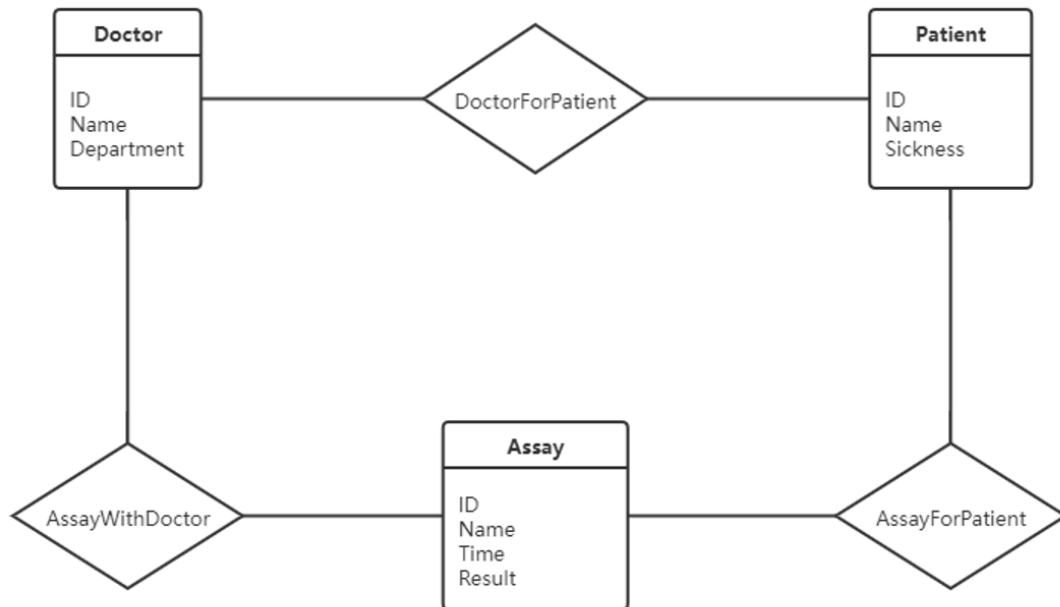6.15 Construct an E-R diagram for a hospital with a set of patients and a set of medical doctors. Associate with each patient a log of the various tests and examinations conducted.
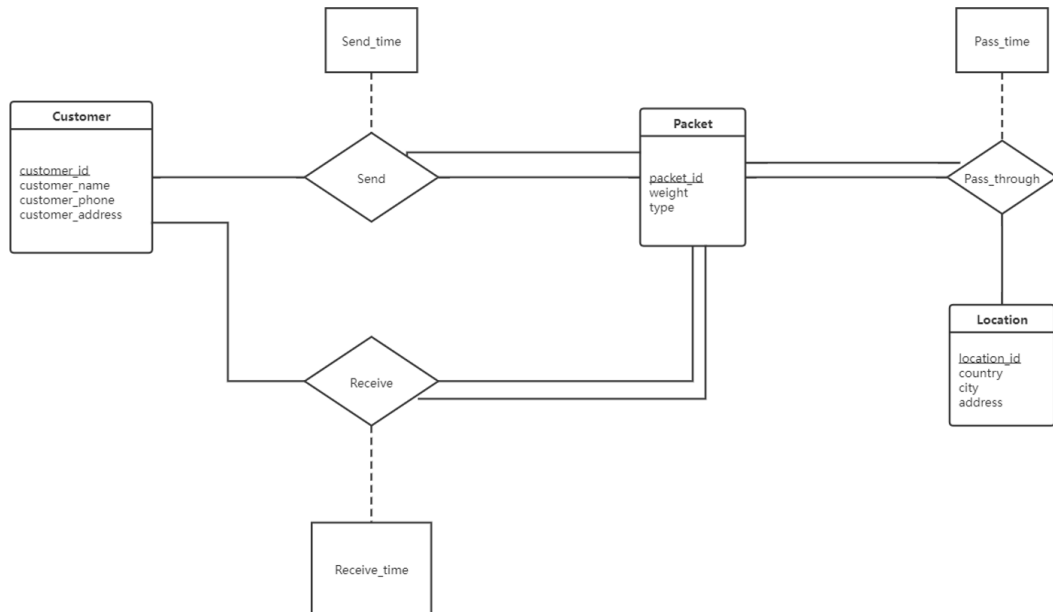
答：E-R 图如下所示：

6.23 Design a database for a worldwide package delivery company (e.g., DHL or FedEx). The database must be able to keep track of customers who ship items and customers who receive items; some customers may do both. Each package must be identifiable and trackable, so the database must be able to store the location of the package and its history of locations. Locations include trucks, planes, airports, and warehouses.

　　Your design should include an E-R diagram, a set of relational schemas, and a list of constraints, including primary-key and foreign-key constraints.

答：E-R 图如下所示（见下页）：

关系模式及约束如下所示：

```
Customer(
    customer_id,
    customer_name,
    customer_phone,
    customer_address,
    primary key(customer_id));

Send(
    packet_id,
    sender_id,
    Send_time,
    primary key(packet_id,sender_id),
    foreign key sender_id references customer,
    foreign key packet_id references packet);

Packet(
    packet_id,
    weight
    type,
    primary key(packet_id));

Location(
    location_id,
    country,
    city,
    address,
```

```
    primary key(location_id));



Recieve(
    receiver_id,
    packet_id,
    Receieve_time,
    primary key(receiver_id,packet_id),
    foreign key reciever_id references customer,
    foreign key packet_id references packet);

Pass_throuth(
    packet_id,
    location_id,
    Pass_time,
    primary key(packet_id,location_id),
    foreign key packet_id references packet,
    foreign key place_id references location);
```