

# Homework 3

## Homework 3

Until morning October 1

User stories

Given user story 1:

Given user story 2:

User story 3:

User story 4:

Object diagrams

Object diagram for precondition of Ulno plays Jack and choses suit:

Object diagram for postcondition of Ulno plays Jack and choses suit:

Object diagram for precondition of Artjom plays an 8 and Eero skips a turn:

Object diagram for postcondition of Artjom plays an 8 and Eero skips a turn:

4 Object diagrams with class labels and adapted

Eero deals one round of two cards each for Eero, Ulno, and Artjom

Ulno plays a seven forcing Artjom to draw two cards

Ulno plays Jack and choses suit

Artjom plays an 8 and Eero skips a turn

Class diagram in Fujaba

Git-repository

## Until morning October 1

- Mau Mau case: **(5pts)**

– given:

- two user stories (compare web)
- three object diagrams

– requested:

- 2 extra user story: “Ulno plays Jack and choses suit”,  
“Artjom plays an 8 and Eero skips a turn”
- Object diagrams of pre and post conditions (4 diagrams)
- 4 Object diagrams with class labels and adapted  
attributes (post conditions of each user story)
- Class diagram **in Fujaba**
- simple test cases in story boards – one for each user story (**story boards next**

**lecture)**

- (all)
- submit git-archive or link to **git-repository**

- <http://github.com/hyyrynen/mancala>

**Extra information:**

Specify dealer and turn in stories and object diagrams!  
Add attributes for scoring to the class diagram.

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**Pre-pre-condition:**

We have a deck of 32 cards, consisting of 4 suits (diamond, heart, spade, clubs). In each suit we have 7, 8, 9, 10, Jack, Queen, King, Ace.

We abbreviate one of these cards like

DA: Diamond Ace

S10: Spade 10

H7: 7 of heart

There are three players: Eero, Ulno, and Artjom

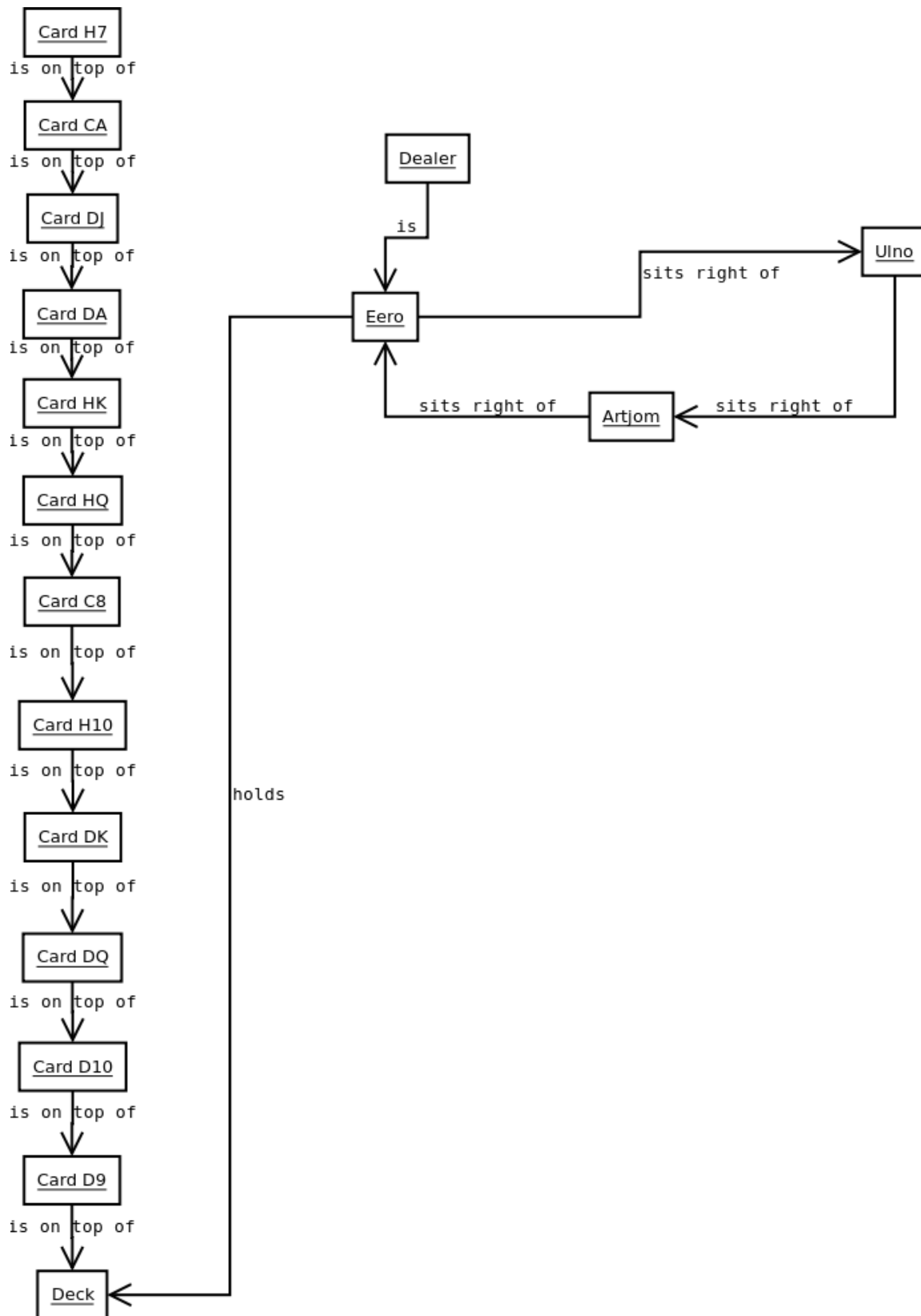
Eero sits right of Ulno, Ulno right of Artjom, and Artjom right of Eero. They play Mau Mau.

## User stories

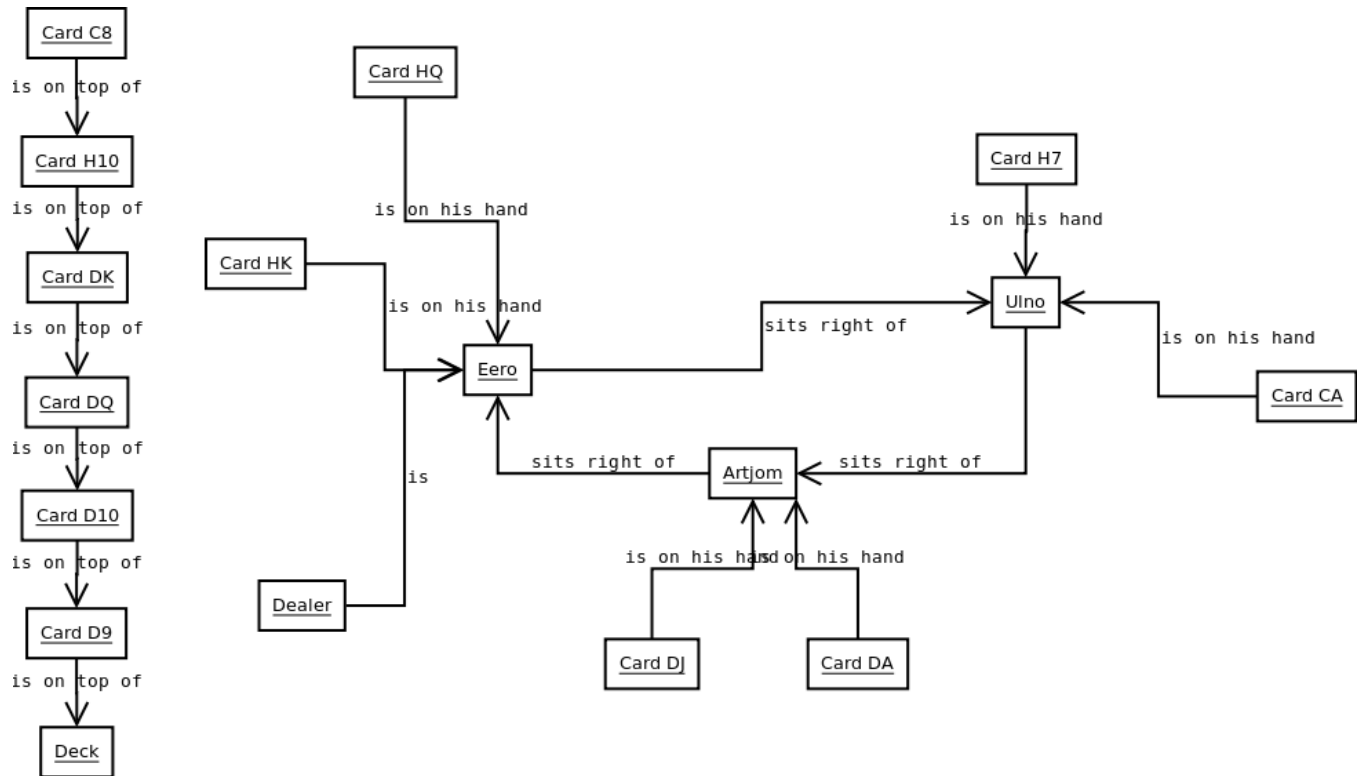
**Given user story 1:**

Title	Eero deals one round of two cards each for Eero, Ulno, and Artjom
Precondition	Top of deck is DK, HK, HQ, HJ, DJ, DA, H10, CA, HA, H7, C7, C8 (DK is top card); Eero holds deck; Eero is dealer.
Action	Eero takes the top two cards and gives them to Ulno, the next two to Artjom, the next two to himself. Each player takes the given cards on their hands.
Postcondition	Eero has now on his hand DJ, DA, Artjom has HQ, HJ, and Ulno has DK, HK. The top of the deck shows H10, CA, HA, H7, C7, C8

Pre-condition object diagram:



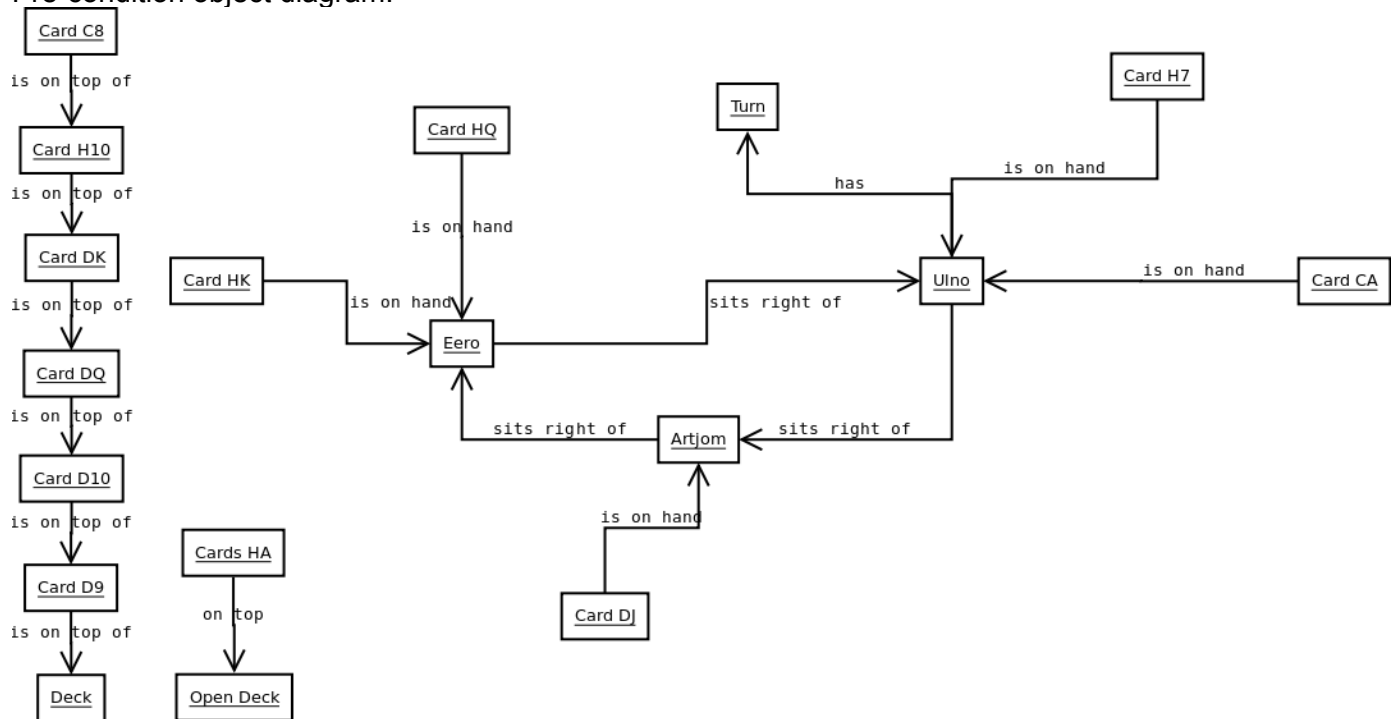
Post-condition object diagram:



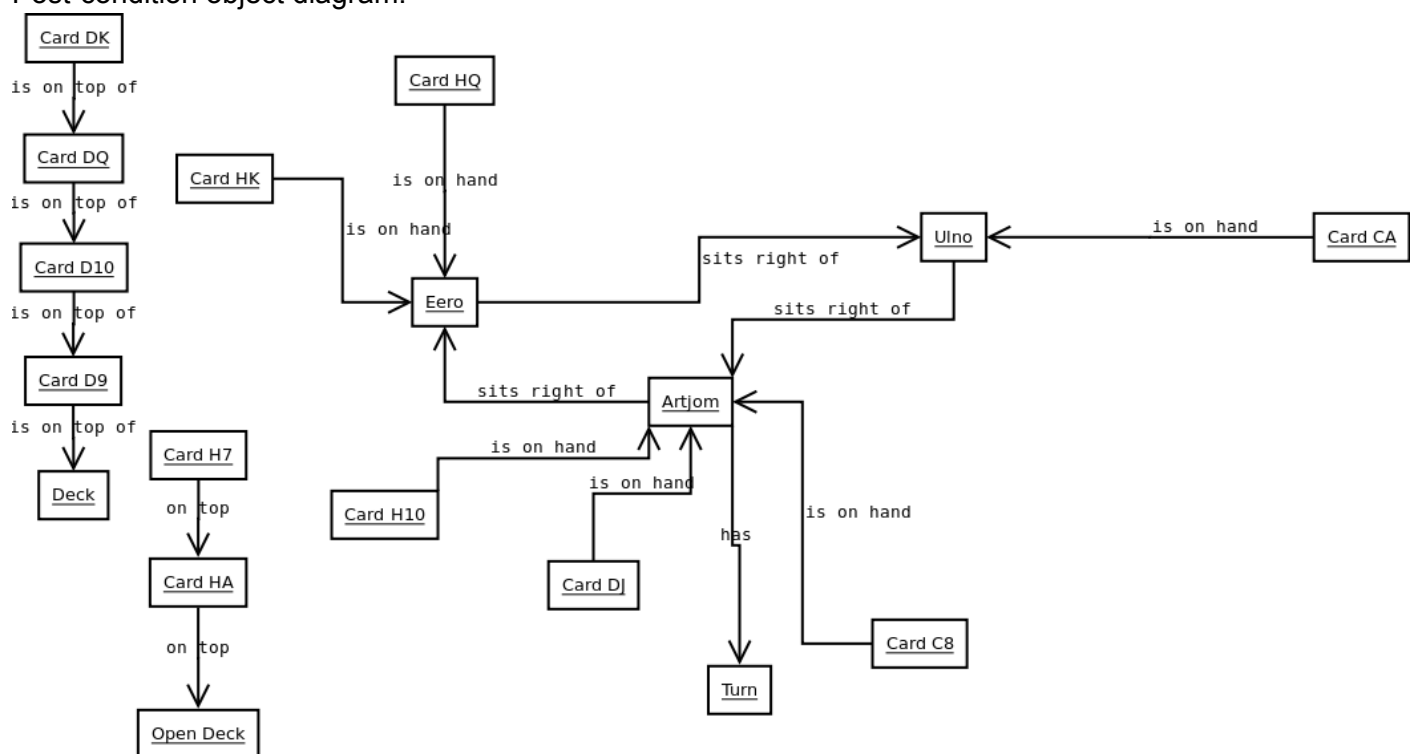
## Given user story 2:

Title	Ulno plays a seven forcing Artjom to draw two cards
Precondition	Eero has on his hand HK, HQ, Artjom has DJ, and Ulno has H7, CA. The top of the deck shows C8, H10, DK (C8 is top card). The top of the open deck has all the other cards, topmost card is HA. It is Ulno's turn.
Action	Ulno plays H7 from his hand to the table and therefore Artjom is forced to draw two cards from the deck. He draws C8 and H10 from the top of the deck.
Postcondition	Eero has now on his hand HK, HQ, Artjom has DJ, C8, H10, and Ulno has CA. The top of the deck shows DK, DQ, D10, D9 (DK is top card). On the top of the open deck are now all the cards, HA, H7. H7 is the top-most card of the open deck. It is now Artjom's turn."

Pre-condition object diagram:



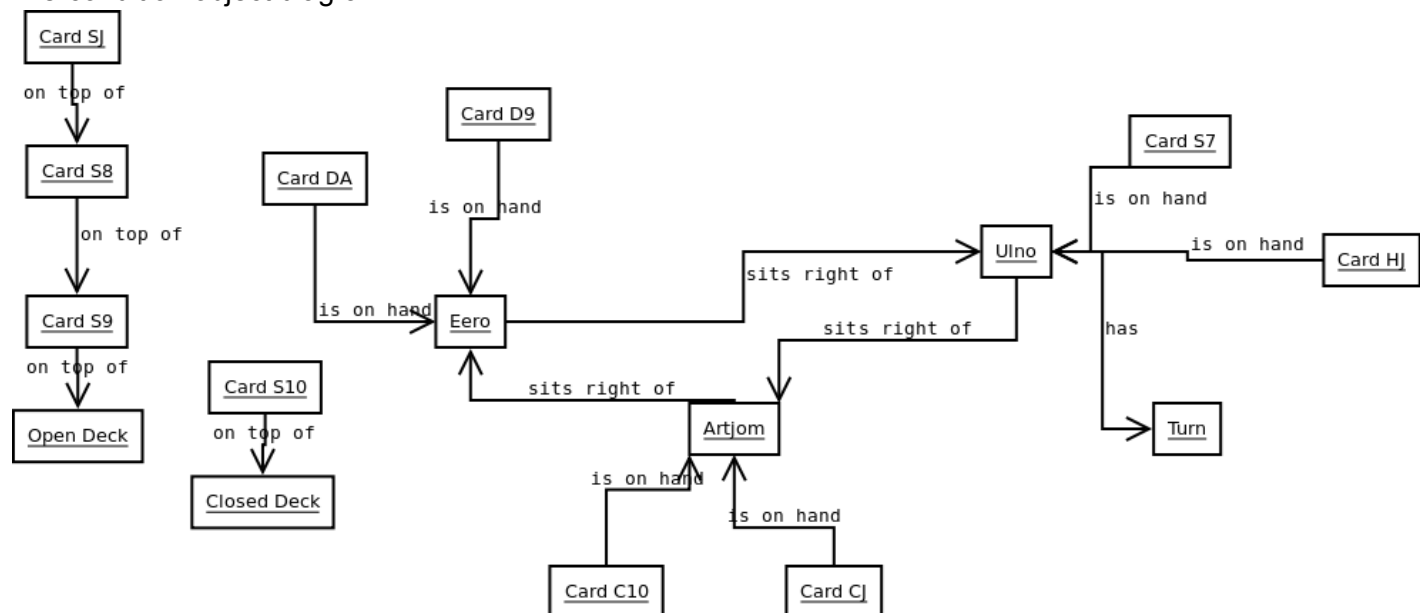
Post-condition object diagram:



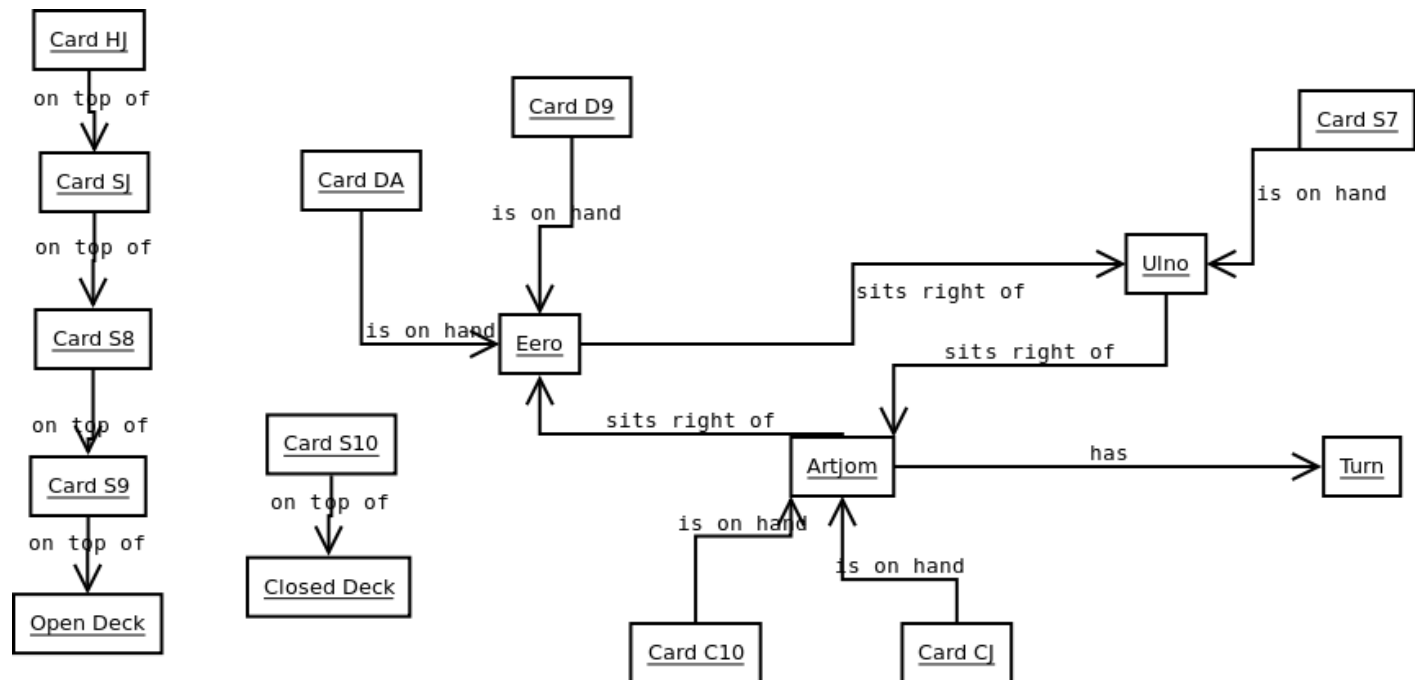
### User story 3:

Title	Ulno plays Jack and chooses suit
Precondition	Ulno has HJ, S7. Artjom has C10, CJ. Eero has DA, D9. It is Ulno's turn to play. From top to bottom in the open deck are cards SJ, S8, S9. The topmost card of the closed deck is S10. The rest of the cards lie in closed deck. Only card Ulno can play is HJ.
Action	Ulno has two options to play: either HJ or S7. Ulno plays HJ, thus changing the suit from spades to hearts. If he would have played S7, he would have chosen to continue with spades.
Postcondition	Ulno now has only S7. Artjom has C10, CJ. Eero has DA and D9. It is now Artjom's turn to play. The top of the open deck shows HJ, SJ, S8, S9. Only card Artjom can play is CJ. The topmost card of the closed deck is S10.

Pre-condition object diagram:



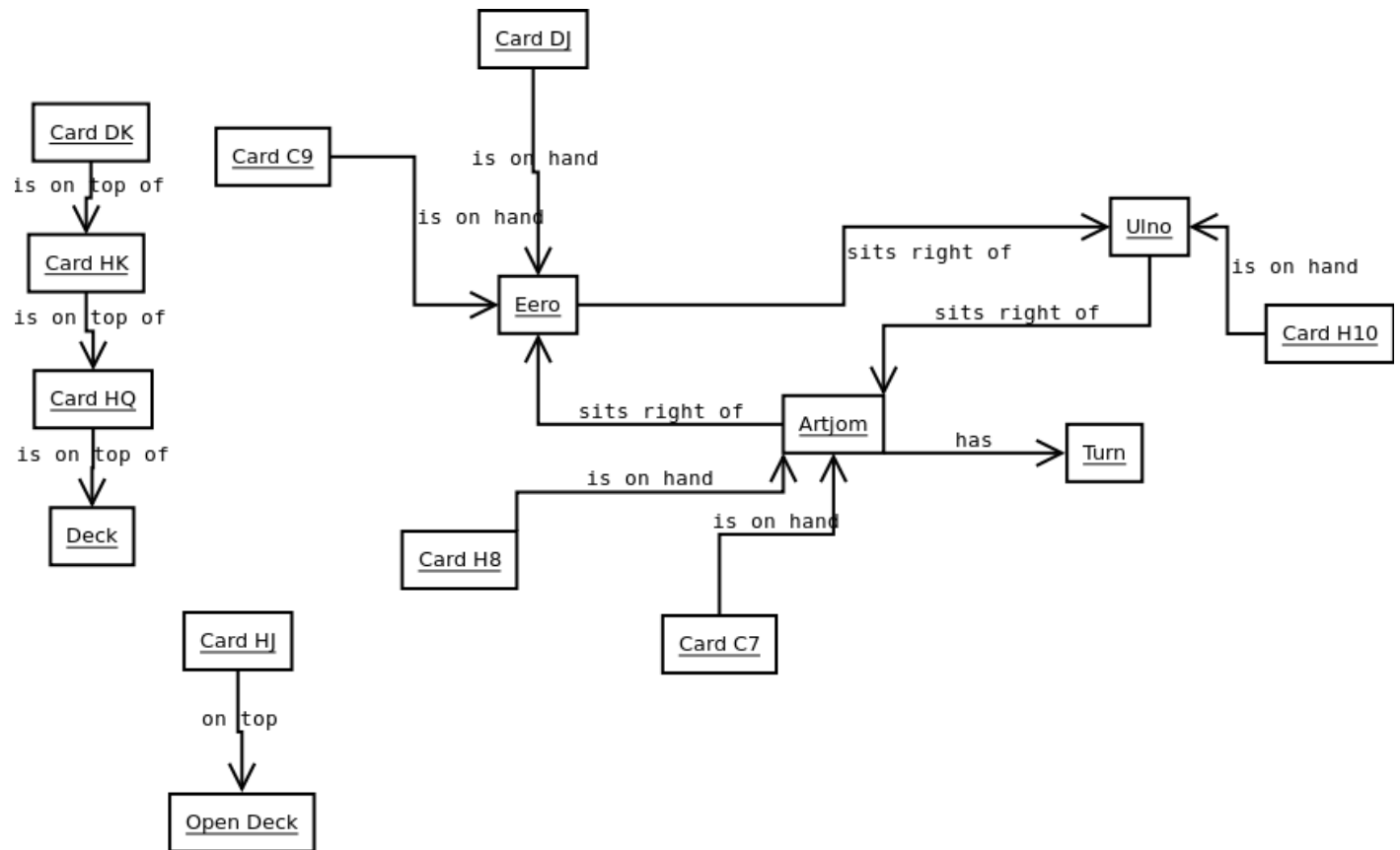
Post-condition diagram:



#### User story 4:

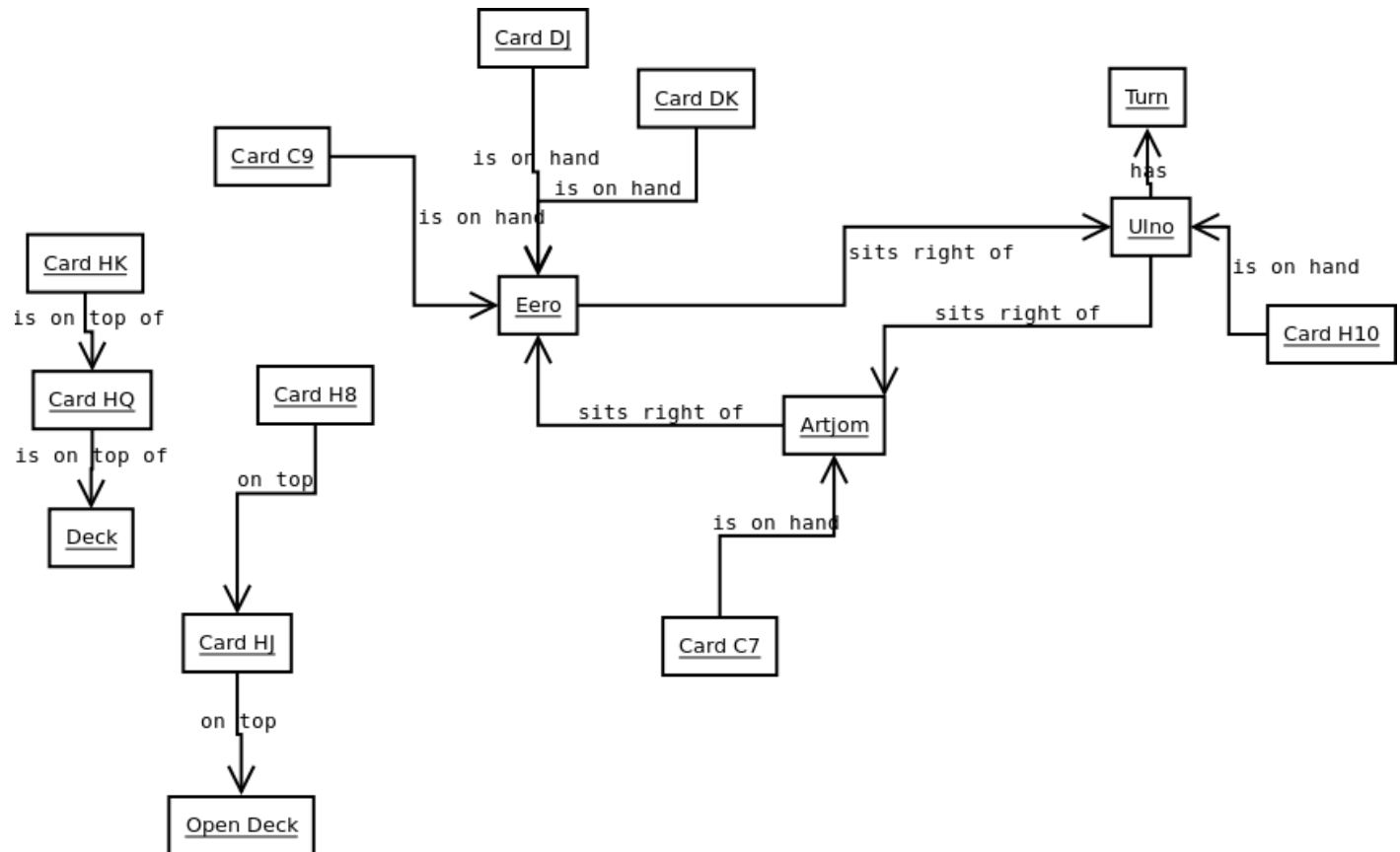
Title	Artjom plays an 8 and Eero skips a turn
Precondition	Artjom has an H8 and C7. Eero has C9 and DJ and Ulno has H10. Top of the deck is DK, HK, HQ, with DK on the top. It's Arjom's turn. Top of the open deck is HJ.
Action	Artjom plays H8 forcing Eero to skips his turn. Eero skips his turn.
Postcondition	Eero skiped a turn and it's Ulno's turn. Eero has C9 and DJ on his hand. Artjom has C7 and Ulno has H10. Top of the deck is DK, HK, HQ and top of the open deck is H8 and HJ, with H8 on the top.

Pre:



Post:





## Object diagrams

Notice: Given with the user stories above.

Object diagram for precondition of Ulno plays Jack and choses suit:

Object diagram for postcondition of Ulno plays Jack and choses suit:

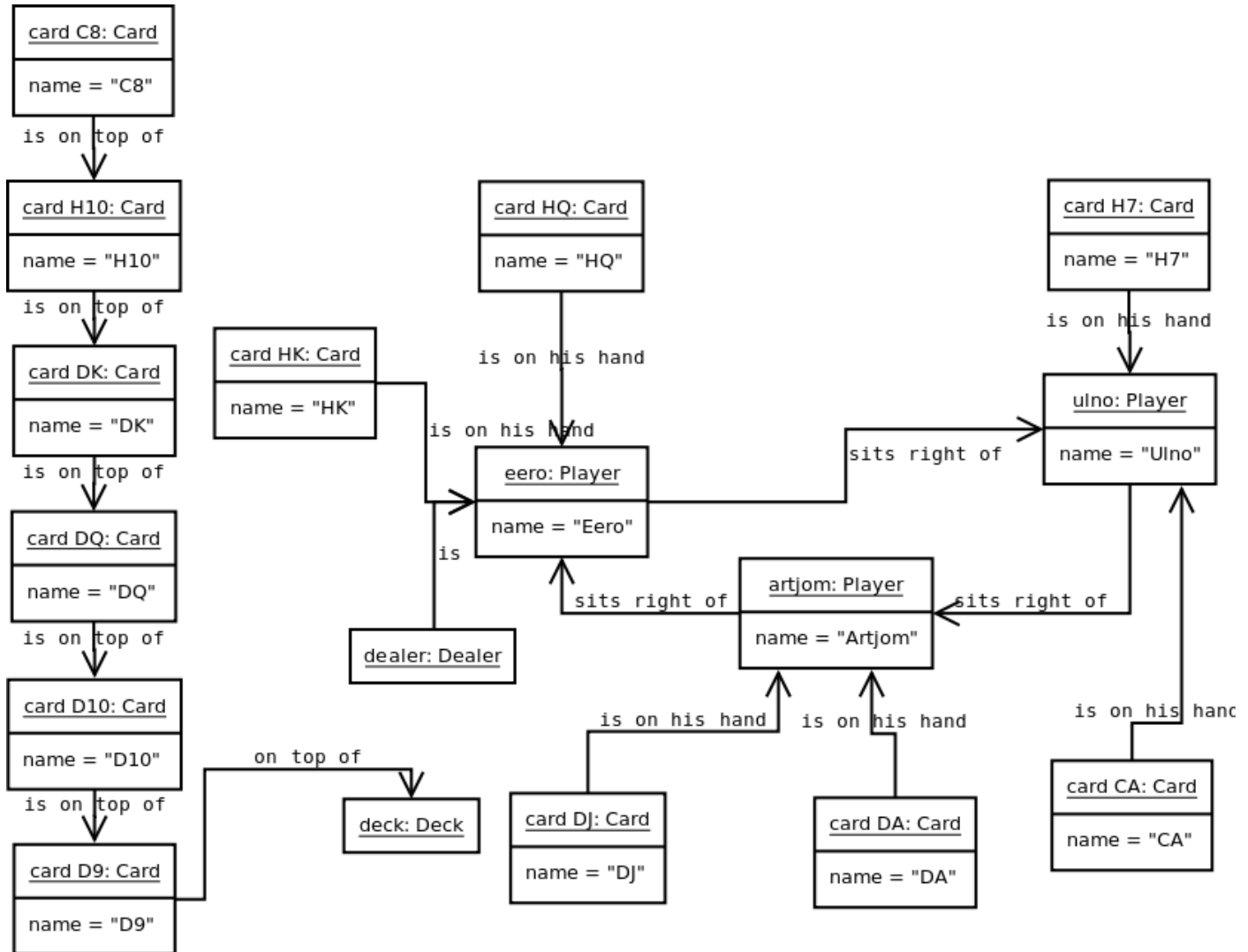
Object diagram for precondition of Artjom plays an 8 and Eero skips a turn:

Object diagram for postcondition of Artjom plays an 8 and Eero skips a turn:

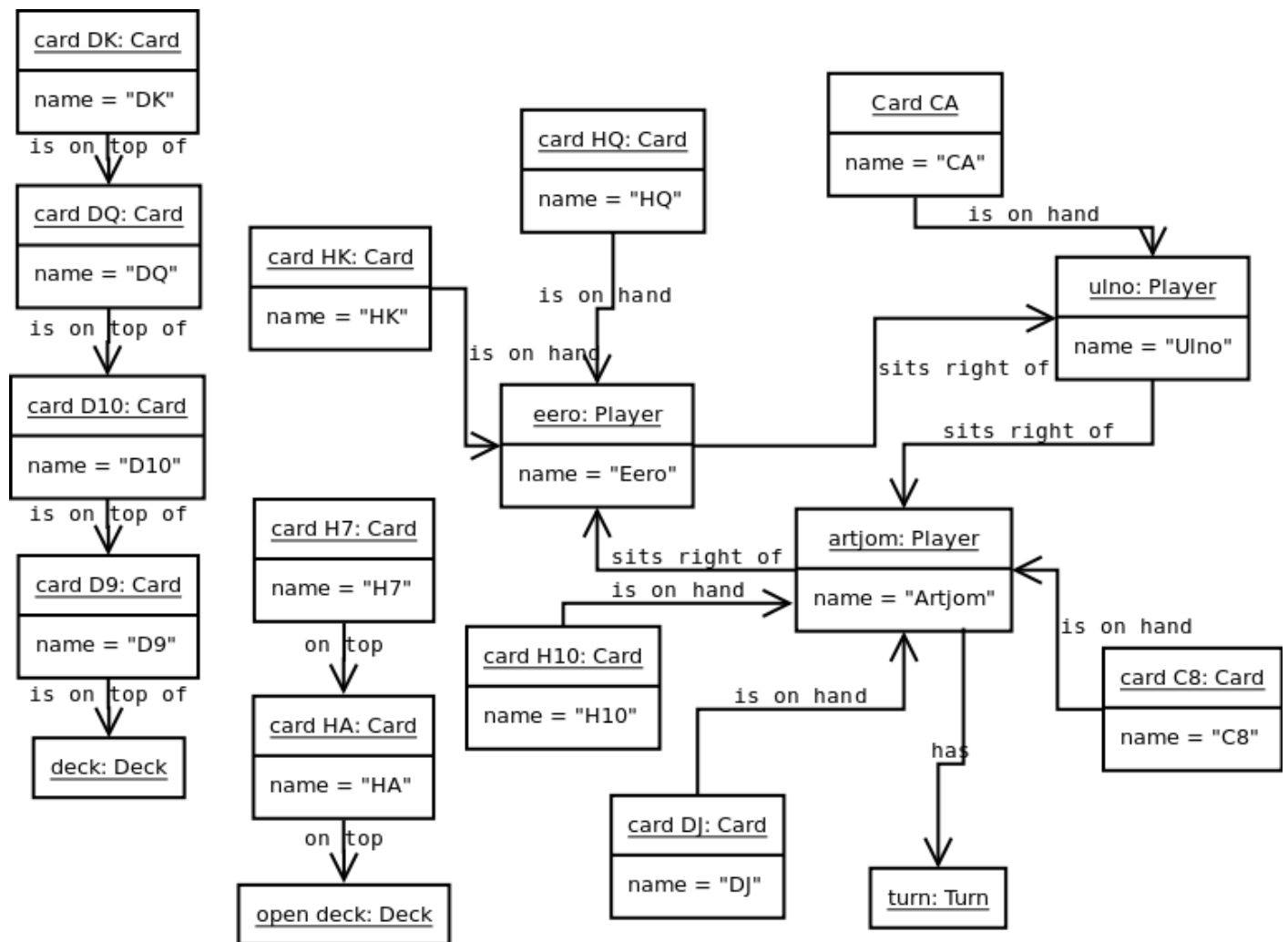
## 4 Object diagrams with class labels and adapted

## attributes (post conditions of each user story)

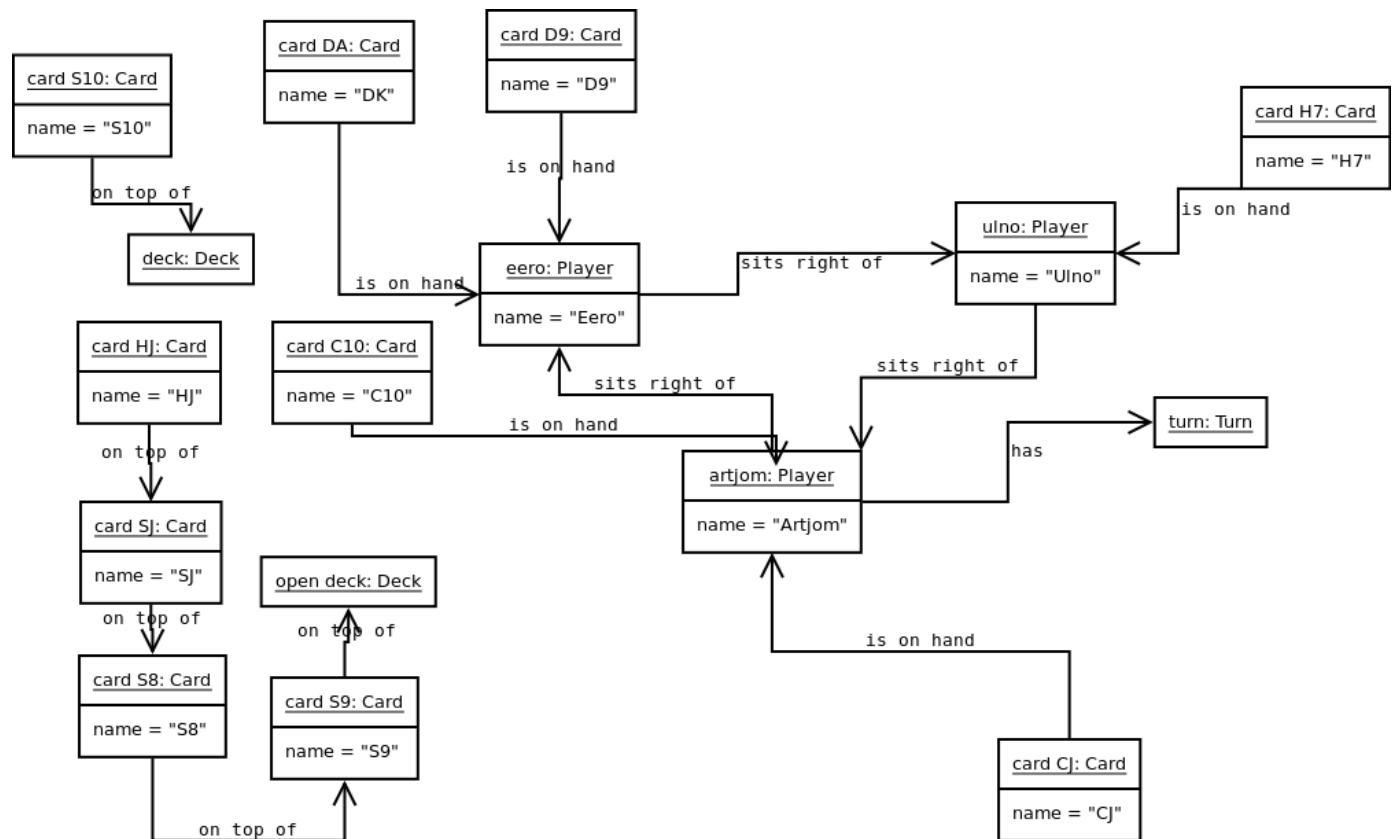
Eero deals one round of two cards each for Eero, Ulno, and Artjom



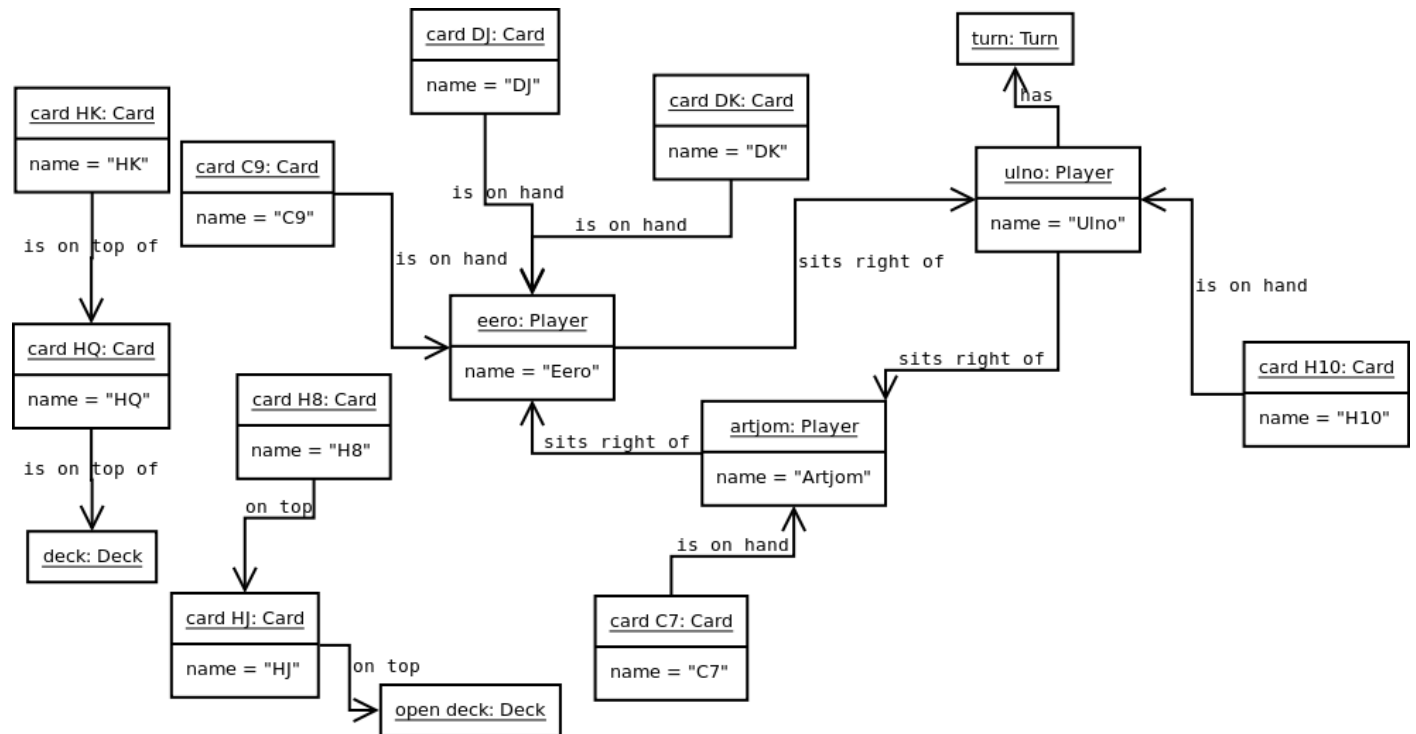
Ulno plays a seven forcing Artjom to draw two cards



**UIno plays Jack and choses suit**



**Artjom plays an 8 and Eero skips a turn**



## Class diagram in Fujaba

All the following are held in GIT repository located at <http://github.com/hyyrynen/mancala>

**Eero deals one round of two cards each for Eero, Ulno, and Artjom**

**Ulno plays a seven forcing Artjom to draw two cards**

**Ulno plays Jack and choses suit**

**Artjom plays an 8 and Eero skips a turn**

## Git-repository

<http://github.com/hyyrynen/mancala>

### Bonus

**Screenshots of conditions of previous exercise in eDobs (1pt)**

**In repository**