



# YouTube Scalability

A person is shown from the chest up, holding a lit sparkler. The background is a dark, circular area with a white, splatter-like border. The sparkler is bright and glowing, with many sparks flying out. The person is wearing a dark, textured sweater.

# Hello!

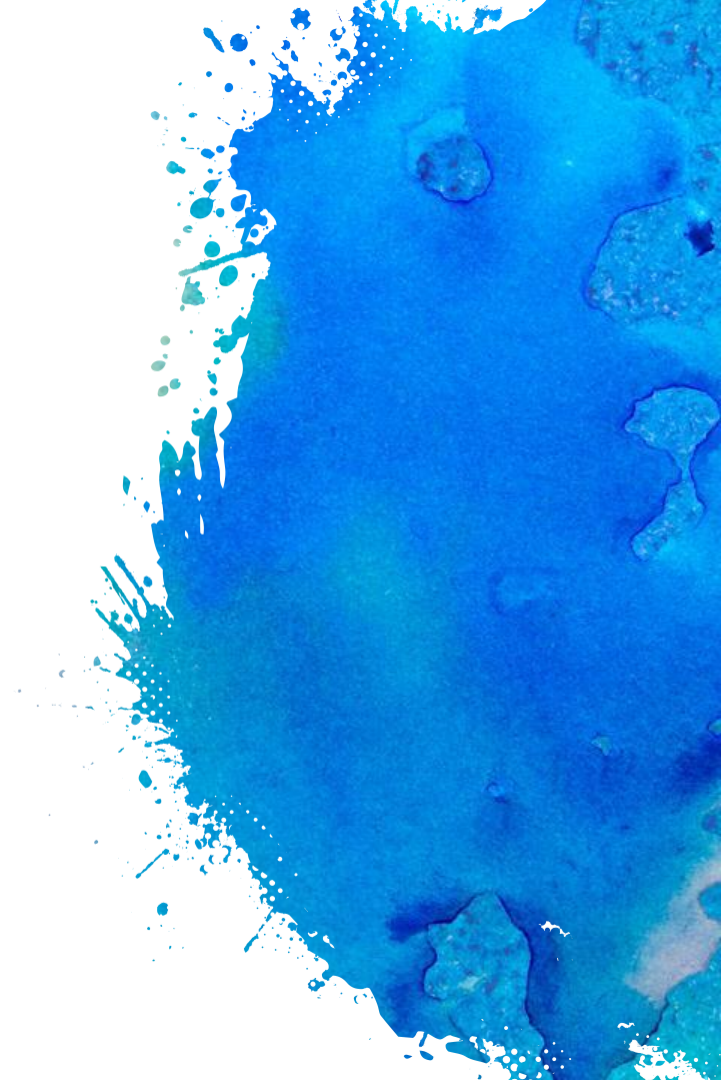
I am Supanut Boonsuebpan 5709611916  
CS447 Operating System2

# Agenda

- ❖ What is YouTube Service
- ❖ What is YouTube Problem
- ❖ The problem solution
- ❖ The result
- ❖ Knowledge in classroom
- ❖ Reference



# What is YouTube Service







*YouTube allows users to  
upload, view, rate,  
share, add to favorites,  
report, comment on  
videos*

# What is YouTube Problem







# 4 Billion users

Views a day

# 60 hours of video

is uploaded every minute

# 24 / 7



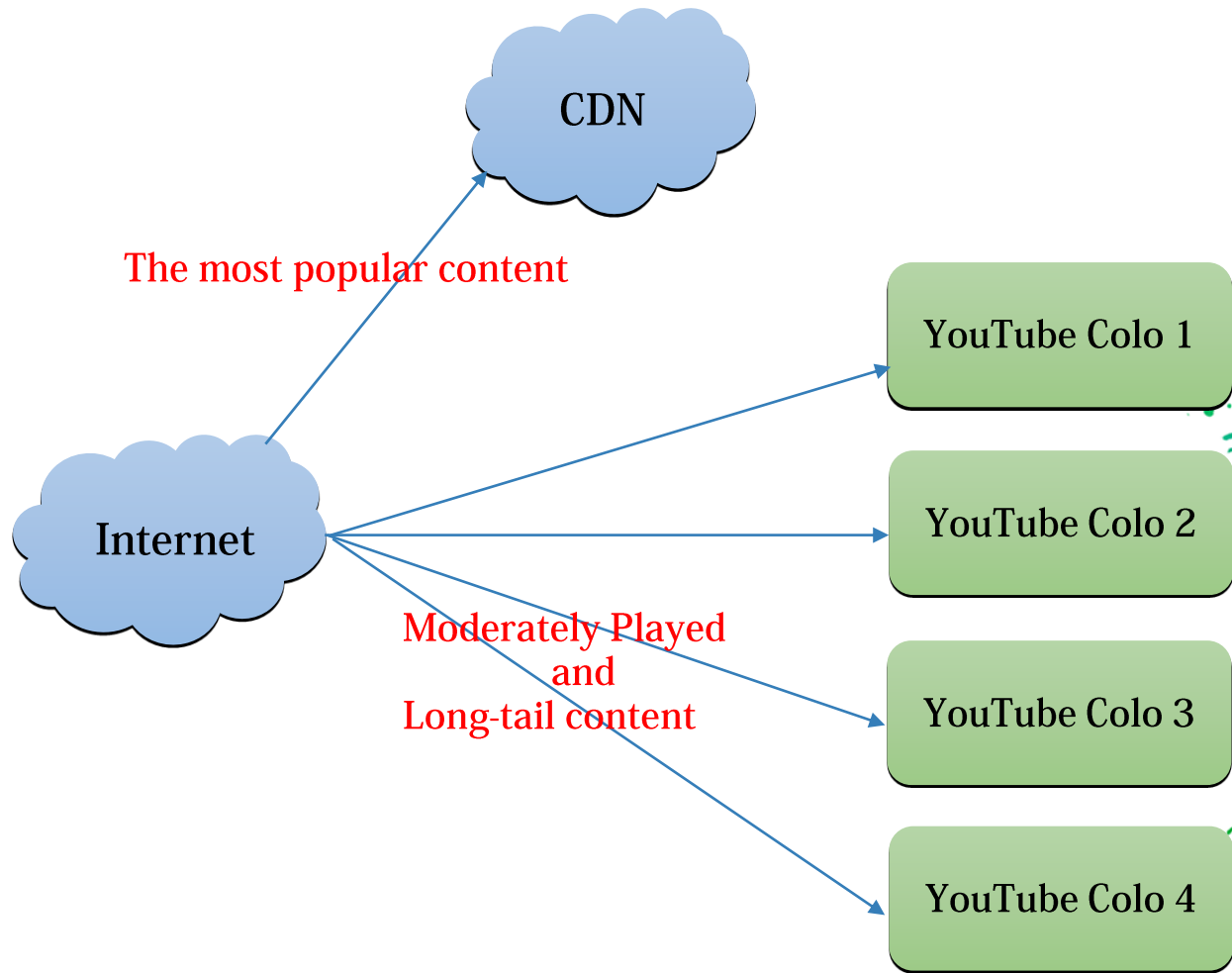
# Bottleneck

The stage in a process that causes the entire process to slow down or stop



The problem  
solution





The result





1. Bottlenecks can be resolved
2. More users can access the website
3. Users can access videos faster
4. Reduce the network traffic
5. Reduce costs
6. Online Backup



Knowledge  
in classroom



- Availability
- Scalability
- CDN
- Cache
- Replication





# Reference





[1] <https://www.infoq.com/presentations/YouTube-Scalability-Lessons>

[2] <http://highscalability.com/youtube-architecture>

[3] [http://www.beenets.com/bee\\_link\\_bandwidth](http://www.beenets.com/bee_link_bandwidth)

[4] <http://www.technointrend.com/what-is-youtube>

[5] <https://www.techtalkthai.com/akamai-next-generation-content-delivery-network>

[6] <http://ibe.travox.co.th>



YOU NEVER  
GET BORED  
WITH **You**Tube

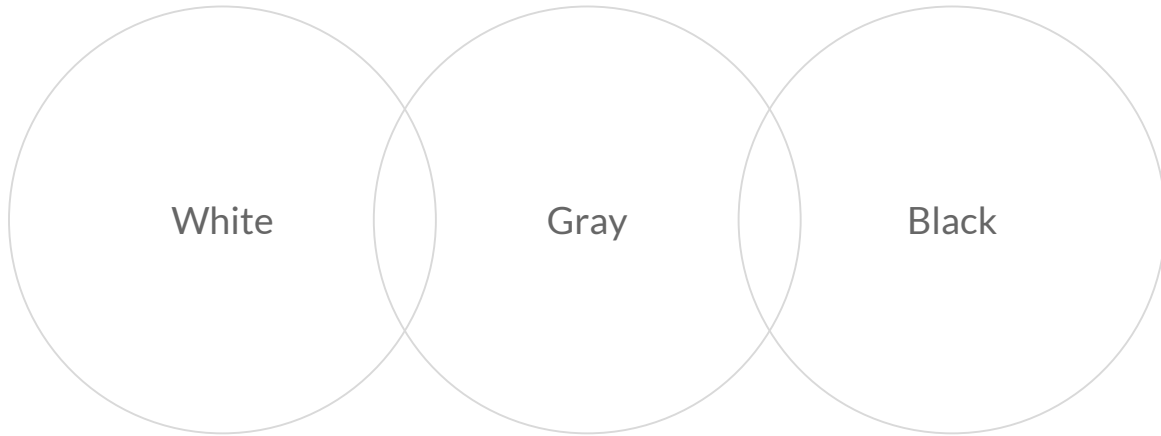




Thanks!  
Any questions?



# Use charts to explain your ideas





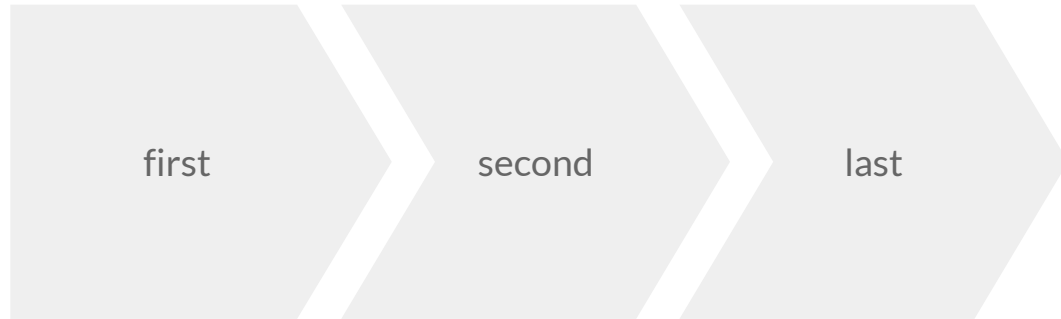
# And tables to compare data

	A	B	C
Yellow	10	20	7
Blue	30	15	10
Orange	5	24	16





# Our process is easy



# Let's review some concepts

## Yellow

Is the color of gold, butter and ripe lemons. In the spectrum of visible light, yellow is found between green and orange.

## Blue

Is the colour of the clear sky and the deep sea. It is located between violet and green on the optical spectrum.

## Red

Is the color of blood, and because of this it has historically been associated with sacrifice, danger and courage.

## Yellow

Is the color of gold, butter and ripe lemons. In the spectrum of visible light, yellow is found between green and orange.

## Blue

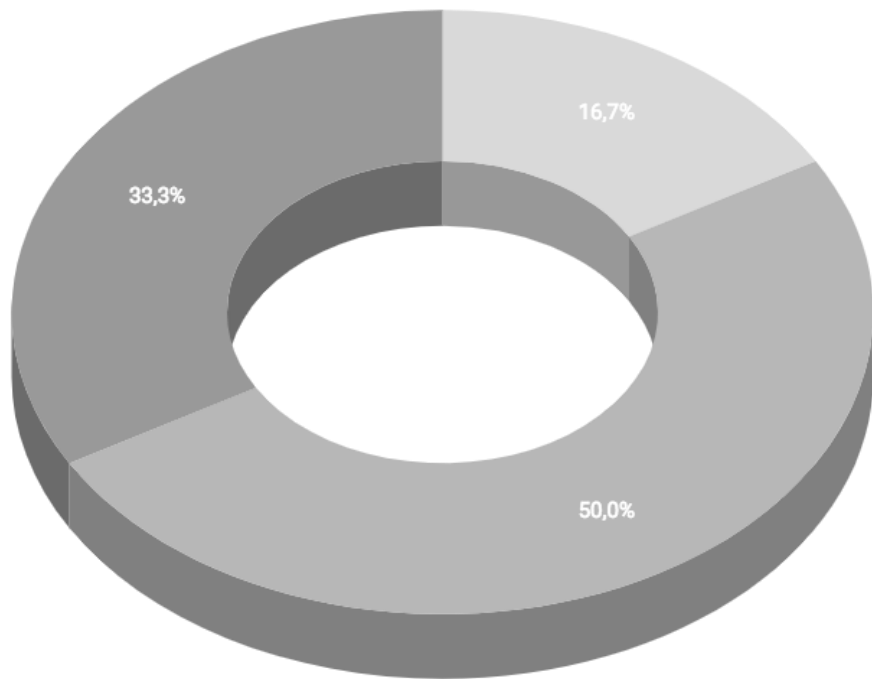
Is the colour of the clear sky and the deep sea. It is located between violet and green on the optical spectrum.

## Red

Is the color of blood, and because of this it has historically been associated with sacrifice, danger and courage.

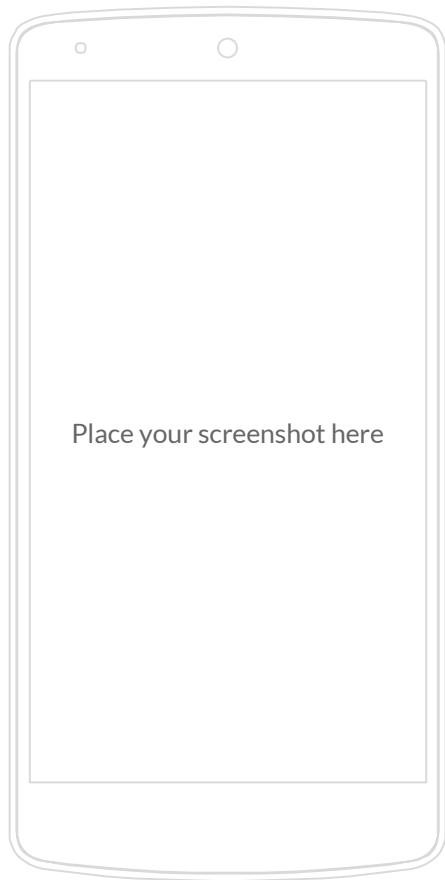






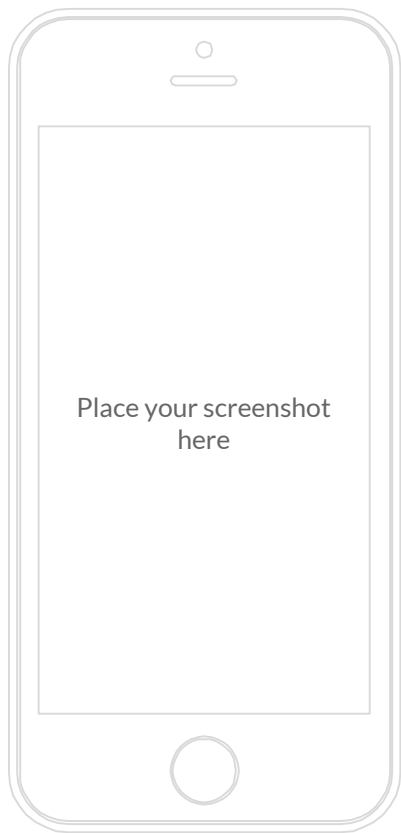
You can insert graphs from [Google Sheets](#)





# Android project

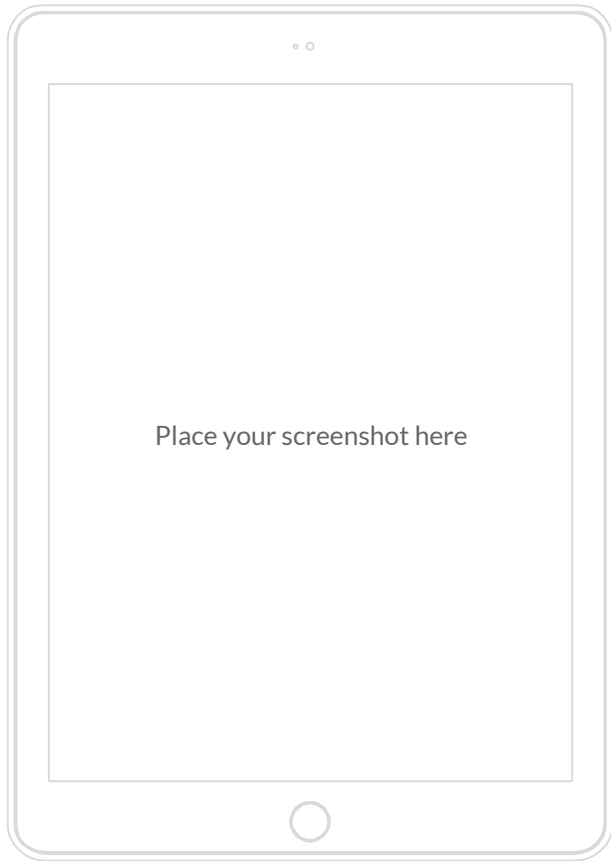
Show and explain your web, app or software projects using these gadget templates.



# iPhone project

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gadget templates.

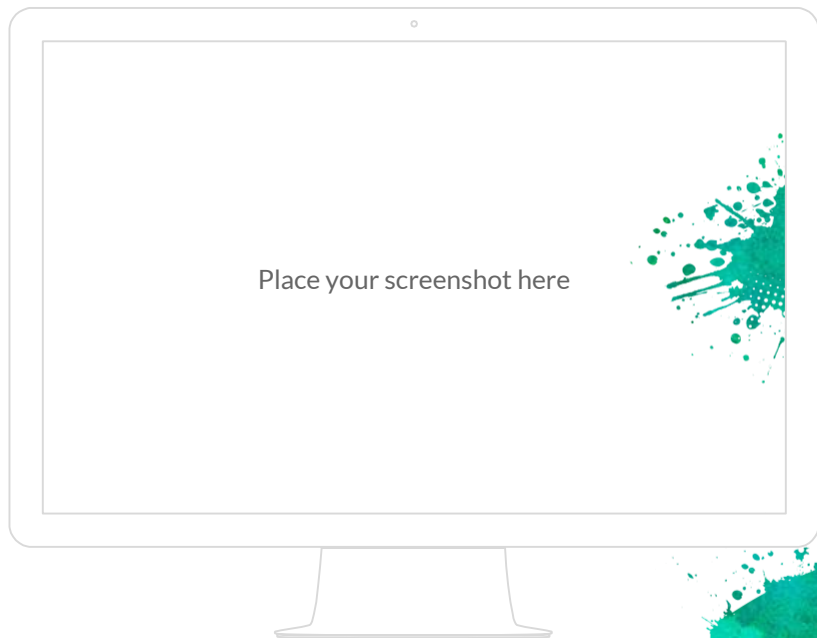




# Tablet project

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Place your screenshot here

# Desktop project

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# Credits

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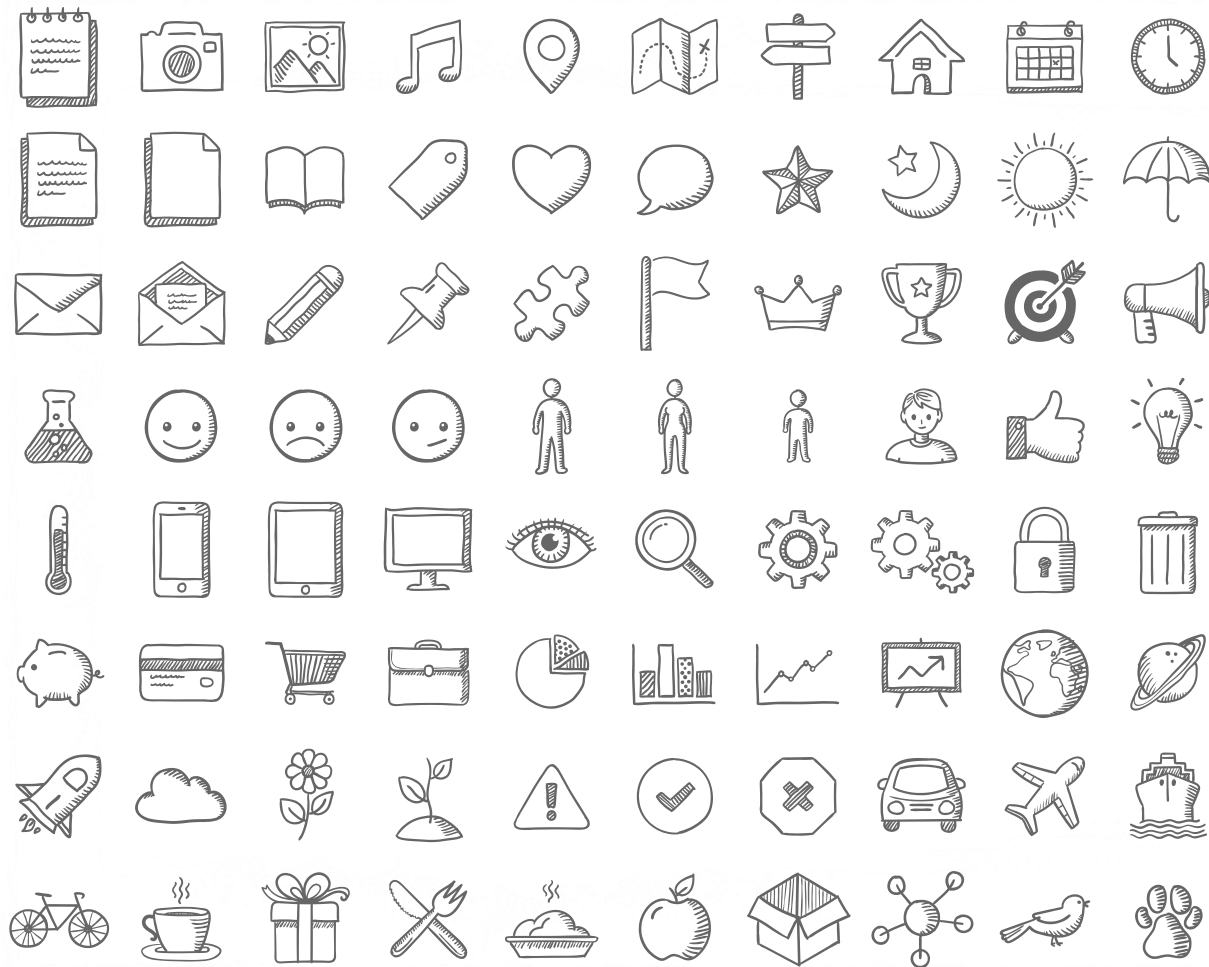
- × Titles: Lato Thin
- × Body copy: Lato Light

You can download the fonts on this page:

<http://www.latofonts.com/lato-free-fonts/>

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Now you can use any emoji as an icon!  
And of course it resizes without losing quality and you can change the color.

How? Follow Google instructions

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