Explanation

What is the purpose of this ontology?

- Customers subscribe to meal plans
- They place weekly orders
- Orders contain multiple meals (order lines)
- Orders are delivered by couriers
- Customers leave reviews

Classes (Concepts)

There are **7 main classes**:

1) `rbox:Customer:`

> Represents a customer of the service.

- As a subclass of **schema:Person**
  → inherits properties like name, email, etc.
- The customer can subscribe to a **SubscriptionPlan**, order boxes, and leave reviews.

2) `rbox:Courier:`

Represents the person delivering orders.

- Also a subclass of **schema:Person**
- A courier delivers an `Order` through a `Delivery`.

3) `rbox:SubscriptionPlan:`

Defines the customer's subscription:

Examples:

- 3 meals × 2 persons
- 4 meals × 4 persons

  Each plan has a:

- label
- weekly price

4) `rbox:Order:`

Represents a single weekly order by a customer.

It may contain multiple **OrderLines**, each line representing one recipe with the number of portions.

5) `rbox:OrderLine:`

Represents **one item inside an order**:

Example:

Spaghetti Carbonara × 2 portions
 Chicken Biryani × 4 portions

Allows counting the total cost and content of an order.

6) `rbox:Delivery:`

Represents the **delivery event**:

- Who delivered it
- Who received it
- When (start/end time)
- For which order

7) `rbox:Review:`

Represents a **customer review**, connected to:

- The customer (author)
- The order they reviewed

Rating uses **schema:Rating** (standard format).

Object Properties (Relationships)

1)Customer ↔ SubscriptionPlan

rbox:hasSubscriptionPlan

One customer selects one subscription plan.

2)Order ↔ Customer

rbox:orderedBy
Links order to the customer.

3)Order ↔ OrderLine

rbox:hasOrderLine
Every order has one or more items.

4) Delivery ↔ Order

rbox:deliveryForOrder
Delivery corresponds to a specific order.

5)Delivery ↔ Courier

rbox:deliveredBy
Who delivered the box.

6)Delivery ↔ Customer

rbox:deliveredTo
Which customer received it.

7)Order ↔ Review

rbox:hasReview
Customers can review their order.

8)Review ↔ Customer

rbox:reviewAuthor
Which customer wrote the review.

Datatype Properties(Attributes):

These are simple attributes like numbers and strings.

For OrderLine:
- **rbox:portionCount** → number of portions ordered
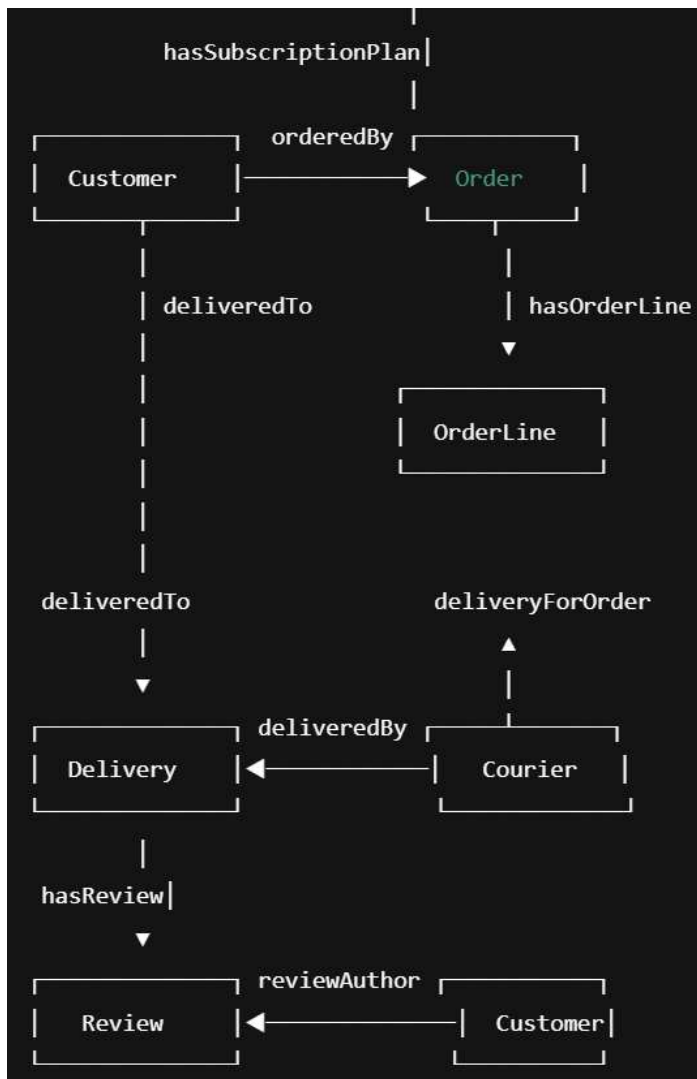
For Delivery:
- **rbox:deliveryStart**, **rbox:deliveryEnd** → delivery time slot

For SubscriptionPlan:
- **rbox:planLabel** → name of the plan
- **rbox:planPrice** → price per week

Visual Diagram:

Interpretation of the diagram
- A **Customer** subscribes to a **SubscriptionPlan**
- A **Customer** places an **Order**
- An **Order** contains one or more **OrderLine**
- A **Delivery** delivers the **Order**
- The **Delivery** is performed by a **Courier**
- The **Delivery** goes to a **Customer**
- The **Customer** writes a **Review** about the **Order**

So ,the Flow is :

```
Customer → Order → Delivery → Review
              |
           OrderLine
```