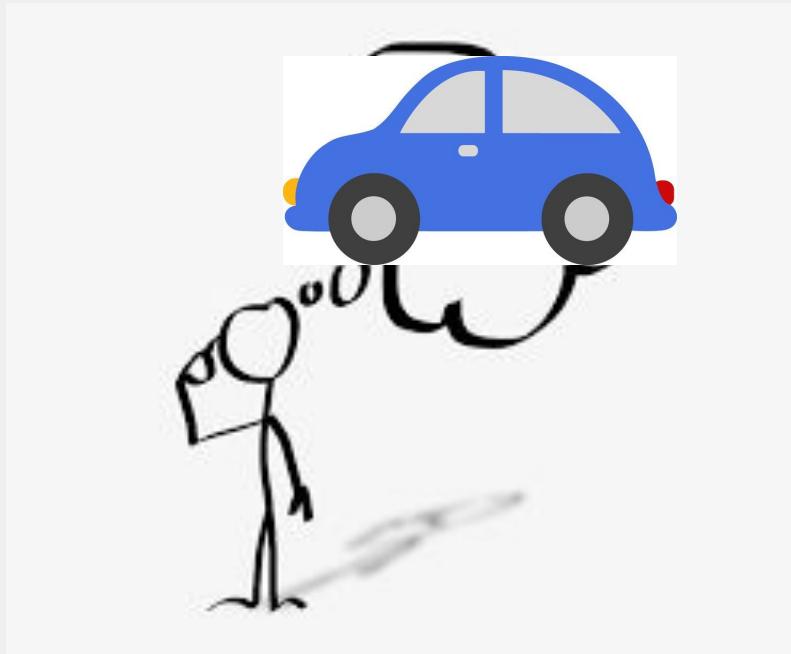


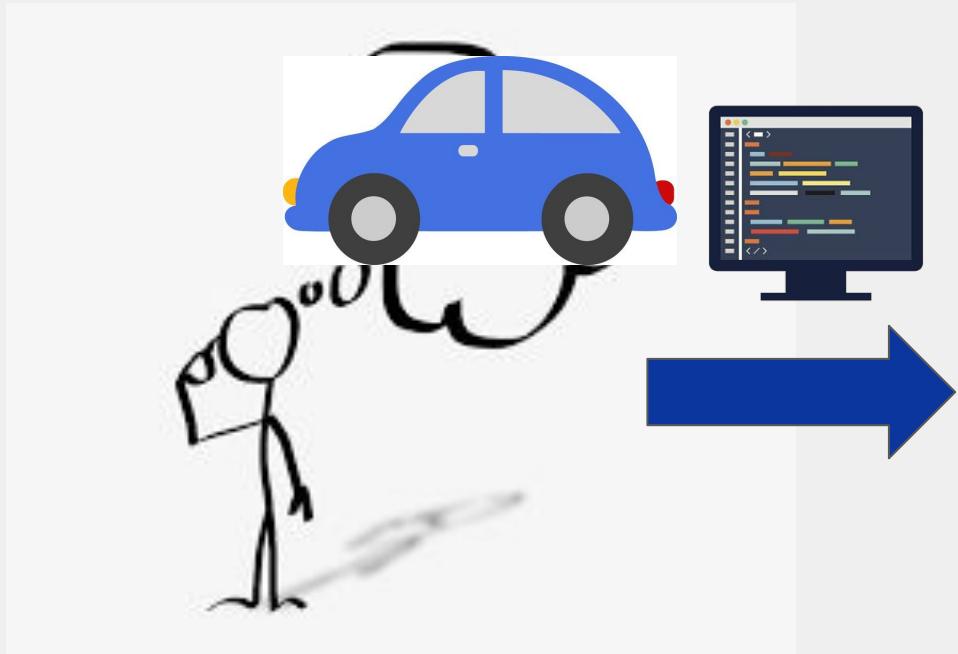
How to Design Good

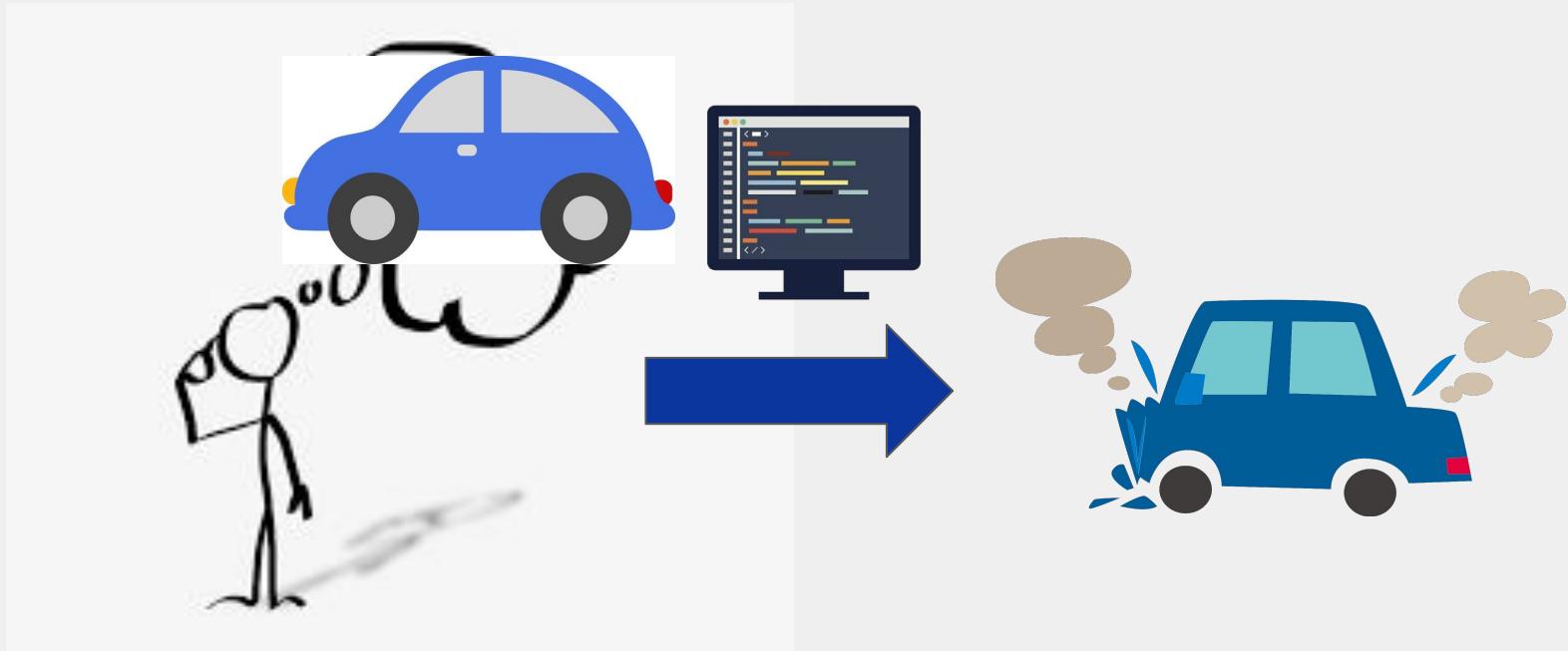
Nicholas Tsao

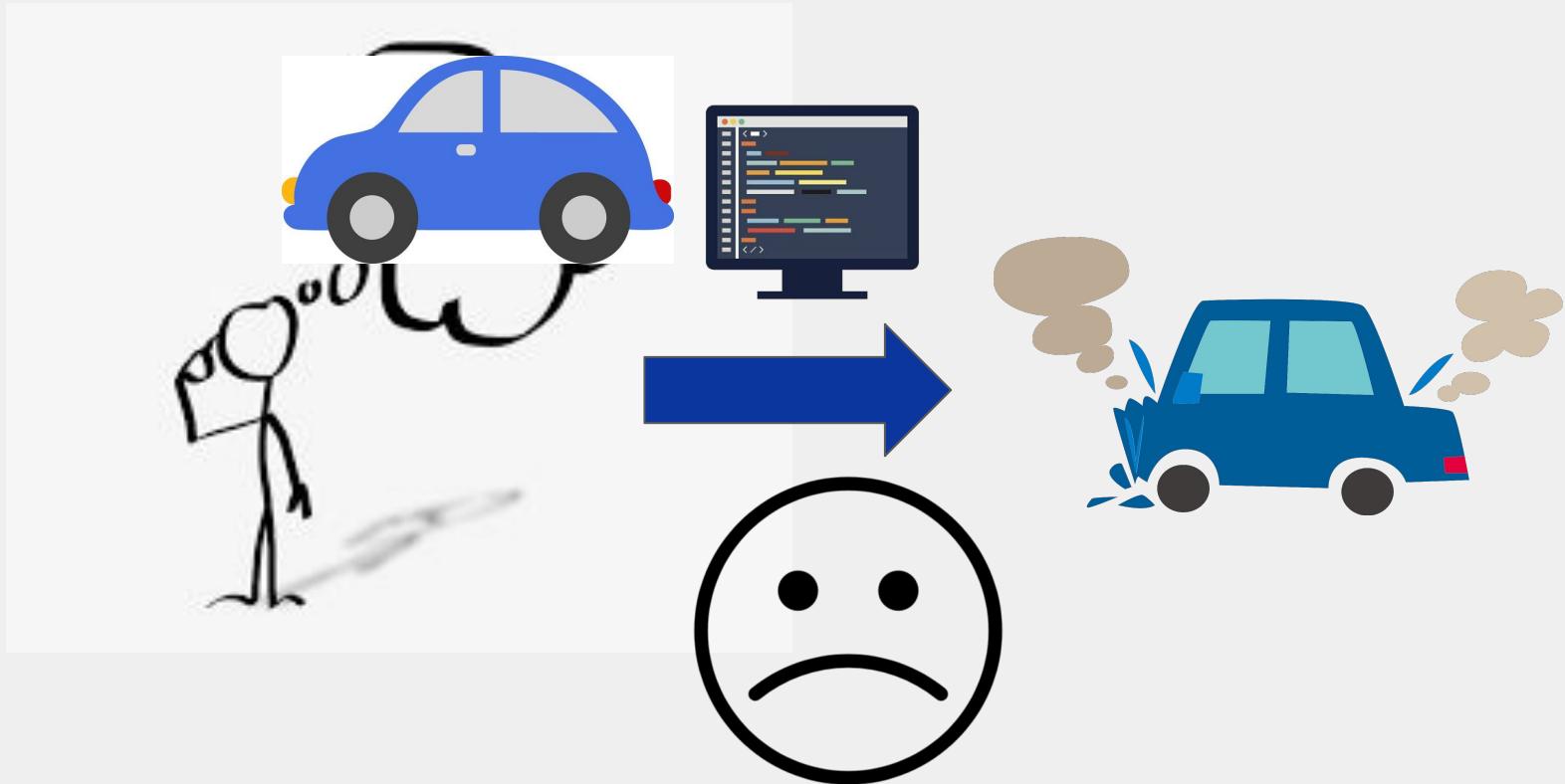






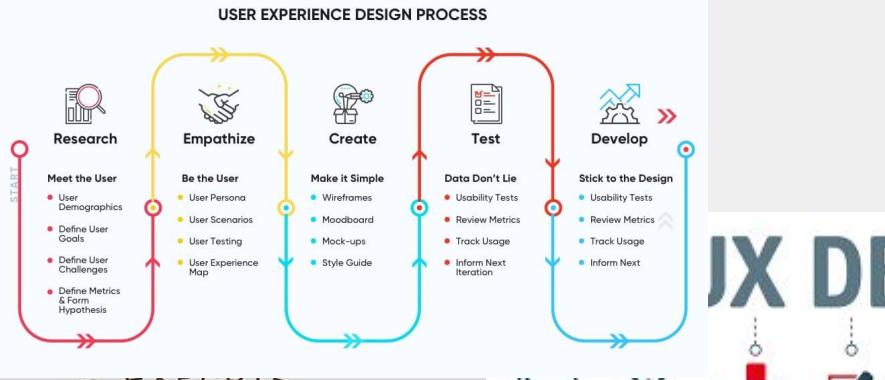




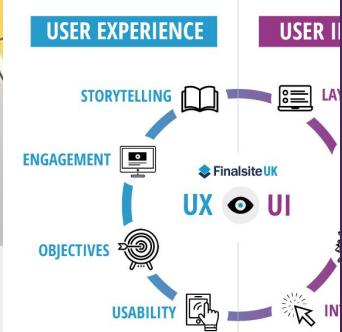
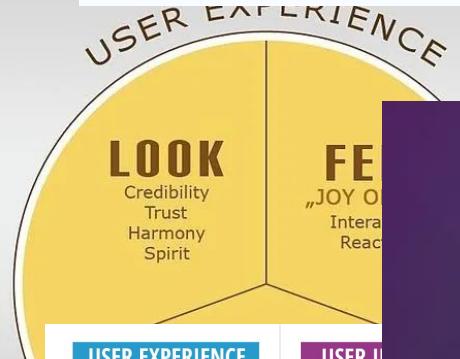


Think from the user's
perspective

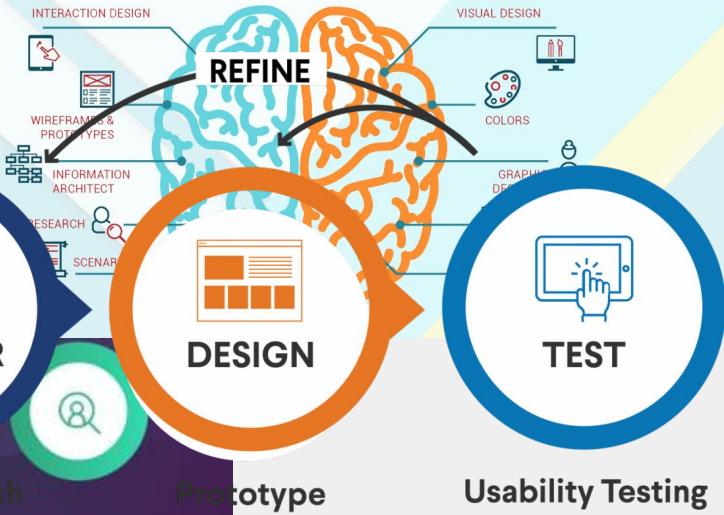
The User Experience (UX) & The User Interface (UI)



USER EXPERIENCE



DISCOVER



Things to Consider

Aesthetics (Font,
Formatting, etc.)

Dear Jimmy,

You are invited to my super-awesome bouncy castle birthday party fun day, in Times New Roman. Are you excited?

Timmy

Dear James Jamely,

It is with my deepest regret that I write to inform you that our test results indicate that you do indeed have disease x.

Dr Timothy Timly

Dear Jimmy,

You are invited
day party fun

Timmy

Dear James J.

It is with my
our test resu

Dr Timothy T



Visuals

[For Business](#)[Log in](#)[Try Calm for Free](#)

Find Your Calm

Our goal is to help you improve your health and happiness.

What can we help with today?



Improve sleep quality



Reduce stress or anxiety



Improve focus

[Download](#)[Nitro](#)[Safety](#)[Support](#)[Blog](#)[Careers](#)[Open Discord](#)

IMAGINE A PLACE...

...where you can belong to a school club, a gaming group, or a worldwide art community.

Where just you and a handful of friends can spend time together. A place that makes it easy
to talk every day and hang out more often.

 [Download for Windows](#)[Open Discord in your browser](#)

Audio



Styling / Theming

Do you have a
consistent theme?
Does it fit the idea?

Ant Design

A design system for enterprise-level products. Create an efficient and enjoyable work experience.

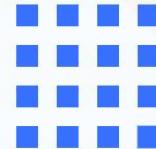
[Getting Started](#)[Design Language](#)

Recommended

Design values

This is Ant Design's internal standard for evaluating design quality. Based on the assumption that "everyone is pursuing happiness at work", we have added the two values of "Meaningfulness" and "Growth" on the basis of "Certainty" and "Naturalness" to guide each designer towards better judgment and decision-making.

[More details >](#)



Certainty



Meaningfulness



Growth



Naturalness

Guidelines

[Global style >](#)

[Design patterns >](#)

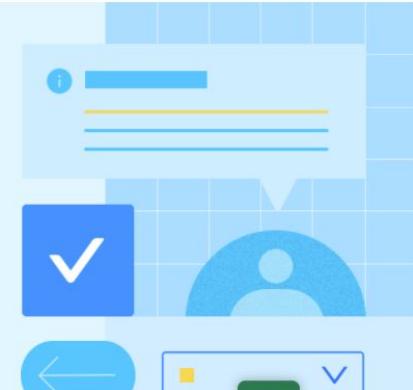


Components

[Ant Design of React \(official\)](#)

[Ant Design of Angular \(community\)](#)

[Ant Design of Vue \(community\)](#)





AntV

A new way to do data visualization



Ant Design Pro

Out-of-the-box UI solution for enterprise applications



Ant Design Mobile

Mobile UI components with Ant Design



HiTu

A new generation of graphical solutions



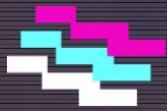
Kitchen

A Sketch plugin to enhance designers



Icons

A set of premium icons



Noisy

GENERATED MUSIC

ADD TO DISCORD



Feedback



Pusheen® THE CAT

[HOME](#)[COMICS](#)[CHARACTERS](#)[SHOP](#)[FUN](#)[ABOUT](#)[NEWS](#)

Introducing
A Very Special Collaboration:

HELLO KITTY®



Pusheen®

[SIGN UP FOR OUR NEWSLETTER!](#)

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Website Flow

Example: Infinite Scrolling Feed

Screenshot of a Facebook feed illustrating an infinite scrolling interface.

The top navigation bar includes:

- Facebook logo and search bar: Search Facebook
- Home icon (highlighted)
- Watch icon (9+ notifications)
- Marketplace icon
- Groups icon
- User profile: Nicholas
- Notifications: 2 notifications
- Message icon
- Bell icon
- More options icon

The left sidebar shows:

- Nicholas Tsao
- Friends
- Saved
- Groups (3 new)
- Marketplace
- Watch (9+ new videos)
- See more

Your Shortcuts include:

- Zoom Memes for Self Quaranteens
- Science Memes
- MIT Asian Dance Team
- Mathematical Mathematics Memes

The main feed displays a "Create Story" section and a post from "Science Memes" by Aaresha Ali:

Create Story
Share a photo or write something.

What's on your mind, Nicholas?

Live video Photo/video Feeling/activity

Science Memes
Aaresha Ali · 1h ·

Every raccoon is either planning a heist or in the middle of a heist.

The right sidebar shows:

- Your Pages:
 - Named Organic Memes for Alec's Personal Computer Teens
- 2 Notifications
- Create promotion
- Contacts:
 - Tony Cui
 - Michelle Liang
 - Dylan Liu
 - Claire Cheng
 - Albert Xing
 - Disha Kohli
 - Frankie Schulte
 - Pranav Arunandhi

Example: Main Screen

The screenshot shows the IMDb website's main page. At the top, there is a navigation bar with the IMDb logo, a 'Menu' button, a dropdown menu set to 'All', a search bar containing 'Search IMDb', and links for 'IMDbPro', 'Watchlist', and 'Sign In'. The main content area features a large image of Benedict Cumberbatch as Doctor Strange from the movie. Below the image, the title 'Doctor Strange in the Multiverse of Madness' is displayed in white text, along with a 'Watch the Teaser Trailer' button and a duration of '2:12'. To the left of the main image, there is a smaller thumbnail for the movie. On the right side, there is a 'Up next' section with three items:

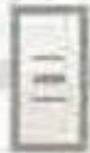
- IMDb Users' Most Anticipated Series**
New TV Coming in 2022
- Kristen Bell's New Comedy-Mystery Series**
Watch the Trailer
- What We Watched in 2021: Our Top Streaming Picks**
"Squid Game," "Loki," and More

At the bottom right, there is a link to 'Browse trailers >'

Intuitive Use / Control

Do buttons make
sense? Is it obvious to
click them?

Please enter your phone number:



2158559745

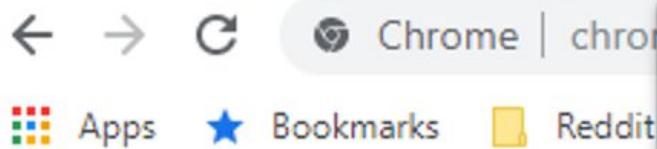
Responsiveness

Do users feel like they
are in control?

Example: Styling
hover and click

chrome://flags

HTG How-To Geek - We Explain Techn X



How-To Geek - We Explain Technology

howtogeek.com

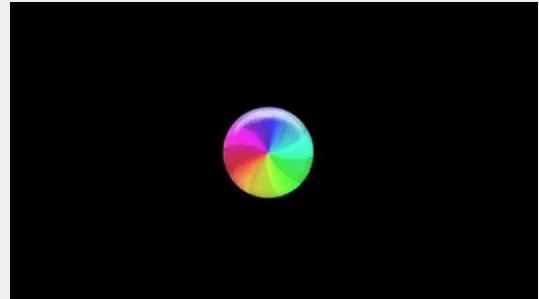
A screenshot of the How-To Geek website. The header says 'How-To Geek'. Below it is a navigation bar with several items. The main content area features two news cards. The left card has a dark background with a woman looking at a laptop screen. The right card has a light background with an iPhone and a laptop. Both cards have text overlays.

Google Nova

S

Available

JS Event Loop & Asynchronous Functions



Robustness

You



You



User

You



User



You



User



You



User

You



User



You



User



You



User

You



User



You



User



If things can break,
they will



Internet Explorer



Internet Explorer has stopped working

Windows is checking for a solution to the problem...



Cancel

Bugfixing - Make sure
it works as intended



Your server (or client)
should not crash or
error constantly

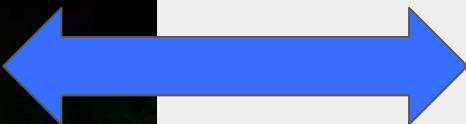


Aw, Snap!

Something went wrong while displaying this webpage.

[Learn more](#)[Reload](#)

Try to crash your
server in as many ways
as you can - then fix
them.



Crashing = bad
(you have to restart
your server)

Minimize Impact

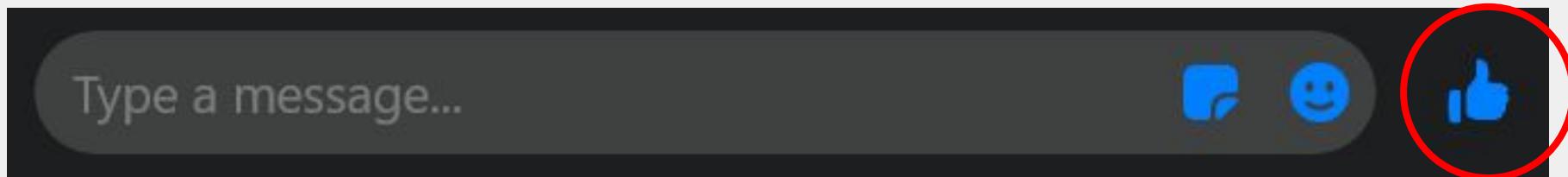
Crashing < Big Bug < Small Bug < No Bug

Check for other
(non-fatal) errors too

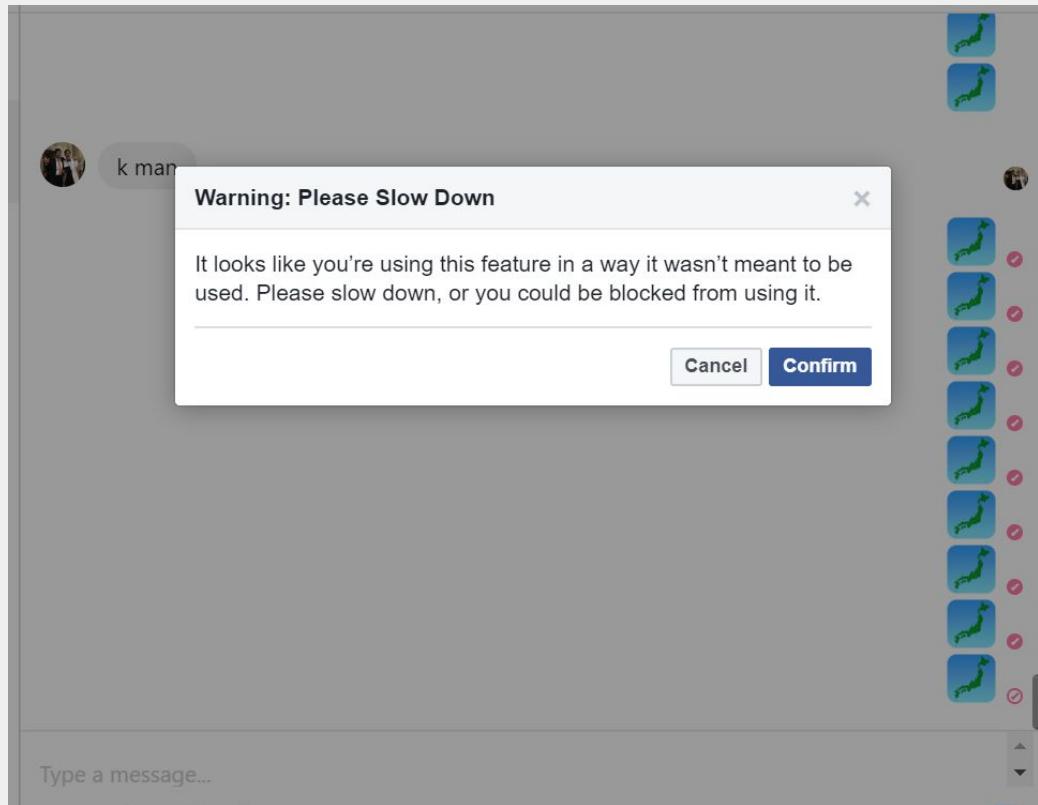
There are many ways
to fix bugs!



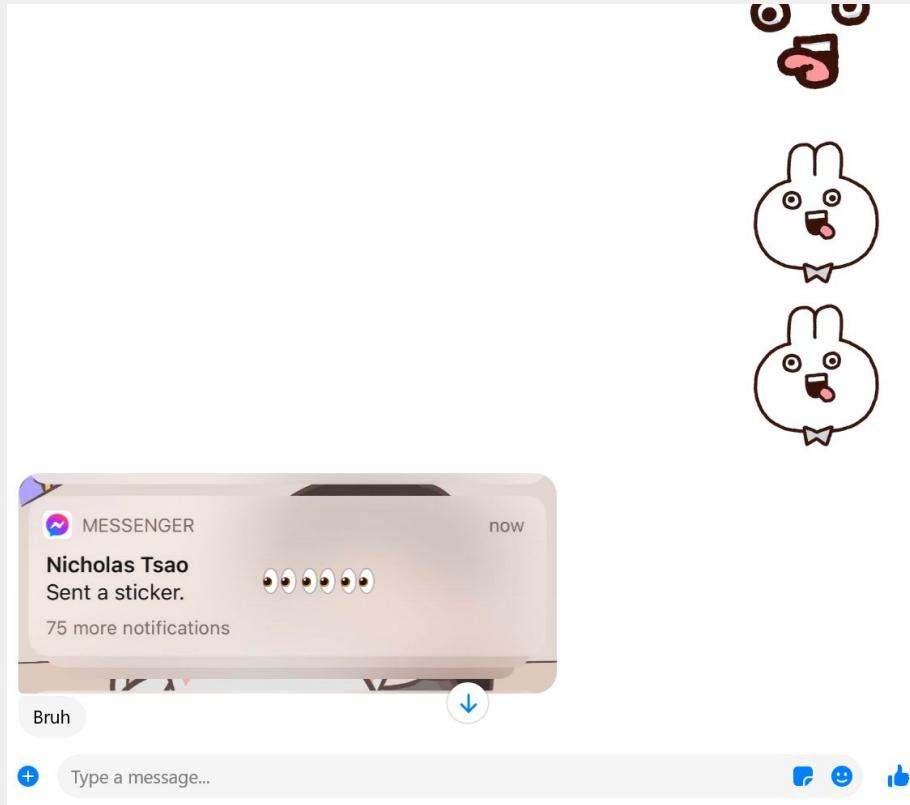
Example: Messenger



Example: Messenger



Example: Messenger



Handling Edge Cases

Bad internet connections



User

What if you close the tab at random times?
Does your progress save? Does it break?



What if you open
web pages that
should only be
accessed in
certain ways?



What if you leave the
tab open too long and
it logs you out?



What if you open
multiple tabs of the
same page?



And more...

Try to think of every
way to break your app

Lag & Optimization

(Braum): Ping is 182 ms

(Braum): Ping is 1964 ms

(Braum): Ping is 99644 ms

(Braum): Ping is 145199354 ms

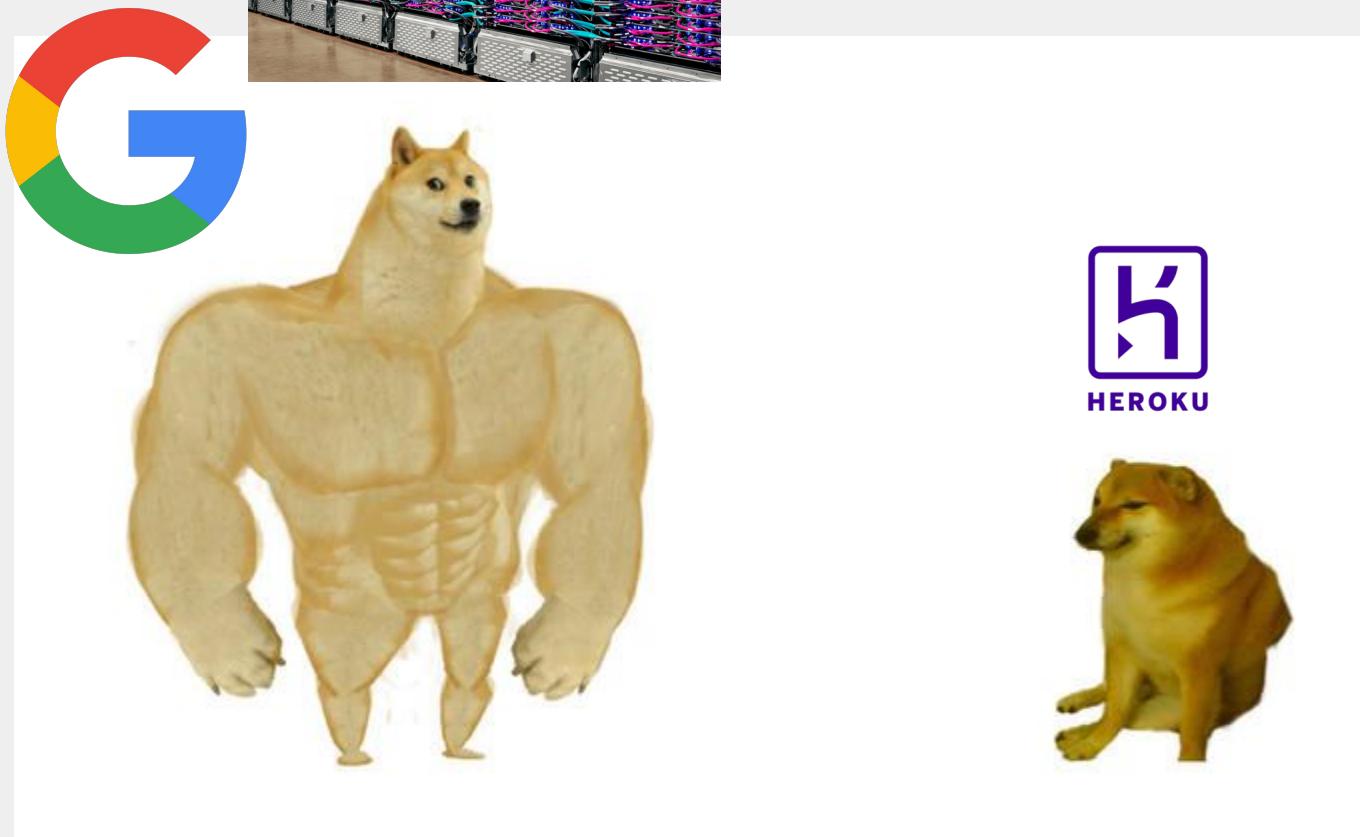
(Braum): Ping is 235623671256963544 ms

(Braum): Ping is 99992036290362906209426023221481ms

How do we fix this?



HEROKU



Minimize
unnecessary &
repetitive
computations



Bundle
communication
into packages



Client should do
as much as it can
without server
communication



Server can try
to prune itself





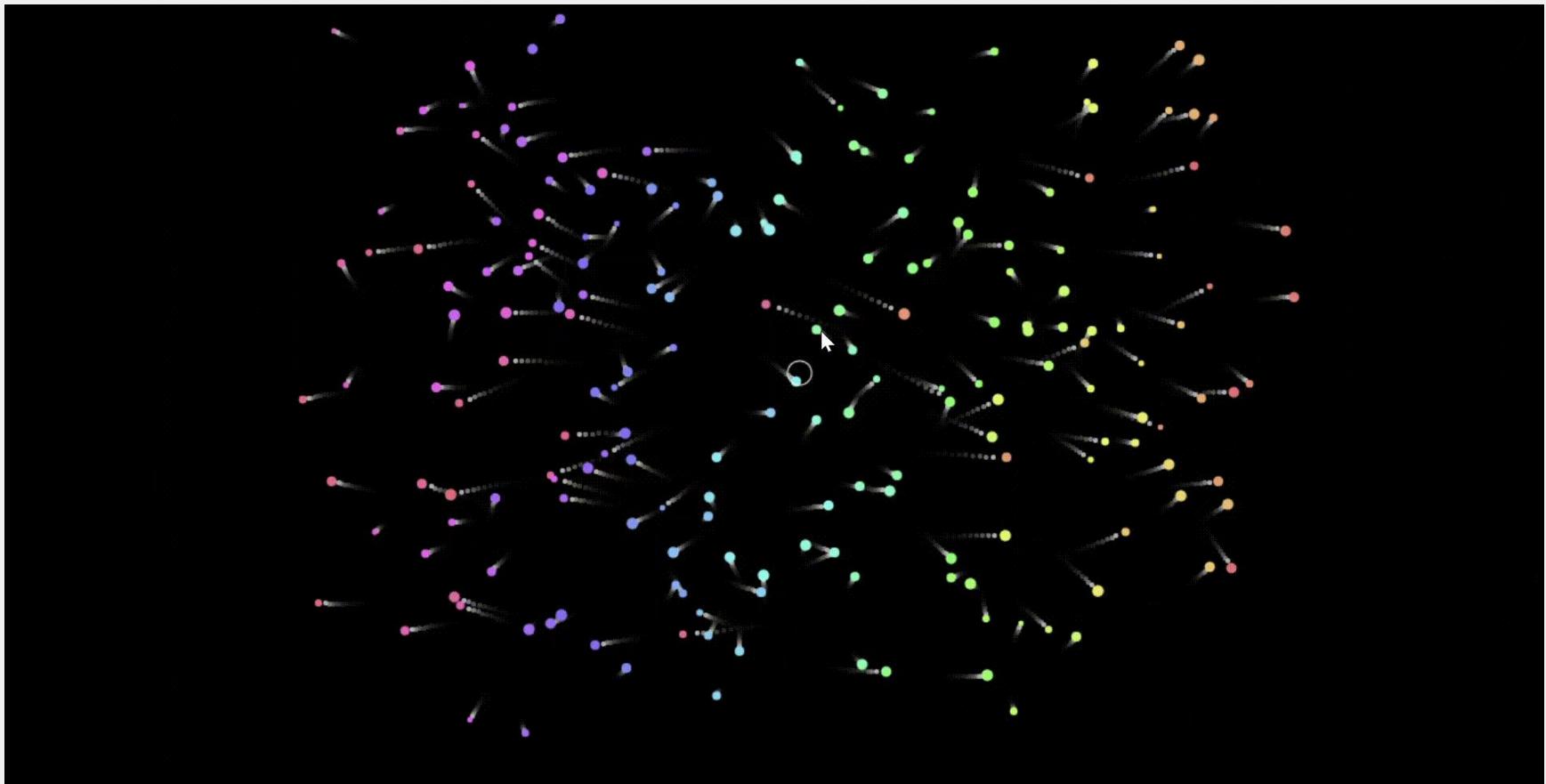
```
// there was an old tab open for this user, force it to
// close. Is this the behavior you want?
io.on('connection', (socket) => {
  socket.disconnect();
  delete socketToUserMap[socket.id];
})
userToSocketMap[user._id] = socket;
socketToUserMap[socket.id] = user;
delete socketToUserMap[socket.id];
removeUser = (user, socket) => {
  if (user) delete userToSocketMap[user._id];
  if (user) delete socketToUserMap[socket.id];
  delete socketToUserMap[socket.id];
}

module.exports = {
  init: (http) => {
    http = require('socket.io')(http);
    io.on('connection', (socket) => {
      console.log(`socket has connected ${socket.id}`);
      socket.on('disconnect', (reason) => {
        const user = getuserFromSocketID(socket.id);
        removeUser(user, socket);
      });
    });
  }
};
```

Feel

“It feels satisfying”

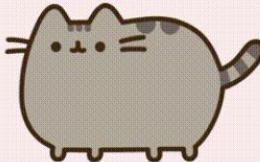
Animations, Particle
Effects, Screen Shake,
Vivid Colors, etc.





Pusheen®

• • • • THE CAT



COMICS

CHARACTERS

SHOP

FUN

ABOUT

NEWS

Introducing
A Very Special Collaboration:
HELLO KITTY®



Sound / Music



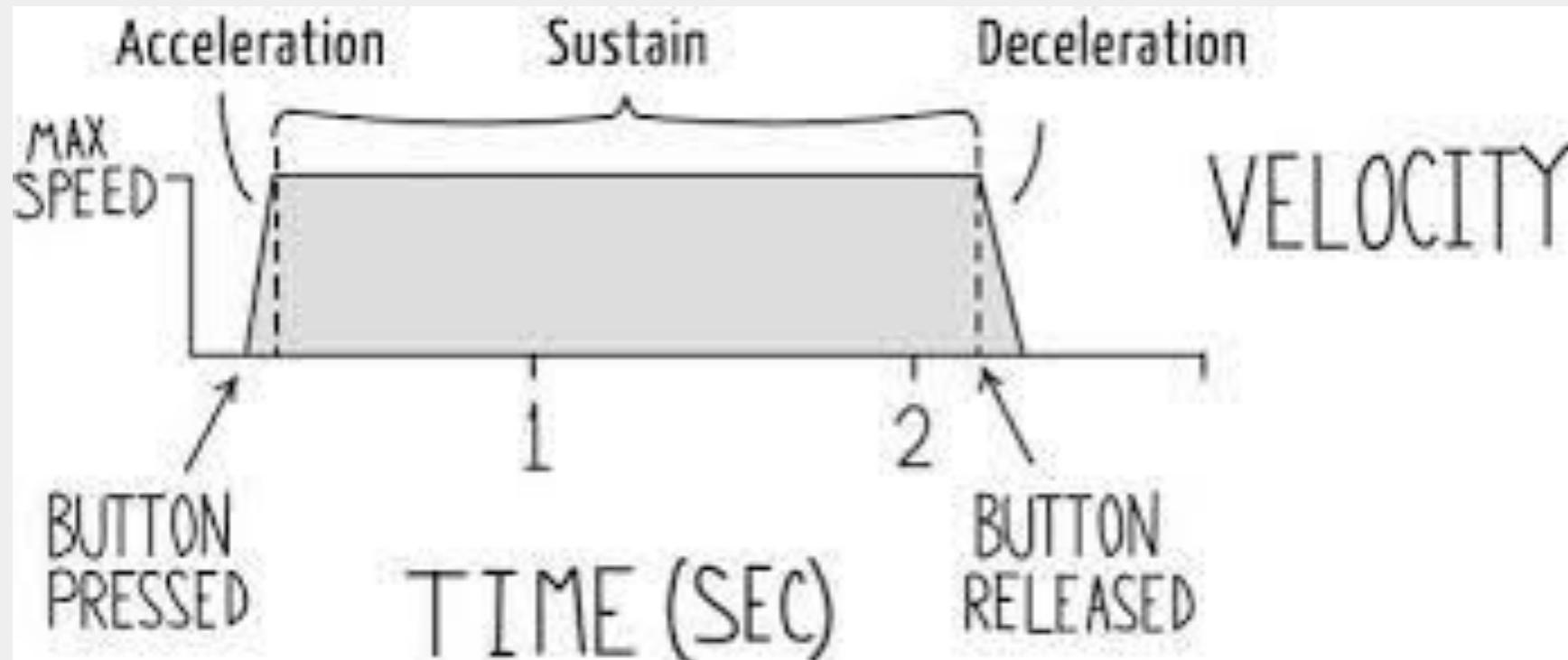
Fluid / Natural Movement



Example: Games



Movement Curves

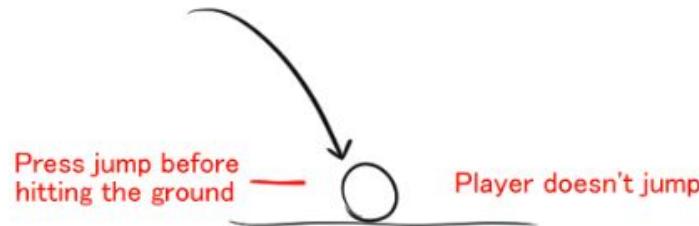


Input Buffers

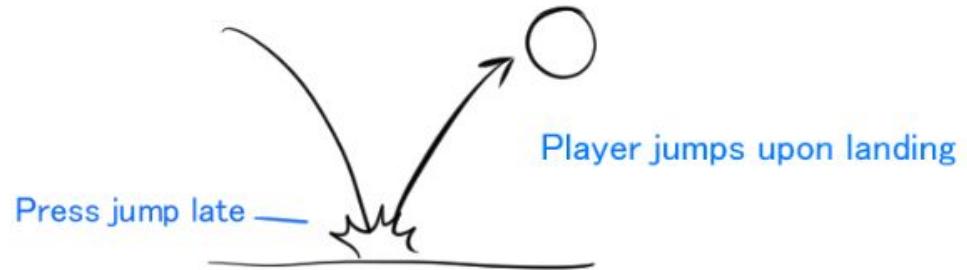


Input Buffers

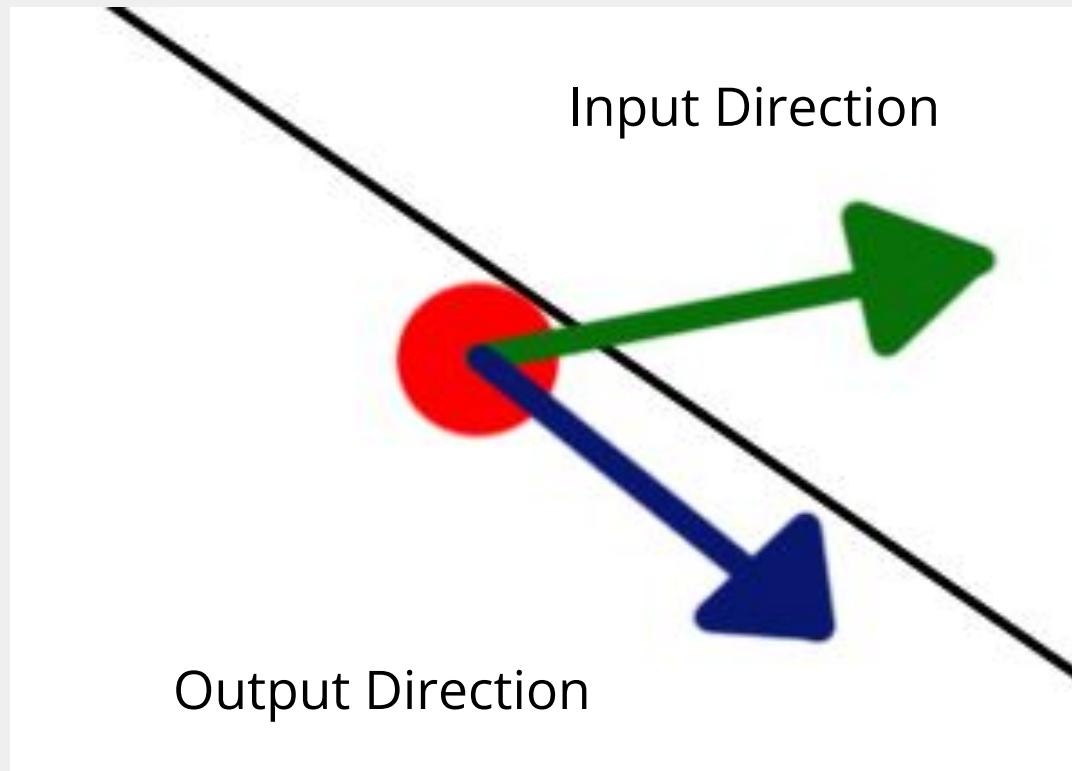
No buffer



Buffered input



Wall Sliding



Focus

What are the most
interesting features?

Let the best features
shine

Optimizing for Different Devices

Styling with variable
screen sizes



Device Inputs

Final Remark

It's easier to enjoy the
idea when the
implementation is good.

Have Fun!