### 118n & 110n

### Numeronims



#### World Wide Web Consortium

# 

accessibility

### accessibility

1 2 3 4 5 6 7 8 9 10 11

# 

### Eyjafjallajökull



### 118n & 110n

# internationalization

#### localization

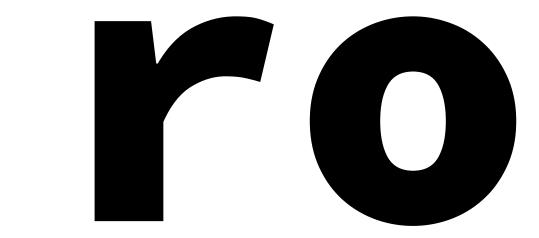
#### Internationalization

the process of designing a software application so that it can be adapted to various languages and regions without engineering changes

#### Localization

the process of adapting internationalized software for a specific region or language by translating text and adding locale-specific components

# Locales



locale short form (Language only)

## 

locale long form (Language - Region)

### en-US en-GB

locale long form (Language - Region)

en-US color en-GB colour

locale long form (Language - Region)

## sr-latn-RS sr-cyrl-RS

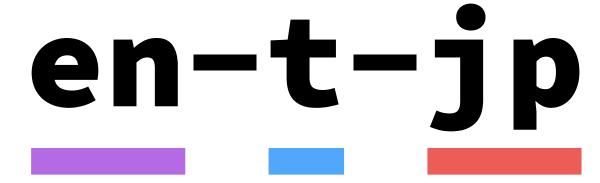
locale long form (Language - Script - Region)

#### sr-latn-RS sr-cyrl-RS

#### Extensions

Transformed Content

Unicode Locale



English content translated from the original Japanese

**Extension T (Transformed Content)** 

#### he-IL-u-nu-latn-ca-hebrew-tz-jeruslm

Hebrew language as spoken in Israel, using Basic Latin numerals (0 through 9), the traditional Hebrew calendar, and in the "Asia/Jerusalem" time zone

**Extension U (Unicode Locale)** 

### RO-RO

RO RO

IETF BCP 47 Language Tag

Internet Engineering Task Force
Best Current Practices

Java Locale



// how to get user's Locale ?

#### navigator.languages

#### on native apps, you get the OS language(s)



### Translations

### il 18 next

JavaScript internationalization framework



### Setup il8next

i18next.com

### 

pluralisation

## 1 fruit2 fruits

# 1 fruit 0, 2+ fruits

# 1 fruct2 fructe20 de fructe

# 1 fruct 0, 2-19 fructe 20+ de fructe

zero one two few many other

Plural Rules



#### i18next Plurals

#### 

key\_zero key\_one key\_two key\_few key\_many key\_other

i18next Plural Rules
<a href="https://jsfiddle.net/6bpxsgd4">https://jsfiddle.net/6bpxsgd4</a>

## Date/Time

Moment.js

date-fns

Day. js

## 

**ECMAScript Internationalization API** 



### Intl.DateTimeFormat()

## Numbers

Arabic

1 2 3 4 5 6 7 8 9

Cyrilic

А В Г Д Е S 3 И Ө

Numeral system !== Alphabet

sr-latn-RS

20 - dvadeset

sr-cyrl-RS

20 - двадесет

Numeral system !== Alphabet



### Intl.NumberFormat()

Decimals, Currencies, Percents, Units

#### **Browsers**

#### Node.js

#### **React Native**



Polyfills available



v13+ built-in



Requires enabling

Intl support

## TAKEAWAYS

# Internationalization One time, engineering only

Localization

Ongoing, engineering + language experts

# 

### THANK YOU

andreipfeiffer.dev