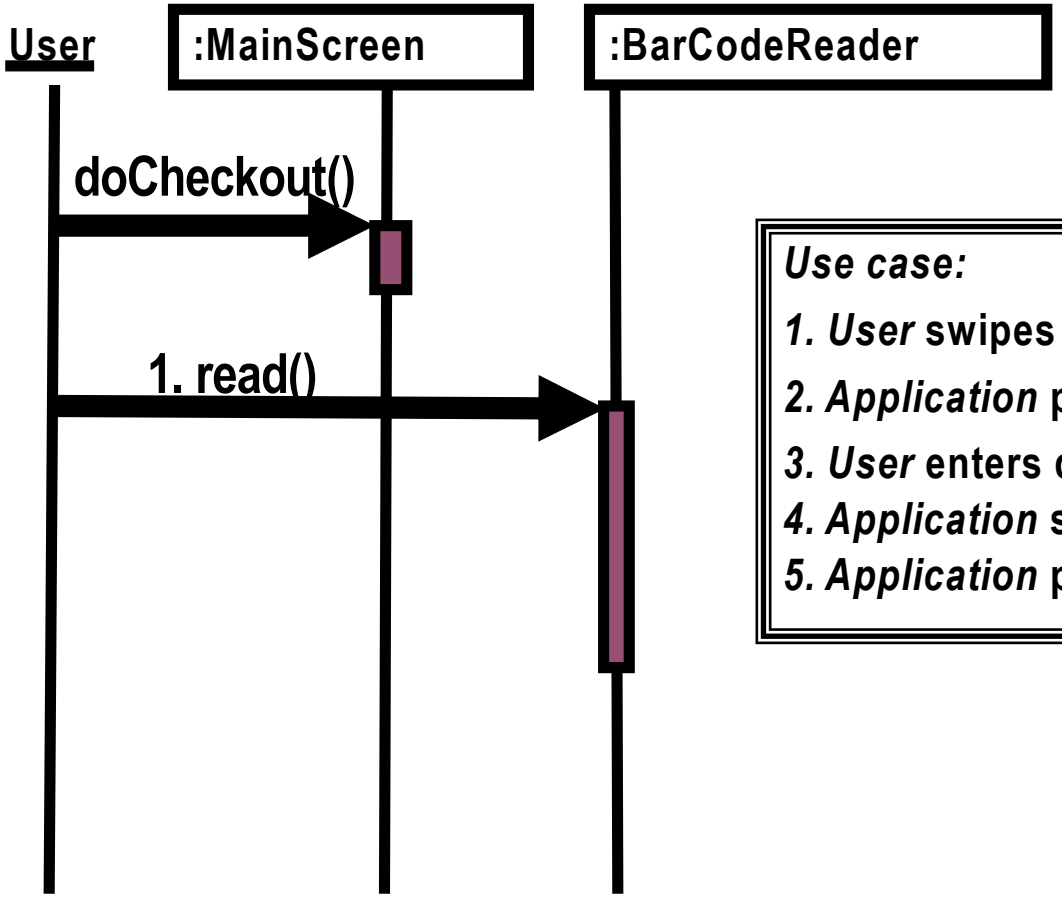
UML
Sequence Diagram

Sequence Diagram

Shows the interactions between objects in a time sequence.

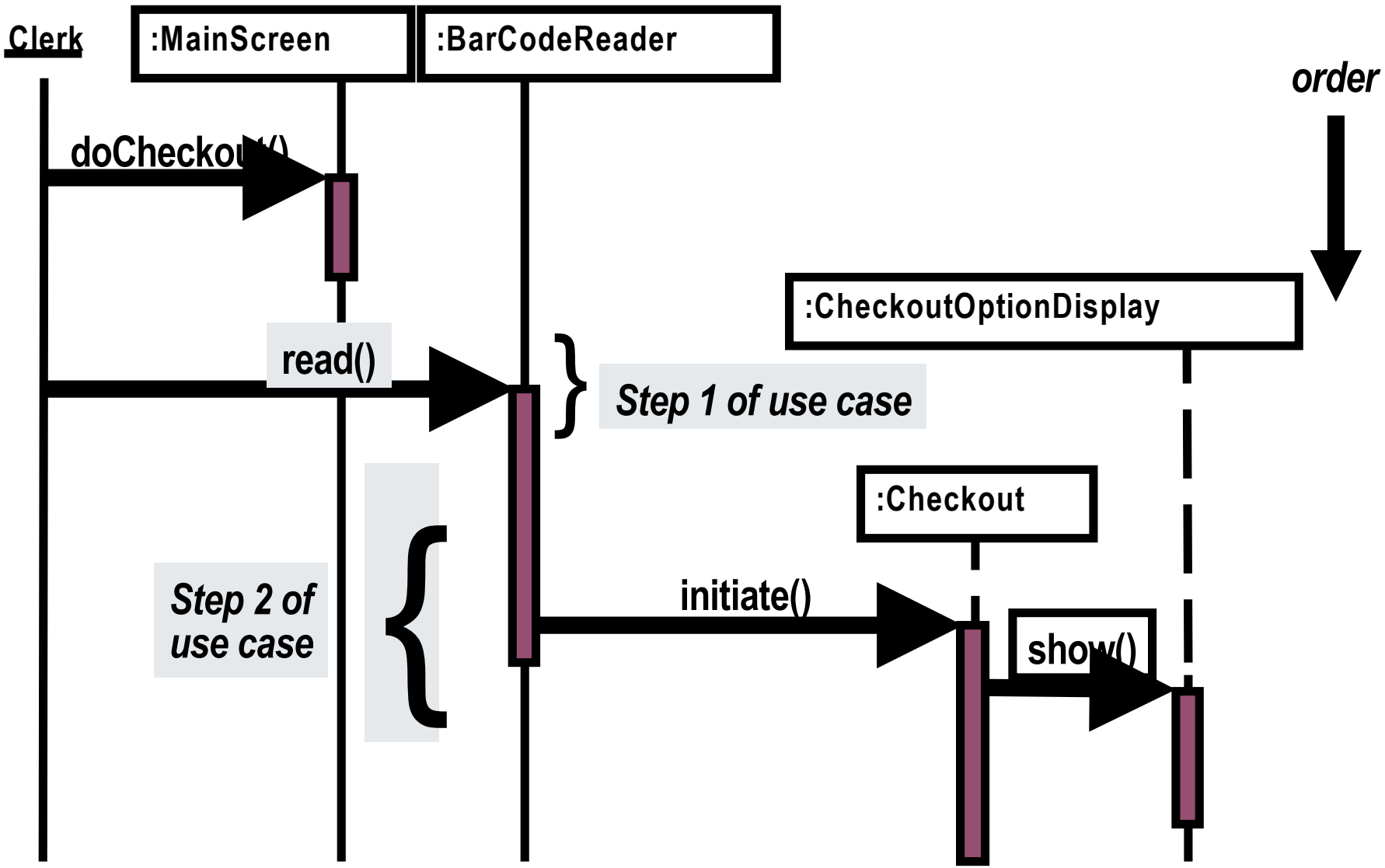
Sequence Diagram for Check Out Use Case



Use case:

1. ***User*** **swipes bar code**
2. ***Application*** **prompts for rental duration**
3. ***User*** **enters duration**
4. ***Application*** **stores record**
5. ***Application*** **prints customer's account status**

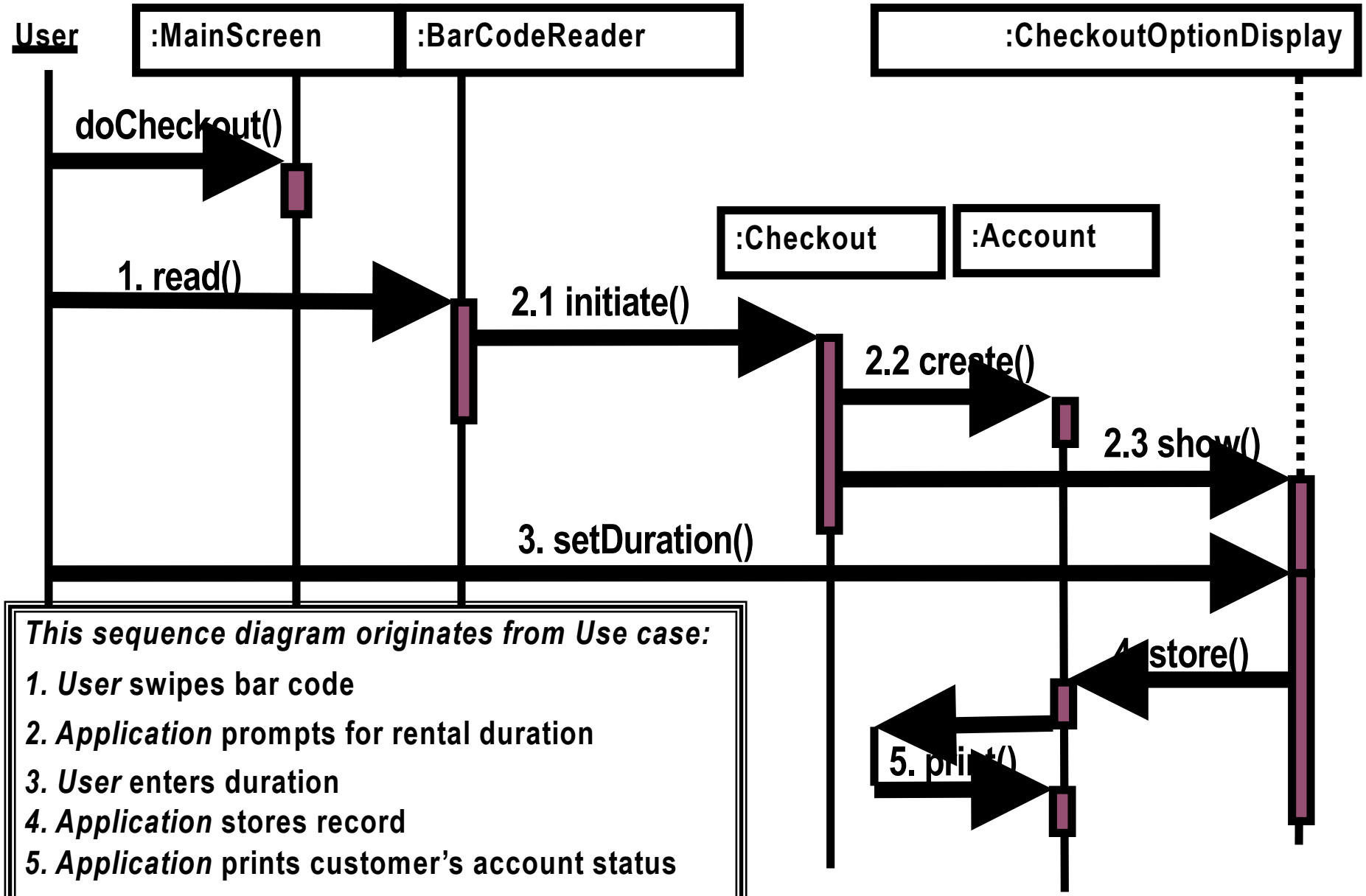
Sequence Diagram for Check Out Use Case



Originates from use case:

1. *User* swipes bar code
2. *Application* prompts for rental duration
3. *User* enters duration ...

Sequence Diagram for Check Out Use Case

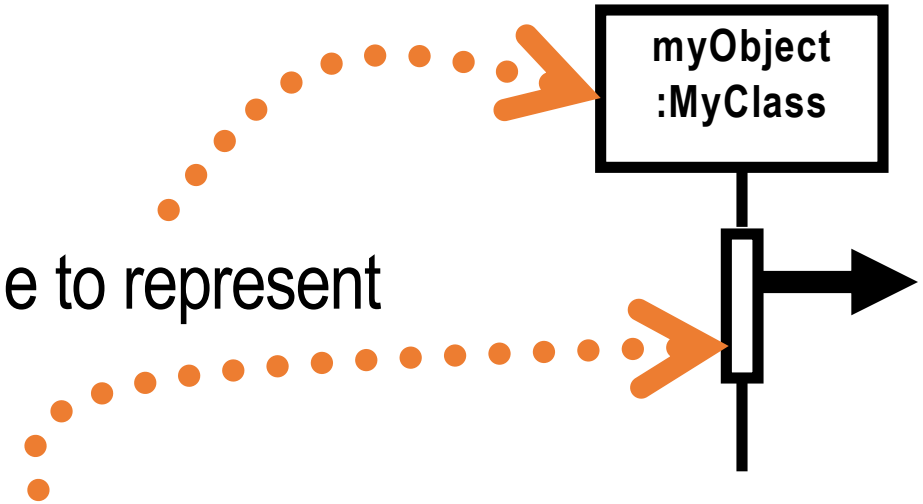


This sequence diagram originates from Use case:

1. *User* swipes bar code
2. *Application* prompts for rental duration
3. *User* enters duration
4. *Application* stores record
5. *Application* prints customer's account status

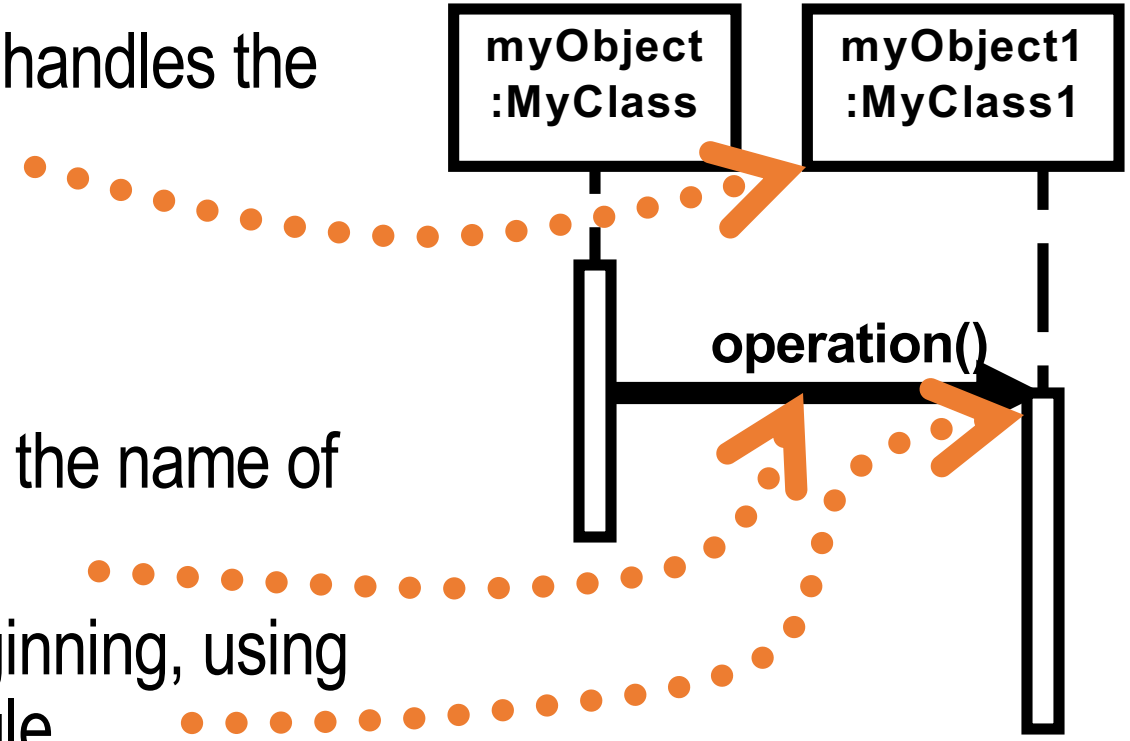
Building a Sequence Diagram 1

1. Identify the use case whose sequence diagram you will build (if applicable).
2. Identify which entity initiates the use case
   - the user, or
   - an object of a class
     - name the class
     - name the object if possible
3. If not the user, draw a rectangle to represent this initiating object at left top
   - use UML *object:Class* notation
4. Draw an elongated rectangle beneath this to represent the execution of the operation initiating the process
5. Draw an arrow pointing right from it

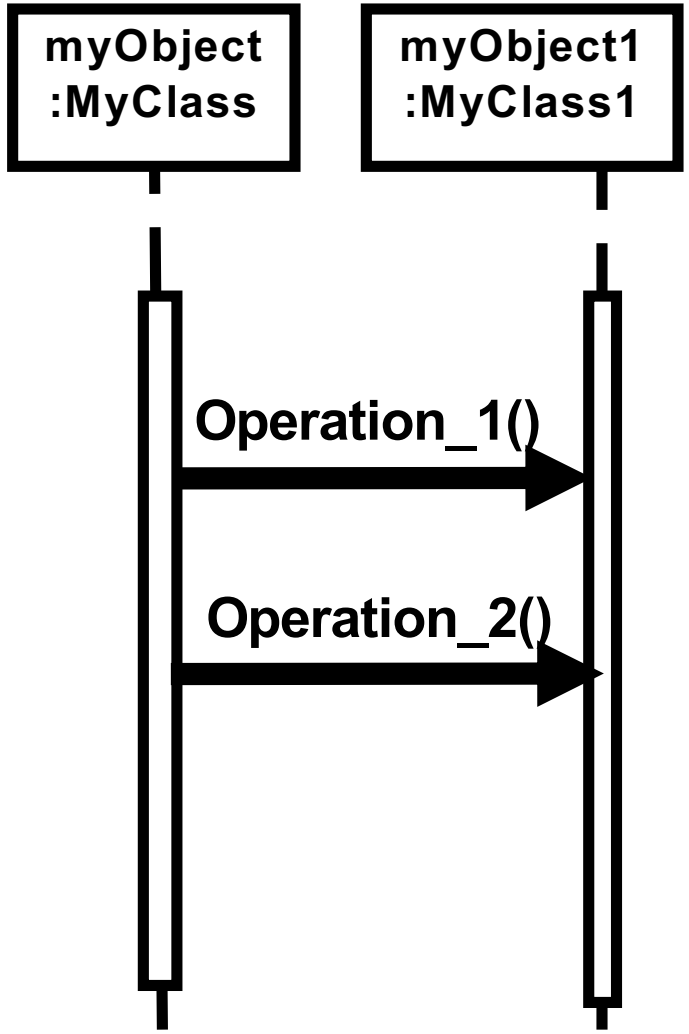


Building a Sequence Diagram 2

6. Identify which entity handles the operation initiated
   - an object of a class
     - name the class
     - name the object
7. Label the arrow with the name of the operation
8. Show a process beginning, using an elongated rectangle
9…… Continue with each new statement of the use case.



Combined Fragment – Parallel Execution



Combined Fragment

Interaction operator could be one of:

- **alt** - alternatives
- **opt** - option
- **loop** - iteration
- **break** - break
- **par** - parallel
- **strict** - strict sequencing
- **seq** - weak sequencing
- **critical** - critical region
- **ignore** - ignore
- **consider** - consider
- **assert** - assertion
- **neg** - negative

Find more Examples here
https://www.uml-diagrams.org/sequence-diagrams-reference.html