# UML Sequence Diagrams
## brief tutorial

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# Draw a sequence diagram for:

A person adds an item to the shopping cart. The product controller resolves this item by its id and the item is added to the shopping cart.
The person checks out when he is done shopping. The shopping cart calculates the total price and places an order.
The person pays the order. The payment service executes the payment.

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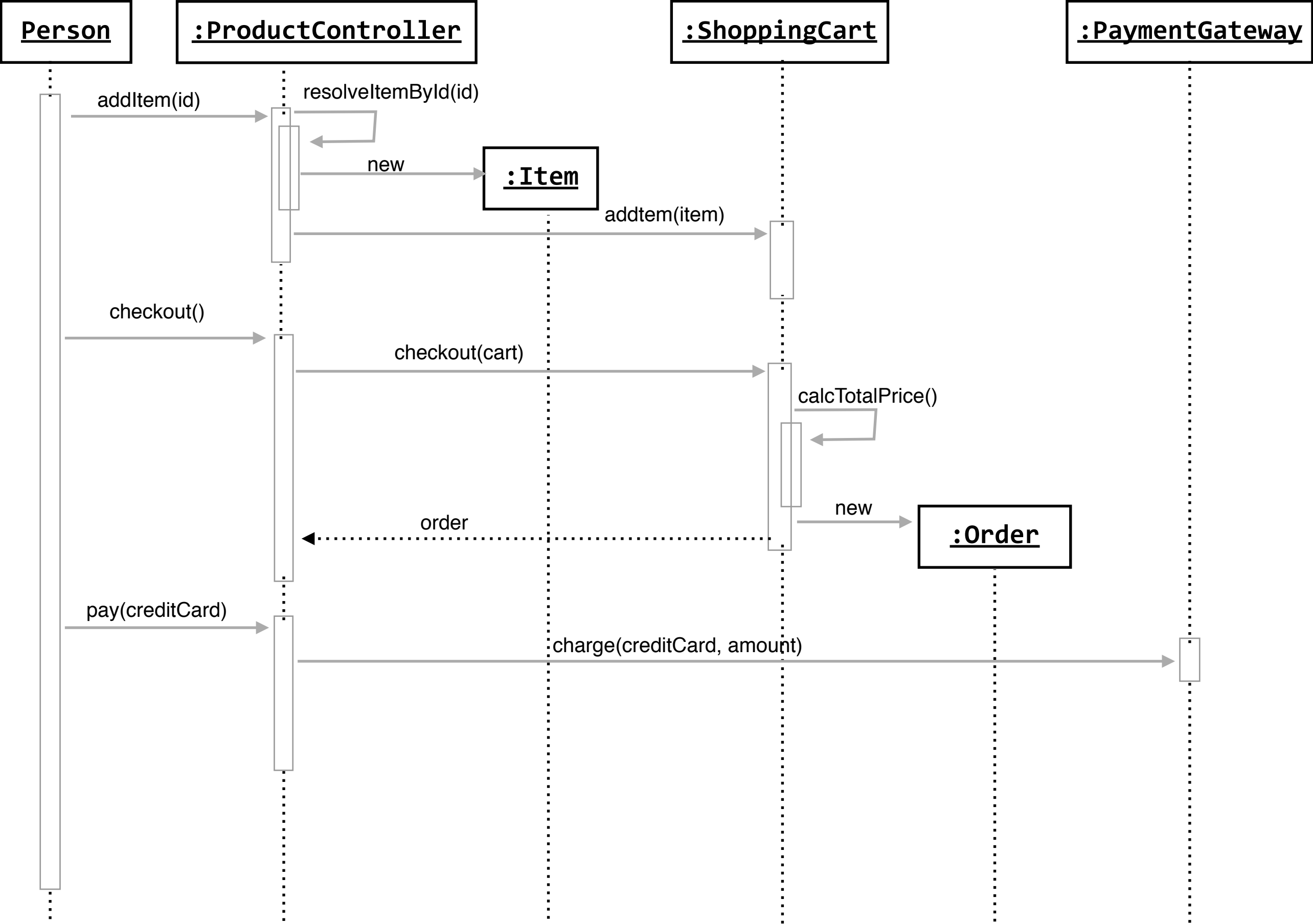The person pays the order. The **payment service** executes the payment.

# Objects

- Person

- ProductController

- Item

- ShoppingCart

- Order

- PaymentService

# Sequence Diagram

| Person | :ProductController | :Item | :ShoppingCart | :Order | :PaymentGateway |

# Sequence Diagram

| Person | :ProductController | :ShoppingCart | :PaymentGateway |

- addItem(id)
- resolveItemById(id)
- new → :Item
- addItem(item)
- checkout()
- checkout(cart)
- calcTotalPrice()
- new → :Order
- order
- pay(creditCard)
- charge(creditCard, amount)

# Now it's your turn!    10' Time

# Draw a sequence diagram for:

The user opens the address-book app on her smartphone. She taps on „+" to add a new contact. The app displays a form where the information of the new contact can be filled in. The user fills in the information and taps on save. The app closes the form, saves the contact and displays the contact information. The user taps on „call" to contact her friend. The app switches to the phone app which calls the friend.

**10' Time**

**Cheatsheet available here:**
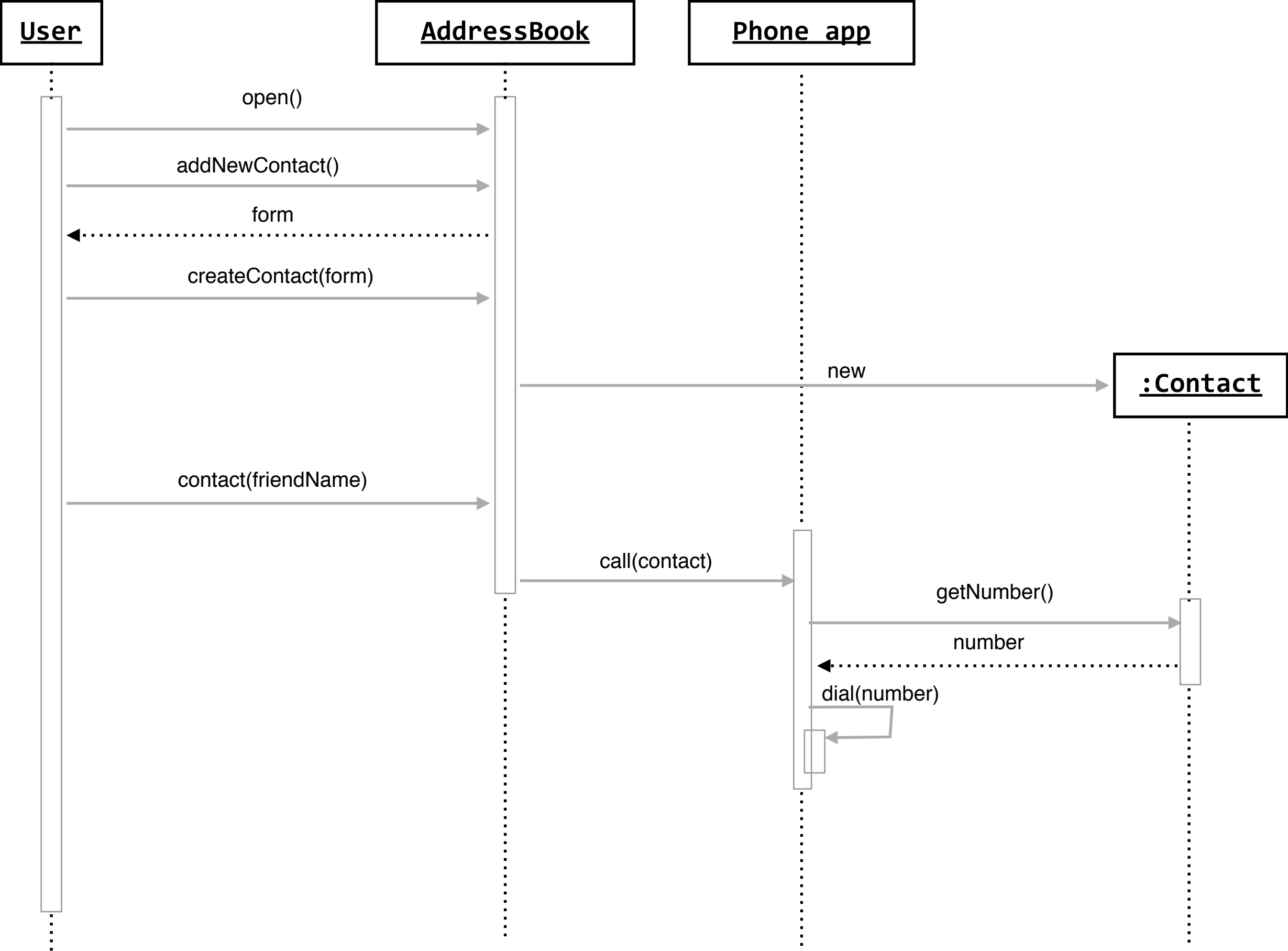
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http://goo.gl/v6cQhE

# Sequence Diagram

| User | AddressBook | Phone_app |
|------|-------------|-----------|

open()

addNewContact()

form

createContact(form)

new → :Contact

contact(friendName)

call(contact)

getNumber()

number

dial(number)

# Useful Links

- http://www.holub.com/goodies/uml/

- http://www.digilife.be/quickreferences/QRC/UML%20Reference%20Card.pdf

- http://loufranco.com/wp-content/uploads/2012/11/cheatsheet.pdf

- https://en.wikipedia.org/wiki/Sequence_diagram