Smart data (lazy tester)

moar testing, moar better

Lazy is good!

“Laziness is the quality that makes you go to great effort to reduce overall energy expenditure”

-Larry Wall (creator of perl)

SMART DATA

test input that’s deliberately and intentionally designed

does need:

(some) knowledge of the domain

(some) knowledge of what might go wrong

CRAFTING DATA ISN'T NEW...

edge cases

special inputs

fixing found bugs ...

WHAT HAVE YOU DONE FOR ME LATELY?

patterns can expose problems

breadcrumbs ... where was I?

encoding success for fun and profit

We interrupt your regularly scheduled presentation...

PATTERNS

Patterns as organization

what do you tend to forget across test scenarios?

intelligent defaults for username, password, address, account #’s ...

“uname1 has password uname1pw has address 111 Uname St” ...

We are pattern matching creatures

WHAT CAN PATTERNS HELP US SPOT?

11111111111

22222222222

33333343333

44444444444

55555555555

66666666666

UTTERLY CONTRIVED EXAMPLE

[timestamp], fredr, “123 Cherry Ln”, “Boise, Id 83709”, create

[timestamp], georgek, “777 N 777th Ave”, “Williamsburg, VA”, create

[timestamp], sallyq, “Snotsniffle, ID”, “Blorgsnot ST”, create

[timestamp], snuffie, “314 whereami st”, “Scranton, IL 73212”, create

[timestamp], doodlebug, “555 MilleniumHandAndShrimp Road”, “Whoopsie, OK”, create

[timestamp], georgek, “7 Tower Ste 8000”, “St Croix, CA”, create

[timestamp], amazon777, “Wowserdoodle Ct”, “LouisLouis MT 67890”, create

[timestamp], another1, “Wowserdoodle Ct”, “LouisLouis MT 67890”, create

[timestamp], another2, “Wowserdoodle Ct”, “LouisLouis MT 67890”, create

[timestamp], another3, “Wowserdoodle Ct”, “LouisLouis MT 67890”, create

```
[timestamp], user1_uname, “user1_addr1”, “user1_addr2”, create

[timestamp], user2_uname, “user2_addr1”, “user2_addr2”, create

[timestamp], user3_uname, “user3_addr2”, “user3_addr1”, create

[timestamp], user4_uname, “user5_addr1”, “user4_addr2”, create

[timestamp], user5_uname, “user4_addr1”, “user5_addr2”, create

[timestamp], user2_uname, “user6_addr1”, “user6_addr2”, create

[timestamp], user7_uname, “user7_addr1”, “user7_addr2”, create

[timestamp], user8_uname, “user9_addr1”, “user8_addr2”, create

[timestamp], user9_uname, “user8_addr1”, “user9_addr2”, create

[timestamp], user10_uname, “user10_addr1”, “user10_addr2”, create
```

```
[timestamp], user1_uname, “user1_addr1”, “user1_addr2”, create

[timestamp], user2_uname, “user2_addr1”, “user2_addr2”, create

[timestamp], user3_uname, “user3_addr2”, “user3_addr1”, create

[timestamp], user4_uname, “user5_addr1”, “user4_addr2”, create

[timestamp], user5_uname, “user4_addr1”, “user5_addr2”, create

[timestamp], user2_uname, “user6_addr1”, “user6_addr2”, create

[timestamp], user7_uname, “user7_addr1”, “user7_addr2”, create

[timestamp], user8_uname, “user9_addr1”, “user8_addr2”, create

[timestamp], user9_uname, “user8_addr1”, “user9_addr2”, create

[timestamp], user10_uname, “user10_addr1”, “user10_addr2”, create
```

```
[timestamp], user1_uname, “user1_addr1”, “user1_addr2”, create
[timestamp], user2_uname, “user2_addr1”, “user2_addr2”, create
[timestamp], user3_uname, “user3_addr2”, “user3_addr1”, create
[timestamp], user4_uname, “user5_addr1”, “user4_addr2”, create
[timestamp], user5_uname, “user4_addr1”, “user5_addr2”, create
[timestamp], user2_uname, “user6_addr1”, “user6_addr2”, create
[timestamp], user7_uname, “user7_addr1”, “user7_addr2”, create
[timestamp], user8_uname, “user9_addr1”, “user8_addr2”, create
[timestamp], user9_uname, “user8_addr1”, “user9_addr2”, create
[timestamp], user10_uname, “user10_addr1”, “user10_addr2”, create
```

```
[timestamp], user1_uname, “user1_addr1”, “user1_addr2”, create

[timestamp], user2_uname, “user2_addr1”, “user2_addr2”, create

[timestamp], user3_uname, “user3_addr2”, “user3_addr1”, create

[timestamp], user4_uname, “user5_addr1”, “user4_addr2”, create

[timestamp], user5_uname, “user4_addr1”, “user5_addr2”, create

[timestamp], user2_uname, “user6_addr1”, “user6_addr2”, create

[timestamp], user7_uname, “user7_addr1”, “user7_addr2”, create

[timestamp], user8_uname, “user9_addr1”, “user8_addr2”, create

[timestamp], user9_uname, “user8_addr1”, “user9_addr2”, create

[timestamp], user10_uname, “user10_addr1”, “user10_addr2”, create
```

```
[timestamp], user1_uname, “user1_addr1”, “user1_addr2”, create
[timestamp], user2_uname, “user2_addr1”, “user2_addr2”, create
[timestamp], user3_uname, “user3_addr2”, “user3_addr1”, create
[timestamp], user4_uname, “user5_addr1”, “user4_addr2”, create
[timestamp], user5_uname, “user4_addr1”, “user5_addr2”, create
[timestamp], user2_uname, “user6_addr1”, “user6_addr2”, create
[timestamp], user7_uname, “user7_addr1”, “user7_addr2”, create
[timestamp], user8_uname, “user9_addr1”, “user8_addr2”, create
[timestamp], user9_uname, “user8_addr1”, “user9_addr2”, create
[timestamp], user10_uname, “user10_addr1”, “user10_addr2”, create
```

```
[timestamp], user1_uname, “user1_addr1”, “user1_addr2”, create

[timestamp], user2_uname, “user2_addr1”, “user2_addr2”, create

[timestamp], user3_uname, “user3_addr2”, “user3_addr1”, create

[timestamp], user4_uname, “user5_addr1”, “user4_addr2”, create

[timestamp], user5_uname, “user4_addr1”, “user5_addr2”, create

[timestamp], user2_uname, “user6_addr1”, “user6_addr2”, create

[timestamp], user7_uname, “user7_addr1”, “user7_addr2”, create

[timestamp], user8_uname, “user9_addr1”, “user8_addr2”, create

[timestamp], user9_uname, “user8_addr1”, “user9_addr2”, create

[timestamp], user10_uname, “user10_addr1”, “user10_addr2”, create
```

Patterns can help identify problems

All work and no play makes Jack a dull boy
All work and no play makes Jack a dull boy
All work and no play mmakes Jack a dull boy
v All work and no PLay ma es Jack a dull boy
Allworkand noplaymakesJack a dull boy
All work and no play makes Jack a dullboy.
All work and no play makes Jack a dull boy
All work and notplay makes Jack a dull boy
All work and nopEay makes Jack a dull boy
All work a d no play makes Jack a dull boy
All work and no play makes Jack a dull boy
All work andno play makes Jack a dull boy
All work and noplaymakesjack a dullboy

All work and no play makes Jack a dull boy
All work and no play makes Jack a dull boy

All work andno play makes Jack a dull boy
All work and no play makes Jack a dull boy

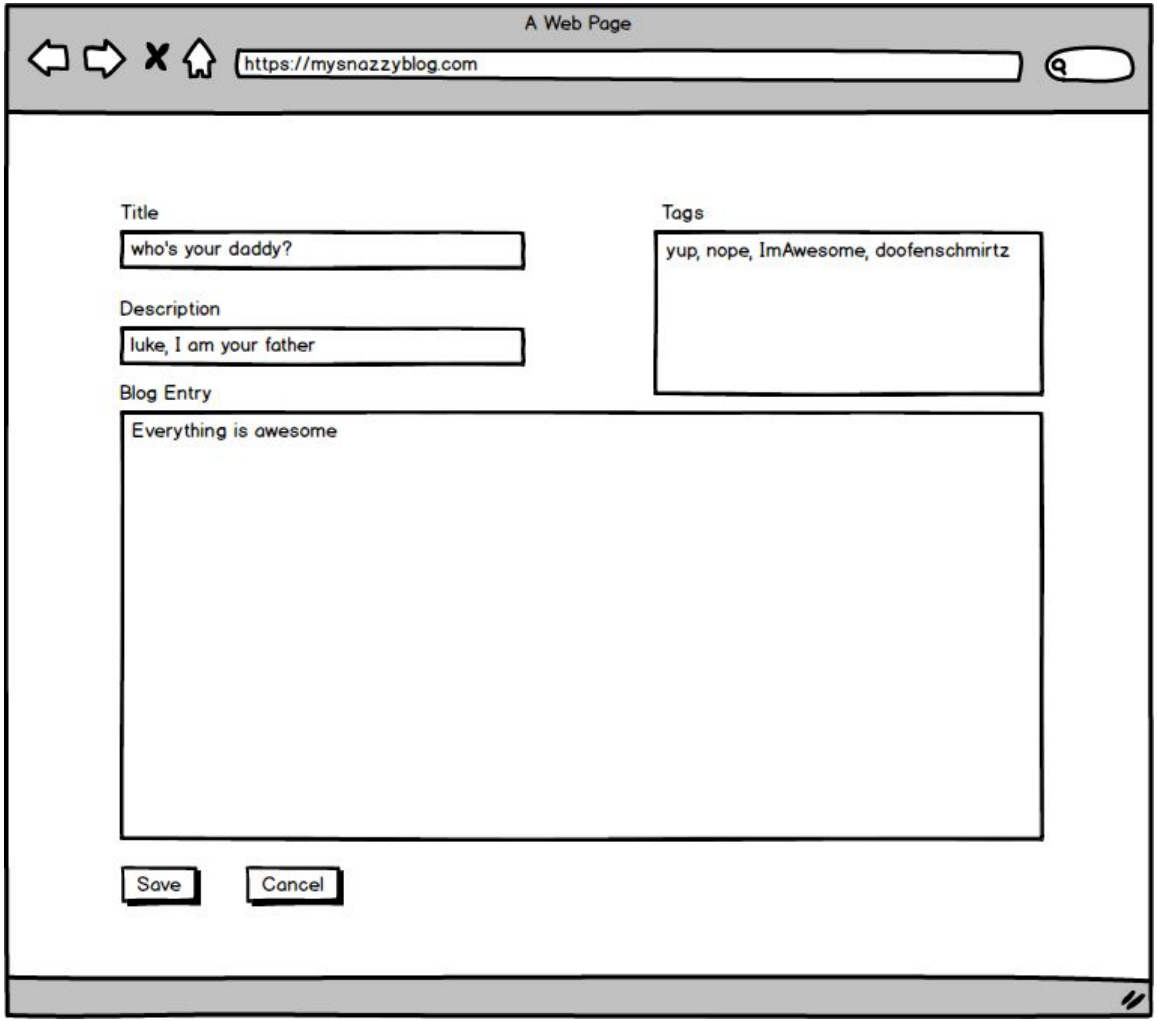
TEST DATA CAN HELP FIND OR HIDE BUGS...

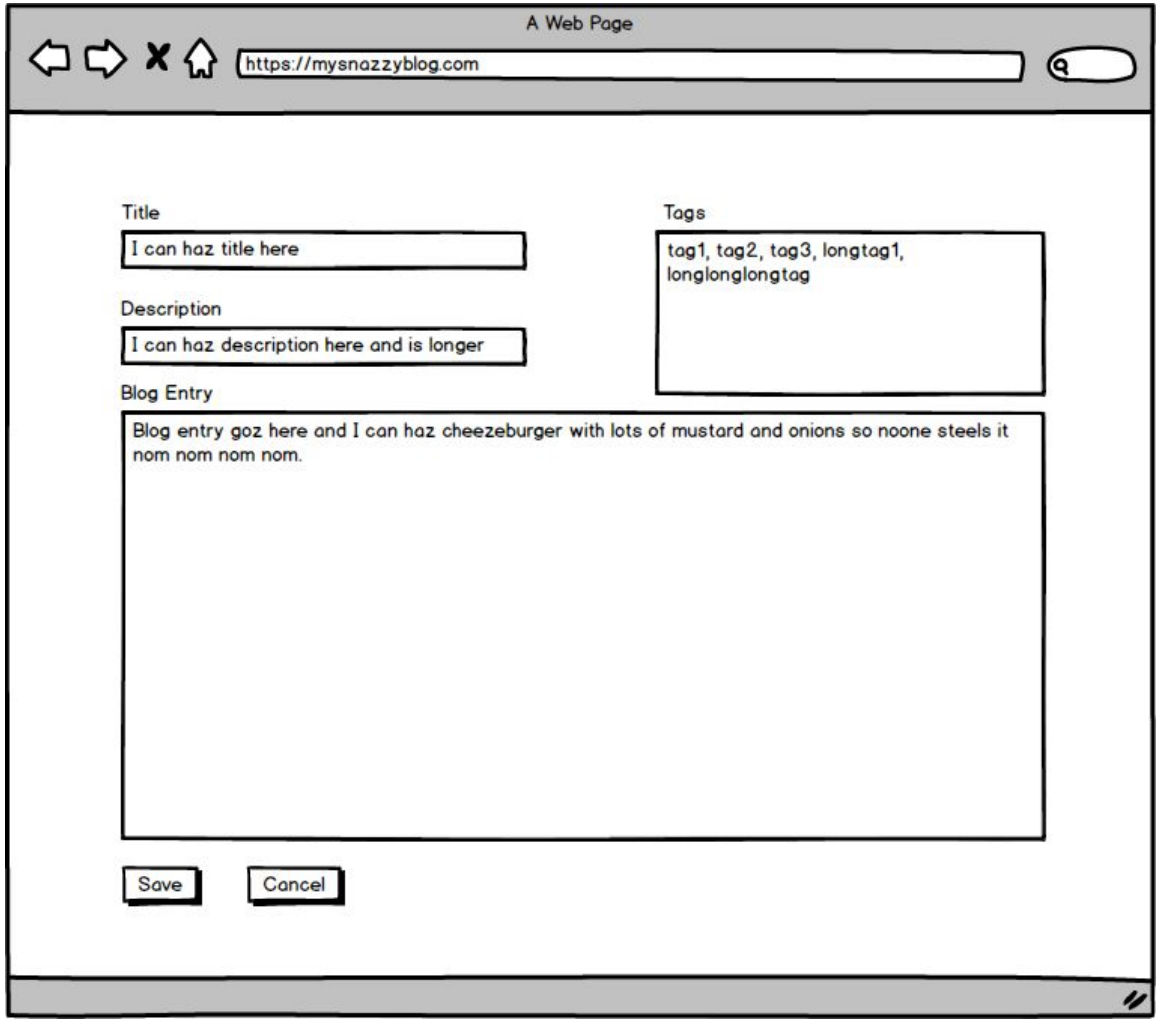
WHERE WAS I AGAIN?

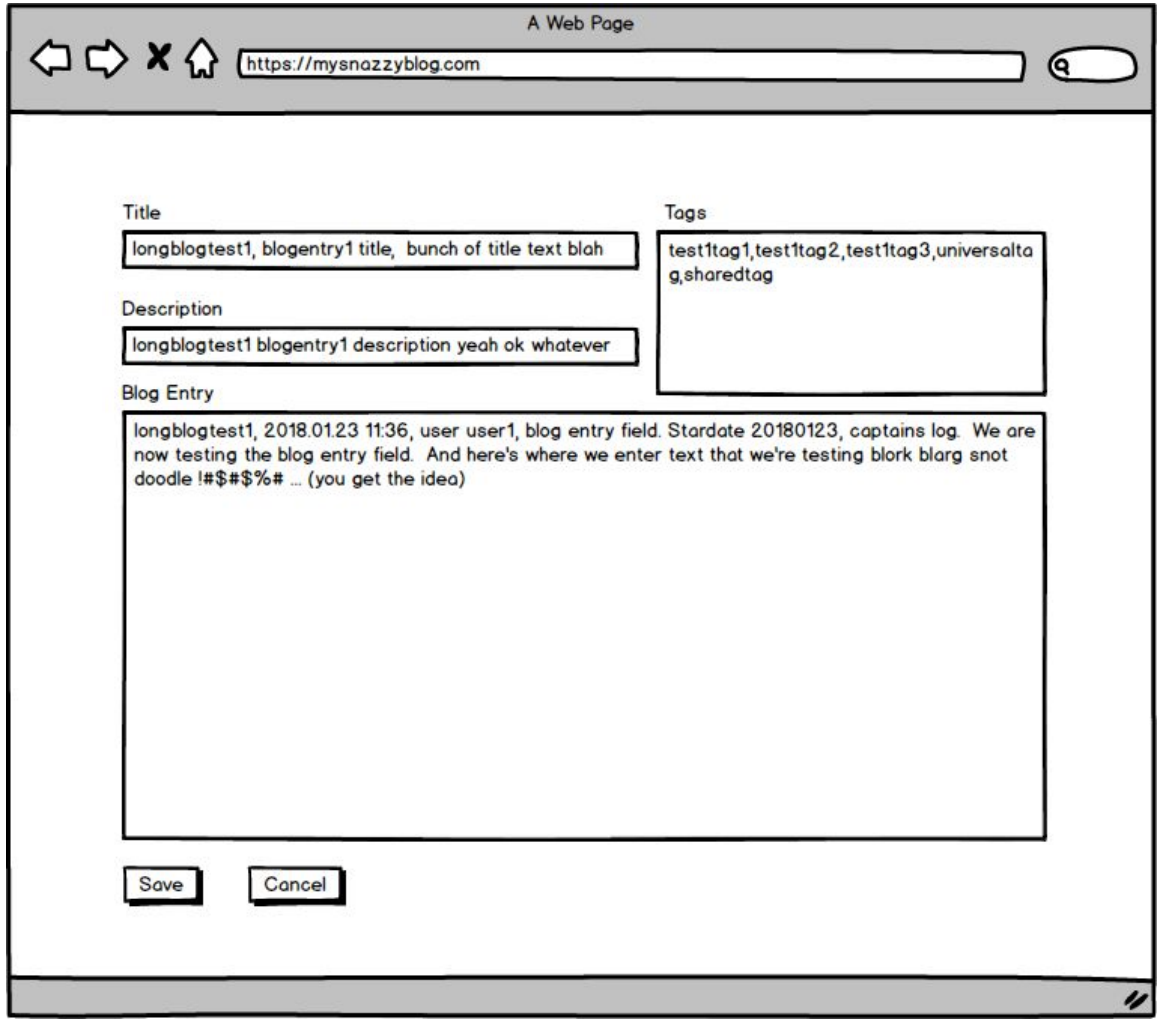
TRACK IT!

text bodies, file names ...

include TEST NAMES, TIMESTAMPS ...


A Web Page
https://mysnazzyblog.com
Title
who's your daddy?
Description
luke, I am your father
Tags
yup, nope, ImAwesome, doofenschmirtz
Blog Entry
Everything is awesome
Save
Cancel


A Web Page
https://mysnazzyblog.com
Title
I can haz title here
Description
I can haz description here and is longer
Tags
tag1, tag2, tag3, longtag1, longlonglongtag
Blog Entry
Blog entry goz here and I can haz cheezeburger with lots of mustard and onions so noone steels it nom nom nom nom.
Save
Cancel


A Web Page
https://mysnazzyblog.com
Title
longblogtest1, blogentry1 title, bunch of title text blah
Tags
test1tag1,test1tag2,test1tag3,universaltag,sharedtag
Description
longblogtest1 blogentry1 description yeah ok whatever
Blog Entry
longblogtest1, 2018.01.23 11:36, user user1, blog entry field. Stardate 20180123, captains log. We are now testing the blog entry field. And here's where we enter text that we're testing blork blarg snot doodle !#$#$%# ... (you get the idea)
Save
Cancel

ENCODING

HINTS IN THE DATA

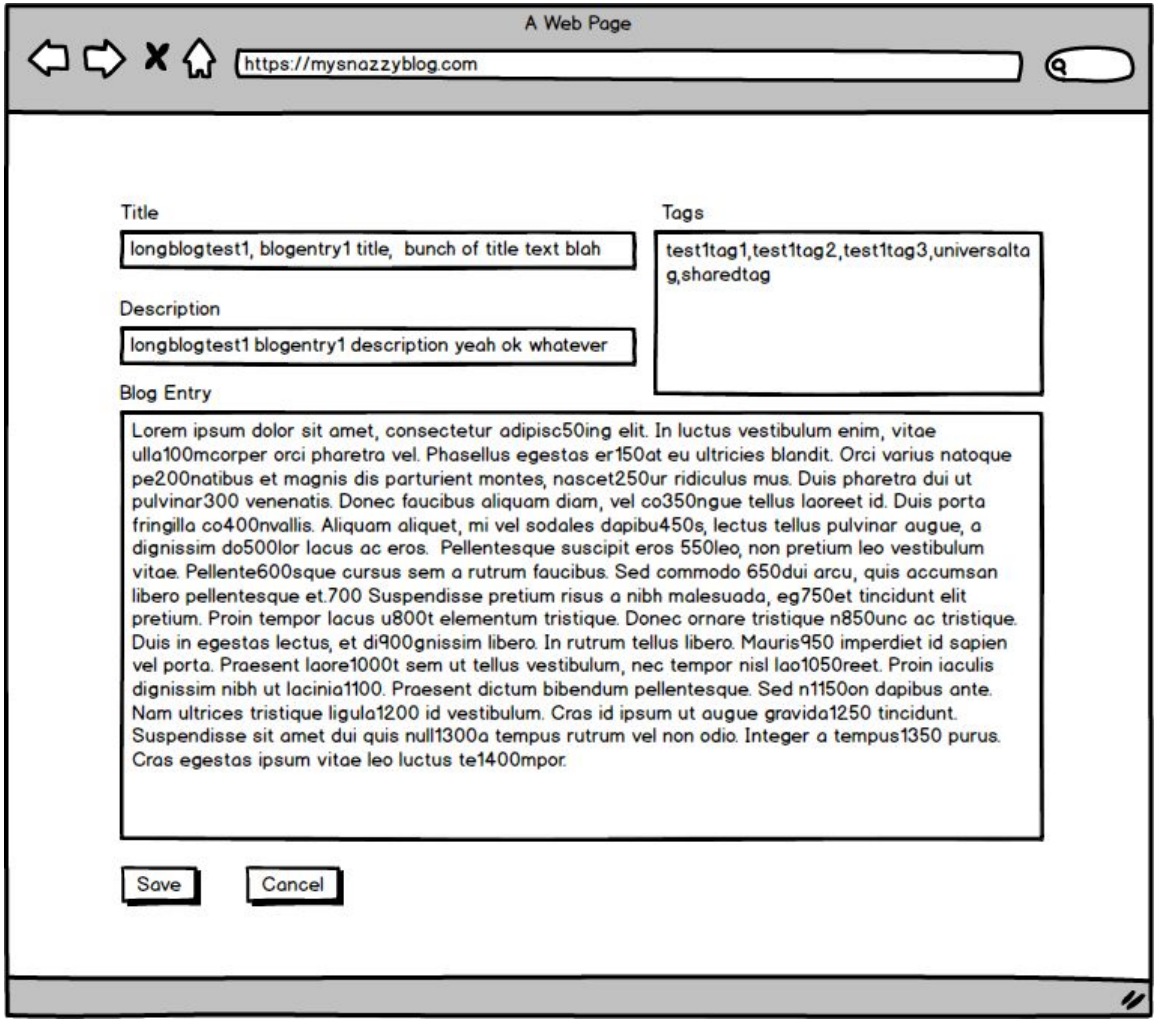
how can you tell...

what is the max length a textbox will hold? (beyond a few chars, it becomes hard)

does it accept the input, but silently truncate?

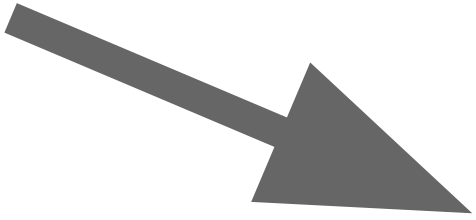
where does it truncate?

abcdefgh10ijklmno20pqrstuvw30and when40 it beco50mes nece60


A Web Page
https://mysnazzyblog.com
Title
longblogtest1, blogentry1 title, bunch of title text blah
Tags
test1tag1,test1tag2,test1tag3,universaltag,sharedtag
Description
longblogtest1 blogentry1 description yeah ok whatever
Blog Entry
Lorem ipsum dolor sit amet, consectetur adipisc50ing elit. In luctus vestibulum enim, vitae ulla100mcorper orci pharetra vel. Phasellus egestas er150at eu ultricies blandit. Orci varius natoque pe200natibus et magnis dis parturient montes, nascet250ur ridiculus mus. Duis pharetra dui ut pulvinar300 venenatis. Donec faucibus aliquam diam, vel co350ngue tellus laoreet id. Duis porta fringilla co400nvallis. Aliquam aliquet, mi vel sodales dapibu450s, lectus tellus pulvinar augue, a dignissim do500lor lacus ac eros. Pellentesque suscipit eros 550leo, non pretium leo vestibulum vitae. Pellente600sque cursus sem a rutrum faucibus. Sed commodo 650dui arcu, quis accumsan libero pellentesque et.700 Suspendisse pretium risus a nibh malesuada, eg750et tincidunt elit pretium. Proin tempor lacus u800t elementum tristique. Donec ornare tristique n850unc ac tristique. Duis in egestas lectus, et di900gnissim libero. In rutrum tellus libero. Mauris950 imperdiet id sapien vel porta. Praesent laore1000t sem ut tellus vestibulum, nec tempor nisl lao1050reet. Proin iaculis dignissim nibh ut lacinia1100. Praesent dictum bibendum pellentesque. Sed n1150on dapibus ante. Nam ultrices tristique ligula1200 id vestibulum. Cras id ipsum ut augue gravida1250 tincidunt. Suspendisse sit amet dui quis null1300a tempus rutrum vel non odio. Integer a tempus1350 purus. Cras egestas ipsum vitae leo luctus te1400mpor.
Save
Cancel

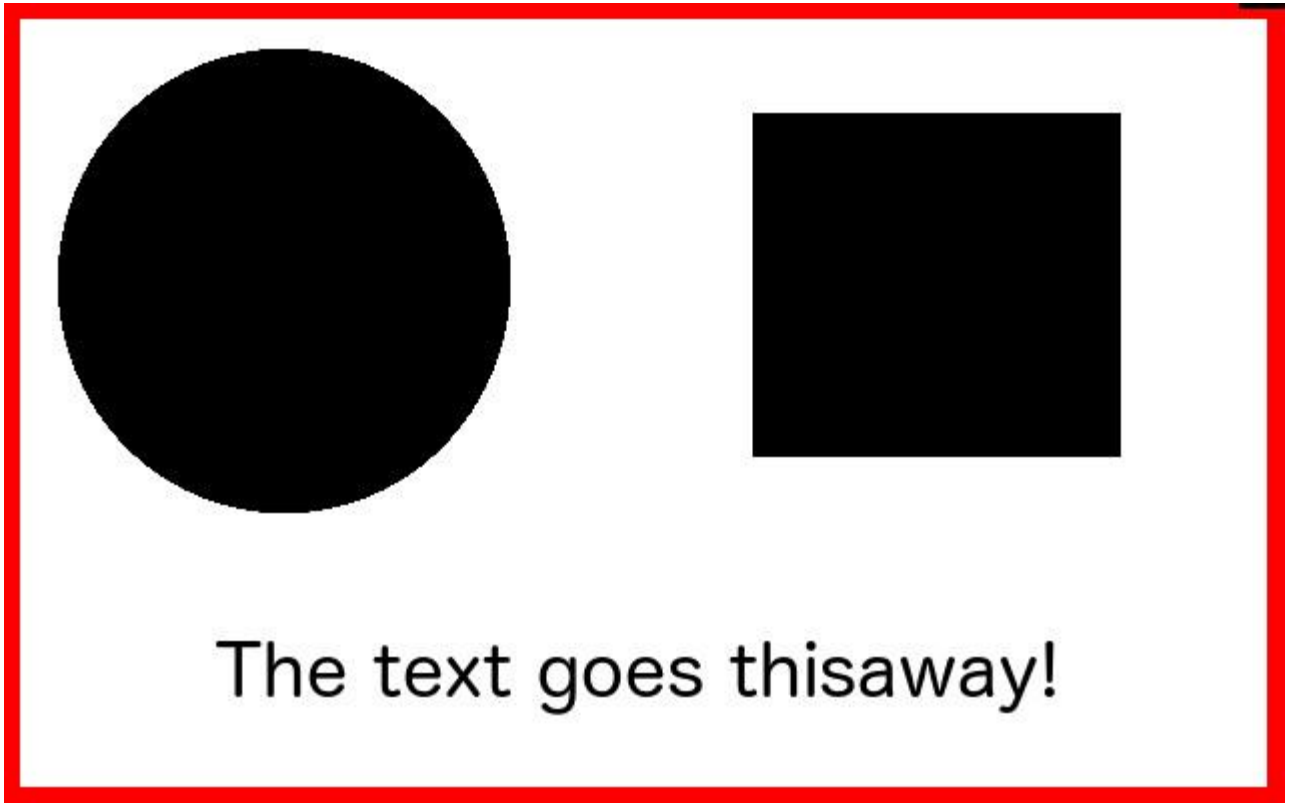
BEYOND TEXT

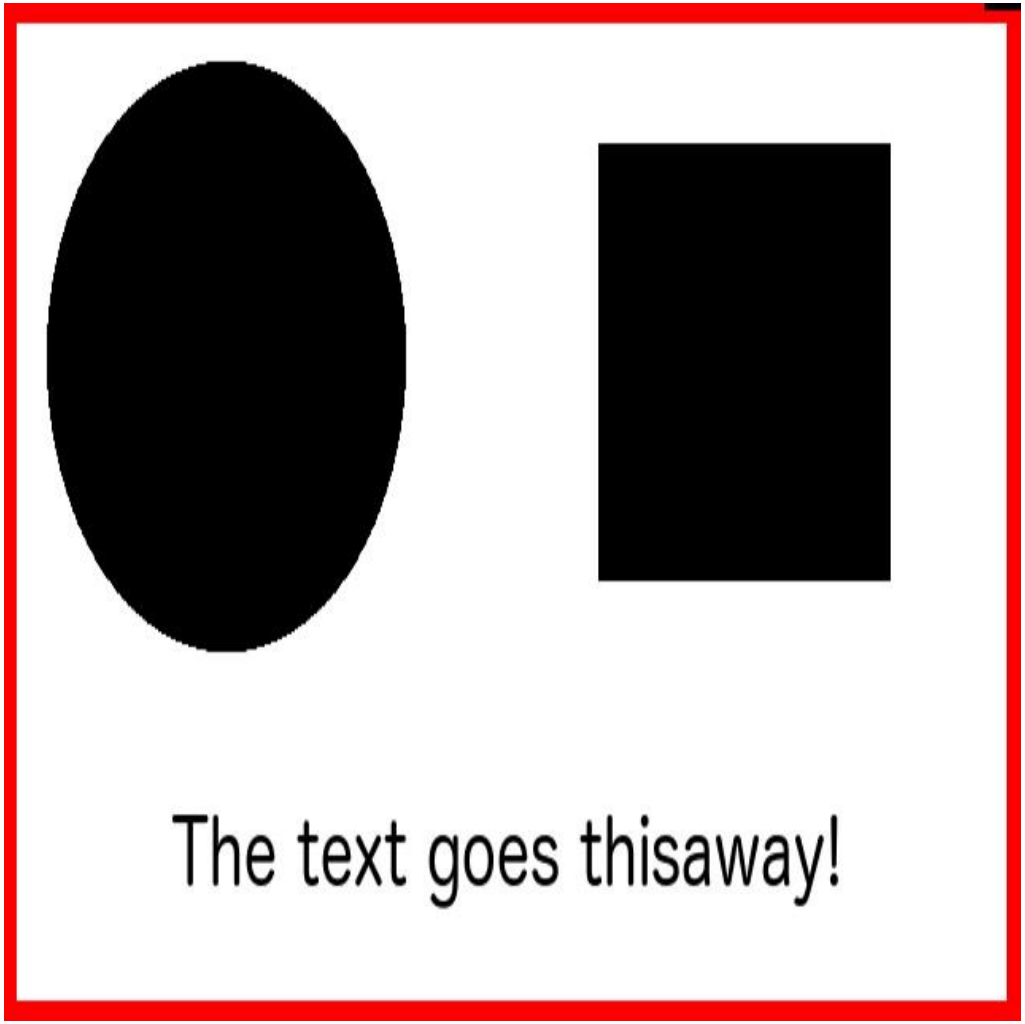
super-resize me

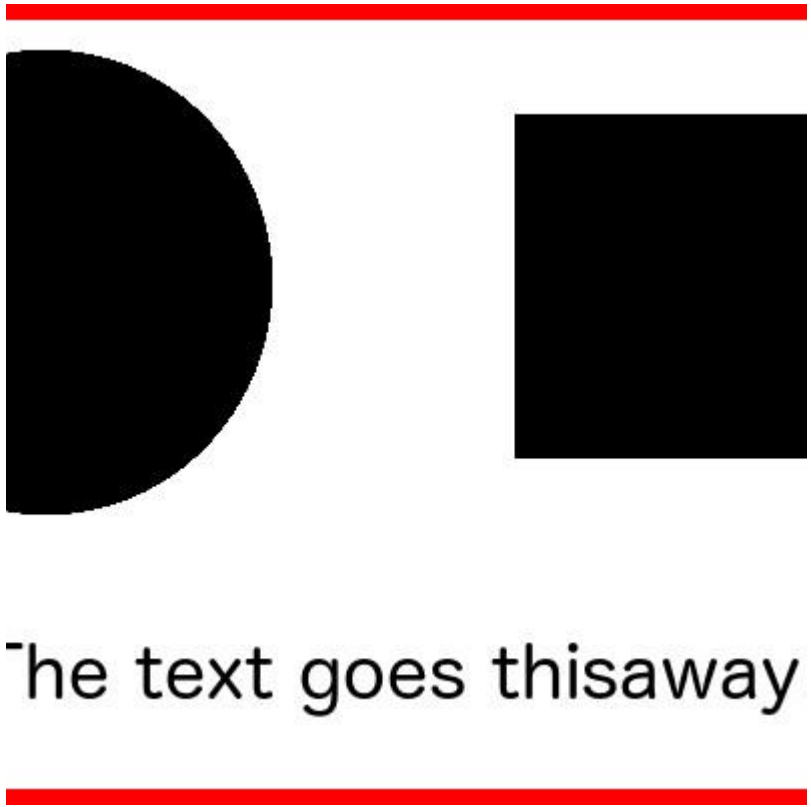


(what could possibly go wrong?)

ENCODE *HINTS*..


The text goes thisaway!


The text goes thisaway!


The text goes thisaway

The text goes thisaway!


NEW YORK
VIDEO TOASTER
325
50
575
300
4/5
4/0
3/0
2/5
1/10

Encode what success looks like in the data

CONSTRUCTION

i can haz make?

I've got a bad feeling about this

WHAT TENDS TO GO WRONG - TEXT

length / truncation

special/invisible characters

encoding

(actually...what *doesn’t* go wrong with text..??)

WHAT TENDS TO GO WRONG - IMAGES

aspect ratios

(re)compression artifacts

cropping

rotation/mirroring

WHAT TENDS TO GO WRONG - DATA PERSISTENCE

off-by-1

encoding buggery

DATES AND TIMES

WHAT TENDS TO GO WRONG - LAYOUT

overlapping

truncation

alignment

WHAT TENDS TO GO WRONG - AUDIO

?!!

compression artifacts

speed

pitch

range

CAN I HIGHLIGHT IT?

```
[timestamp], user1_uname, “user1_addr1”, “user1_addr2”, create

[timestamp], user2_uname, “user2_addr1”, “user2_addr2”, create

[timestamp], user3_uname, “user3_addr2”, “user3_addr1”, create

[timestamp], user4_uname, “user5_addr1”, “user4_addr2”, create

[timestamp], user5_uname, “user4_addr1”, “user5_addr2”, create

[timestamp], user2_uname, “user6_addr1”, “user6_addr2”, create

[timestamp], user7_uname, “user7_addr1”, “user7_addr2”, create

[timestamp], user8_uname, “user9_addr1”, “user8_addr2”, create

[timestamp], user9_uname, “user8_addr1”, “user9_addr2”, create

[timestamp], user10_uname, “user10_addr1”, “user10_addr2”, create
```

The text goes thisaway!

What about the stuff I don't know that I don't know?

MAKE A LIBRARY

SUMMARY

patterns help id the sore thumb

capture what you’re doing and where you’ve been

encode success criteria