USER

- user_Id: int
- name: string
- email: string

-CREATEORDERS()
-VIEWORDERS()

```
1. Code Stubs for Major Subsystems:

class User:
def __init__(self, user_id, name, email):
self.user_id = user_id
self.name = name
self.email = email
self.orders = []

def create_order(self, order)
self.orders.append(order)

def view_orders(self):
return self.orders
```

```
2. Code Stubs for Major Subsystems:

class Product:
def __init__(self, product_id, name, price,
stock):
self.product_id = product_id
self.name = name
self.price = price
self.stock = stock

def update_stock(self, quantity):
self.stock -= quantityde Stubs for Major
Subsystems
```

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ORDER

- orderId: int
- status:string
- userId: int

-addProduct()
-makePayment()

OrderProduct

- orderId: int
- productId: int

```
3. Code Stubs for Major
Subsystems:

class Order:
def __init__(self, order_id,
user):
self.order_id = order_id
self.user = user
self.products = []
self.status = 'pending
```

```
4 Code Stubs for Major Subsystems:

def __init__(self, order_id, user):
self.order_id = order_id
self.user = user
self.products = []
self.status = 'pending'

def add_product(self, product, quantity):
if product.stock >= quantity:
self.products.append((product, quantity))
product.update_stock(quantity)
else:
print("Not enough stock available.")

def make_payment(self, amount):
 payment = Payment(order=self,
amount=amount)
payment.process_payment()
self.status = 'completed'self.name = name
self.email = email
self.orders = []
```

PRODUCT

productId: int
- name: string |
- price: decimal|
- stock: int

- updateStock()

```
5 Code Stubs for Major Subsystems:

class Payment:
def __init__(self, order, amount):
self.payment_id = id(self) # Unique ID for
payment
self.order = order
self.amount = amount
self.status = 'pending'

def process_payment(self):
# Simulate payment processing
self.status = 'completed'
print(f"Payment of {self.amount} for order
{self.order.order_id} processed.")
```

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PAYMENTS

paymentId: int
- orderId: int
-amount:decimal
- status:string

processPayment()

```
6 Code Stubs for Major Subsystems:

user1 = User(user_id=1, name="abc", email="abc@exa.com")
product1 = Product(product_id=101, name="Laptop", price=999.99, stock=10)

order1 = Order(order_id=1, user=user1)
order1.add_product(product1, 1)
user1.create_order(order 1)

order1.make_payment(999.99)
```