CSS fonts trivia

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Font formats for web use

WOFF2 (Web Open Font Format 2)	Microsoft	moz://a	Opera
WOFF (Web Open Font Format)	Microsoft	moz://a	Opera
OTF (OpenType)	Microsoft	Adobe	
TTF (TrueType)	Microsoft	Apple	
EOT (Embedded Open Type)	Microsoft		
SVG (Scalable Vector Graphics)	W3C SVG		

@font-face rule

```css
@font-face {
    font-family: 'Magnetic Pro';
    src: url('../fonts/magnetic-pro-light.woff2') format('woff2'),
         url('../fonts/magnetic-pro-light.woff') format('woff');
}
```

WOFF - Web Open Font Format

Compressed TrueType/OpenType font that contains information about the font's source.

IE	Edge	Firefox	Chrome	Safari	Opera	iOS Safari	Opera Mini	Android Browser	Chrome for Android
9	13	53	58	9.1	45	9.3		4.4	
10	14	54	59	10	46	10.2		4.4.4	
11	15	55	60	10.1	47	10.3	all	56	59
	16	56	61	11	48	11			

✓ ✗ Partial Support

Global: 93.58% + 0% = 93.58%

WOFF 2.0 - Web Open Font Format

TrueType/OpenType font that provides better compression than WOFF 1.0.

IE	Edge	Firefox	Chrome	Safari	Opera	iOS Safari	Opera Mini	Android Browser	Chrome for Android
9	13	53	58	9.1	45	9.3		4.4	
10	14	54	59	10	46	10.2		4.4.4	
11	15	55	60	10.1	47	10.3	all	56	59
	16	56	61	11	48	11			

✓ ✗ Partial Support

Global: 75.45% + 1.54% = 76.99%

Next alternative 'font-family'

Picks font

Matches criteria?

No

Yes
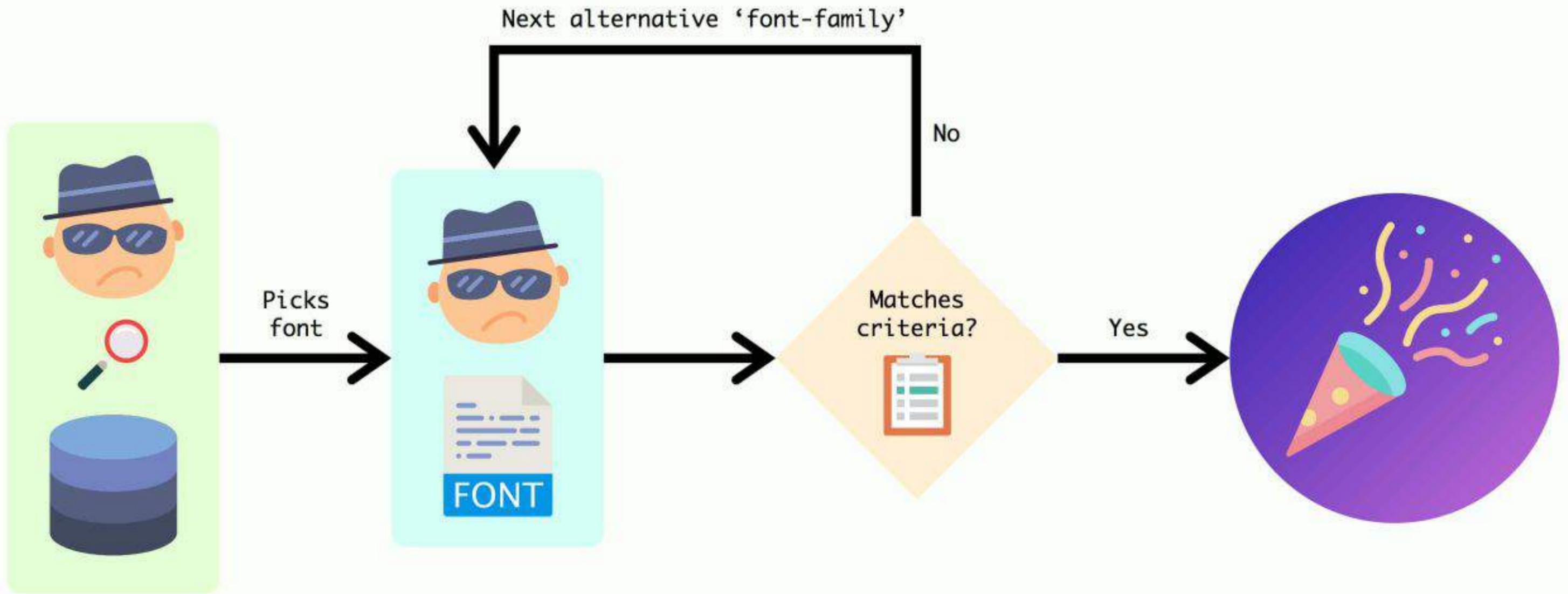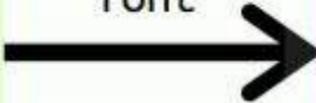
Declare your Latin fonts first

```css
font-family: 'Gentium Basic', 'PingFang TC', 'Microsoft JhengHei', '微軟正黑體', 'Heiti TC', '黑體-繁', sans-serif;
```

Font rendering for Mac and Windows is different, and sometimes the Latin characters in Chinese fonts don't look good on Windows.

Put your font names in quotes. Just in case.

Generic font families

Dependent on OS, HTML language, character set and browser.

serif	Times New Roman, SimSun, SongTi SC
sans-serif	Arial, Microsoft Yahei, PingFang SC
monospace	Consolas, SimSun, PingFang SC
cursive	Comic Sans MS, Apple Chancery, SimSun (oblique), SongTi SC (oblique)
fantasy	Gabriola, Impact, Papyrus, Microsoft Yahei, PingFang SC

Level 4 is adding system-ui, emoji, math and fangsong

Basic font properties

font-weight	Specifies the weight of the glyphs in the font. Can use keywords or numerical values.
font-stretch	Selects a normal, condensed or expanded face from a font family. Range spans over 9 keywords.
font-style	Allows italic or oblique faces to be selected.
font-size	Indicates the desired height of the glyphs. Takes absolute or relative values.
font-size-adjust	Adjusts the font-size to preserve the x-height of the first choice font.
font-synthesis	Controls whether user agents are allowed to synthesize bold or oblique font faces when missing.

Using non–system fonts

The @font-face rule allows us to link to fonts, either locally or external, which are fetched and activated when needed.

We can use multiple @font-face rules to construct font families.

A rule consists of the @font-face keyword followed by a block of font descriptors.

Anatomy of an @font-face rule

```css
@font-face {
    font-family: <family-name>
    src: [ <url> [format(<string> #)]? | <font-face-name> ] #
    font-style: normal | italic | oblique
    font-weight: normal | bold | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900
    font-stretch: normal | ultra-condensed | extra-condensed | condensed | semi-conden
    unicode-range: <urange> #
    font-variant: normal | none | [ <common-lig-values> || <discretionary-lig-values> || <h
    font-feature-settings: normal | <feature-tag-value> #
}
```

Краткая история создания Тетриса

Алексей Пажитнов написал первый Тетрис на компьютере Электроника-60. Он работал в ВЦ Академии наук, где изучал вопросы распознавания речи и искусственного интеллекта. Для обкатки своих идей Пажитном использовал головоломки, включая и пентамино. Он попытался сделать автоматической укладку в заданные фигуры пентамино, но не хватило мощности того оборудования для его вращения. Пришлось отлаживать на тетрамино, так и родилось название игры. Те опыты Алексея и родили главную идею Тетриса — падение фигурок и исчезновение заполненных рядов.

```css
@font-face {
  font-family: 'Magnetic Pro';
  src: url('magnetic-pro-light.woff2') format('woff2'),
       url('magnetic-pro-light.woff') format('woff');
  font-weight: normal;
  font-style: normal;
}

@font-face {
  font-family: 'Magnetic Pro';
  src: url('bender.woff2') format('woff2'),
       url('bender.woff') format('woff');
  font-weight: normal;
  font-style: normal;
  unicode-range: U+0400-U+04FF;
}
```

Font feature properties (1/2)

font-kerning

AV Wa

No kerning

AV Wa

Kerning applied

font-variant-position

$C_{10}H_{16}N_5O_{13}P_3$

$C_{10}H_{16}N_5O_{13}P_3$

font-variant-position-ligatures

fi ▶ fi tz ▶ tz

WORDS ▶ WORDS

labor of love ▶ labor of love

font-variant-numeric

1st 17th 2a ▶ 1st 17th 2a

2 1/3 ▶ 2⅓

4000 ▶ 4000

2 1/3 ▶ 2⅓

	Lining	Old-Style
	409,280	409,280
	367,112	367,112
	155,068	155,068
	171,792	171,792

font-variant-caps

The DOM, the HTML syntax, and the XHTML syntax cannot all represent the same content. For example, namespaces cannot be represented using the HTML syntax, but they are supported in the DOM and in the XHTML syntax.

font-variant-alternates

Jesuits ▶ Jesuits

quick ▶ quick Quick ▶ Quick

incroyable ▶ incroyable

• ▶ ❀ ❁ ❂ 519 ▶ ⑤①⑨

Font feature properties (2/2)

font-variant-east-asian

font-language-override

font-feature-settings

Provides low-level control of advanced OpenType features

THE END

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