打造高速網站，從網站指標開始！

Speed Up Your App with **Web Vitals**

Summer

Sr. Front End Developer@Trend Micro

Summer。桑莫。夏天

https://cythilya.github.io

cythilya

cythilya@gmail.com

+ 00 123 456 789 | info@gmail.com

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ATZ SHOP
Online Shopping Store

Search

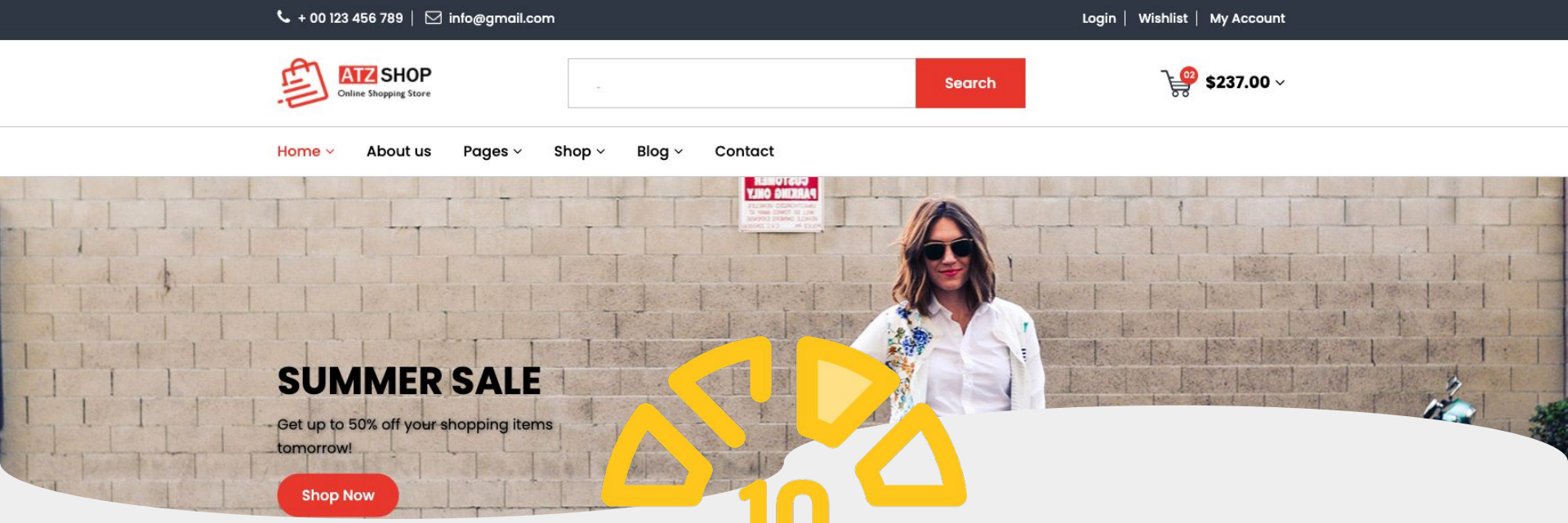
02 $237.00

Home About us Pages Shop Blog Contact

SUMMER SALE

Get up to 50% off your shopping items tomorrow!

Shop Now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About us
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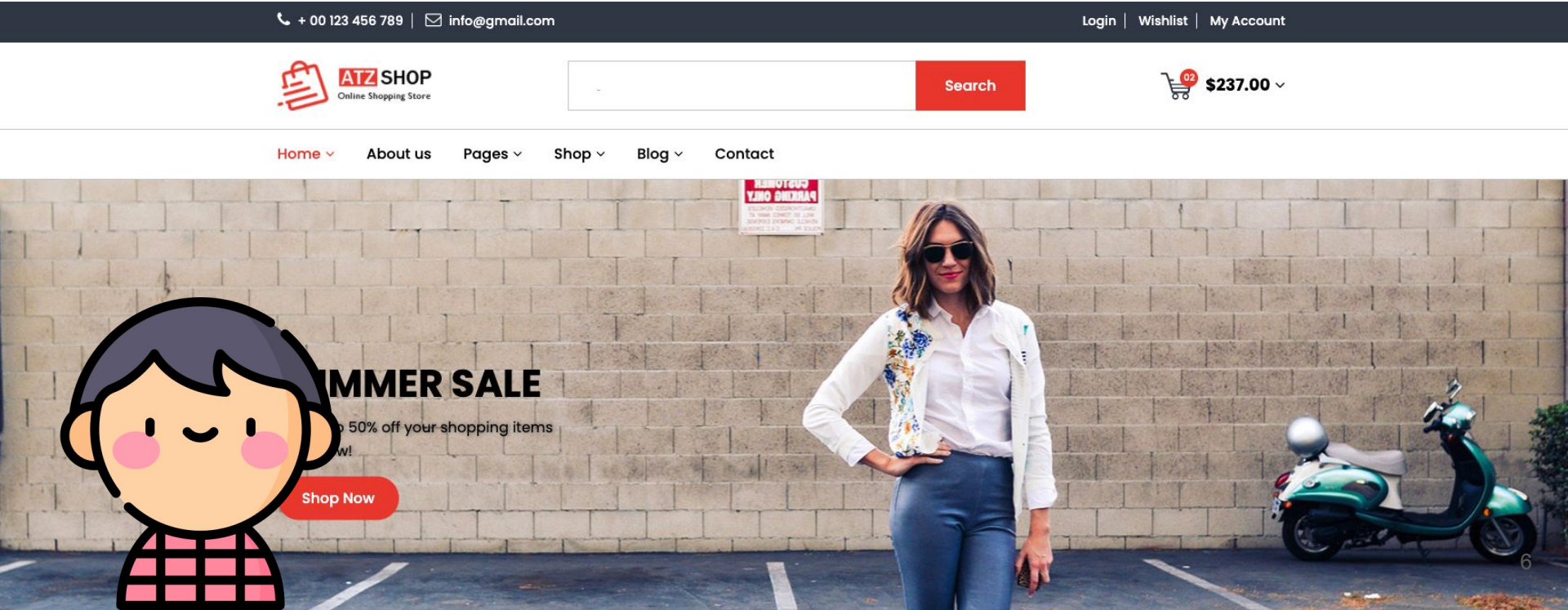
廣告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Bags And Backpacks (20)

Accessories (07)

FILTER

PRICE $10 - $500

COLOR

Black (10)

Ornare sed

$ 95

$

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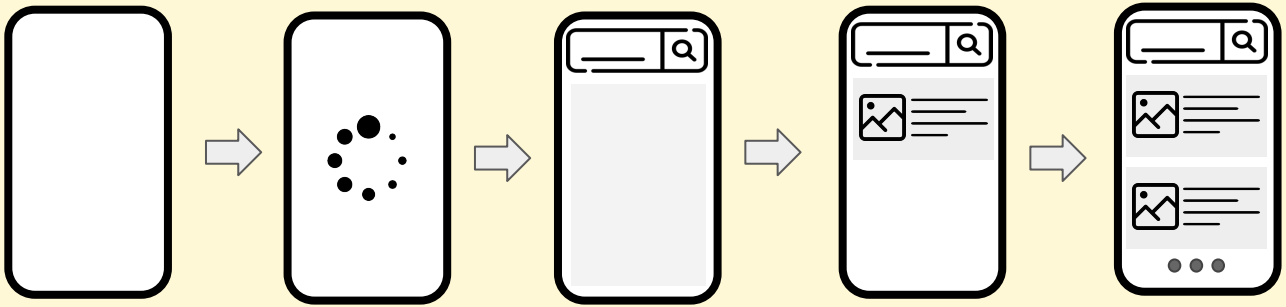
Shop Now

砍掉重練

馬雲 做人要永遠積極樂觀

網頁 1



0 %
0 秒

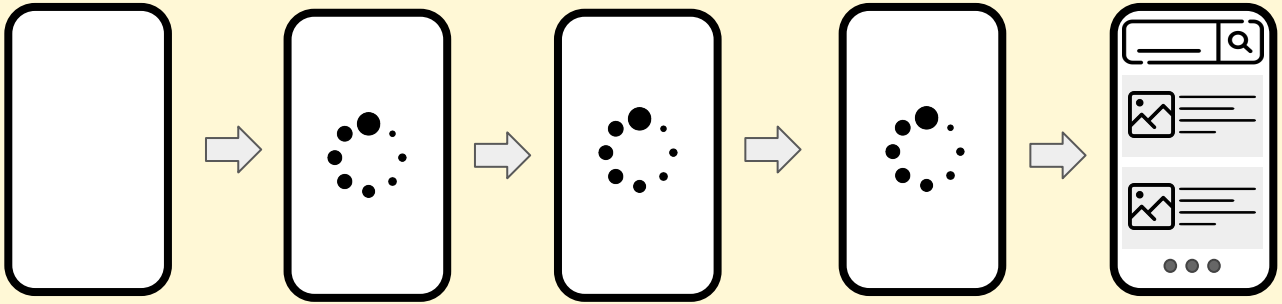
25 %
1 秒

50 %
2 秒

75 %
3 秒

100 %
4 秒

網頁 2



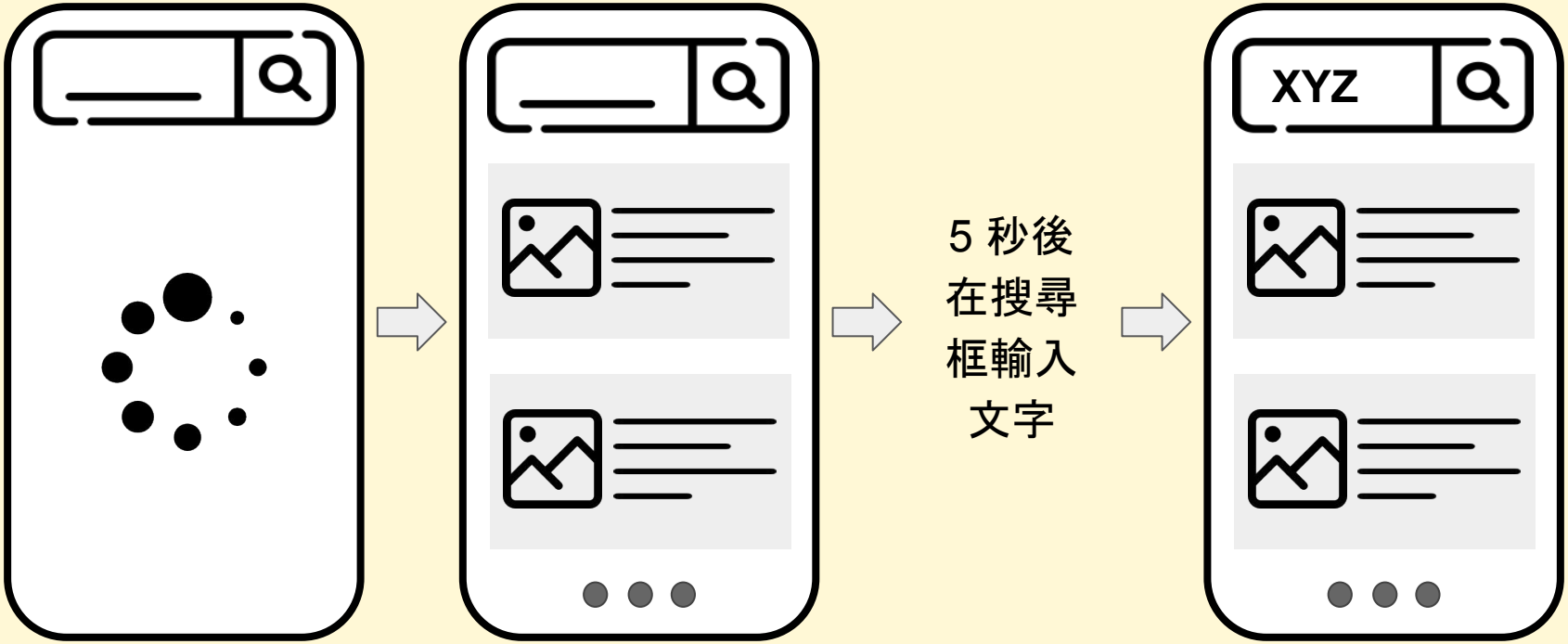
0 %
0 秒

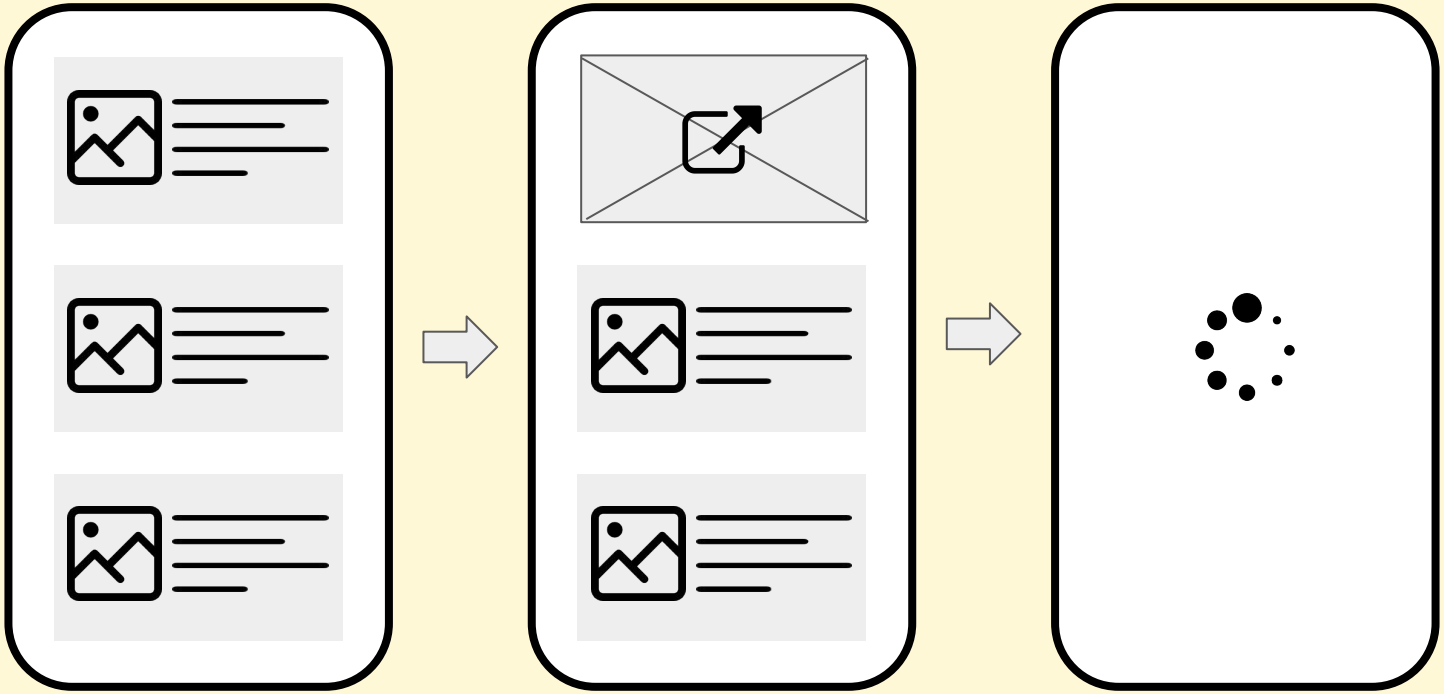
25 %
1 秒

25 %
2 秒

25 %
3 秒

100 %
4 秒


5 秒後
在搜尋
框輸入
文字
XYZ



Response	Animation	Idle	Load
100 ms	60 FPS / 10~12 ms	50 ms	1 秒

網站指標 Web Vitals
在乎使用者體驗

載入速度
Load Speed

載入互動性
Load Responsiveness

視覺穩定性
Visual Stability

開始了嗎？

載入速度
Load Speed

有反應嗎？

載入互動性
Load Responsiveness

舒服嗎？

視覺穩定性
Visual Stability

工欲善其事
必先利其器

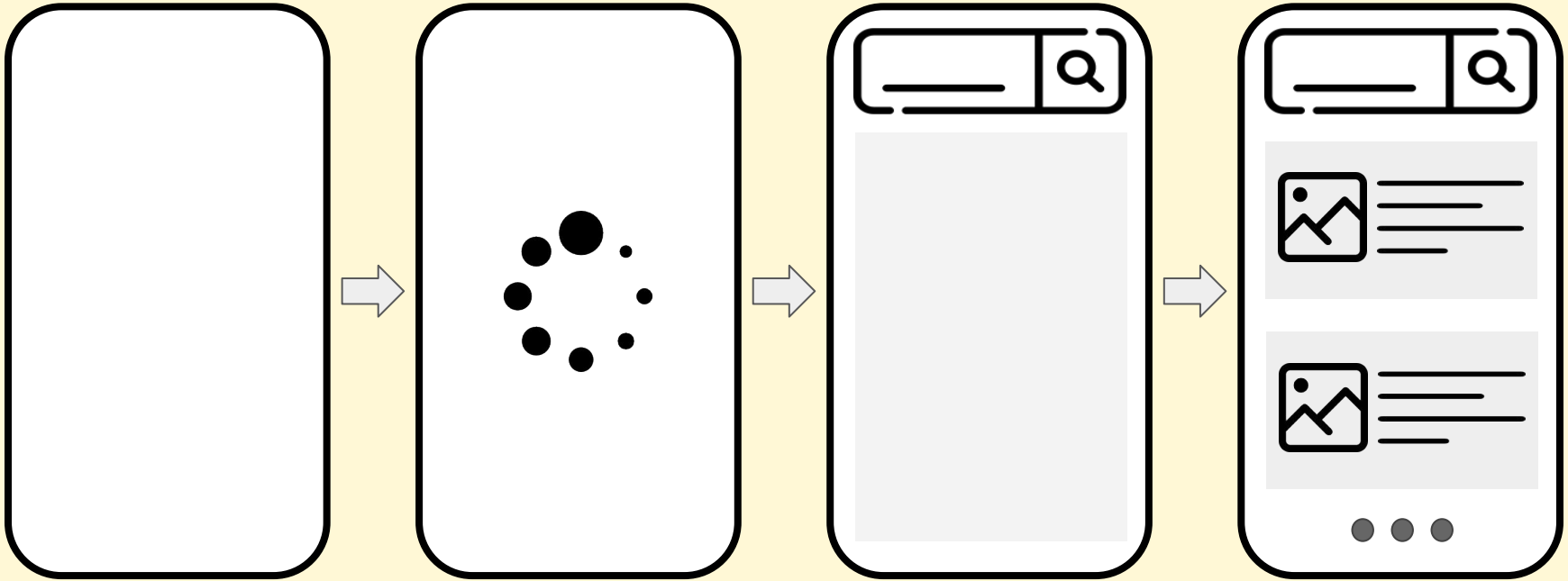
模擬 (Lab)

vs

實地 (Field)

載入速度

Load Speed



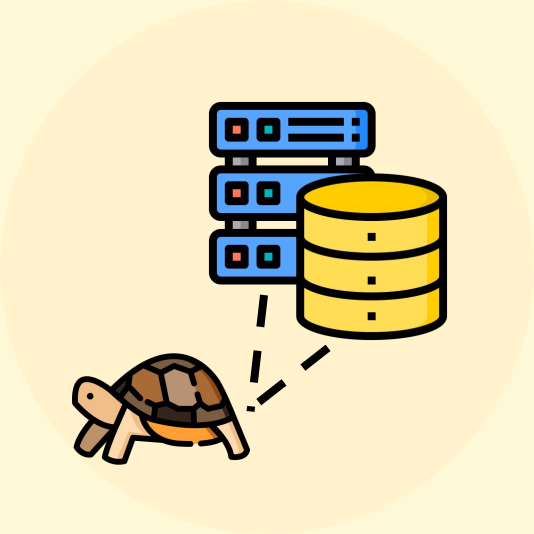
FCP

400 ms

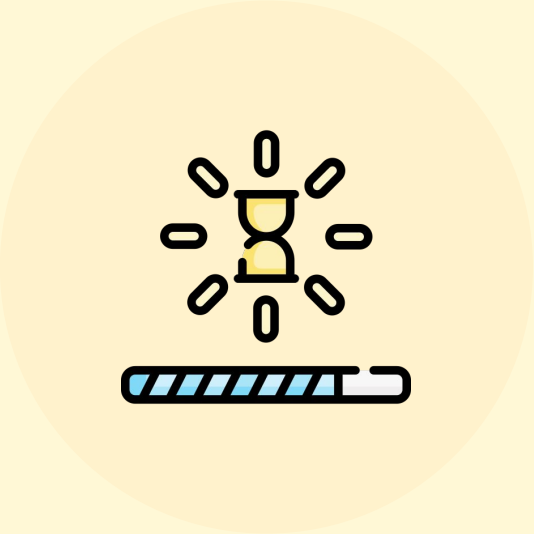
LCP

900 ms

禁止轉譯的資源



伺服器回應速度慢



資源載入速度慢

Mixtini & Co.

MIXTINI

關於我們 微醺地圖 調酒搜尋器 聯絡我們

IF YOU CRAVE CULTURE, SPEND NIGHTS IN BARS.

台北微醺地圖 / 最完整調酒指南
跟著我們一起感受調酒魅力

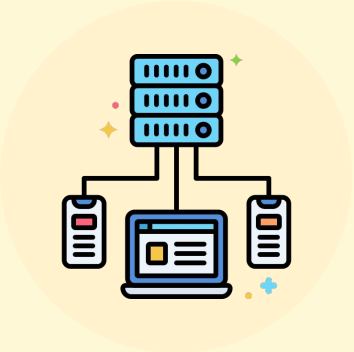
了解更多

調酒搜尋器
Cocktail Mixer

微醺地圖
Barsurfing Map

MIXTINI.CO

Responsive
Images / Webp



CDN

Preconnect /
DNS Prefetch

Preload

FCP

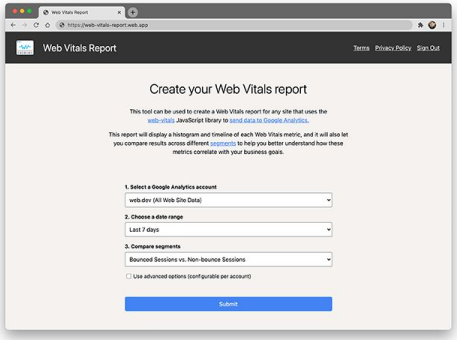
–

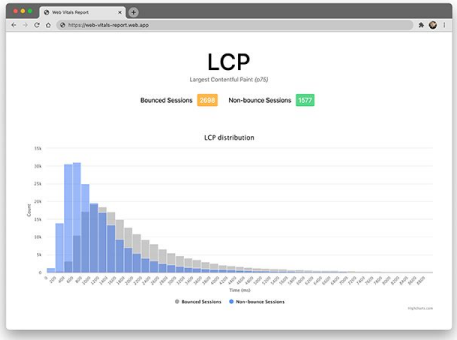
27%

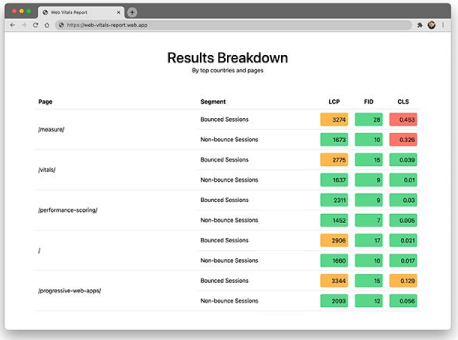
LCP

58%

68%


Web Vitals Report
Terms
Privacy Policy
Sign Out
Create your Web Vitals report
This tool can be used to create a Web Vitals report for any site that uses the web-vitals JavaScript library to send data to Google Analytics.
This report will display a histogram and timeline of each Web Vitals metric, and it will also let you compare results across different segments to help you better understand how these metrics correlate with your business goals.
1. Select a Google Analytics account
web.dev (All Web Site Data)
2. Choose a date range
Last 7 days
3. Compare segments
Bounced Sessions vs. Non-bounce Sessions
Use advanced options (configurable per account)
Submit

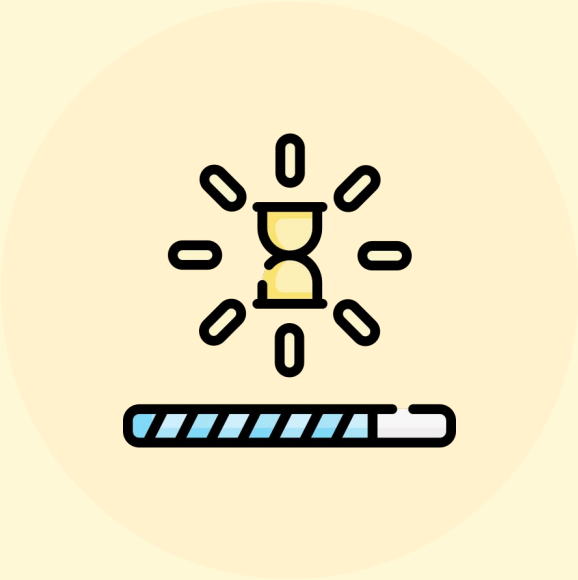

LCP
Largest Contentful Paint (p75)
Bounced Sessions 2698
Non-bounce Sessions 1577
LCP distribution
Count
Time (ms)
Bounced Sessions
Non-bounce Sessions


Results Breakdown
By top countries and pages
Page
Segment
LCP
FID
CLS
/measure/
Bounced Sessions 3274 28 0.453
Non-bounce Sessions 1673 10 0.326
/vitals/
Bounced Sessions 2775 15 0.039
Non-bounce Sessions 1637 9 0.01
/performance-scoring/
Bounced Sessions 2311 9 0.03
Non-bounce Sessions 1452 7 0.006
/
Bounced Sessions 2906 17 0.021
Non-bounce Sessions 1660 10 0.017
/progressive-web-apps/
Bounced Sessions 3344 15 0.129
Non-bounce Sessions 2093 12 0.056

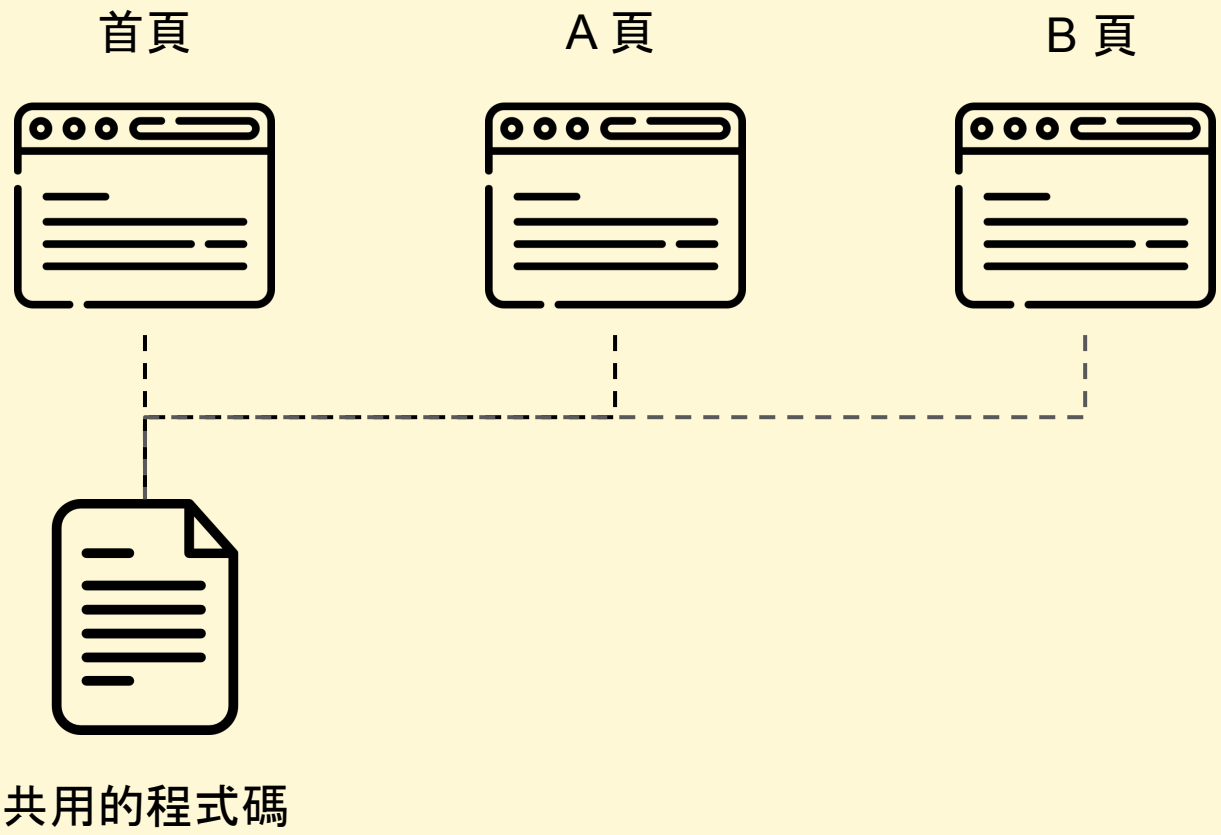
Firebase

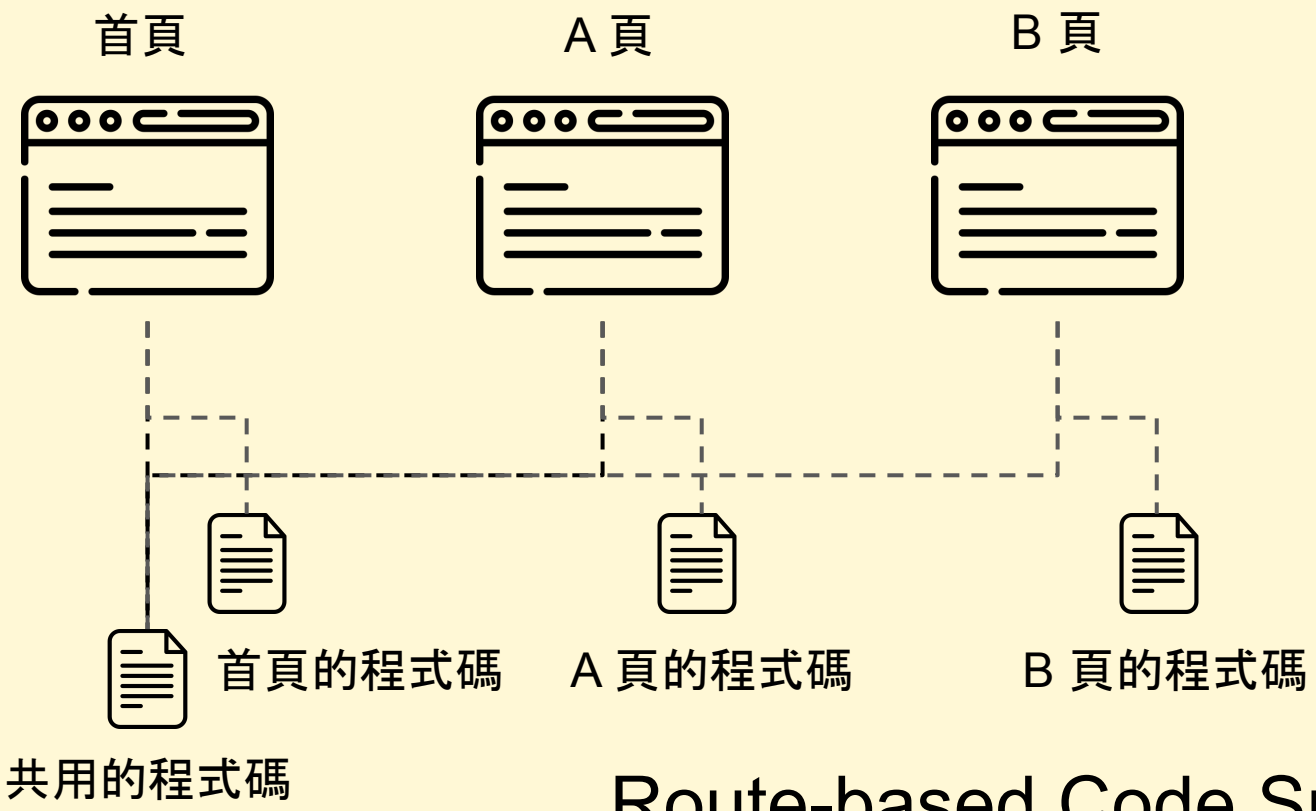
Deep Discovery Director

編譯費時

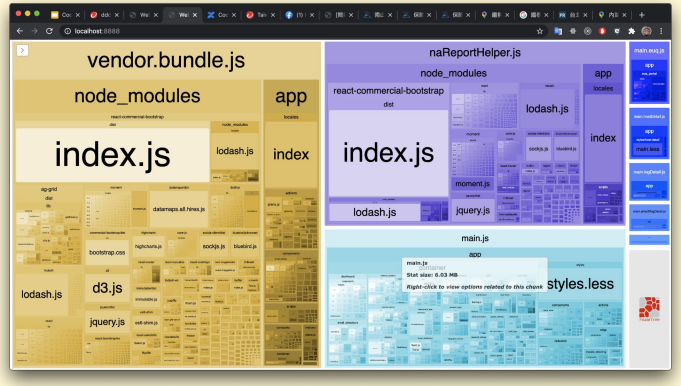


載入速度慢


首頁
A 頁
B 頁
共用的程式碼

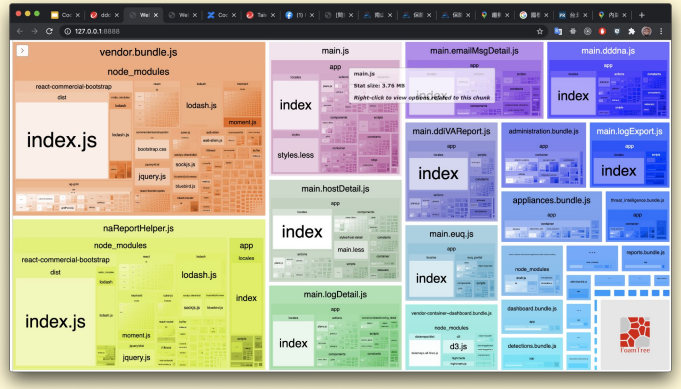


Route-based Code Splitting



當頁只會載入本身會用到的程式碼

大大減少下載的程式碼大小



Bundle Size

⬇ 24%

FCP

⬇ 35%

LCP

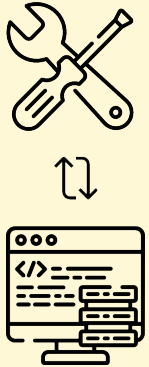
⬇ 24%

DX

⬆ 200%

打包專案
程式碼

使用
Lighthouse
CI
檢測效能



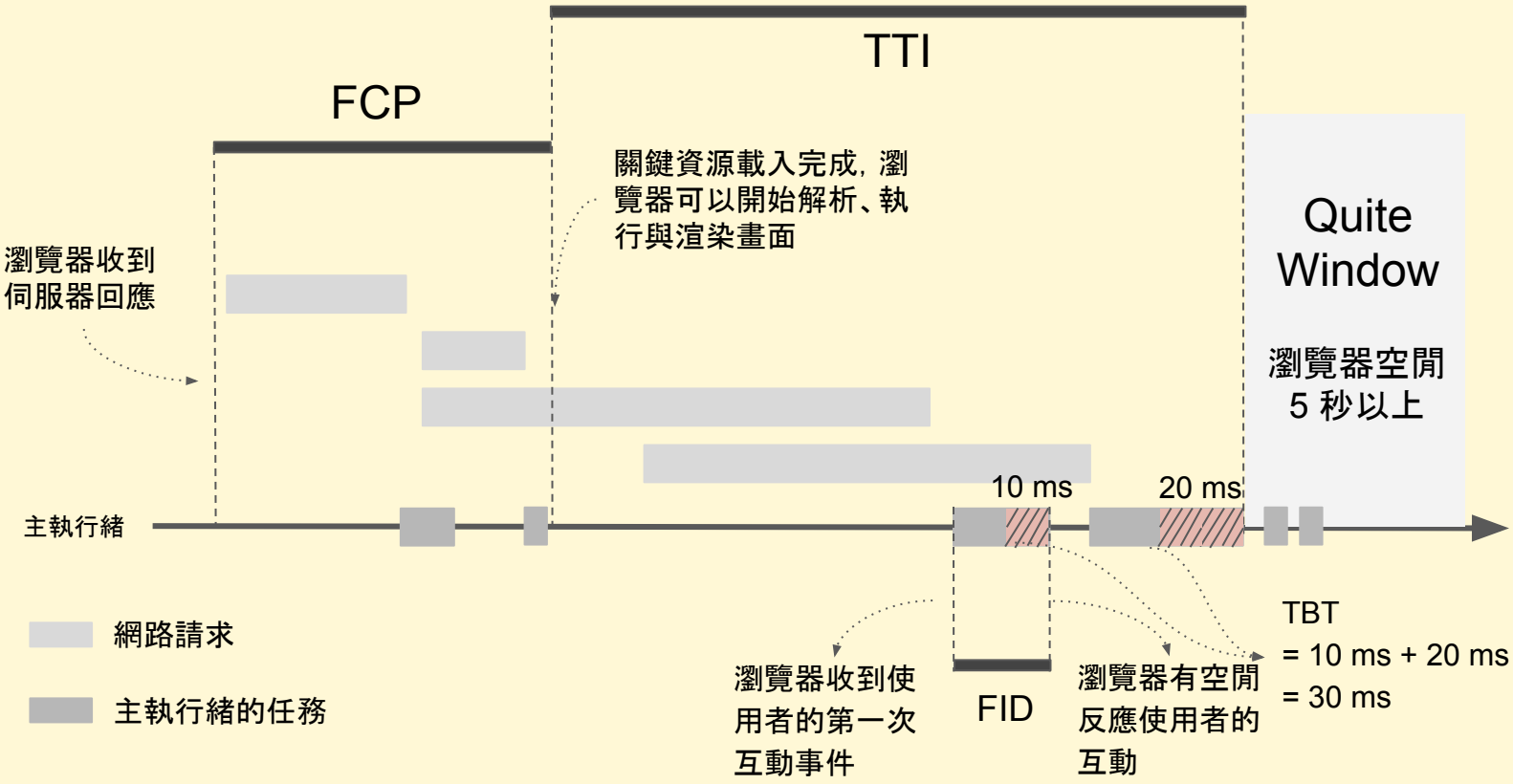
效能調校

產品上線

蒐集資訊
與
驗證成效

載入互動性

Load Responsiveness


TTI
FCP
關鍵資源載入完成，瀏覽器可以開始解析、執行與渲染畫面
瀏覽器收到伺服器回應
Quite Window
瀏覽器空閒 5 秒以上
10 ms
20 ms
主執行緒
網路請求
主執行緒的任務
瀏覽器收到使用者的第一次互動事件
FID
瀏覽器有空閒反應使用者的互動
TBT
= 10 ms + 20 ms
= 30 ms

露天
拍賣

CLICK

互動不夠即時

露天
找商品
{{嘉翔液晶電視維修中心}}
40~55吋 專業液晶電視維修 / 專
hkhtft
$2,000
我要提問
sar**********
2020-08-20 13:35:46
請問國際牌50吋電視液晶面板破一個裂洞，修理費要多少錢
賣家 hkhtft
2020-11-01 10:12:07
您好，更換50吋面板，費用2K的4000元，4K的5500元，謝謝
xia*******
2020-07-12 17:01:13
請問 PHLIPS
32PHH4002 螢幕破裂
更換價格為多少錢?
謝謝您！

改用較輕量的的
函式庫

Code Splitting

Defer / Async /
LoadCSS

Preconnect /
Preload

TTI

⬇ 11%

TBT

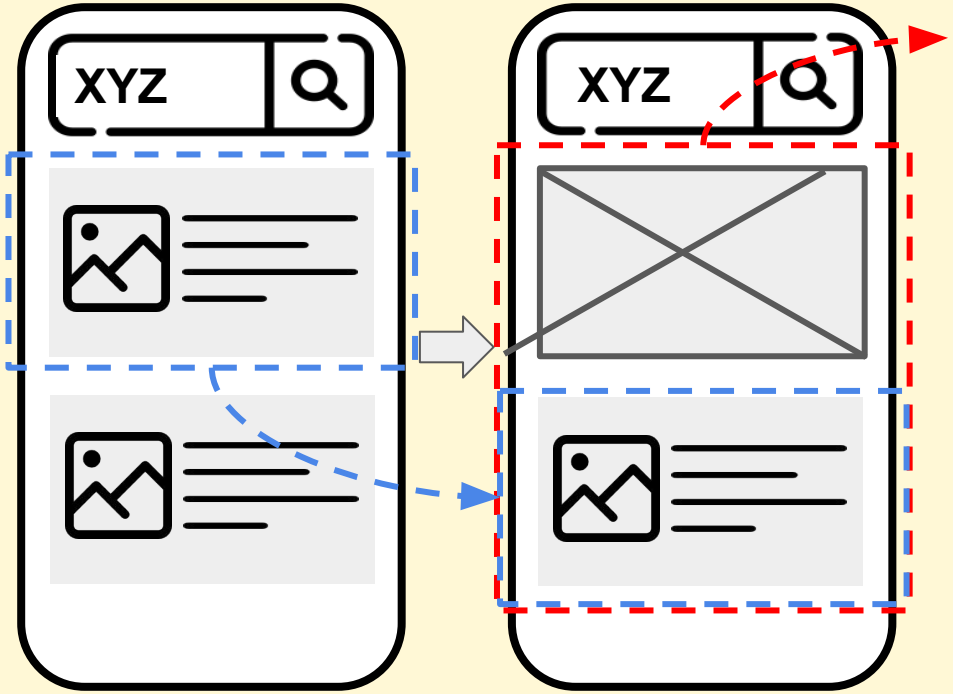
⬇ 48%

FID

⬇ 7%

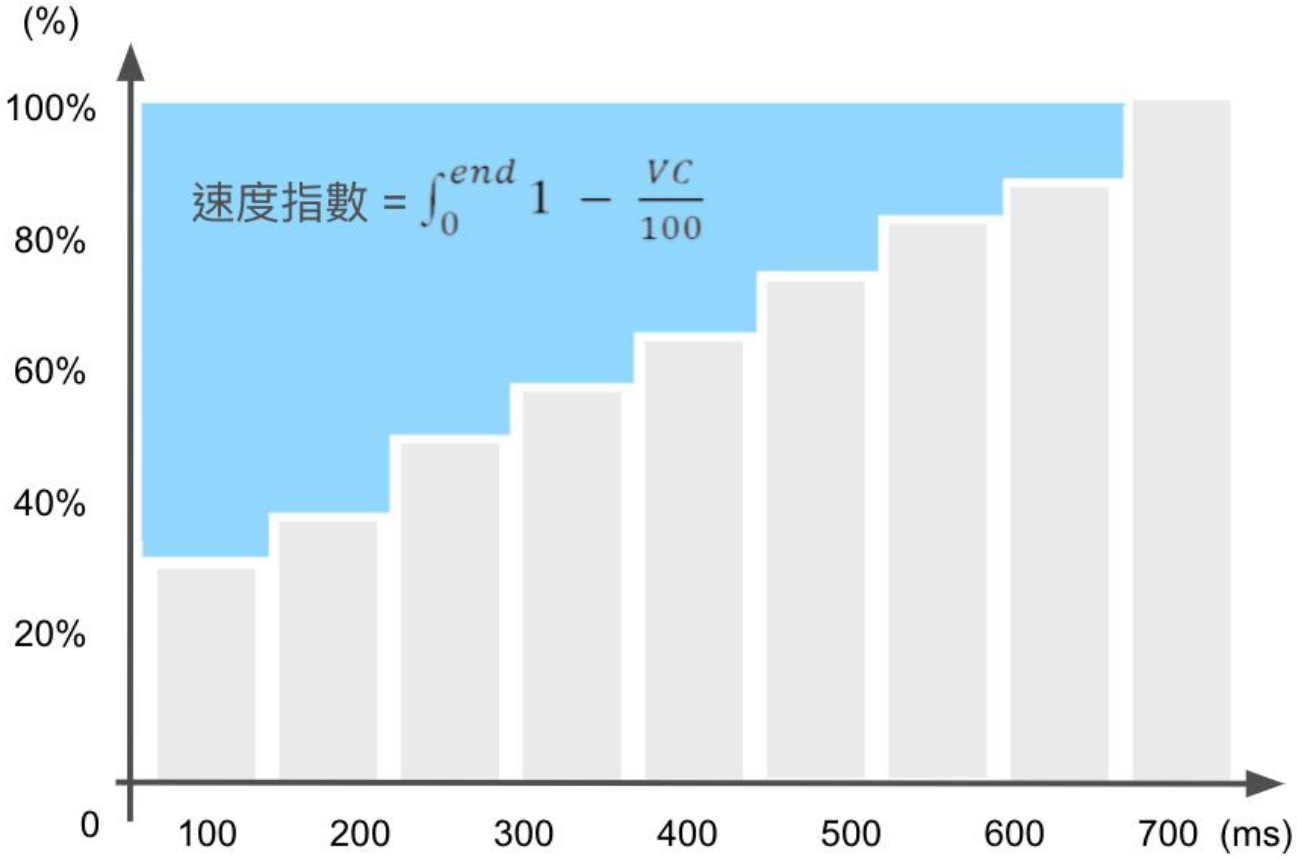
視覺穩定性

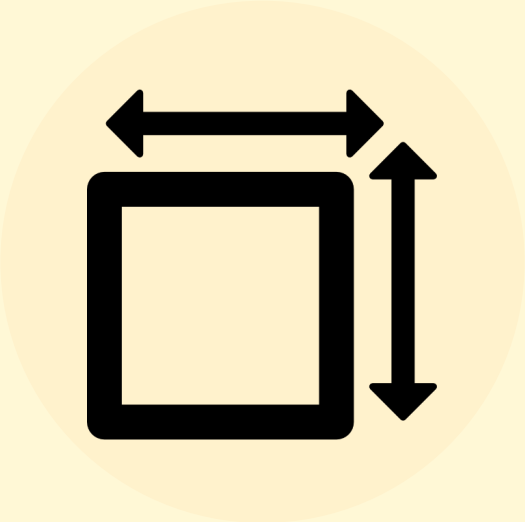
Visual Stability



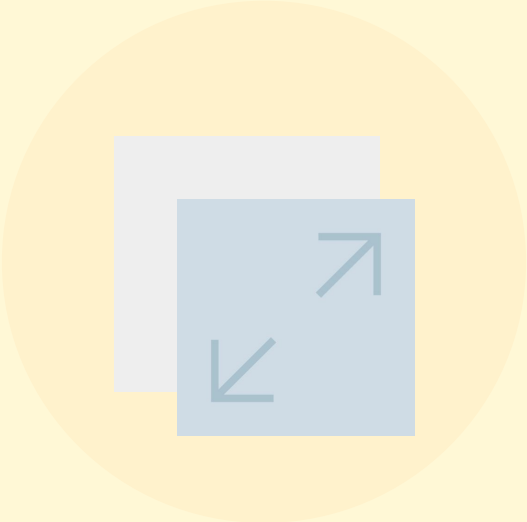
CLS
= 影響範圍比例 * 位移比例
= 2/3 * 1/3
= 2/9 ~ 0.22

- 影響範圍比例
  = 影響面積 / 總面積
  = 2/3
- 位移比例
  = 位移距離 / 總距離
  = 1/3


(%)
100%
80%
60%
40%
20%
0
速度指數 = $\int_0^{end} 1 - \frac{VC}{100}$
100
200
300
400
500
600
700
(ms)



沒有設定明確尺寸



未預留足夠空間

FOIT/FOUT

頁腳不斷推移

露天
找商品
您好，維修費用2500元，謝謝
pet********
2020-05-21 19:24:28
請問samsung UA55RU7100W面板破裂，修理要多少？謝謝您
賣家 hkhtft
2020-05-22 01:56:40
您好，更換新面板，保固一年，費用11000元，謝謝
lar********
2020-05-19 21:26:44
請問 LG 49UJ630T 面板 nc490dgg aafx3
有的維修嗎?
賣家 hkhtft
2020-05-22 01:53:12
您好，維修可以，更換面板的話，沒有現貨，謝謝
1 2 3 4 5
footer.no-navbar.no-navbar-spacing
375 × 143
露天市集國際資訊股份有限公司
露天首頁 / 隱私權聲明 / 會員合約 / 電腦版
智慧財產權保護傘 Protective Umbrella Blueprint

```
.main {
  min-height: calc(100vh - 50px);
}

.product-info {
  min-height: 30vh;
}
```

CLS

⬇ 100%

載入最大面積元素所花的時間

LCP

FCP

載入第一個可見元素所花的時間

使用者第一次與網頁互動，直到瀏覽器能對此互動做出回應的時間差

FID

TBT

在 FCP 和 TTI 之間，主執行緒被長時間任務阻塞的總時間

TTI

FCP 與靜窗之間，使用者可與網頁互動的時間

CLS

頁面存活週期間，每個可見元素位移分數的總和

SI

衡量視覺流暢性

Core Web Vitals

(Loading)

LCP

Largest Contentful Paint

(Interactivity)

FID

First Input Delay

(Visual Stability)

CLS

Cumulative Layout Shift

利用 CrUX 了解長期走向與發掘潛問題
利用 Search Console 蒐集與確認全站需要關注的議題
利用 Lighthouse CI 在 PR 階段檢測即將部署的程式碼，以確保產品品質
利用 PageSpeed Insights 診斷該網頁實地與模擬的狀況，並將其建議當成優化方向
利用 web.dev 取得更多相關資訊與範例
進入開發或除錯階段，利用模擬 Lighthouse 與 Chrome DevTools 實作與驗證

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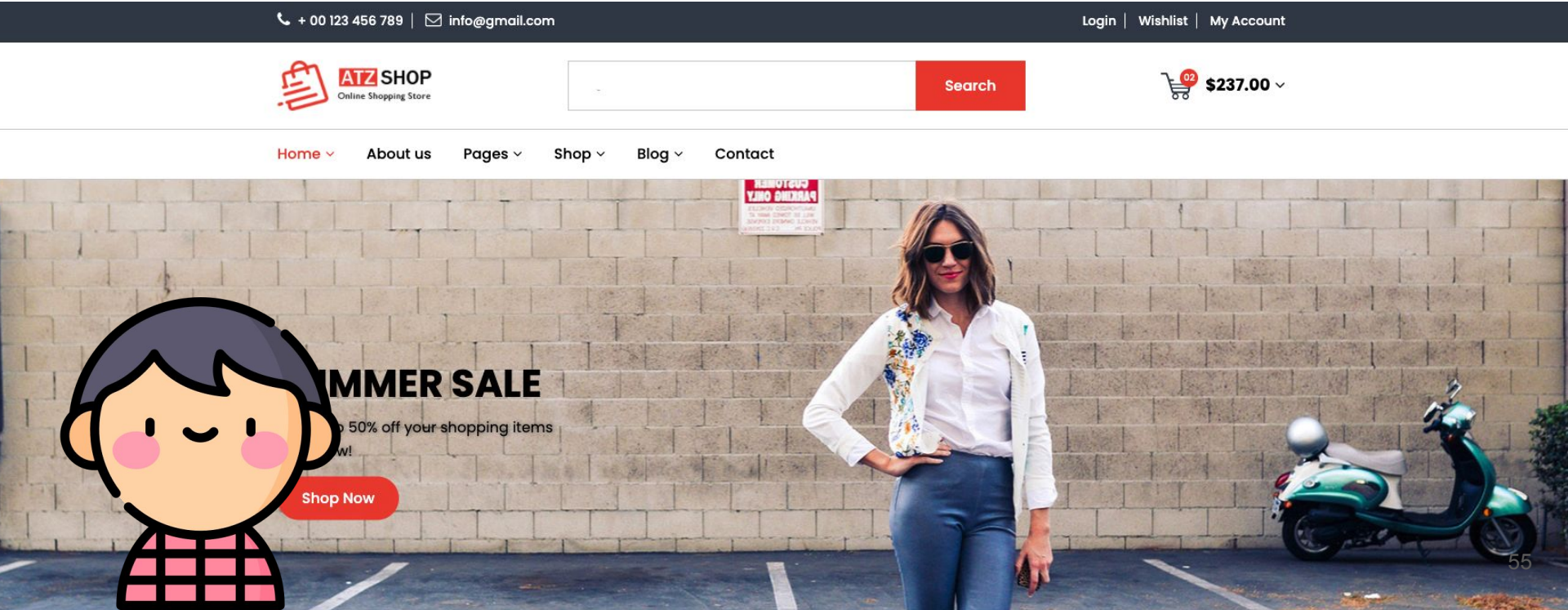
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w!
Shop Now

Women (10)

Men (05)

Footwear (15)

Bags And Backpacks (20)

Accessories (07)

FILTER

PRICE $10 - $500

COLOR

Black (10)

Blue (05)

Red (15)

(20)

(07)

UCT

Ornare sed consequat

5 Comments

Ornare sed consequat

~~$ 95.00~~ $ 81.00

Pellentesque posuere

~~$ 90.00~~ $ 80.00

Consequat posu

~~$ 90.00~~ $ 80

Ornare sed consequat

Pellentesque posuere

Consequat posuere

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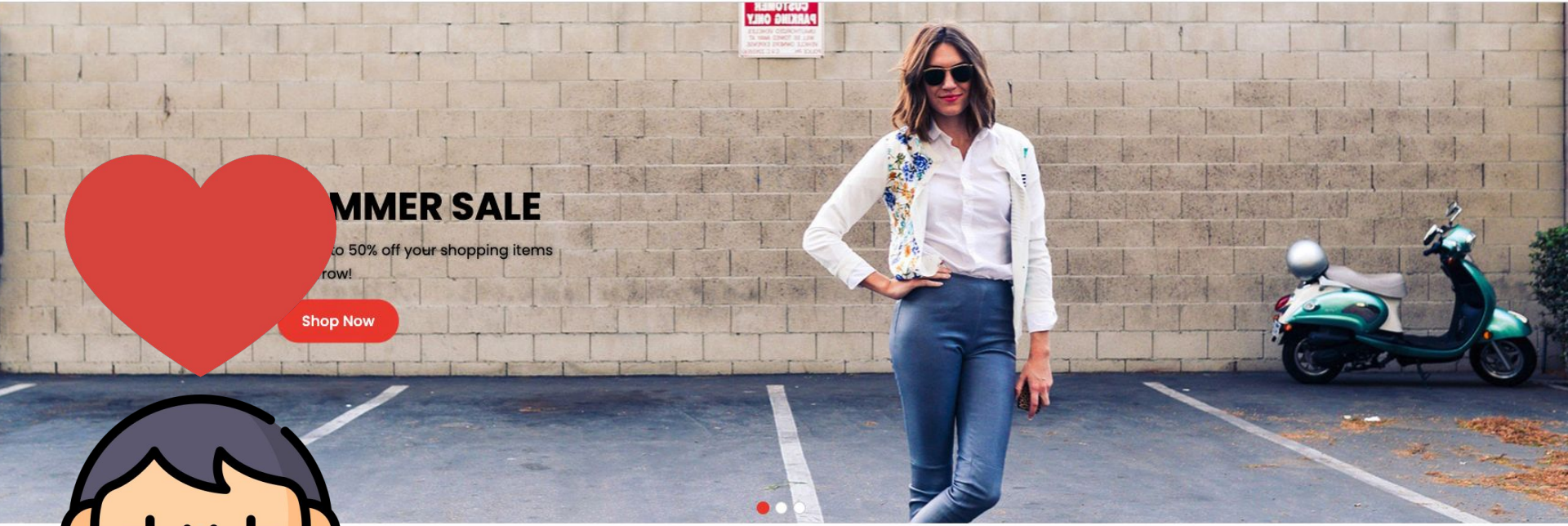


焕然一新

SEO

- 網站效能
- 行動裝置友善
- 對內對外連結的數量與品質
- 好爬
- 圖文並茂
- 網頁結構
- 內容/關鍵字

執行互動性

Runtime Responsiveness

未來

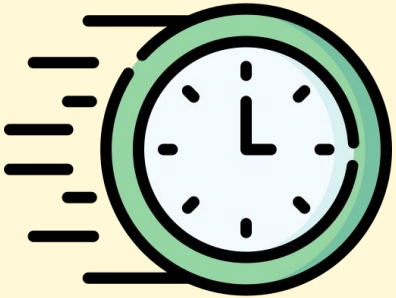
Lighthouse Treemap

總結

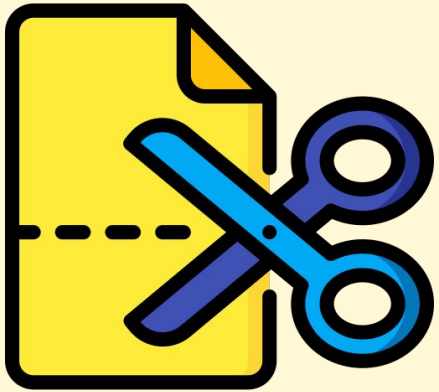
優化效能很困難嗎？

只要抓對問題
小小的更動就有很大的效果

使用者體驗優先
優化有感

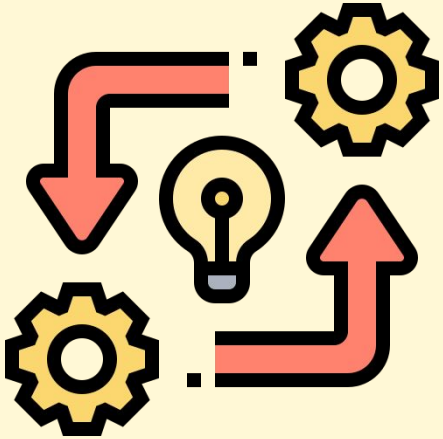


專案時程很緊嗎？



切小工作

讓工具幫忙

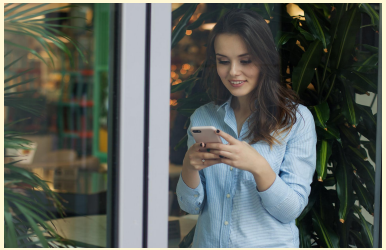


融入工作流程

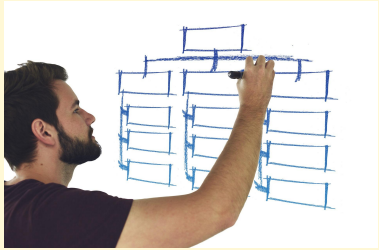
團隊很難合作嗎？

觀點不同

目標相同



使用者



PM

設計師

工程師

打造高速網站，從網站指標開始！