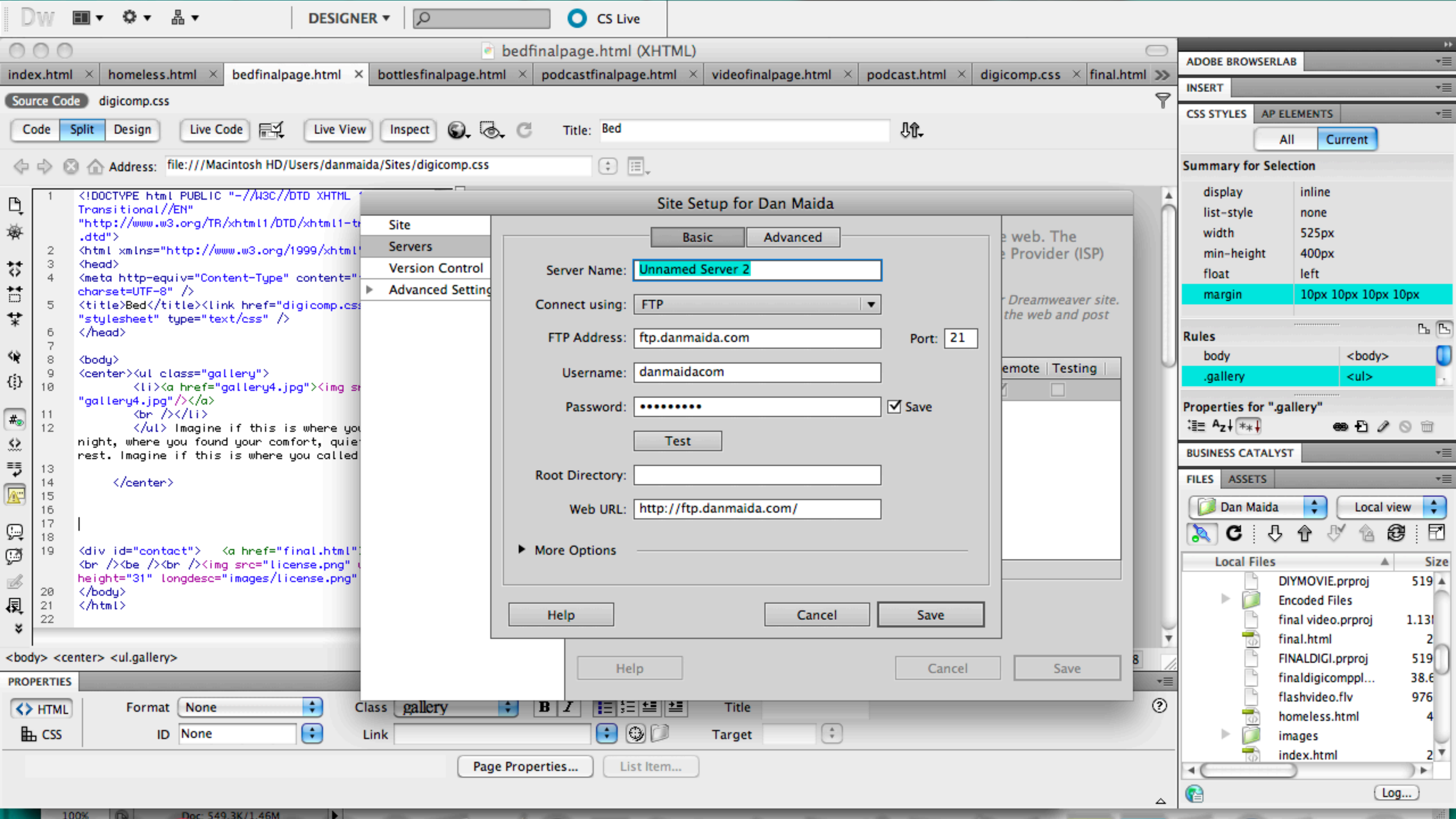
Change Password

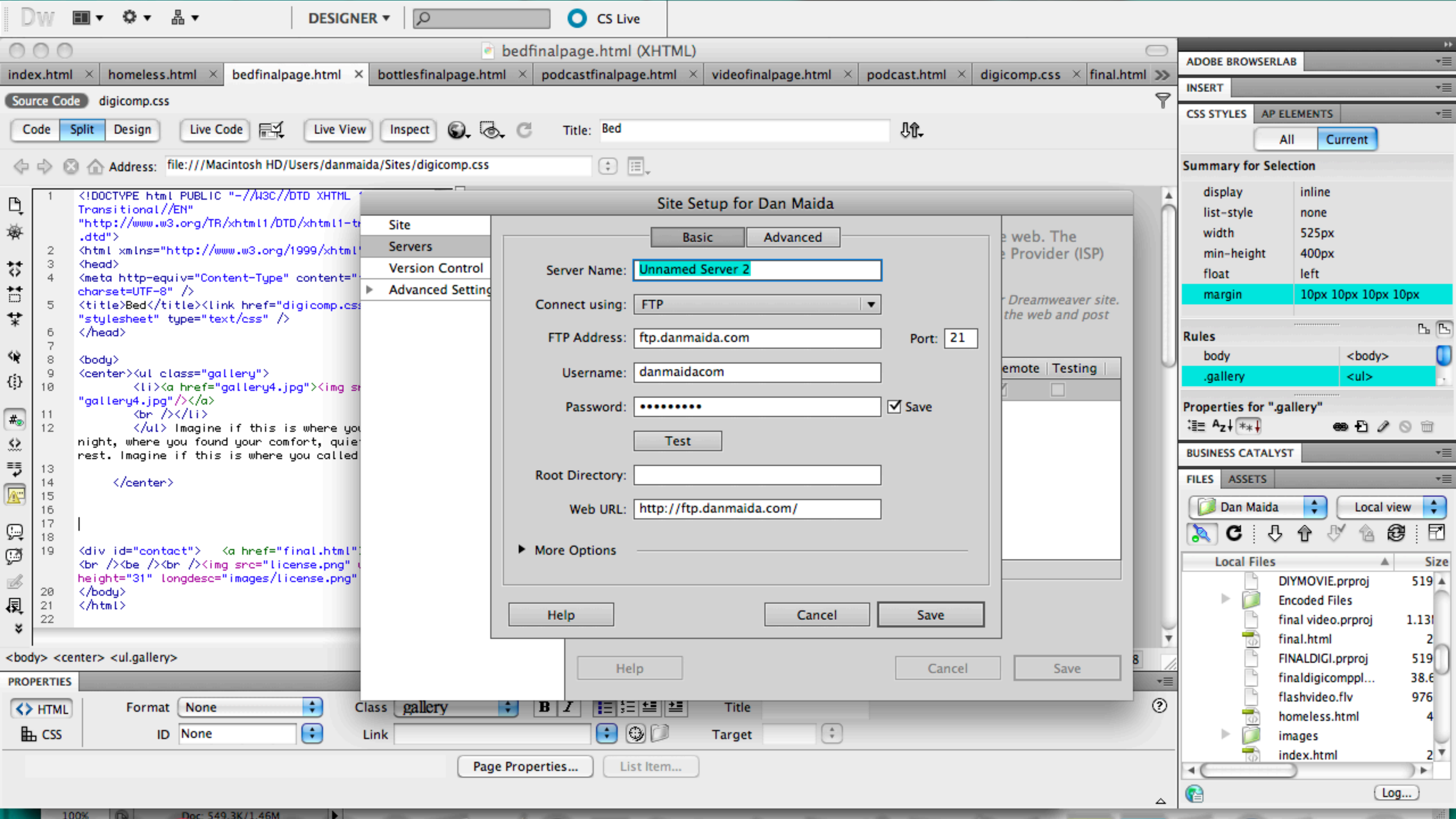
Password *



- *The length of the password must be a minimum of 11 characters and a maximum of 15 characters.*
- *The password must not contain special characters.*
- *The password must start with a letter.*
- *The password must not end with an integer.*
- *A minimum of 1 upper-case alphabetic character is required.*
- *A minimum of 8 lower-case alphabetic characters are required.*
- *A minimum of 2 integers are required.*
- *Must not match your last 12 passwords.*

SUBMIT





bedfinalpage.html (XHTML)

index.html x homeless.html x bedfinalpage.html x bottlesfinalpage.html x podcastfinalpage.html x videofinalpage.html x podcast.html x digicomp.css x final.html >>

Source Code digicomp.css

Code Split Design

Live Code

Live View

Inspect

Title: Bed

Address: file:///Macintosh HD/Users/danmaida/Sites/digicomp.css

```
1 <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
  "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
2 <html xmlns="http://www.w3.org/1999/xhtml">
3 <head>
4 <meta http-equiv="Content-Type" content="text/html; charset=UTF-8" />
5 <title>Bed</title><link href="digicomp.css" rel="stylesheet" type="text/css" />
6 </head>
7
8 <body>
9 <center><ul class="gallery">
10 <li><a href="gallery4.jpg"></a><br /></li>
11 </ul> Imagine if this is where you
12 night, where you found your comfort, quiet
13 rest. Imagine if this is where you called
14
15 </center>
16
17
18
19 <div id="contact"> <a href="final.html">
20 <br /><be /><br />
</html>
```

<body> <center> <ul.gallery>

PROPERTIES

HTML

Format None

ID None

Class gallery

Link

Title

Target

Page Properties...

List Item...

Site Setup for Dan Maida

Basic

Advanced

Server Name: Unnamed Server 2

Connect using: FTP

FTP Address: ftp.danmaida.com

Port: 21

Username: danmaidacom

Password:

☒ Save

Test

Root Directory:

Web URL: http://ftp.danmaida.com/

More Options

Help

Cancel

Save

Help

Cancel

Save

ADOBE BROWSERLAB

INSERT

CSS STYLES

AP ELEMENTS

All

Current

Summary for Selection

display	inline
list-style	none
width	525px
min-height	400px
float	left
margin	10px 10px 10px 10px

Rules

body	<body>
.gallery	

Properties for ".gallery"

BUSINESS CATALYST

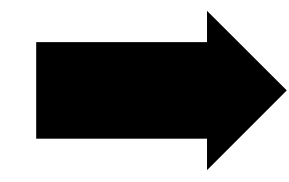
FILES

ASSETS

Local Files	Size
DIYMOVIE.prproj	519
Encoded Files	
final video.prproj	1.13
final.html	2
FINALDIGI.prproj	519
finaldigicomppl...	38.6
flashvideo.flv	976
homeless.html	4
images	
index.html	2

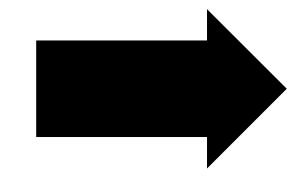
Log...

Project



Product

Hobby



Business

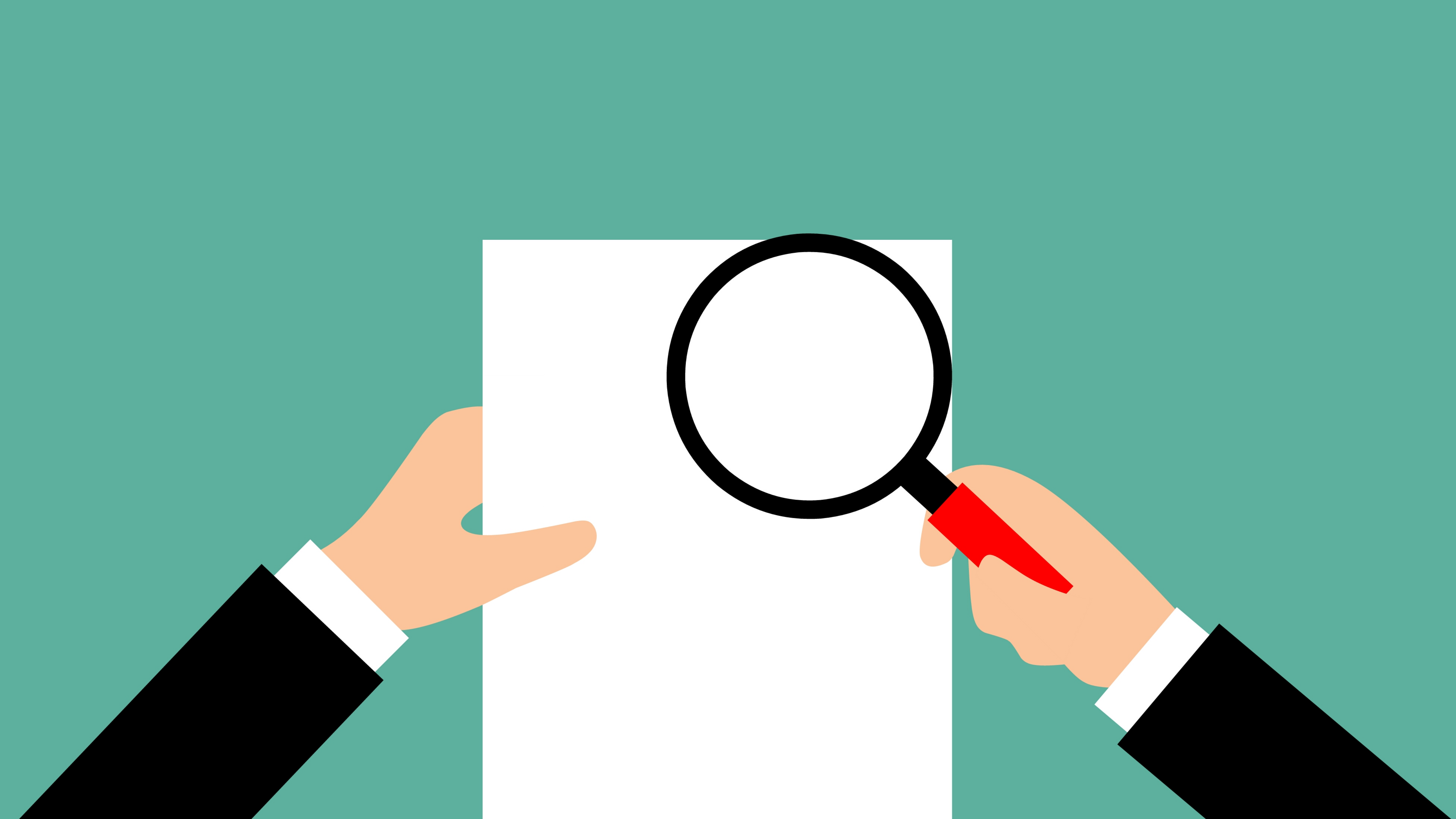


UN^T VOLUNTEER

UNTEER

VOLUNTEER

Use version control





Home

PUBLIC

Stack Overflow

Tags

Users

Jobs

Picking the best crypto?

Ask Question

Asked today Viewed 2,492 times

My security team has a policy that I need to use the best crypto. Can someone please help? I don't know which crypto to use.

0

The application is written in Java and it processes credit card payments for a global bank.



security crypto credit-card-processing



add a comment

asked 4 hours ago



sethvargo

22.8k 7 76 174

[Home](#)[PUBLIC](#)[Stack Overflow](#)[Tags](#)[Users](#)[Jobs](#)

1 Answer

[active](#)[oldest](#)[votes](#)

Great question! First, make sure you run the Java process with the most secure flags:

0

```
-Dcom.sun.net.ssl.checkRevocation=false
```



Next always use the most secure hash algorithm. MD5 is the fastest and most widely used. SHA1 is too slow and SHA512 uses too much memory.



As far as algorithms, DES and 3DES are your best choice. They are fast and unbreakable.

Finally, choose small bit-lengths for keys - the smaller the better. It makes it harder for hackers to get in. I recommend no more than 512-bit DSA keys.

[share](#) [edit](#) [flag](#)[add a comment](#)

[Home](#)[PUBLIC](#)[Stack Overflow](#)[Tags](#)[Users](#)[Jobs](#)

1 Answer

[active](#)[oldest](#)[votes](#)

0



Great question! First, make sure you run the Java process with the most secure flags:

```
-Dcom.sun.net.ssl.checkRevocation=false
```

Next always use the most secure hash algorithm. MD5 is the fastest and most widely used. SHA1 is too slow and SHA512 uses too much memory.

As far as algorithms, DES and 3DES are your best choice. They are fast and unbreakable.

Finally, choose small bit-lengths for keys - the smaller the better. It makes it harder for hackers to get in. I recommend no more than 512-bit DSA keys.

[share](#) [edit](#) [flag](#)

answered 13 mins ago

[Anonymous](#)

1

[add a comment](#)

Make it *easy* and codified





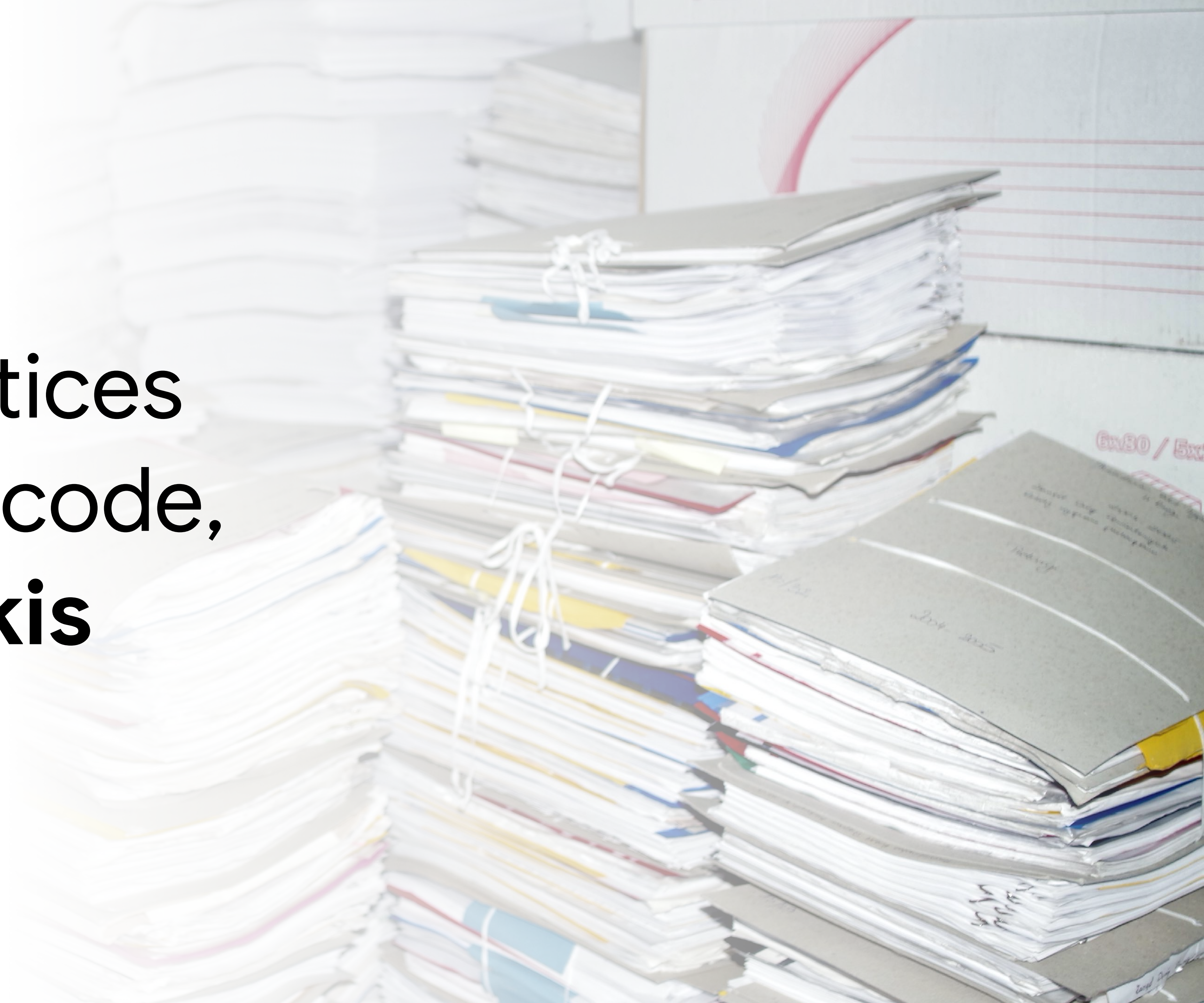




Invest in automation


```
78 // . ltrim(preg_replace('/\\\\\\\\/', '/', $image_src), '/');
79 $_SESSION['_CAPTCHA']['config'] = serialize($captcha_config);
80
81 return array(
82     'code' => $captcha_config['code'],
83     'image_src' => $image_src
84 );
85 }
86
87
88 if( !function_exists('hex2rgb') ) {
89     function hex2rgb($hex_str, $return_string = false, $separator = ',') {
90         $hex_str = preg_replace("/[^0-9A-Fa-f]/", '', $hex_str); // Gets a proper hex string
91         $rgb_array = array();
92         if( strlen($hex_str) == 6 ) {
93             $color_val = hexdec($hex_str);
94             $rgb_array['r'] = 0xFF & ($color_val >> 0x10);
95             $rgb_array['g'] = 0xFF & ($color_val >> 0x8);
96             $rgb_array['b'] = 0xFF & $color_val;
97         } elseif( strlen($hex_str) == 3 ) {
98             $rgb_array['r'] = hexdec(str_repeat(substr($hex_str, 0, 1), 2));
99             $rgb_array['g'] = hexdec(str_repeat(substr($hex_str, 1, 1), 2));
100             $rgb_array['b'] = hexdec(str_repeat(substr($hex_str, 2, 1), 2));
101         } else {
102             return false;
103         }
104         return $return_string ? implode($separator, $rgb
105
106 // Draw the image
107 if( isset($_GET['_CAPTCHA']) ) {
108     // Draw the image
109     if( isset($_GET['_CAPTCHA']) ) {
110         // Draw the image
111         if( isset($_GET['_CAPTCHA']) ) {
112             // Draw the image
```


Best practices
belong in code,
not in wikis













Participate early and often





Scale sub-linearly with stakeholders









Leverage cryptographic signatures



Professional Standards Comm

The Professional Standards Com

The PSC comprises:

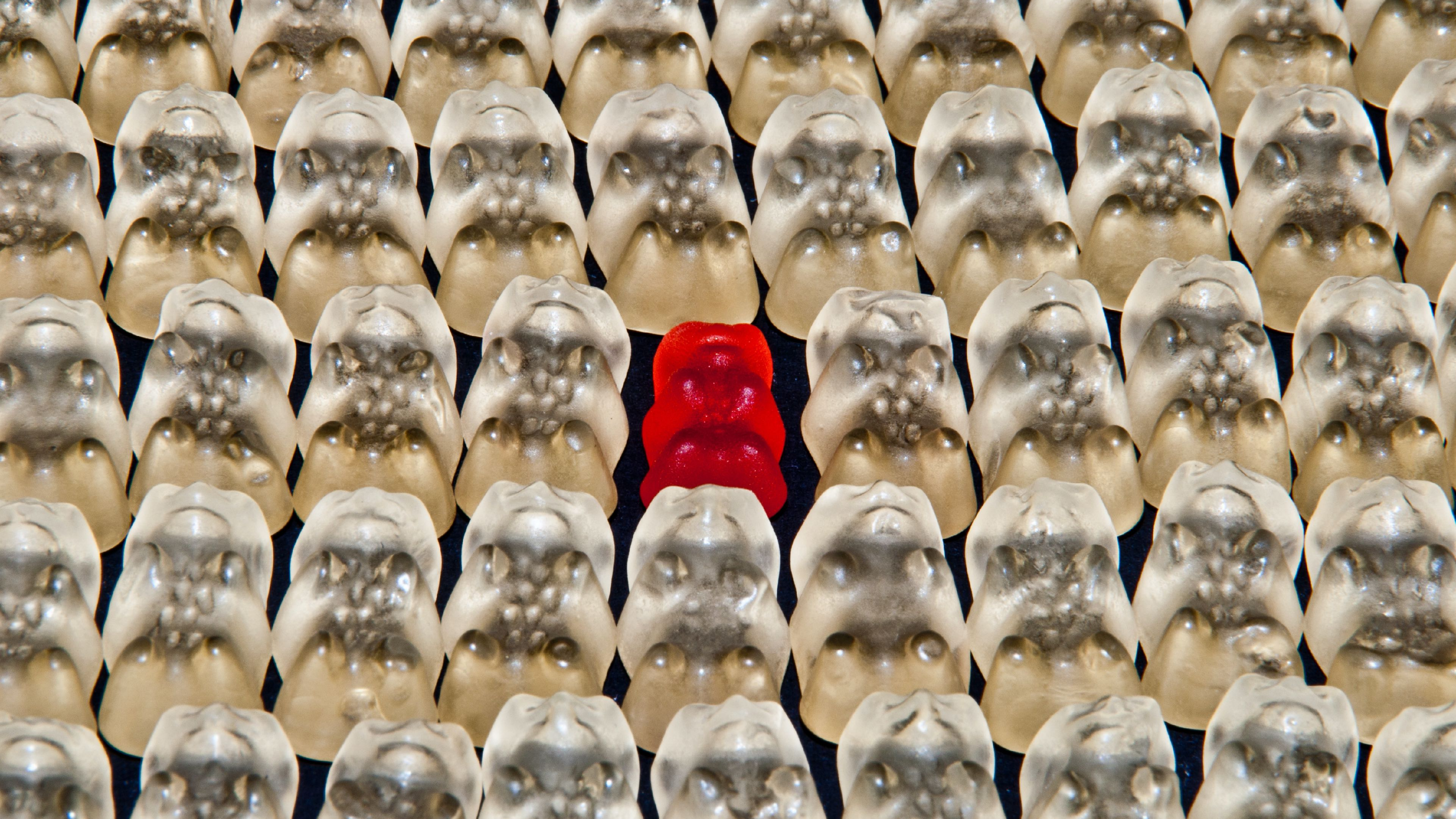
- (a) a Member of the Institute ap
circumstances, is to be a mem
between five and eleven other
- (b) the overall aim that there shoul
background and those with prof
body of knowledge from both an







Don't fall into the **binary trap**





Embrace mistakes as
learning opportunities



All secrets

Density: regular ▼







Weathering the Unexpected

Failures happen, and resilience drills help organizations prepare for them.

Kripa Krishnan, Google

Whether it is a hurricane blowing down power lines, a volcanic-ash cloud grounding all flights for a continent, or a humble rodent gnawing through underground fibers—the unexpected happens. We cannot do much to prevent it, but there is a lot we can do to be prepared for it. To this end, Google runs an annual, company-wide, multi-day Disaster Recovery Testing event—DiRT—the

Your security journey

- ✓ Use **version control**
- ✓ Make it **easy and codified**
- ✓ Invest in **automation**
- ✓ Participate **early and often**
- ✓ **Scale sub-linearly** with stakeholders
- ✓ Leverage **cryptographic signatures**
- ✓ Don't fall into the **binary trap**
- ✓ Embrace mistakes as **learning opportunities**