

brighten(amount: int): void

Preconditions
+ None

Postconditions
+ Adjusts the TinyColor object's brightness by a given amount. Brightness level will range from 0 to 100

desaturate(amount: int): void

Preconditions
+ None

Postconditions
+ Reduces the TinyColor object's saturation by a given amount. The saturation level will range from 0 to 100

saturate(amount: int): void

Preconditions
+ None

Postconditions
+ Increases the TinyColor object's saturation by a given amount. The saturation level will range from 0 to 100

getBrightness (): int

Preconditions
+ None

Postconditions
+ Returns the brightness value of the color from a range of 0 to 255.

isLight(): bool

Preconditions
+ None

Postconditions
+ Returns a boolean whether the brightness value of the color is considered "light."

toHsv(): Object

Preconditions
+ None

Postconditions
+ Returns an object with a h, s, and v property of float type.

toHsvString(): string

Preconditions
+ None

Postconditions
+ Returns the h, s, and v values as a string.

TinyColor

- color: Object

- opt: Object

+ brighten(amount: int): void

+ desaturate(amount: int): void

+ saturate(amount: int): void

+ getBrightness(): int

+ isLight(): bool

+ toHsv(): Object

+ toHsvString(): string

+ toHsl(): Object

+ toHslString(): string

+ toHex(): string

+ toHexString(): string

+ readability(color1: TinyColor, color2: TinyColor): double

Class Diagram

TinyColor Class - Descriptions, Methods' Preconditions & Postconditions

CD-1B

toHsl(): Object

Preconditions
+ None

Postconditions
+ Returns an object with a h, s, and l property of float type.

toHslString(): string

Preconditions
+ None

Postconditions
+ Returns the h, s, and l values as a string.

toHex(): string

Preconditions
+ None

Postconditions
+ Returns hexadecimal value as a string, without the "#" character

toHexString(): string

Preconditions
+ None

Postconditions
+ Returns hexadecimal value as a string, with the "#" character

readability(color1: TinyColor, color2: TinyColor): string

Preconditions
+ It requires the input of two colors of TinyColor types

Postconditions
+ Returns contrast ratio value as a double type

Additional Description: TinyColor Class / Object

The TinyColor class and object are from a library and dependency installed for the application.

The TinyColor class has a set of "setter" and "getter" methods that allow color conversation to different color models such as RGB, HSV, HSL, and HEX. It also allows various color adjustments, such as saturation, brightness, and hue. It can even determine the contrast ratio between two colors.

The TinyColor class/object is used as this project's color class/object and allowed the team to save some development time building a class with similar functionalities.

It is the property type of many classes in the application. It is also the parameter type and return type of many class methods.