## 有下列人员数据库，请按要求实现

# 姓名 年龄 性别 编号 任职公司 薪资 部门编号

names = [  
 [**"曹操"**,**"56"**,**"男"**,**"106"**,**"IBM"**, 500 ,**"50"**],  
 [**"大乔"**,**"19"**,**"女"**,**"230"**,**"微软"**, 501 ,**"60"**],  
 [**"小乔"**, **"19"**, **"女"**, **"210"**, **"Oracle"**, 600, **"60"**],  
 [**"许褚"**, **"45"**, **"男"**, **"230"**, **"Tencent"**, 700 , **"10"**]  
]

1.统计每个人的平均薪资

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|  |

2.统计每个人的平均年龄

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| --- |
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3.公司新来一个员工，刘备，45，男，220，alibaba，500,30，添加到列表中

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|  |

4.统计公司男女人数

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|  |

5.每个部门的人数

|  |
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names = [  
 ["曹操", "56", "男", "106", "IBM", 500, "50"],  
 ["大乔", "19", "女", "230", "微软", 501, "60"],  
 ["小乔", "19", "女", "210", "Oracle", 600, "60"],  
 ["许褚", "45", "男", "230", "Tencent", 700, "10"]  
]  
#统计平均薪资和平均年龄  
sum = 0  
he = 0  
ave = 0  
age = 0  
for i in range(len(names)):  
 sum += names[i][5]  
 he += int(names[i][1])  
ave = sum/len(names)  
age = he/len(names)  
print("平均薪资：", ave)  
print("平均年龄：", age)  
#添加新员工  
a = [["刘备", "45", "男", "220", "alibaba", 500, "30"]]  
names.extend(a)  
print(names)  
#统计男女人数  
boy = 0  
girl = 0  
for n in range(len(names)):  
 if names[n][2] == "男":  
 boy += 1  
 else:  
 girl += 1  
print("公司有", boy, "个男生")  
print("公司有", girl, "个女生")  
#每个部门人数  
b1 = 0  
b2 = 0  
b3 = 0  
b4 = 0  
for m in range(len(names)):  
 if names[m][6] == "10":  
 b3 += 1  
 elif names[m][6] == "30":  
 b4 += 1  
 elif names[m][6] == "50":  
 b1 += 1  
 else:  
 b2 += 1  
print("10", "部门有", b3, "个人")  
print("30", "部门有", b4, "个人")  
print("50", "部门有", b1, "个人")  
print("60", "部门有", b2, "个人")

## 现在魔法学院有赫敏、哈利、罗恩、马尔福四个人的几次魔法作业的成绩。但是呢，因为有些魔法作业有一定难度，教授不强制同学们必须上交，所以大家上交作业的次数并不一致。

[罗恩, 23 ,35 ,44]

[哈利 ,60, 77 ,68 ,88, 90]

[赫敏, 97 ,99 ,89 ,91, 95, 90]

[马尔福 ,100, 85 ,90]

求每个人的总成绩？

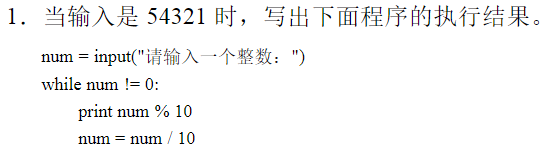
table = [  
 ["罗恩", 23, 35, 44],  
 ["哈利", 60, 77, 68, 88, 90],  
 ["赫敏", 97, 99, 89, 91, 95, 90],  
 ["马尔福", 100, 85, 90]  
]  
sum = 0  
for i in range(len(table)):  
 for n in range(len(table[i])):  
 if n > 0:  
 sum += table[i][n]  
 else:  
 continue  
 print(table[i][0], "的总成绩：", sum)  
 sum = 0

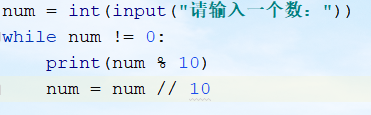
### 对购物车系统进行改造：

1. 添加登陆功能，登陆后才能进行购物操作。
2. 添加结算积分添加功能。
3. 登陆成功后系统随机分发一张优惠券（免单券6张，免半券3张，满600减100券50张，满10000减1000券10张，无券31）前提是优惠券存在列表中。

import random  
zh ={  
 115849: {  
 "username": "张三",  
 "password": 123456  
 },  
 147258: {  
 "username": "李四",  
 "password": 159263  
 }  
}  
def welcome():  
 print("-------------------")  
 print("---1.登录-----------")  
 print("---2.注册-----------")  
 print("---3.退出-----------")  
 print("-------------------")  
def adduser():  
 username = input("请输入您的用户名：")  
 password = int(input("请输入您的密码："))  
  
 account = random.randint(100000, 1000000)  
  
 zh[account] = {  
 "username": username,  
 "password": password,  
 }  
 print("注册成功，以下是您的个人信息：")  
 info = '''  
 ------个人信息---------  
 用户名：%s  
 密码：%s  
 账号：%s  
 '''  
 print(info % (username, password, account))  
  
def dl():  
 account = int(input("请输入您的账号："))  
 if account in zh:  
 password = int(input("请输入您的密码："))  
 if password == zh[account]["password"]:  
 print("登陆成功")  
 shop = (  
 ["机械革命", 15000, 15000],  
 ["劳力士手表", 200000, 200000],  
 ["Iphone 12X plus", 12000, 12000],  
 ["lenovo PC", 6000, 6000],  
 ["HUA WEI WATCH", 1200, 1200],  
 ["OPPO R15", 2000, 2000],  
 ["Mac PC", 15000, 15000],  
 ["辣条", 2.5, 2.5],  
 ["老干妈", 13, 13]  
 )  
 money = input("请输入您的余额：")  
 money = int(money)  
 mycart = []  
 free = random.randint(0, 101)  
 if free < 7:  
 k = 1  
 print("恭喜您抽到免单券")  
 elif free < 10:  
 k = 2  
 print("恭喜您抽到免半券")  
 elif free < 60:  
 k = 3  
 print("恭喜您抽到满600减100券")  
 elif free < 70:  
 k = 4  
 print("恭喜您抽到满10000减1000券")  
 else:  
 k = 5  
 print("对不起，您没抽到优惠券")  
 i = 0  
 s = 0  
 while i < 21:  
 for key, value in enumerate(shop):  
 print(key, value)  
 c = input("请输入您想要的商品编号：")  
 if c.isdigit():  
 c = int(c)  
 if c <= len(shop)-1:  
 if money >= shop[c][1]:  
 mycart.append(shop[c])  
 if k == 1:  
 money -= shop[c][1] \* 0  
 elif k == 2:  
 money -= shop[c][1] \* 0.5  
 elif k == 3 and shop[c][1] > 600:  
 money -= shop[c][1] - 100  
 elif k == 4 and shop[c][1] > 10000:  
 money -= shop[c][1] - 1000  
 elif k == 5:  
 money -= shop[c][1]  
 else:  
 print("对不起，穷鬼，您的钱不够！请到其他超市买东西去！")  
 else:  
 print("您输入的商品不存在！别瞎弄！")  
 elif c == "q" or c == "Q":  
 print("拜拜了，您嘞！欢迎下次光临！")  
 break  
 else:  
 print("对不起，您输入有误，请重新输入！")  
 i += 1  
 s += shop[chose][2]  
 # mycart.append(s)  
  
 print("以下是您的购物小票，请拿好：")  
 for key, value in enumerate(mycart):  
 print(key, value)  
 print("积分一共有：", s)  
 print("本次余额还剩：￥", money)  
 else:  
 print("您的密码错误!")  
 else:  
 print("您的账号错误！")  
  
  
while True:  
 welcome()  
 chose = int(input("请输入您要做的事件："))  
 if chose == 1:  
 dl()  
 elif chose == 2:  
 adduser()  
 elif chose == 3:  
 break  
 else:  
 print("别瞎选")

## 阅读程序并回答问题





1

2

3

4

5

## 请对下列列表进行冒泡排序（网易测试开发笔试题）

a=[5,2,4,7,9,1,3,5,4,0,6,1,3]

a=[5,2,4,7,9,1,3,5,4,0,6,1,3]  
def px(a):  
 for i in range(1, len(a)):  
 for j in range(0, len(a) - i):  
 if a[j] > a[j+1]:  
 a[j], a[j+1] = a[j+1], a[j]  
 return a  
a = px(a)  
print(a)