

1. سوف نقوم في هذا المشروع بعمل برنامج يساعد في إدارة محلات الملابس حيث يقوم بعرض بيانات المنتج التي يدخلها المستخدم كما يلي

Make a clothes shop program that interacts with the user like the following

```
Enter the product name (Press Enter to Exit): hat
Product: Hat
Price: 50
Quantity: 8
Enter the product name (Press Enter to Exit): codezilla
Product: Codezilla
Price: Not Available
Quantity: Not Available
Enter the product name (Press Enter to Exit): socks
Product: Socks
Price: 25
Quantity: 7
Enter the product name (Press Enter to Exit):
Thanks for Choosing Codezilla!
```

```
{//}
```

```
products = {  
  "T-shirt": {"price": 300, "quantity": 10},  
  "Shirt": {"price": 250, "quantity": 20},  
  "Pants": {"price": 300, "quantity": 15},  
  "Shoes": {"price": 400, "quantity": 5},  
  "Socks": {"price": 25, "quantity": 7},  
  "Hat": {"price": 50, "quantity": 8},  
  "Gloves": {"price": 50, "quantity": 10},  
  "Sweater": {"price": 500, "quantity": 20},  
  "Jacket": {"price": 900, "quantity": 15},  
  "Coat": {"price": 1000, "quantity": 5},  
  "Scarf": {"price": 110, "quantity": 2},  
}
```

{codezi//a}

{//}

إذا لم توفق للوصول للحل يمكنك السعي مرة أخرى بمساعدة  
الخطوات التالية

```
# get the user input  
  
# if the user pressed enter  
  
# get product information from the dictionary  
  
# get the product price and quantity  
  
# print the product information
```

{codezi//a}

{//}

```
1 # 1. a program to search for a product in a shop and print its information
2
3 products = {
4     "T-shirt": {"price": 300, "quantity": 10},
5     "Shirt": {"price": 250, "quantity": 20},
6     "Pants": {"price": 300, "quantity": 15},
7     "Shoes": {"price": 400, "quantity": 5},
8     "Socks": {"price": 25, "quantity": 7},
9     "Hat": {"price": 50, "quantity": 8},
10    "Gloves": {"price": 50, "quantity": 10},
11    "Sweater": {"price": 500, "quantity": 20},
12    "Jacket": {"price": 900, "quantity": 15},
13    "Coat": {"price": 1000, "quantity": 5},
14    "Scarf": {"price": 110, "quantity": 2},
15 }
16
17 while True:
18     # get the user input
19     user_input = input("Enter the product name (Press Enter to Exit): ").title()
20
21     # if the user pressed enter
22     if user_input == "":
23         print("Thanks for Choosing Codezilla!")
24         break
25
26     # get product information from the dictionary
27     product = products.get(user_input, {})
28
29     # get the product price and quantity
30     price = product.get("price", "Not Available")
31     quantity = product.get("quantity", "Not Available")
32
33     # print the product information
34     message = f"""Product: {user_input}
35 Price: {price}
36 Quantity: {quantity}"""
37     print(message)
38
```

{codezi//a}

{//}

2. قم بعمل برنامج يقوم بعرض بيانات المرضى داخل مستشفى  
كما يلي

Make a program that show patient data in a hospital  
like the following

```
Enter the patient name (Press Enter to Exit): hossam yehia
Patient: Hossam Yehia
Age: 40
Disease: ACL
Room: 4
Enter the patient name (Press Enter to Exit): codezilla
Patient: Codezilla
Age: Not Available
Disease: Not Available
Room: Not Available
Enter the patient name (Press Enter to Exit): mohamed hassan
Patient: Mohamed Hassan
Age: 25
Disease: Cough
Room: 1
Enter the patient name (Press Enter to Exit):
```

{codezi//a}

```
{//}
```

```
patients = {  
  "Mohamed Hassan": {"age": 25, "disease": "Cough", "room": 1},  
  "Ahmed Kamal": {"age": 30, "disease": "Sore Throat", "room": 2},  
  "Ali Adel": {"age": 35, "disease": "Arm Fracture", "room": 3},  
  "Hossam Yehia": {"age": 40, "disease": "ACL", "room": 4}  
}
```

{codezi//a}

{//}

إذا لم توفق للوصول للحل يمكنك السعي مرة أخرى بمساعدة  
الخطوات التالية

```
# get the user input  
  
# if the user pressed enter  
  
# get patient information from the dictionary  
  
# get the patient age, disease and room  
  
# print the patient information
```

{codezi//a}

{//}

```
1 patients = {
2     "Mohamed Hassan": {"age": 25, "disease": "Cough", "room": 1},
3     "Ahmed Kamal": {"age": 30, "disease": "Sore Throat", "room": 2},
4     "Ali Adel": {"age": 35, "disease": "Arm Fracture", "room": 3},
5     "Hossam Yehia": {"age": 40, "disease": "ACL", "room": 4}
6 }
7
8 while True:
9     # get the user input
10    user_input = input("Enter the patient name (Press Enter to Exit): ").title()
11
12    # if the user pressed enter
13    if user_input == "":
14        break
15
16    # get patient information from the dictionary
17    patient = patients.get(user_input, {})
18
19    # get the patient age, disease and room
20    age = patient.get("age", "Not Available")
21    disease = patient.get("disease", "Not Available")
22    room = patient.get("room", "Not Available")
23
24    # print the patient information
25    message = f"""\nPatient: {user_input}
26    Age: {age}
27    Disease: {disease}
28    Room: {room}"""
29    print(message)
30
```

{codezi//a}



3. جاء أحد عملائنا كي يطلب منا مساعدته في حل مشكلته، حيث إنه مسؤول عن إدارة صيدلية وكثيرا ما يأتيه المريض بوصفة من الطبيب تحتوي على أكثر من دواء، لذلك يريد العميل بدلا من أن يدخل اسم كل دواء بمفرده كي يحصل على بياناته، أن يتمكن من إدخال مجموعة من الأدوية مرة واحدة كما يلي

Make a program for a pharmacy like the following

```
Enter the treatment names seperated by comma (Press Enter to Exit): panadol, codezilla, zinc, vitamin c
Item: Panadol
Price: 25
Quantity: 10
-----
Item: Codezilla
Price: Not Available
Quantity: Not Available
-----
Item: Zinc
Price: 15
Quantity: 20
-----
Item: Vitamin C
Price: 20
Quantity: 15
-----
```

{//}

```
inventory = {"Paracetamol": {"price":25, "quantity":10},
             "Aspirin": {"price":15, "quantity":20},
             "Ibuprofen": {"price":20, "quantity":15},
             "Cough Syrup": {"price":30, "quantity":5},
             "Augmentin": {"price":100, "quantity":7},
             "Amoxicillin": {"price":80, "quantity":8},
             "Panadol": {"price":25, "quantity":10},
             "Zinc": {"price":15, "quantity":20},
             "Vitamin C": {"price":20, "quantity":15},
             "Fucidin": {"price":30, "quantity":5},
             "Kolanog": {"price":100, "quantity":2},
             }
```

{codezi//a}

{//}

إذا لم توفق للوصول للحل يمكنك السعي مرة أخرى بمساعدة  
الخطوات التالية

```
# if the treatment is not available print not available

# get the user input

# make a list of the treatments

# empty dictionary to store the treatments and their
information

# loop through the treatments

# print the treatments information
```

{codezi//a}

{//}

```
1 inventory = {"Paracetamol": {"price":25, "quantity":10},
2             "Aspirin": {"price":15, "quantity":20},
3             "Ibuprofen": {"price":20, "quantity":15},
4             "Cough Syrup": {"price":30, "quantity":5},
5             "Augmentin": {"price":100, "quantity":7},
6             "Amoxicillin": {"price":80, "quantity":8},
7             "Panadol": {"price":25, "quantity":10},
8             "Zinc": {"price":15, "quantity":20},
9             "Vitamin C": {"price":20, "quantity":15},
10            "Fucidin": {"price":30, "quantity":5},
11            "Kolanog": {"price":100, "quantity":2},
12            }
13
14 # get the user input
15 user_input = input("Enter treatment names seperated by comma (Enter to Exit): ").
16               strip().title()
17
18 # make a list of the treatments
19 treatments = user_input.split(", ")
20
21 # empty dictionary to store the treatments and their information
22 treatments_info = {}
23
24 not_available = {"price":"Not Available", "quantity":"Not Available"}
25
26 # loop through the treatments
27 for treatment in treatments:
28     treatments_info[treatment] = inventory.get(treatment, not_available)
29
30 # print the treatments information
31 for treatment, info in treatments_info.items():
32     print(f"Item: {treatment}")
33     print(f"Price: {info['price']}")
34     print(f"Quantity: {info['quantity']}")
35     print("-"*20)
36
```

{codezi//a}

{//}

4. قم بعمل برنامج يقوم بالبحث عن بيانات طالب داخل مدرسة ثم يقوم بعرضها كما يلي

Make a program that search for a student and print his information like the following

```
Enter student name: ali adel
Student: Ali Adel
Math: 85
English: 83
Science: 87
Arabic: 100
History: 90
```

```
Enter student name: codezilla
Student: Codezilla
No grades available
```

{codezi//a}

```
{//}
```

```
students = {  
  "Mohamed Hassan": {"grades": {  
    "math": 100,  
    "english": 90,  
    "science": 80,  
    "arabic": 100,  
    "history": 97}  
  },  
  "Ahmed Kamal": {"grades": {  
    "math": 100,  
    "english": 95,  
    "science": 93,  
    "arabic": 100,  
    "history": 94}  
  },  
  "Ali Adel": {"grades": {  
    "math": 85,  
    "english": 83,  
    "science": 87,  
    "arabic": 100,  
    "history": 90}  
  },  
  "Hossam Yehia": {"grades": {  
    "math": 100,  
    "english": 94,  
    "science": 98,  
    "arabic": 100,  
    "history": 100}  
  }  
}
```

{codezi//a}

{//}

إذا لم توفق للوصول للحل يمكنك السعي مرة أخرى بمساعدة  
الخطوات التالية

```
# get the user input  
  
# get the student information  
  
# get the student grades  
  
# print the student name  
  
# check if the student has grades  
  
# print the student grades  
  
# print no grades available
```

{codezi//a}

{//}

```
1  students = {
2      "Mohamed Hassan": {"grades": {
3          "math": 100,
4          "english": 90,
5          "science": 80,
6          "arabic": 100,
7          "history": 97}
8      },
9      "Ahmed Kamal": {"grades": {
10         "math": 100,
11         "english": 95,
12         "science": 93,
13         "arabic": 100,
14         "history": 94}
15     },
16     "Ali Adel": {"grades": {
17         "math": 85,
18         "english": 83,
19         "science": 87,
20         "arabic": 100,
21         "history": 90}
22     },
23     "Hossam Yehia": {"grades": {
24         "math": 100,
25         "english": 94,
26         "science": 98,
27         "arabic": 100,
28         "history": 100}
29     }
30 }
31
32
33 # get the user input
34 user_input = input("Enter student name: ").title()
35
36
37 # get the student information
38 student = students.get(user_input, {})
39
40 # get the student grades
41 grades = student.get("grades", {})
42
43 # print the student name
44 print(f"Student: {user_input}")
45
46 # check if the student has grades
47 if grades:
48     # print the student grades
49     for grade in grades:
50         student_grade = grades.get(grade)
51         print(f"{grade.title()}: {student_grade}")
52 else:
53     # print no grades available
54     print("No grades available")
55
```

{codezi//a}