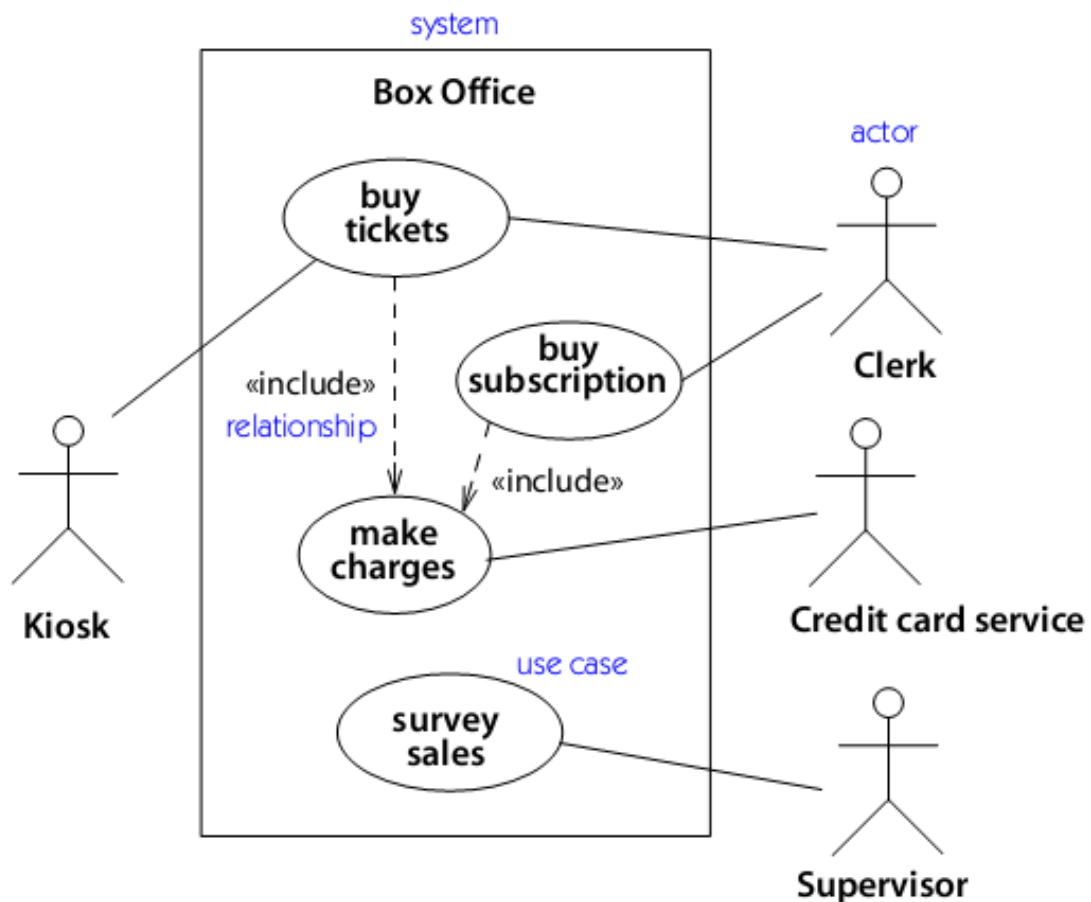


# Work Sheet

## 1) Box office System

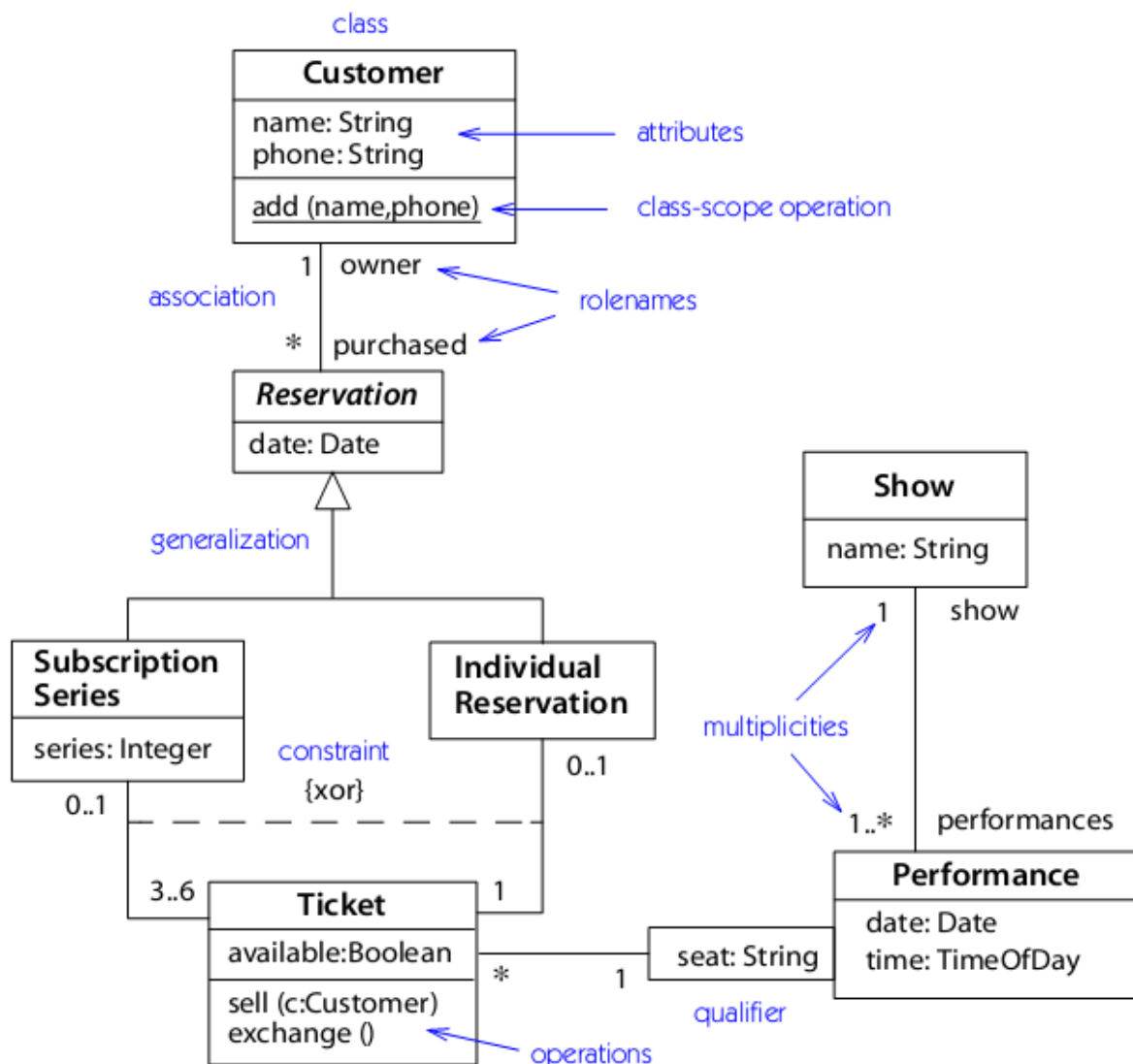
### A) Use Case Diagram

Actors include the clerk, supervisor, and kiosk. The kiosk is another system that accepts orders from a customer. The customer is not an actor in the box office application because the customer is not directly connected to the application. Use cases include buying tickets through the kiosk or the clerk, buying subscriptions (only through the clerk), and surveying total sales (at the request of the supervisor). Buying tickets and buying subscriptions include a common fragment that is, making charges to the credit card service. (A complete description of a box office system would involve a number of other use cases, such as exchanging tickets and checking availability.)



## B) Class Diagram

This diagram contains part of a ticket-selling domain model. It shows several important classes, such as *Customer*, *Reservation*, *Ticket*, and *Performance*. Customers may have many reservations, but each reservation is made by one customer. Reservations are of two kinds: *subscription series* and *individual reservations*. Both reserve tickets: in one case, only one ticket; in the other case, several tickets. Every ticket is part of a subscription series or an individual reservation, but not both. Every performance has many tickets available, each with a unique seat number. A performance can be identified by a show, date, and time.



**C) Sequence Diagram** - for the buy tickets use case.

This use case is initiated by the customer at the kiosk communicating with the box office. The steps for the make charges use case are included within the sequence, which involves communication with both the kiosk and the credit card service. This sequence diagram is at an early stage of development and does not show the full details of the user interface. For example, the exact form of the seat list and the mechanism of specifying seats must still be determined, but the essential communication of the interaction has been specified by the use case.

