2020 Assignment Example Solution

https://trinket.io/python/2f011d78a8

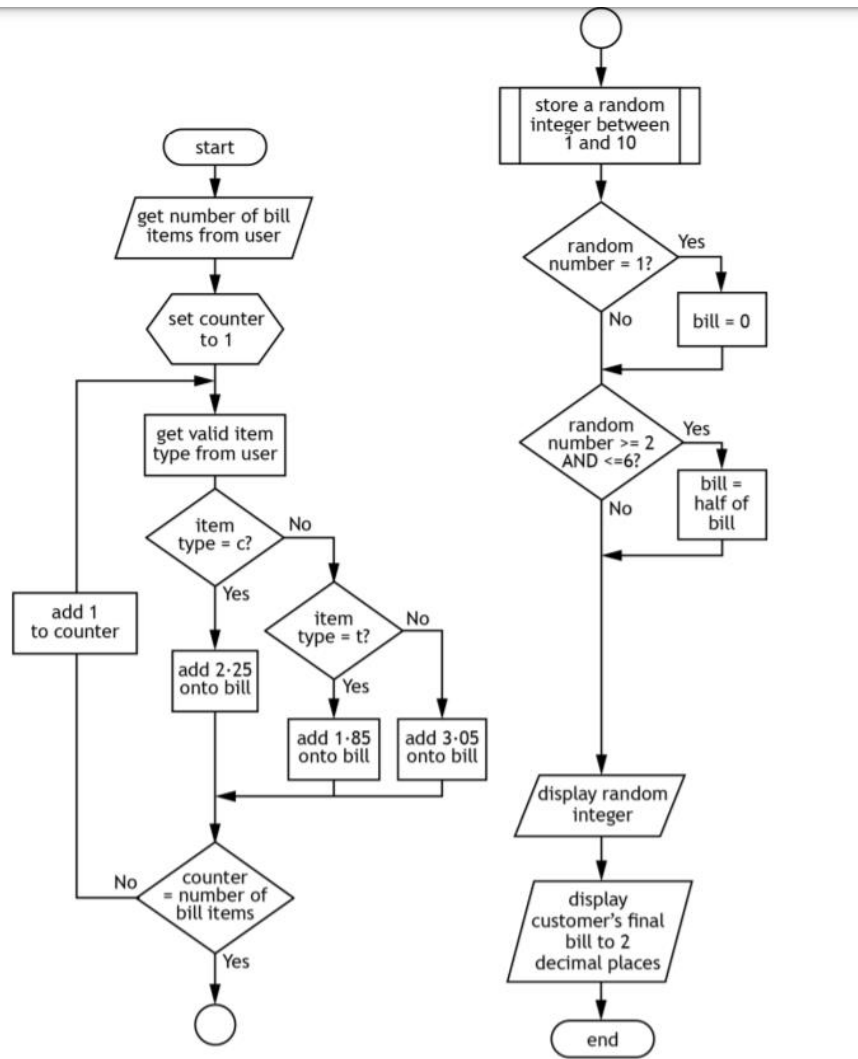| Design	Implementation

Design

Implementation

```python
1   #2020 Example Solution
2
3   noOfItems = 0
4   bill = 0.0
5   itemType = ""
6   randomNo = 0
7
8   import random #used to generate random number
9
10  noOfItems = int(input("Please enter number of items on bill"))
11
12  counter = 0
13
14  while counter != noOfItems: #continue to loop for all items
15      counter = counter + 1 #add 1 onto counter for each new item.
16
17      #Get valid item type
18      itemType = input("Please enter the type of item. c = coffee, t = tea, b = biscuit")
19      itemType = itemType.lower()
20      while not(itemType == "c" or itemType == "t" or itemType == "b"):
21          itemType = input("Invalid - Reenter c = coffee, t = tea, b = biscuit")
22          itemType = itemType.lower()
23
24      #add prices for each type of item
25      if itemType == "c":
26          bill = bill + 2.25
27      elif itemType == "t":
28          bill = bill + 1.85
29      else:
30          bill = bill + 3.05
31
32
33  #generate random number between 1 and 10
34  randomNo = random.randint(1,10)
35
36  #Lucky draw - set the bill amount depending on random number
37  if randomNo == 1:
38      bill = 0
39      print("Lucky you - you pay nothing")
40  elif randomNo >=2 and randomNo <=6:
41      bill = bill/2
42      print("Your bill has been halved")
43  else:
44      print("Unlucky - you pay full price")
45
46  #Output final bill and random number
47  print("------------------------------------")
48  print("The random number is " + str(randomNo))
49  print("The final bill is " + str(round(bill,2)))
```