Exercise: Colour, version 2

```
                    Colour
 - red : int
 - green : int
 - blue : int
 + COLOUR_NAMES : String[] = { "Black" ...
 + COLOUR_CODES : String[] = { "#000000...
 + Colour(red : int, green : int, blue : int)
 + Colour(hex : String)
 + getRed() : int
 + getGreen() : int
 + getBlue() : int
 + toHex() : String
 + getName() : String
 + toString() : String
 + equals(obj : Object) : boolean
```

Create a new module and name it `Colour_v2` copying the project `Colour_v1` (or better, the version including the `equals` method)

Some colours has names, e.g. #000000 is Black, #0000CD is Navy blue and "FFFFFF is White. The list given on the next pages contain the names and corresponding hexadecimal representation for all named colours.

Modify class `Colour`:

a) Create a public final static variable `COLOUR_NAMES`, containing the names for all named colours (type `String[]`). See the list on the next pages.

b) Create a public final static variable `COLOUR_CODES` containing the hexadecimal strings for the named colours (type `String[]`) such that the colour name at the index in the in the `COLOUR_NAMES` array represent the hexadecimal representation given at the same index in the `COLOUR_CODES` array. See the list on the next pages.

c) Crete a method `getName` returning the colour name if the hexadecimal representation of the colour can be found the `COLOUR_CODES` array. If the colour cannot be found in the array, then return the hexadecimal representation instead.

d) Modify method `toString()` such that it returns both the colour values for red, green and blue, the hexadecimal representation and the colour name (if any).

Modify the test application named `ColourTest` such that you test the new added functionality, e.g. a colour object may now be created this way:

```
Colour colour0 = new Colour("#000000");              // Black
String colour0Name = colour0.getName();              // Black
Colour colour1 = new Colour(Colour.COLOUR_CODES[3]); // Medium Blue
String colour1Name = colour1.getName();              // Medium Blue
Colour colour2 = new Colour("#000044");              // No name
String colour2Name = colour2.getName();              // #000044
```

COLOUR NAMES	COLOUR CODES
"Black",	"#000000",
"Navy blue",	"#000080",
"Blue 4",	"#00008B",
"Medium blue",	"#0000CD",
"Blue 2",	"#0000EE",
"Blue 1",	"#0000FF",
"Dark green",	"#006400",
"Deep skyblue 4",	"#00688B",
"Turquoise 4",	"#00868B",
"Green 4",	"#008B00",
"Spring green 4",	"#008B45",
"Cyan 4",	"#008B8B",
"Deep skyblue 3",	"#009ACD",
"Deep skyblue 2",	"#00B2EE",
"Deep skyblue 1",	"#00BFFF",
"Turquoise 3",	"#00C5CD",
"Green 3",	"#00CD00",
"Spring green 3",	"#00CD66",
"Cyan 3",	"#00CDCD",
"Dark turquoise",	"#00CED1",
"Turquoise 2",	"#00E5EE",
"Green 2",	"#00EE00",
"Spring green 2",	"#00EE76",
"Cyan 2",	"#00EEEE",
"Turquoise 1",	"#00F5FF",
"Medium spring green",	"#00FA9A",
"Green 1",	"#00FF00",
"Spring green 1",	"#00FF7F",
"Cyan 1",	"#00FFFF",
"Gray 1",	"#030303",
"Gray 2",	"#050505",
"Gray 3",	"#080808",
"Gray 4",	"#0A0A0A",
"Gray 5",	"#0D0D0D",
"Gray 6",	"#0F0F0F",
"Dodger blue 4",	"#104E8B",
"Gray 7",	"#121212",
"Gray 8",	"#141414",
"Gray 9",	"#171717",
"Dodger blue 3",	"#1874CD",
"Midnight blue",	"#191970",
"Gray 10",	"#1A1A1A",
"Gray 11",	"#1C1C1C",
"Dodger blue 2",	"#1C86EE",
"Dodger blue 1",	"#1E90FF",
"Gray 12",	"#1F1F1F",

"Light seagreen",	"#20B2AA",
"Gray 13",	"#212121",
"Forest green",	"#228B22",
"Gray 14",	"#242424",
"Gray 15",	"#262626",
"Royal blue 4",	"#27408B",
"Gray 16",	"#292929",
"Gray 17",	"#2B2B2B",
"Gray 18",	"#2E2E2E",
"Sea green 4",	"#2E8B57",
"Dark slategray",	"#2F4F4F",
"Gray 19",	"#303030",
"Lime green",	"#32CD32",
"Gray 20",	"#333333",
"Gray 21",	"#363636",
"Steel blue 4",	"#36648B",
"Gray 22",	"#383838",
"Royal blue 3",	"#3A5FCD",
"Gray 23",	"#3B3B3B",
"Medium seagreen",	"#3CB371",
"Gray 24",	"#3D3D3D",
"Gray 25",	"#404040",
"Turquoise",	"#40E0D0",
"Royal blue",	"#4169E1",
"Gray 26",	"#424242",
"Royal blue 2",	"#436EEE",
"Sea green 3",	"#43CD80",
"Gray 27",	"#454545",
"Chartreuse 4",	"#458B00",
"Aquamarine 4",	"#458B74",
"Steel blue",	"#4682B4",
"Slate blue 4",	"#473C8B",
"Gray 28",	"#474747",
"Dark slateblue",	"#483D8B",
"Royal blue 1",	"#4876FF",
"Medium turquoise",	"#48D1CC",
"Gray 29",	"#4A4A4A",
"Sky blue 4",	"#4A708B",
"Gray 30",	"#4D4D4D",
"Sea green 2",	"#4EEE94",
"Gray 31",	"#4F4F4F",
"Steel blue 3",	"#4F94CD",
"Gray 32",	"#525252",
"Dark slategray 4",	"#528B8B",
"Cadet blue 4",	"#53868B",
"Gray 33",	"#545454",
"Pale green 4",	"#548B54",
"Sea green 1",	"#54FF9F",
"Purple 4",	"#551A8B",
"Dark olivegreen",	"#556B2F",

"Gray 34",	"#575757",
"Gray 35",	"#595959",
"Gray 36",	"#5C5C5C",
"Steel blue 2",	"#5CACEE",
"Medium purple 4",	"#5D478B",
"Gray 37",	"#5E5E5E",
"Cadet blue",	"#5F9EA0",
"Light skyblue 4",	"#607B8B",
"Gray 38",	"#616161",
"Gray 39",	"#636363",
"Steel blue 1",	"#63B8FF",
"Cornflower blue",	"#6495ED",
"Rebeccapurple",	"#663399",
"Gray 40",	"#666666",
"Pale turquoise 4",	"#668B8B",
"Chartreuse 3",	"#66CD00",
"Medium",	"#66CDAA",
"Medium aquamarine",	"#66CDAA",
"Dark orchid 4",	"#68228B",
"Light blue 4",	"#68838B",
"Slate blue 3",	"#6959CD",
"Dim gray",	"#696969",
"Gray 41",	"#696969",
"Olive drab 4",	"#698B22",
"Dark seagreen 4",	"#698B69",
"Slate blue",	"#6A5ACD",
"Gray 42",	"#6B6B6B",
"Olive drab",	"#6B8E23",
"Slate gray 4",	"#6C7B8B",
"Sky blue 3",	"#6CA6CD",
"Gray 43",	"#6E6E6E",
"Light steelblue 4",	"#6E7B8B",
"Dark olivegreen 4",	"#6E8B3D",
"Gray 44",	"#707070",
"Slate gray",	"#708090",
"Gray 45",	"#737373",
"Gray 46",	"#757575",
"Chartreuse 2",	"#76EE00",
"Aquamarine 2",	"#76EEC6",
"Light slategray",	"#778899",
"Gray 47",	"#787878",
"Dark slategray 3",	"#79CDCD",
"Medium orchid 4",	"#7A378B",
"Slate blue 2",	"#7A67EE",
"Gray 48",	"#7A7A7A",
"Light cyan 4",	"#7A8B8B",
"Cadet blue 3",	"#7AC5CD",
"Medium slateblue",	"#7B68EE",
"Pale green 3",	"#7CCD7C",
"Lawn green",	"#7CFC00",

"Purple 3",	"#7D26CD",
"Gray 49",	"#7D7D7D",
"Sky blue 2",	"#7EC0EE",
"Gray 50",	"#7F7F7F",
"Chartreuse 1",	"#7FFF00",
"Aquamarine 1",	"#7FFFD4",
"Gray 51",	"#828282",
"Slate blue 1",	"#836FFF",
"Honeydew 4",	"#838B83",
"Azure 4",	"#838B8B",
"Light slateblue",	"#8470FF",
"Gray 52",	"#858585",
"Gray 53",	"#878787",
"Sky blue",	"#87CEEB",
"Light skyblue",	"#87CEFA",
"Sky blue 1",	"#87CEFF",
"Medium purple 3",	"#8968CD",
"Blue violet",	"#8A2BE2",
"Gray 54",	"#8A8A8A",
"Red 4",	"#8B0000",
"Magenta 4",	"#8B008B",
"Deep pink 4",	"#8B0A50",
"Firebrick 4",	"#8B1A1A",
"Maroon 4",	"#8B1C62",
"Violet red 4",	"#8B2252",
"Brown 4",	"#8B2323",
"Orange red 4",	"#8B2500",
"Tomato 4",	"#8B3626",
"Indian red 4",	"#8B3A3A",
"Hot pink 4",	"#8B3A62",
"Coral 4",	"#8B3E2F",
"Dark orange 4",	"#8B4500",
"Saddle brown",	"#8B4513",
"Sienna 4",	"#8B4726",
"Pale violetred 4",	"#8B475D",
"Orchid 4",	"#8B4789",
"Salmon 4",	"#8B4C39",
"Light salmon 4",	"#8B5742",
"Orange 4",	"#8B5A00",
"Tan 4",	"#8B5A2B",
"Light pink 4",	"#8B5F65",
"Pink 4",	"#8B636C",
"Dark goldenrod 4",	"#8B6508",
"Plum 4",	"#8B668B",
"Goldenrod 4",	"#8B6914",
"Rosy brown 4",	"#8B6969",
"Burlywood 4",	"#8B7355",
"Gold 4",	"#8B7500",
"Peach puff 4",	"#8B7765",
"Navajo white 4",	"#8B795E",

"Thistle 4",	"#8B7B8B",
"Bisque 4",	"#8B7D6B",
"Misty rose 4",	"#8B7D7B",
"Wheat 4",	"#8B7E66",
"Light goldenrod 4",	"#8B814C",
"Antique white 4",	"#8B8378",
"Lavender blush 4",	"#8B8386",
"Khaki 4",	"#8B864E",
"Seashell 4",	"#8B8682",
"Cornsilk 4",	"#8B8878",
"Lemon chiffon 4",	"#8B8970",
"Snow 4",	"#8B8989",
"Yellow 4",	"#8B8B00",
"Light yellow 4",	"#8B8B7A",
"Ivory 4",	"#8B8B83",
"Gray 55",	"#8C8C8C",
"Light skyblue 3",	"#8DB6CD",
"Dark slategray 2",	"#8DEEEE",
"Cadet blue 2",	"#8EE5EE",
"Gray 56",	"#8F8F8F",
"Dark seagreen",	"#8FBC8F",
"Pale green 2",	"#90EE90",
"Purple 2",	"#912CEE",
"Gray 57",	"#919191",
"Medium purple",	"#9370DB",
"Dark violet",	"#9400D3",
"Gray 58",	"#949494",
"Gray 59",	"#969696",
"Pale turquoise 3",	"#96CDCD",
"Dark slategray 1",	"#97FFFF",
"Cadet blue 1",	"#98F5FF",
"Pale green",	"#98FB98",
"Dark orchid",	"#9932CC",
"Gray 60",	"#999999",
"Dark orchid 3",	"#9A32CD",
"Light blue 3",	"#9AC0CD",
"Yellow green",	"#9ACD32",
"Pale green 1",	"#9AFF9A",
"Purple 1",	"#9B30FF",
"Dark seagreen 3",	"#9BCD9B",
"Gray 61",	"#9C9C9C",
"Gray 62",	"#9E9E9E",
"Medium purple 2",	"#9F79EE",
"Slate gray 3",	"#9FB6CD",
"Purple",	"#A020F0",
"Sienna",	"#A0522D",
"Gray 63",	"#A1A1A1",
"Light steelblue 3",	"#A2B5CD",
"Dark olivegreen 3",	"#A2CD5A",
"Gray 64",	"#A3A3A3",

"Light skyblue 2",	"#A4D3EE",
"Brown",	"#A52A2A",
"Gray 65",	"#A6A6A6",
"Gray 66",	"#A8A8A8",
"Medium purple 1",	"#AB82FF",
"Gray 67",	"#ABABAB",
"Gray 68",	"#ADADAD",
"Light blue",	"#ADD8E6",
"Green yellow",	"#ADFF2F",
"Pale turquoise 2",	"#AEEEEE",
"Pale turquoise",	"#AFEEEE",
"Maroon",	"#B03060",
"Gray 69",	"#B0B0B0",
"Light steelblue",	"#B0C4DE",
"Powder blue",	"#B0E0E6",
"Light skyblue 1",	"#B0E2FF",
"Firebrick",	"#B22222",
"Dark orchid 2",	"#B23AEE",
"Light blue 2",	"#B2DFEE",
"Gray 70",	"#B3B3B3",
"Olive drab 2",	"#B3EE3A",
"Medium orchid 3",	"#B452CD",
"Light cyan 3",	"#B4CDCD",
"Dark seagreen 2",	"#B4EEB4",
"Gray 71",	"#B5B5B5",
"Dark goldenrod",	"#B8860B",
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"Slate gray 2",	"#B9D3EE",
"Medium orchid",	"#BA55D3",
"Gray 73",	"#BABABA",
"Pale turquoise 1",	"#BBFFFF",
"Rosy brown",	"#BC8F8F",
"Light steelblue 2",	"#BCD2EE",
"Dark olivegreen 2",	"#BCEE68",
"Dark khaki",	"#BDB76B",
"Gray 74",	"#BDBDBD",
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"Dark orchid 1",	"#BF3EFF",
"Gray 75",	"#BFBFBF",
"Light blue 1",	"#BFEFFF",
"Olive drab 1",	"#C0FF3E",
"Honeydew 3",	"#C1CDC1",
"Azure 3",	"#C1CDCD",
"Dark seagreen 1",	"#C1FFC1",
"Gray 76",	"#C2C2C2",
"Gray 77",	"#C4C4C4",
"Slate gray 1",	"#C6E2FF",
"Medium violetred",	"#C71585",
"Gray 78",	"#C7C7C7",
"Gray 79",	"#C9C9C9",

"Light steelblue 1",	"#CAE1FF",
"Dark olivegreen 1",	"#CAFF70",
"Gray 80",	"#CCCCCC",
"Red 3",	"#CD0000",
"Magenta 3",	"#CD00CD",
"Deep pink 3",	"#CD1076",
"Firebrick 3",	"#CD2626",
"Maroon 3",	"#CD2990",
"Violet red 3",	"#CD3278",
"Brown 3",	"#CD3333",
"Orange red 3",	"#CD3700",
"Tomato 3",	"#CD4F39",
"Indian red 3",	"#CD5555",
"Coral 3",	"#CD5B45",
"Indian red",	"#CD5C5C",
"Hot pink 3",	"#CD6090",
"Dark orange 3",	"#CD6600",
"Chocolate 3",	"#CD661D",
"Sienna 3",	"#CD6839",
"Pale violetred 3",	"#CD6889",
"Orchid 3",	"#CD69C9",
"Salmon 3",	"#CD7054",
"Light salmon 3",	"#CD8162",
"Orange 3",	"#CD8500",
"Tan 3",	"#CD853F",
"Light pink 3",	"#CD8C95",
"Pink 3",	"#CD919E",
"Dark goldenrod 3",	"#CD950C",
"Plum 3",	"#CD96CD",
"Goldenrod 3",	"#CD9B1D",
"Rosy brown 3",	"#CD9B9B",
"Burlywood 3",	"#CDAA7D",
"Gold 3",	"#CDAD00",
"Peach puff 3",	"#CDAF95",
"Navajo white 3",	"#CDB38B",
"Thistle 3",	"#CDB5CD",
"Bisque 3",	"#CDB79E",
"Misty rose 3",	"#CDB7B5",
"Wheat 3",	"#CDBA96",
"Light goldenrod 3",	"#CDBE70",
"Antique white 3",	"#CDC0B0",
"Lavender blush 3",	"#CDC1C5",
"Seashell 3",	"#CDC5BF",
"Khaki 3",	"#CDC673",
"Cornsilk 3",	"#CDC8B1",
"Lemon chiffon 3",	"#CDC9A5",
"Snow 3",	"#CDC9C9",
"Yellow 3",	"#CDCD00",
"Light yellow 3",	"#CDCDB4",
"Ivory 3",	"#CDCDC1",

"Gray 81",	"#CFCFCF",
"Violet red",	"#D02090",
"Medium orchid 2",	"#D15FEE",
"Gray 82",	"#D1D1D1",
"Light cyan 2",	"#D1EEEE",
"Chocolate",	"#D2691E",
"Tan",	"#D2B48C",
"Light gray",	"#D3D3D3",
"Gray 83",	"#D4D4D4",
"Gray 84",	"#D6D6D6",
"Thistle",	"#D8BFD8",
"Gray 85",	"#D9D9D9",
"Orchid",	"#DA70D6",
"Goldenrod",	"#DAA520",
"Pale",	"#DB7093",
"Pale violetred",	"#DB7093",
"Gray 86",	"#DBDBDB",
"Gainsboro",	"#DCDCDC",
"Plum",	"#DDA0DD",
"Burlywood",	"#DEB887",
"Gray 87",	"#DEDEDE",
"Medium orchid 1",	"#E066FF",
"Gray 88",	"#E0E0E0",
"Honeydew 2",	"#E0EEE0",
"Azure 2",	"#E0EEEE",
"Light cyan 1",	"#E0FFFF",
"Gray 89",	"#E3E3E3",
"Gray 90",	"#E5E5E5",
"Lavender",	"#E6E6FA",
"Gray 91",	"#E8E8E8",
"Dark salmon",	"#E9967A",
"Gray 92",	"#EBEBEB",
"Gray 93",	"#EDEDED",
"Red 2",	"#EE0000",
"Magenta 2",	"#EE00EE",
"Deep pink 2",	"#EE1289",
"Firebrick 2",	"#EE2C2C",
"Maroon 2",	"#EE30A7",
"Violet red 2",	"#EE3A8C",
"Brown 2",	"#EE3B3B",
"Orange red 2",	"#EE4000",
"Tomato 2",	"#EE5C42",
"Indian red 2",	"#EE6363",
"Coral 2",	"#EE6A50",
"Hot pink 2",	"#EE6AA7",
"Dark orange 2",	"#EE7600",
"Chocolate 2",	"#EE7621",
"Sienna 2",	"#EE7942",
"Pale violetred 2",	"#EE799F",
"Orchid 2",	"#EE7AE9",

"Salmon 2",	"#EE8262",
"Violet",	"#EE82EE",
"Light salmon 2",	"#EE9572",
"Orange 2",	"#EE9A00",
"Tan 2",	"#EE9A49",
"Light pink 2",	"#EEA2AD",
"Pink 2",	"#EEA9B8",
"Dark goldenrod 2",	"#EEAD0E",
"Plum 2",	"#EEAEEE",
"Goldenrod 2",	"#EEB422",
"Rosy brown 2",	"#EEB4B4",
"Burlywood 2",	"#EEC591",
"Gold 2",	"#EEC900",
"Peach puff 2",	"#EECBAD",
"Navajo white 2",	"#EECFA1",
"Thistle 2",	"#EED2EE",
"Bisque 2",	"#EED5B7",
"Misty rose 2",	"#EED5D2",
"Wheat 2",	"#EED8AE",
"Light goldenrod 2",	"#EEDC82",
"Light",	"#EEDD82",
"Antique white 2",	"#EEDFCC",
"Lavender blush 2",	"#EEE0E5",
"Seashell 2",	"#EEE5DE",
"Khaki 2",	"#EEE685",
"Pale goldenrod",	"#EEE8AA",
"Cornsilk 2",	"#EEE8CD",
"Lemon chiffon 2",	"#EEE9BF",
"Snow 2",	"#EEE9E9",
"Yellow 2",	"#EEEE00",
"Light yellow 2",	"#EEEED1",
"Ivory 2",	"#EEEEE0",
"Light coral",	"#F08080",
"Khaki",	"#F0E68C",
"Gray 94",	"#F0F0F0",
"Alice blue",	"#F0F8FF",
"Honeydew 1",	"#F0FFF0",
"Azure 1",	"#F0FFFF",
"Gray 95",	"#F2F2F2",
"Sandy brown",	"#F4A460",
"Wheat",	"#F5DEB3",
"Beige",	"#F5F5DC",
"White smoke",	"#F5F5F5",
"Mint cream",	"#F5FFFA",
"Gray 97",	"#F7F7F7",
"Ghost white",	"#F8F8FF",
"Salmon",	"#FA8072",
"Antique white",	"#FAEBD7",
"Linen",	"#FAF0E6",
"Light goldenrodyellow",	"#FAFAD2",

"Gray 98",	"#FAFAFA",
"Gray 99",	"#FCFCFC",
"Old lace",	"#FDF5E6",
"Red 1",	"#FF0000",
"Magenta",	"#FF00FF",
"Deep pink 1",	"#FF1493",
"Firebrick 1",	"#FF3030",
"Maroon 1",	"#FF34B3",
"Violet red 1",	"#FF3E96",
"Brown 1",	"#FF4040",
"Orange red 1",	"#FF4500",
"Tomato 1",	"#FF6347",
"Hot pink",	"#FF69B4",
"Indian red 1",	"#FF6A6A",
"Hot pink 1",	"#FF6EB4",
"Coral 1",	"#FF7256",
"Dark orange 1",	"#FF7F00",
"Chocolate 1",	"#FF7F24",
"Coral",	"#FF7F50",
"Sienna 1",	"#FF8247",
"Pale violetred 1",	"#FF82AB",
"Orchid 1",	"#FF83FA",
"Dark orange",	"#FF8C00",
"Salmon 1",	"#FF8C69",
"Light salmon 1",	"#FFA07A",
"Orange 1",	"#FFA500",
"Tan 1",	"#FFA54F",
"Light pink 1",	"#FFAEB9",
"Pink 1",	"#FFB5C5",
"Light pink",	"#FFB6C1",
"Dark goldenrod 1",	"#FFB90F",
"Plum 1",	"#FFBBFF",
"Pink",	"#FFC0CB",
"Goldenrod 1",	"#FFC125",
"Rosy brown 1",	"#FFC1C1",
"Burlywood 1",	"#FFD39B",
"Gold 1",	"#FFD700",
"Peach puff 1",	"#FFDAB9",
"Navajo white 1",	"#FFDEAD",
"Thistle 1",	"#FFE1FF",
"Moccasin",	"#FFE4B5",
"Bisque 1",	"#FFE4C4",
"Misty rose 1",	"#FFE4E1",
"Wheat 1",	"#FFE7BA",
"Blanched almond",	"#FFEBCD",
"Light goldenrod 1",	"#FFEC8B",
"Papaya whip",	"#FFEFD5",
"Antique white 1",	"#FFEFDB",
"Lavender blush 1",	"#FFF0F5",
"Seashell 1",	"#FFF5EE",

"Khaki 1",	"#FFF68F",
"Cornsilk 1",	"#FFF8DC",
"Lemon chiffon 1",	"#FFFACD",
"Floral white",	"#FFFAF0",
"Snow 1",	"#FFFAFA",
"Yellow 1",	"#FFFF00",
"Light yellow 1",	"#FFFFE0",
"Ivory 1",	"#FFFFF0",
"White"	"#FFFFFF"