| print(f"It's been a good day!. \nToday, we have already served  {Chillox.order\_id} customers.")  print("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*")  outlet1 = Chillox()  print("1.==========================================")  print("Burger Menu:")  print(Chillox.menu)  print("2.==========================================")  outlet1.addBurger("Chicken Burger",180,"Chicken with Cheese",200)  print("3.==========================================")  print("Burger Menu:")  print(Chillox.menu)  print("4.==========================================")  c1 = Customer("Samin")  c1.order = "2xChicken Burger"  outlet1.placeOrderof(c1)  print("5.==========================================")  outlet1.addBurger('Chicken Smoky BBQ Cheese',225)  c2 = Customer("Rafi")  c2.setOrder("2xChicken with Cheese,3xChicken Smoky BBQ Cheese")  print("6.==========================================")  outlet1.placeOrderof(c2)  print("7.==========================================")  print(c1)  print("8.==========================================")  print(c2) | OUTPUT:  It's been a good day!.  Today, we have already served 66 customers.  \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  1.==========================================  Burger Menu:  {}  2.==========================================  3.==========================================  Burger Menu:  {'Chicken Burger': 180, 'Chicken with Cheese': 200}  4.==========================================  Order ID:67  Customer name:Samin  Order:  Burger:Chicken Burger , Quantity:2  5.==========================================  6.==========================================  Order ID:68  Customer name:Rafi  Order:  Burger:Chicken with Cheese , Quantity:2  Burger:Chicken Smoky BBQ Cheese , Quantity:3  7.==========================================  Bill of Samin is 360 taka  8.==========================================  Bill of Rafi is 1075 taka |
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Question: 3

Implement the design of the Doctor and Engineer class derived from Person

class so that the following code generates the output below:

| class Person:  def \_\_init\_\_(self, name, contact):  [self.name](http://self.name/) = name  self.contact = contact  def \_\_str\_\_(self):  s = f"Name: {[self.name](http://self.name/)}\nContact: {self.contact}"  return s  #Write your code here  d = Doctor("Dr Strange", "4585632", "Neurosurgery", "DMC")  d.add\_patients("Dhaka Abdur Rahim", "Dhaka John Cena", "Narayanganj John  Wick", "Comilla CM Punk")  print("1.=========================================================")  print(d)  print("2.=========================================================")  d.show\_patient\_list("Dhaka")  print("3.=========================================================")  d.show\_patient\_list("Rajshahi")  print("4.=========================================================")  d.add\_patients("Narayanganj Naruto Uzumaki")  print("5.=========================================================")  print(d)  print("6.=========================================================")  eng = Engineer("Howard Wolowitz", "982685", "Mechanical")  eng.add\_projects("Mongol Tori Bangladesh", "Duburi Bangladesh", "Curiosity  Rover USA", "Perseverence USA")  print("7.=========================================================")  print(eng) | OUTPUT:  1.=========================================================  Doctor Details:  Name: Dr Strange  Contact: 4585632  Speciality: Neurosurgery  Hospital: DMC  Patients List:  {'Dhaka': ['Dhaka Abdur Rahim', 'Dhaka John Cena'], 'Narayanganj':  ['Narayanganj John Wick'], 'Comilla': ['Comilla CM Punk']}  2.=========================================================  Patients from Dhaka:  Dhaka Abdur Rahim  Dhaka John Cena  3.=========================================================  Dr Strange has not patients from Rajshahi  4.=========================================================  5.=========================================================  Doctor Details:  Name: Dr Strange  Contact: 4585632  Speciality: Neurosurgery  Hospital: DMC  Patients List:  {'Dhaka': ['Dhaka Abdur Rahim', 'Dhaka John Cena'], 'Narayanganj':  ['Narayanganj John Wick', 'Narayanganj Naruto Uzumaki'], 'Comilla':  ['Comilla CM Punk']}  6.=========================================================  7.=========================================================  Engineer Details:  Name: Howard Wolowitz  Contact: 982685  Field: Mechanical  Project List: {'Bangladesh': ['Mongol Tori Bangladesh', 'Duburi  Bangladesh'], 'USA': ['Curiosity Rover USA', 'Perseverence USA']} |
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Question: 3

Design CSEDepartment and EEEDepartment class which inherit the Department class so that the following code provides the expected output.

[Student ID = 2 digits of admission year+ (semester\_ID) + (deparment\_code) + students created so far]

[ For Spring, semester\_ID =1, for Summer, semester\_ID = 3, for Fall, semester\_ID = 2 ]

| class Department:  studentCount = 0  def \_\_init\_\_(self,name):  [self.name](http://self.name) = name  def \_\_str\_\_(self):  return "Department Name: " + [self.name](http://self.name)  #Write your code here  c1 = CSEDepartment("CSE", "01", 136)  print("1=================================")  c1.addStudentWithSemester("Bob", "Spring-20", "Mike", "Fall-20", "Carol", "Summer-21")  print("2=================================")  print(c1)  print("3#################################")  e1 = EEEDepartment("CSE", "21", 136)  print("4=================================")  e1.addStudentWithSemester("David", "Fall-19", "Simon", "Summer-20", "Tony", "Spring-21")  print("5=================================")  print(e1)  print("6=================================")  print("Total Number of Students:", Department.studentCount) | OUTPUT:  CSE department’s code value is 01  1===============================  Student ID generated and all students added  2===============================  Department Name: CSE  Credit hours: 136  Total students(s): 3  Student details:  ID: 20101001 Name: Bob  ID: 20201002 Name: Mike  ID: 21301003 Name: Carol  3################################  EEE department’s code value is 21  4===============================  Student ID generated and all students added  5===============================  Department Name: EEE  Credit hours: 136  Total students(s): 3  Student details:  ID: 19221001 Name: David  ID: 20321002 Name: Simon  ID: 21121003 Name: Tony  6===============================  Total Number of Students: 6 |
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