edhesive

Assignment 7: Game Wheel Decomposition – Solutions

Use the space below to plan your implementation of the scramble/sort methods in the GameWheel class, and the play method of the Game class. You should determine which methods you will need to call from the other classes in the program to make this code work.

Implement the GameWheel methods	Methods called from other classes
Create 3 helper methods. insertRandom, insertInPlace, combineLists. insertRandom(Slice s, ArrayList<Slice> list) – gets a random index for list (including length for end) and places s into this place. insertInPlace(Slice s, ArrayList<Slice> list) – Assumes list is ordered y prizeAmount, goes backwards through list and inserts slice in the correct place according to prizeAmount combineLists(ArrayList<Slice> bk, ArrayList<Slice> rd, ArrayList<Slice> bl) – puts slices from the 3 lists into GameWheel in order they appear, slices from bk at multiple of 5 indices, slices from rd at other odd indices, slicesof blu at other indices. Scramble() – creates three array lists, uses insertRandom to put all slices into separate lists by color, randomizing positions in each list. Then combines list back into main slices list. Sort() – creates three array lists, uses insertInPlace to put all slices into separate lists by color, making each list sorted in ascending order. Then combines list back into main slices list.	ArrayList add get remove set Math random

Implement the Main method main	Methods called from other classes

public static void play(GameWheel g)
{
  // Create an array for spin results and variables to calculate prize total
 	
  for(int i = 0; i < 3; i++)
  {
  // Get result of next spin, add to array and update prize
 	
  // Update prize value
 	
  // On first spin set a color
  // On every other spin check if that matches color and record a false
  // result if not
 	
  }
 	
  // Double prize money if color is the same for all spins
 	
  // Print total prize and results of each spin
 	
  // Print if color is the same for all spins
 	
}
	ArrayList
	add
	get
	
	String
	equals
	
	Slice
	getColor
	getPrizeAmount
	toString
	
	GameWheel
	spinWheel

