COSC6323 - Exercise 10

April 2021

Instructions

SUBMIT:
1. FirstName_LastName.rmd
2. FirstName_LastName.pdf

1 Task

We are leading a fast food franchise. Our goal is to test marketing 3 new menu items in both East and West Coasts of the US. Franchisee restaurants from each Coast are randomly chosen for participation in the study. In accordance with the factorial design, within the 12 restaurants from East Coast, 4 are randomly chosen to test market the first new menu item, another 4 for the second menu item, and the remaining 4 for the last menu item. The 12 restaurants from the West Coast are arranged likewise.

Upload the data from the fastfood.csv file. Each row in the upper table represents the sales figures of 3 different East Coast restaurants. The lower half represents West Coast restaurants. At .05 level of significance, test whether the mean sales volume for the new menu items are all equal. Decide also whether the mean sales volume of the two coastal regions differs. Is there an interaction between the menu item and the coast location factor?