

# How to Design and Implement MongoDB Database (Query First)

# Steps to Model NoSQL Database

1) Create application workflow

2) Design screen mock-ups

3) Identify data displayed by each screen

**Conceptual Modelling**



4) Describe Queries to get the needed data

5) Create an Entity Relationship Diagram (ERD) based on the queries

**Logical Modelling**



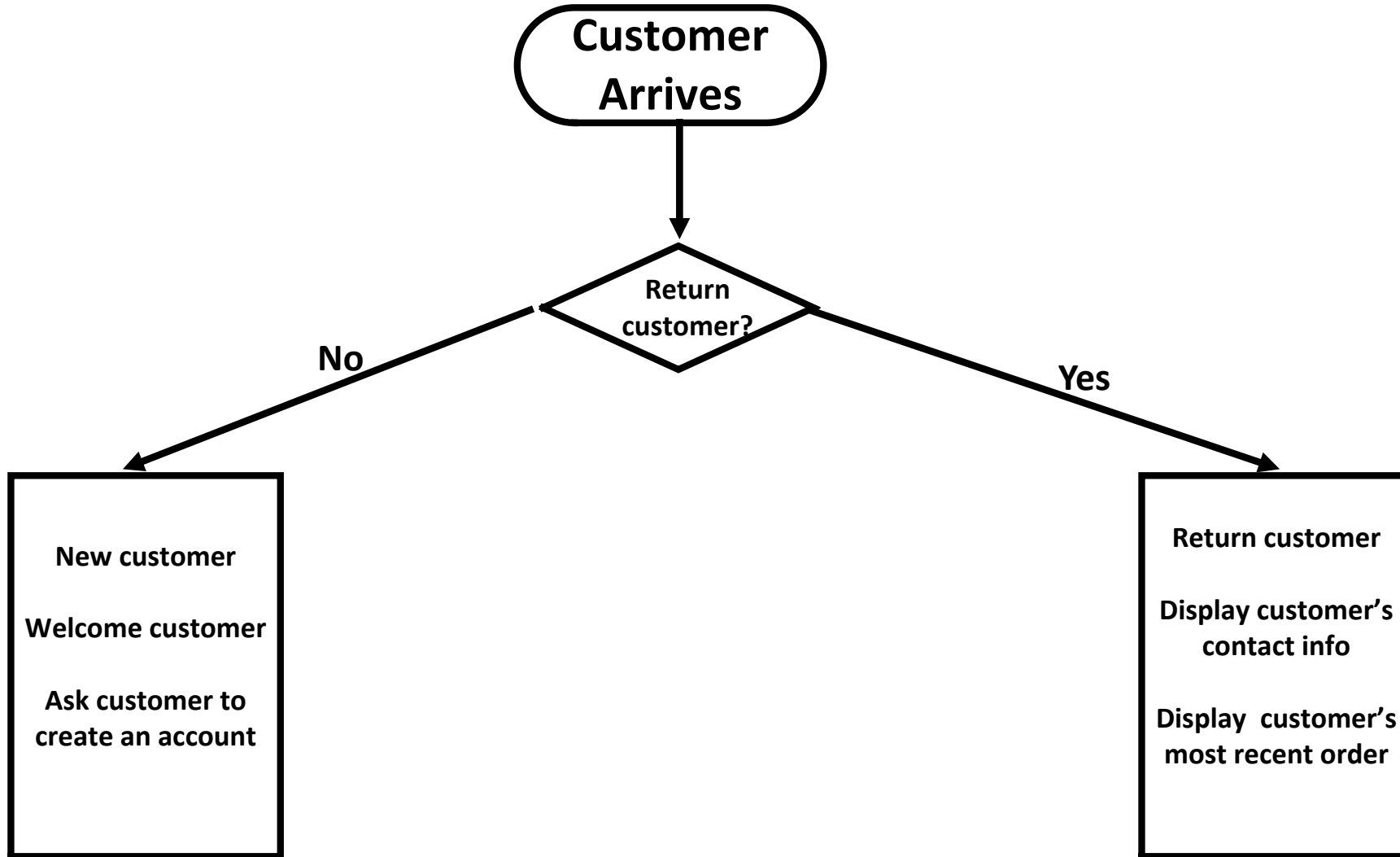
6) Pay attention to physical details, such as partition keys

7) Implement database based on the ERD

**Physical Modelling**



# Partial Application Workflow



# Screen Mock-up for Return Customer

Customer ID:

First name:

Last name:

Phone:

Email address:

Most Recent Order

ID:

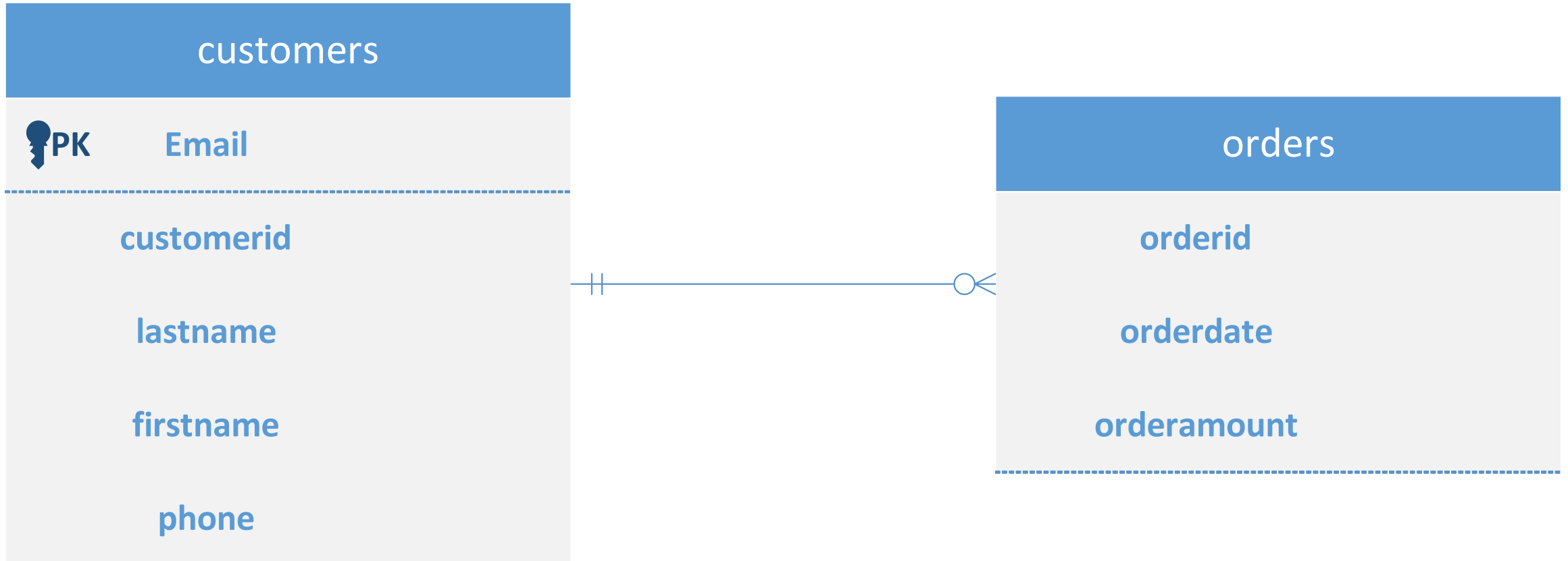
Date:

Amount:

# Query Description

- Retrieve customer's contact info by customer's email
- Retrieve customer's most recent order by customer's id

# Partial ERD - MongoDB



# Document Implementation - MongoDB

```
{ "CustomerID" : 11100,  
  "LastName" : "Navarro",  
  "FirstName" : "Latasha",  
  "Email" : "latasha10@adventure-works.com",  
  "Phone" : "2066145757",  
  "Orders" :  
    [ { "OrderID" : "54928", "OrderDate" : "2007-09-24", "TotalDue" : "2651.41" } ]  
}
```

**Partition Key**

