

4. Random Color Schemes

Student learning outcomes

- Students will use JavaScript to draw divs in colors supplied by the user via a form.
- Students will learn to use random numbers to create an interesting set of colors.

Real world applications:

- Students will learn about colors as used in design.
- Students will learn about colors expressed as hexadecimal strings.
- Students will learn how to programmatically write into forms and execute them.

Assignment requirements:

- This page displays five color wells.
- The page has a form where the user can enter five colors.
- The page has captions indicating the color names or hex codes.
- The page will generate random colors to fill the color wells.
- New CSS features:
 - How to put styles on a submit or button widget
 - How to make a round color well
 - How to make different elements line up by giving them similar styles
- New HTML features:
 - input, submit, button
- New JavaScript concepts:
 - getElementById
 - onclick
 - Input field values
 - Splitting strings using split()
 - Math.random()
 - Math.floor()
 - Generating random integers
 - style.backgroundColor
 - style.color
 - Hexadecimal numbers and hexadecimal digits
 - Top-down design

