

Algorithm: Color Mixing Game

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Main Method

String cheatsheet: gives each color a number.

String[][] colors: A 2D array with every permutation of colors.

Int [] colorMix: An array where the user inputs how many colors they wish to mix

String customerColor: Random color that can be seen by the player.

String hiddenColor: Random color that can't be seen by the player

String result: the finished mixed color.

Boolean match1, match2: status of whether either color is matched.

Int totalPoints: the total points earned

Char choice: the player's choice to keep playing.

- Runs a do-while loop to allow the game to be replayed.
 - Display the known color then have the player guess the known color first
 - Ask the user for the hidden color and guess the hidden color.
- Ask the user if they want to play again
- Thank the player for playing
- Display the total points

Info Method: Void

- Greets the user
- Gives instructions on how to play and what to expect.

randomCustomer: String

- generates a random number between 1 and 5
- Selects a customer based on the number.
- Returns the selected customer and their text.

randomColor: String

Int color: is given a number between 0 and 14.

String customerColor: the color that is chosen

- Uses Die.java to roll a die with 15 sides
- Selects a color depending the number created using an if else statement.
- Returns the color selected

chooseColors: String

- Recieves a 2D array, an array, and a String variable.

Int pickNum: the number of colors the player will mix

Int color1, color2: The first and second colors chosen

- Creates a new array with a length chosen by the user
- Fills this array with the chosen color(s) using an advanced for loop.
 - Makes sure uses valid numbers with a while loop.
- Uses the elements of the array to select the colors in the 2D array
- Returns the result

checkMatch: Boolean

- Takes in two String variables
- Checks if the user color matches with the customer colors using an if statement
- Returns either true or false

points: Int

- Takes in two boolean variables and an int variable
- Uses an if statement to determine the amount of points rewarded depending on which colors were matched.
- Returns the amount of points earned.

playAgain: Char

- Asks the user if they want to play again
- Returns the choice.