



POLITECNICO
DI MILANO

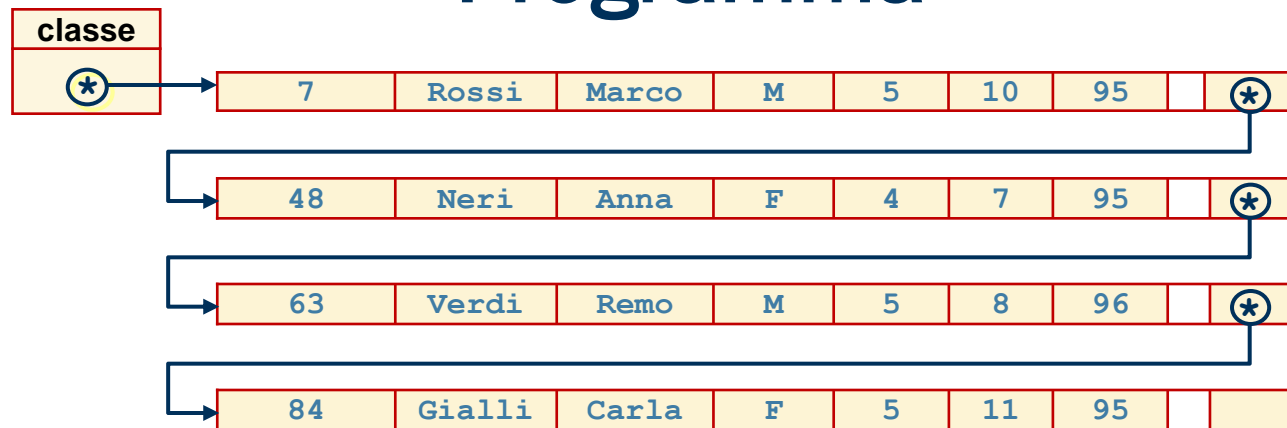
INFORMATICA

Il testing del programma
di gestione tabellare

classe							
num	elenco						
4	0	matricola	cognome	nome	sexso	dataNascita	
						giorno	meze
						anno	
	1	7	Rossi	Marco	M	5	10
	2	48	Neri	Anna	F	4	7
	3	63	Verdi	Remo	M	5	8
	4	84	Gialli	Carla	F	5	11



Programma

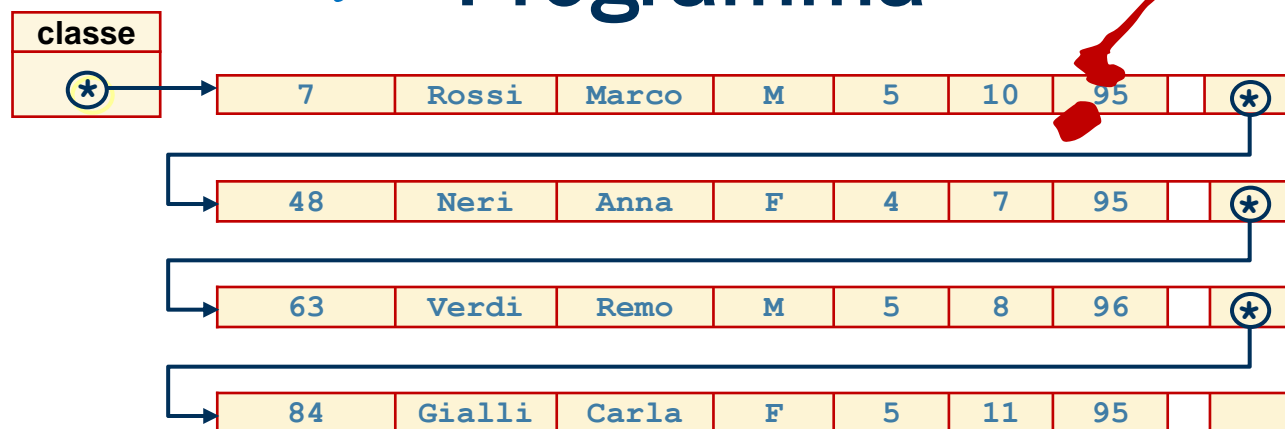


Dimostrazione formale

Test
*di tutti i
diversi casi*



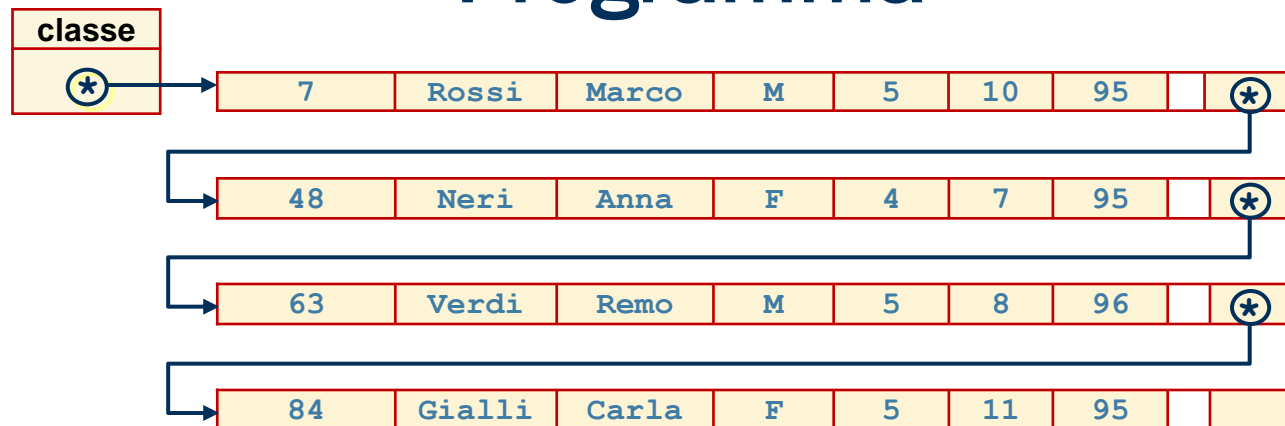
Programma

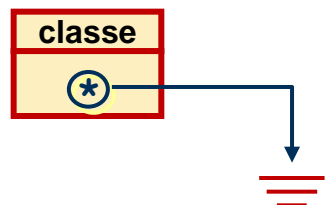


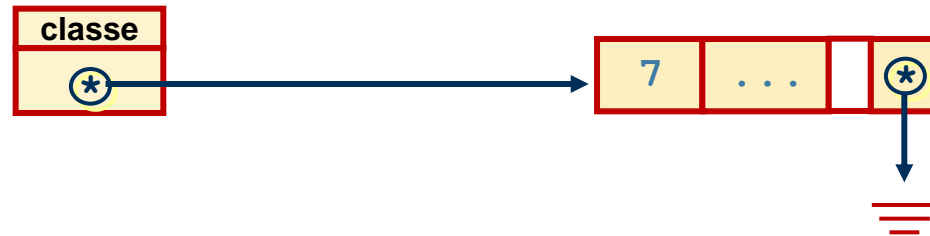
Test
di tutte
le funzionalità



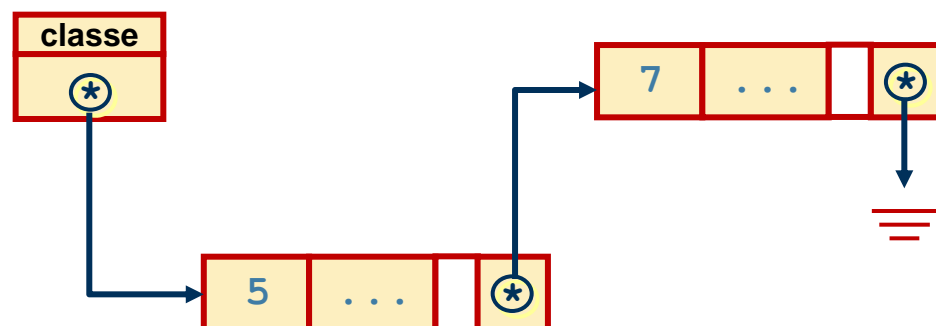
Programma



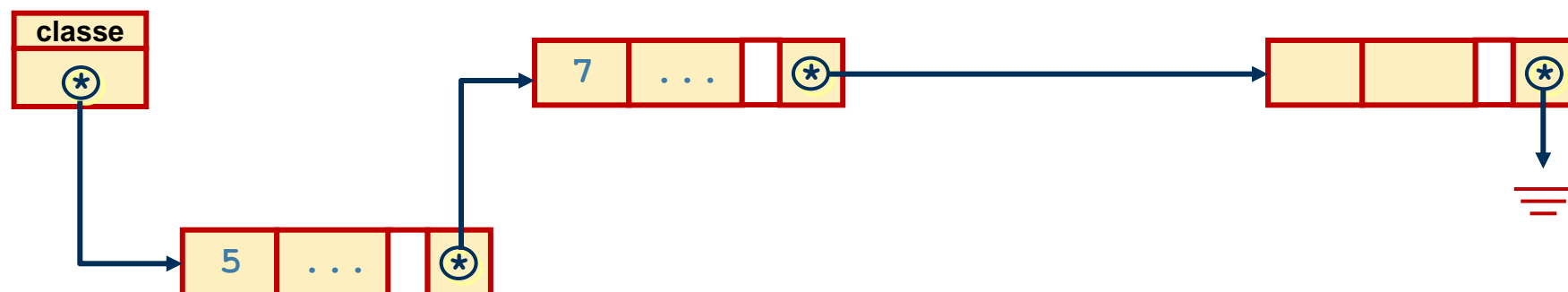




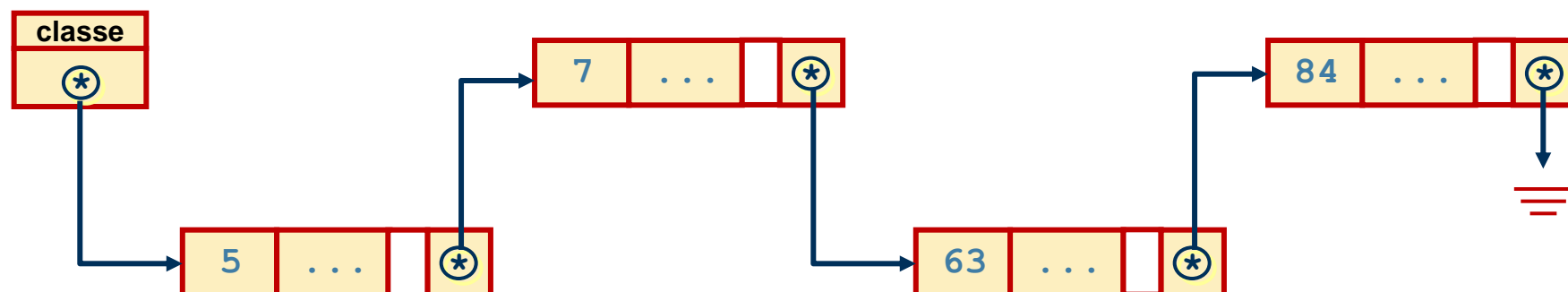
- Inserimento di un elemento in una tabella vuota



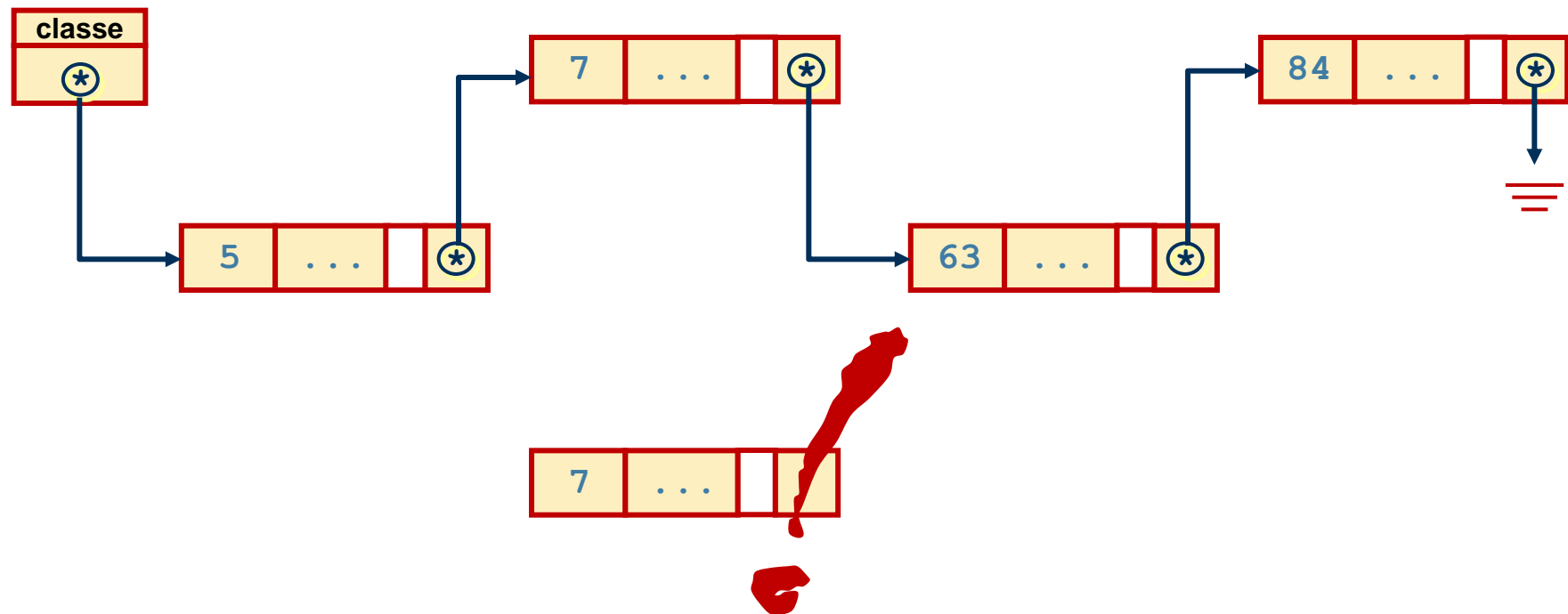
- Inserimento di un primo elemento in una tabella non vuota



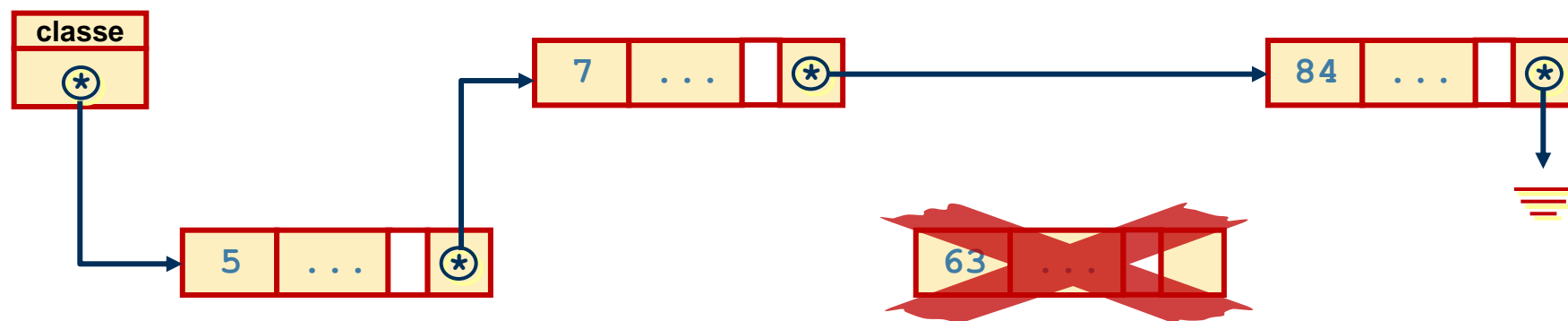
- Inserimento di uno studente nella tabella, come ultimo elemento



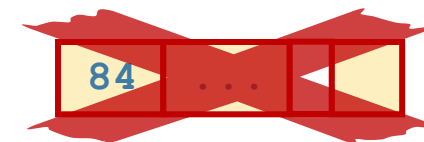
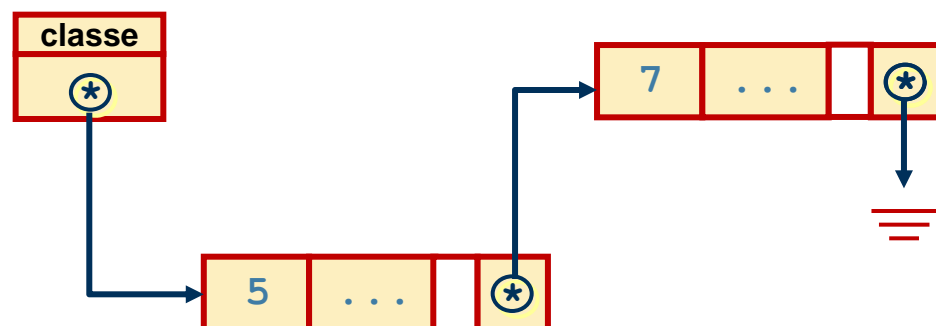
- Inserimento di uno studente nella tabella, in posizione intermedia



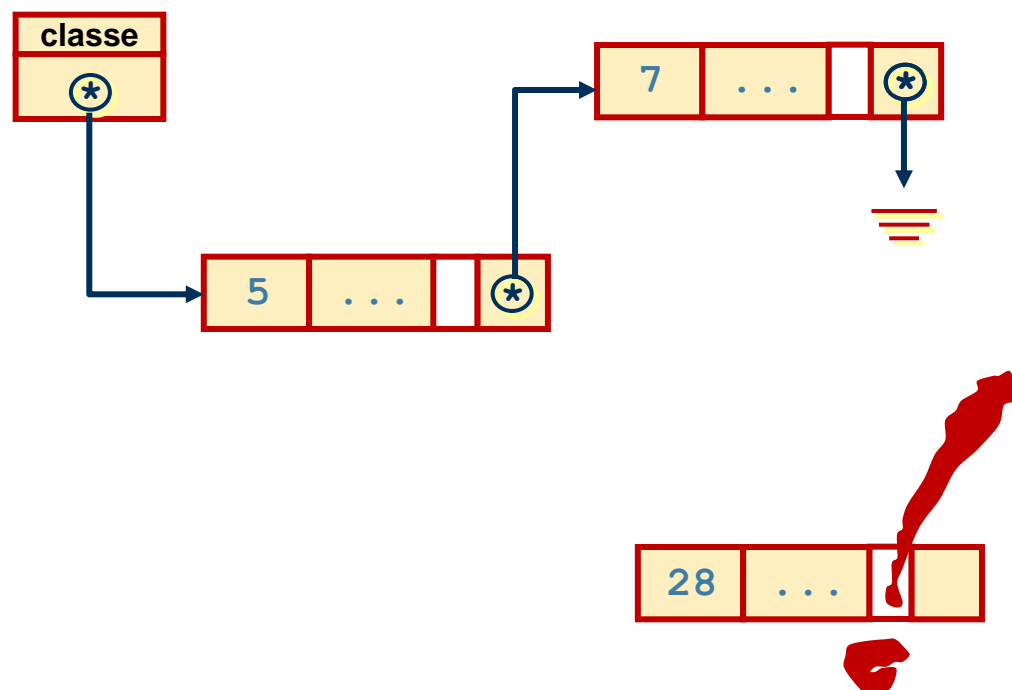
- Inserimento di un elemento già esistente



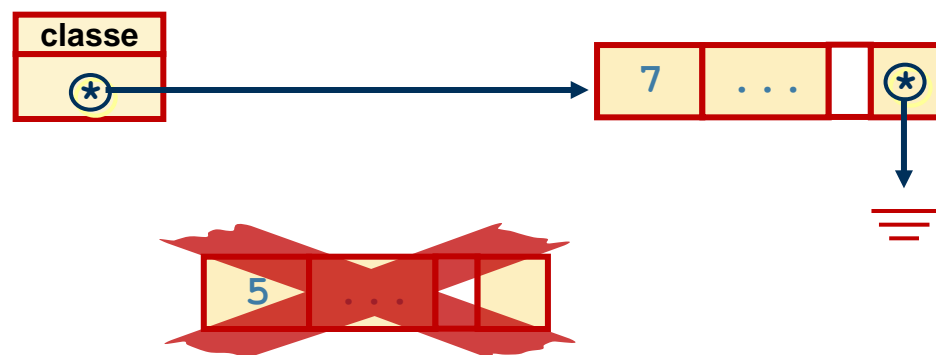
- Eliminazione di un elemento in posizione intermedia



- Eliminazione di un elemento in coda alla tabella



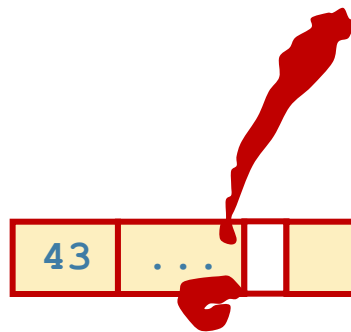
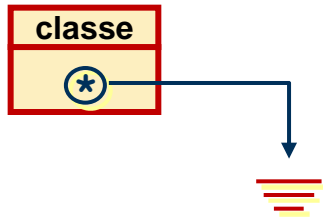
- Eliminazione di un elemento inesistente



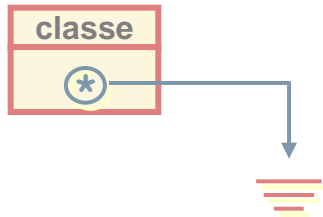
- Eliminazione del primo elemento della tabella



- Eliminazione dell'unico elemento, con risultato di tabella vuota

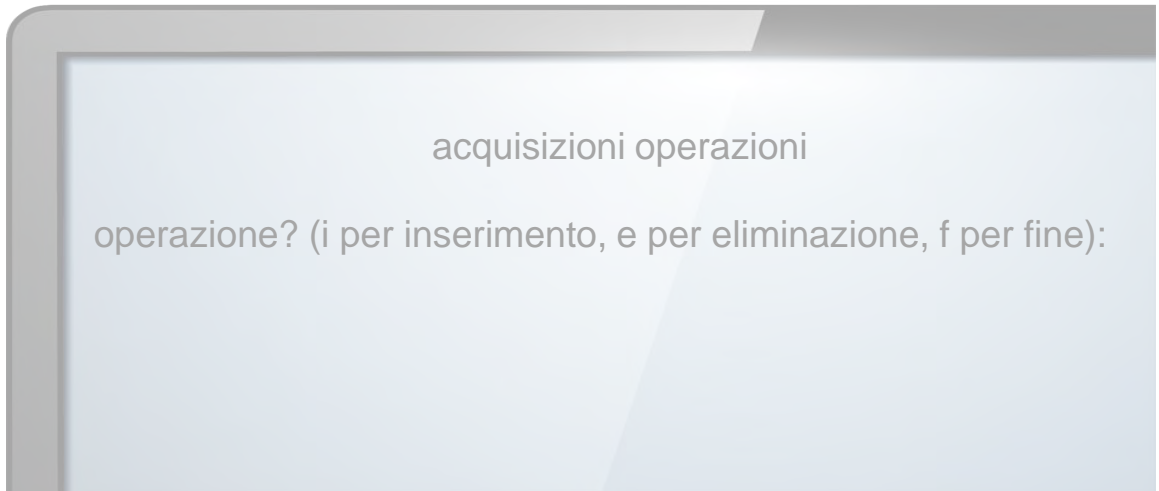


- Eliminazione di un elemento inesistente, con tabella vuota



- Fine

1 • Output



• *new*

• *delete*

2 • Modello ad ambienti

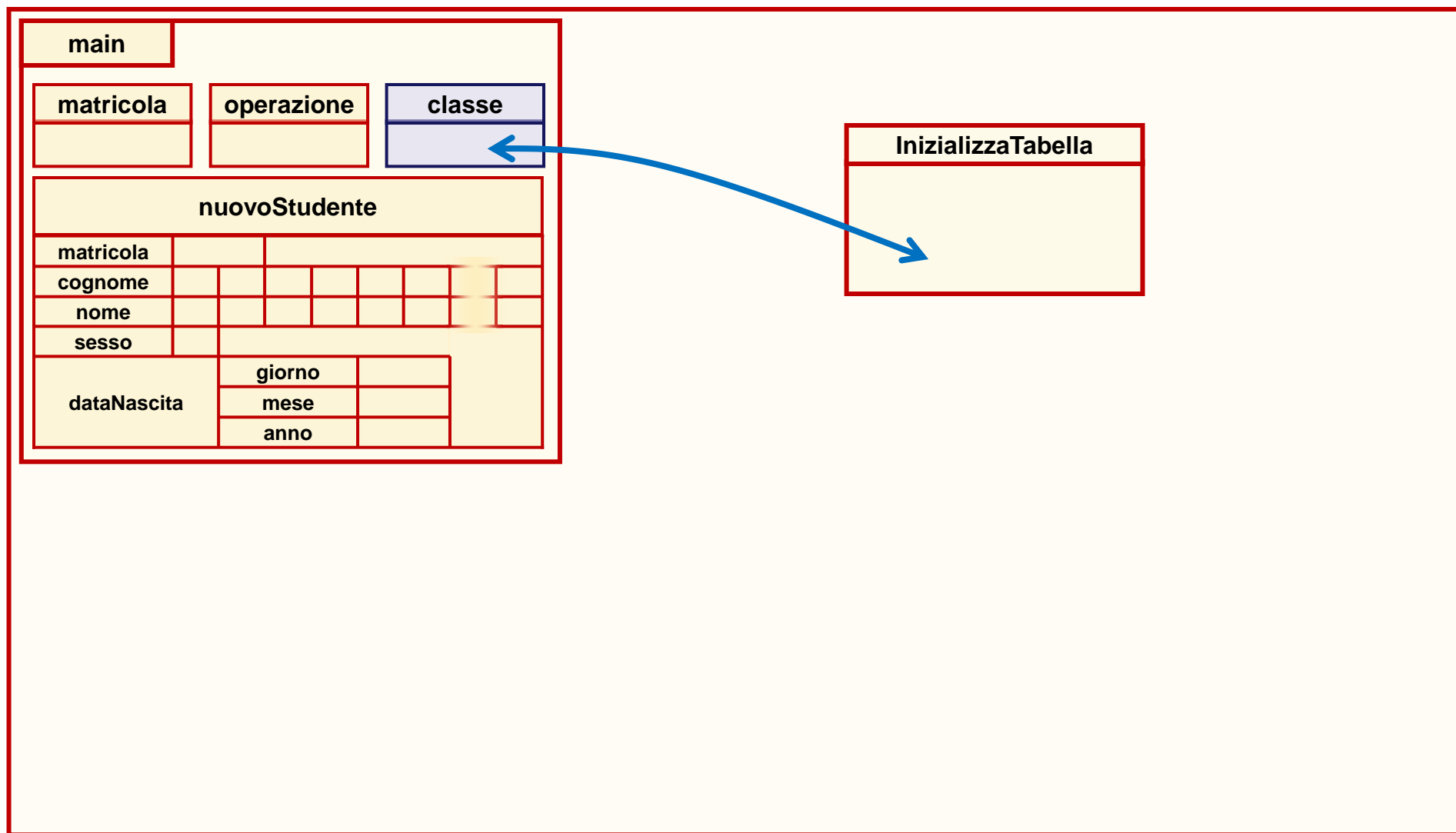
main									
matricola		operazione			classe				
nuovoStudente									
matricola									
cognome									
nome									
sesso									
dataNascita		giorno							
		mese							
		anno							

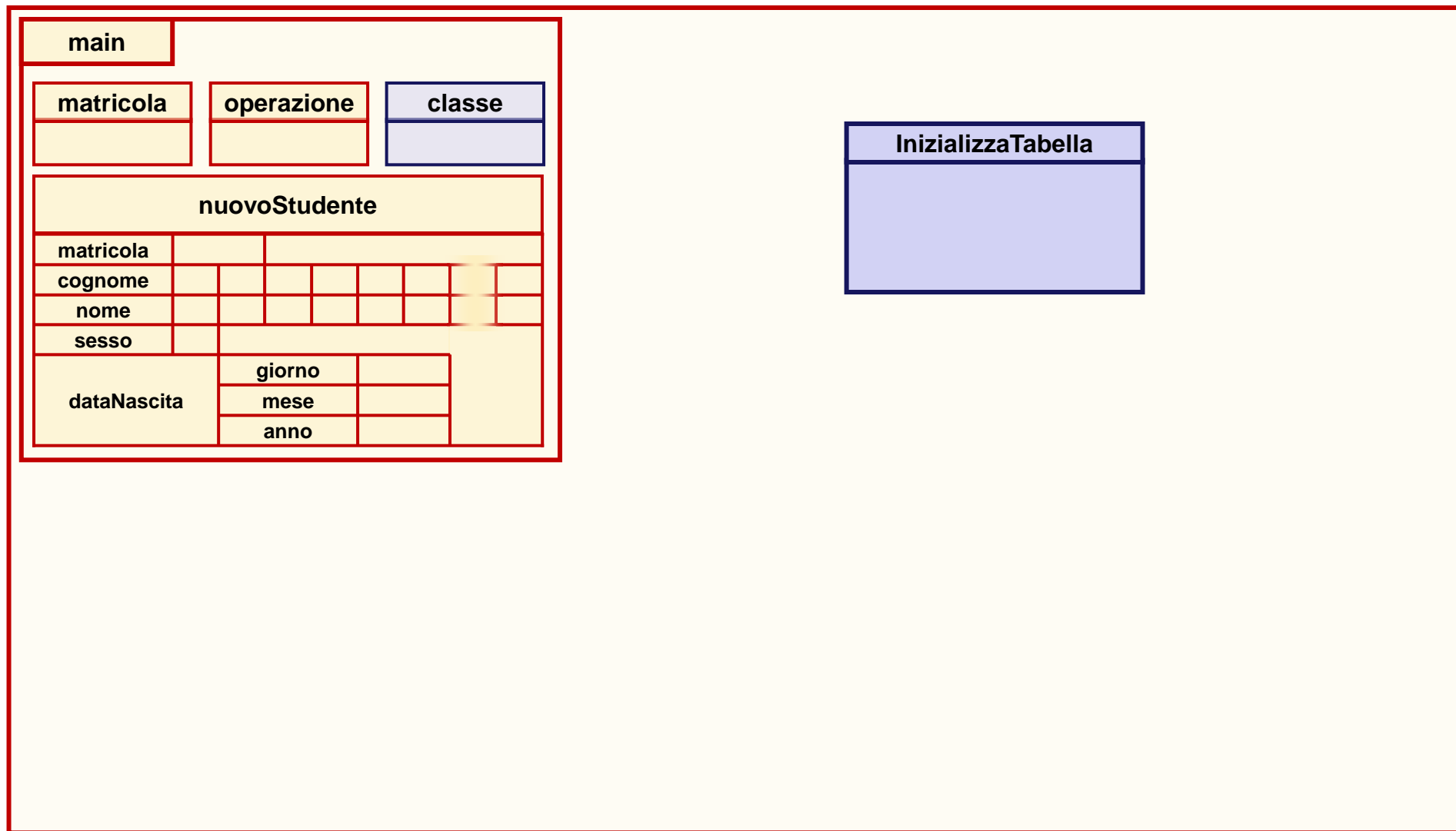
inserisciSeNonEsiste									
nuovoStudente									
matricola									
cognome									
nome									
sesso									
dataNascita		giorno							
		mese							
		anno							

cercaSeEsisteEPosizione			
tab		dato	
pos		finito	
esiste			



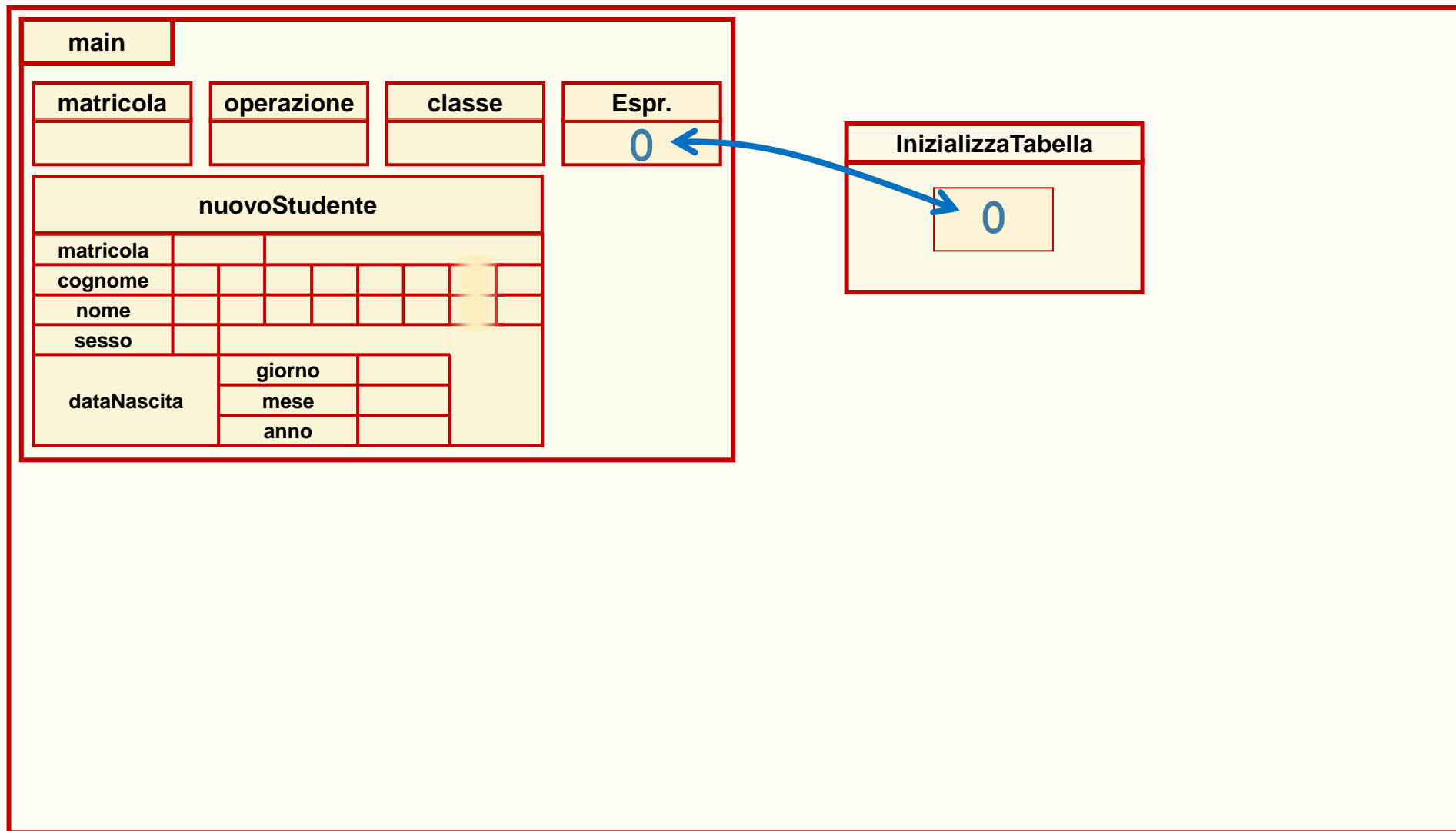
main



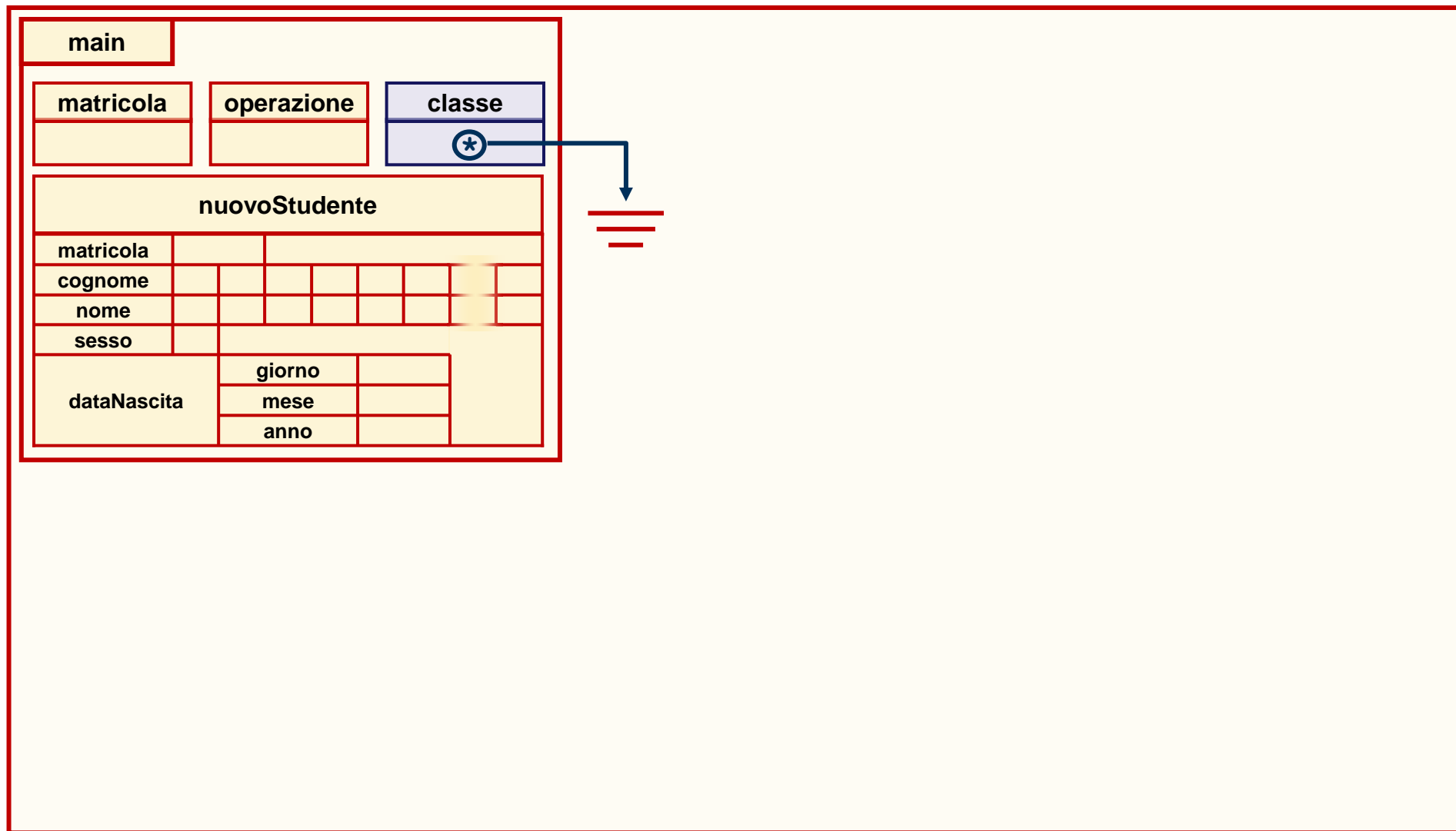


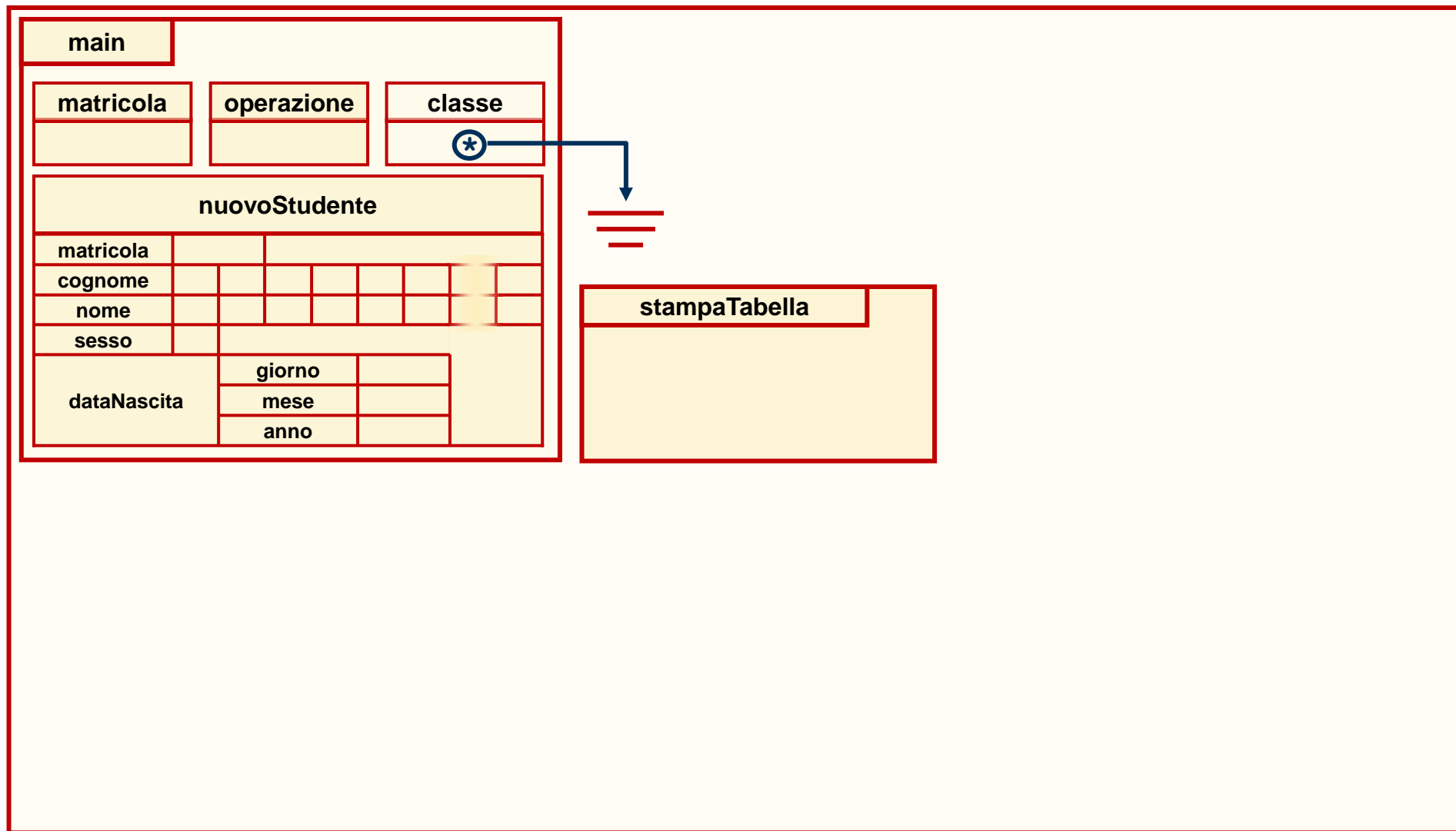
main												
matricola			operazione				classe					
nuovoStudente												
matricola												
cognome												
nome												
sesso												
dataNascita		giorno										
		mese										
		anno										

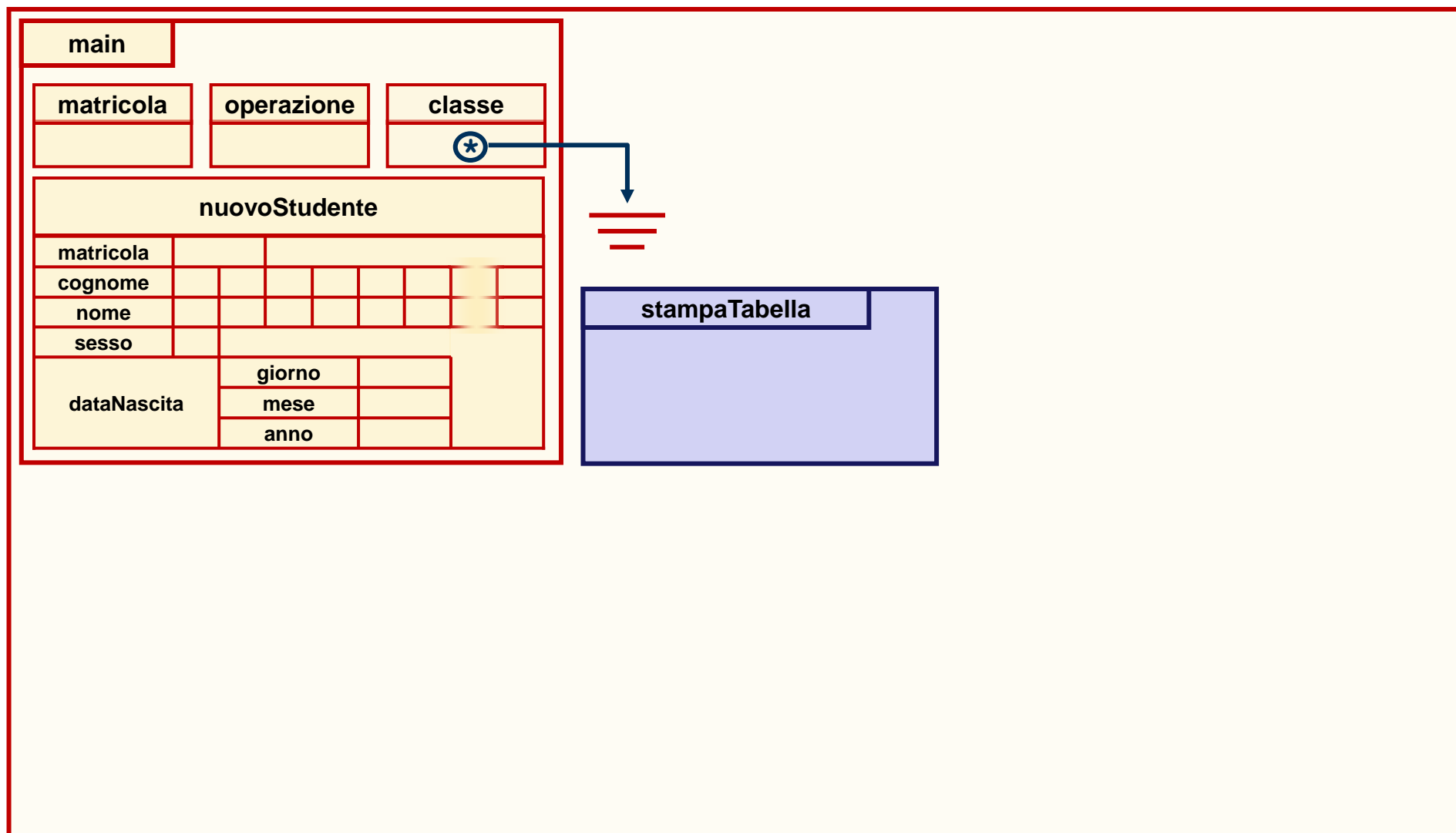
InizializzaTabella	
0	

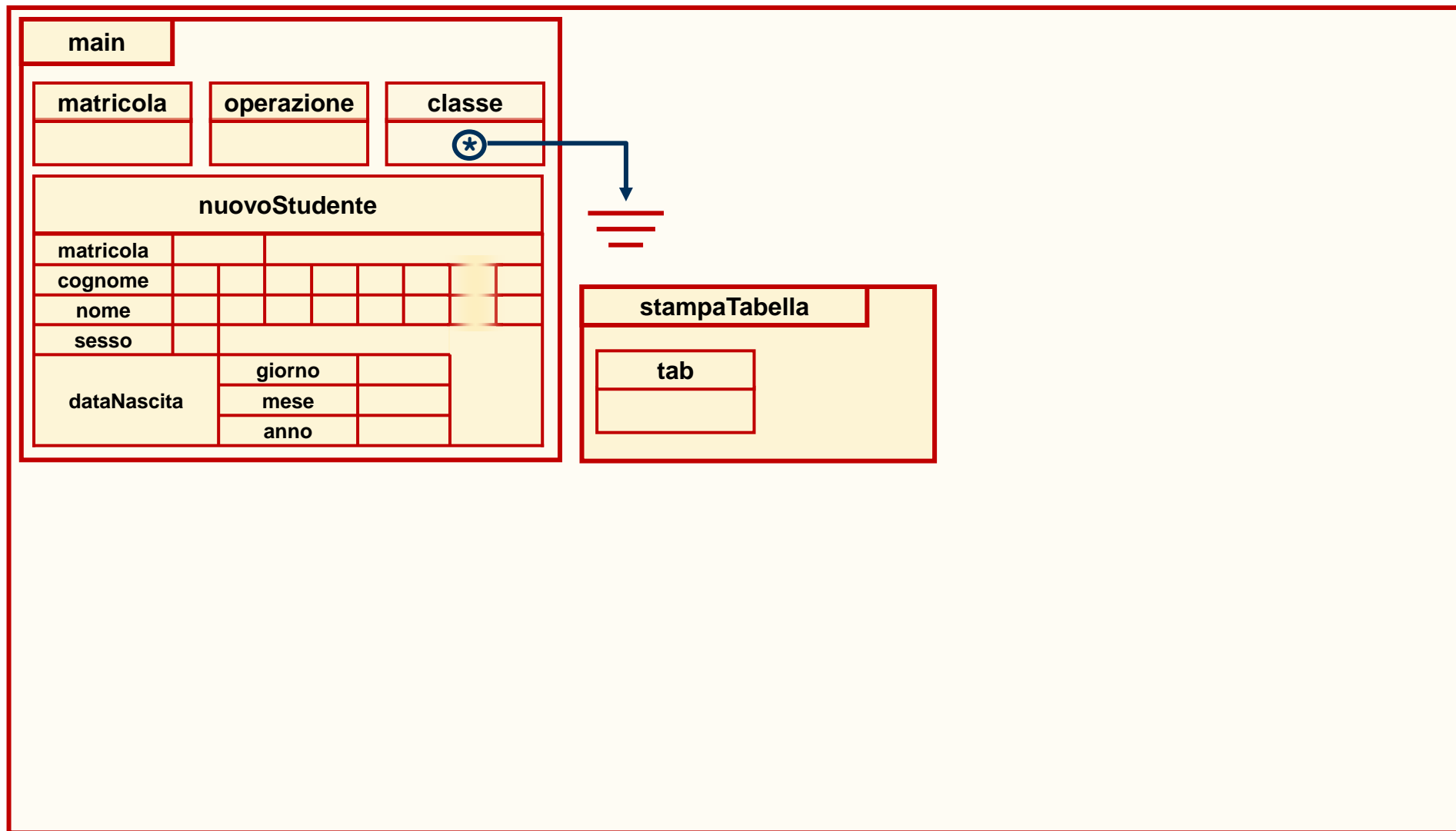


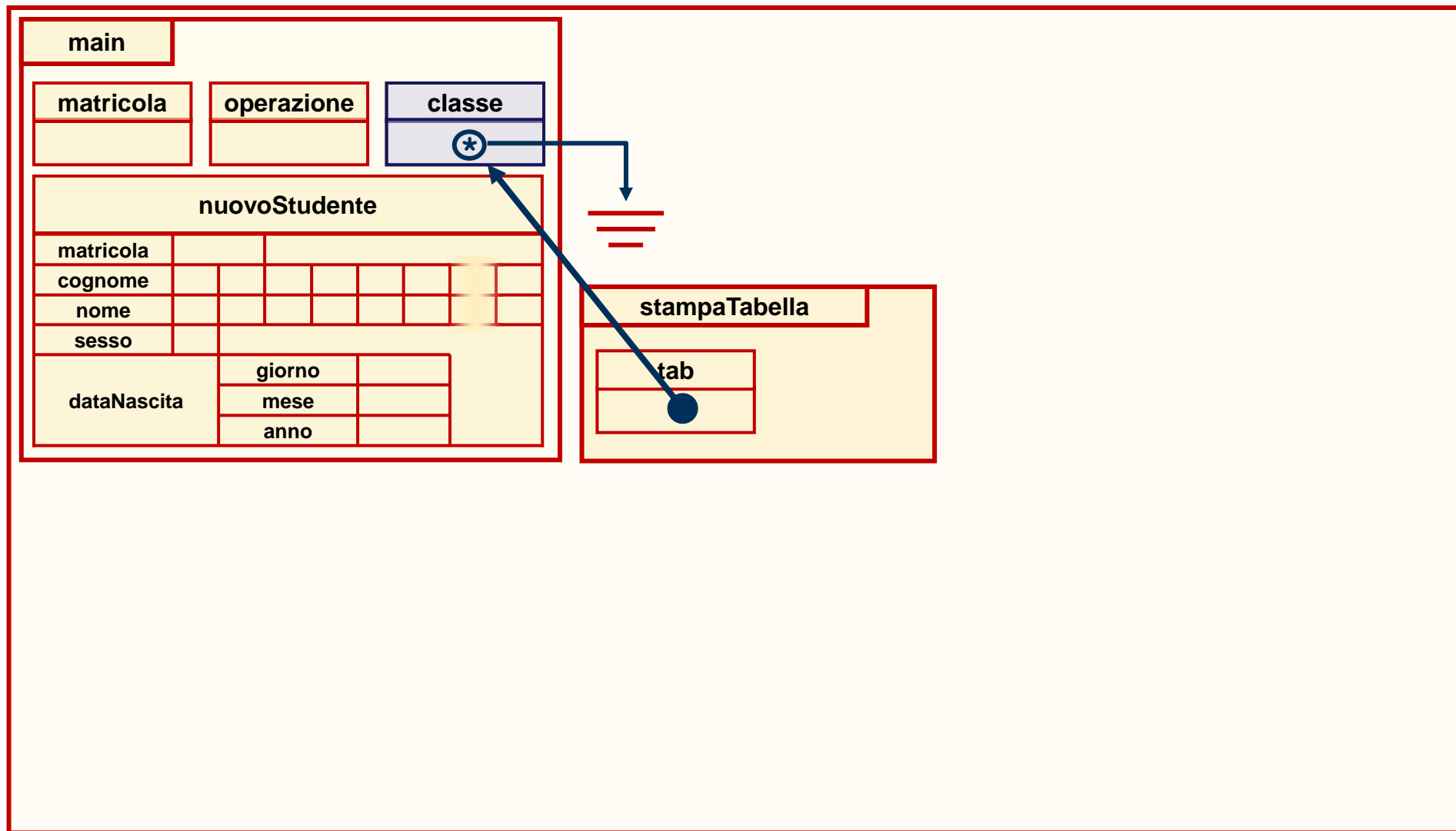
main												
matricola		operazione			classe			Espr.				
					0			0				
nuovoStudente												
matricola												
cognome												
nome												
sesso												
dataNascita		giorno										
		mese										
		anno										











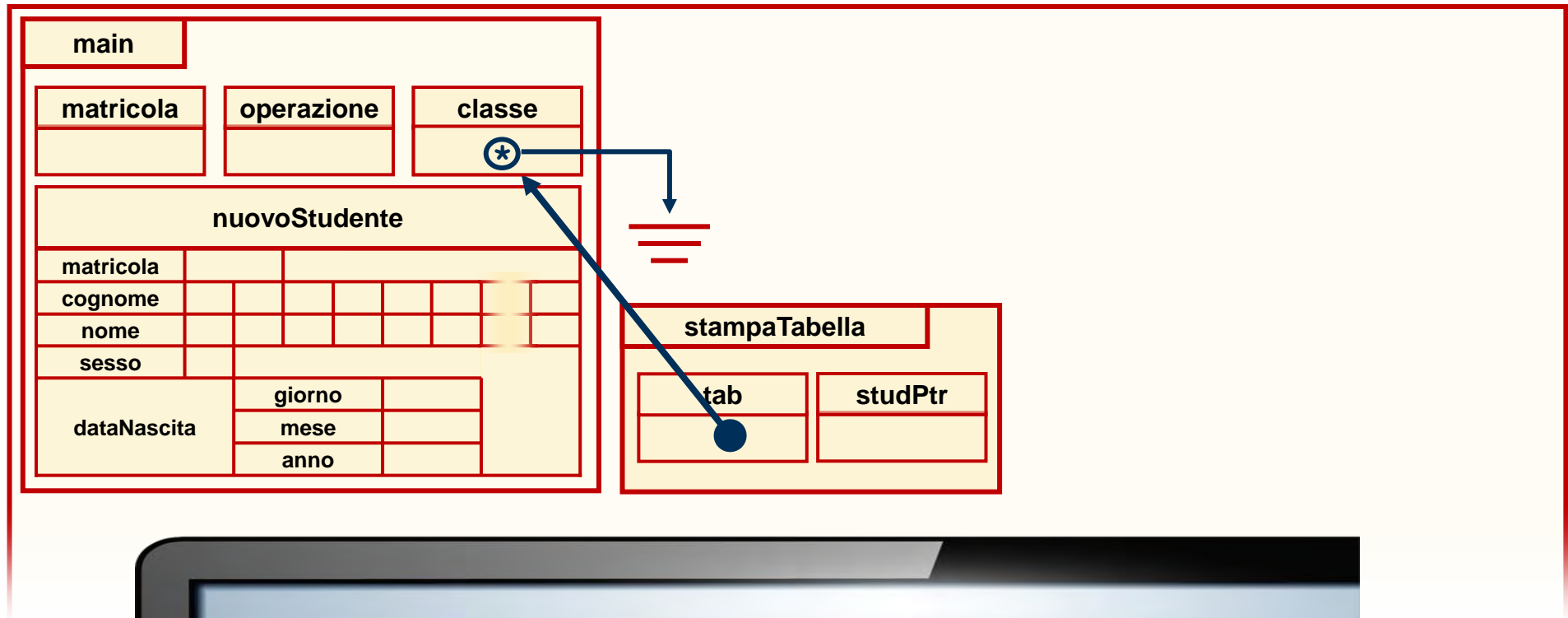
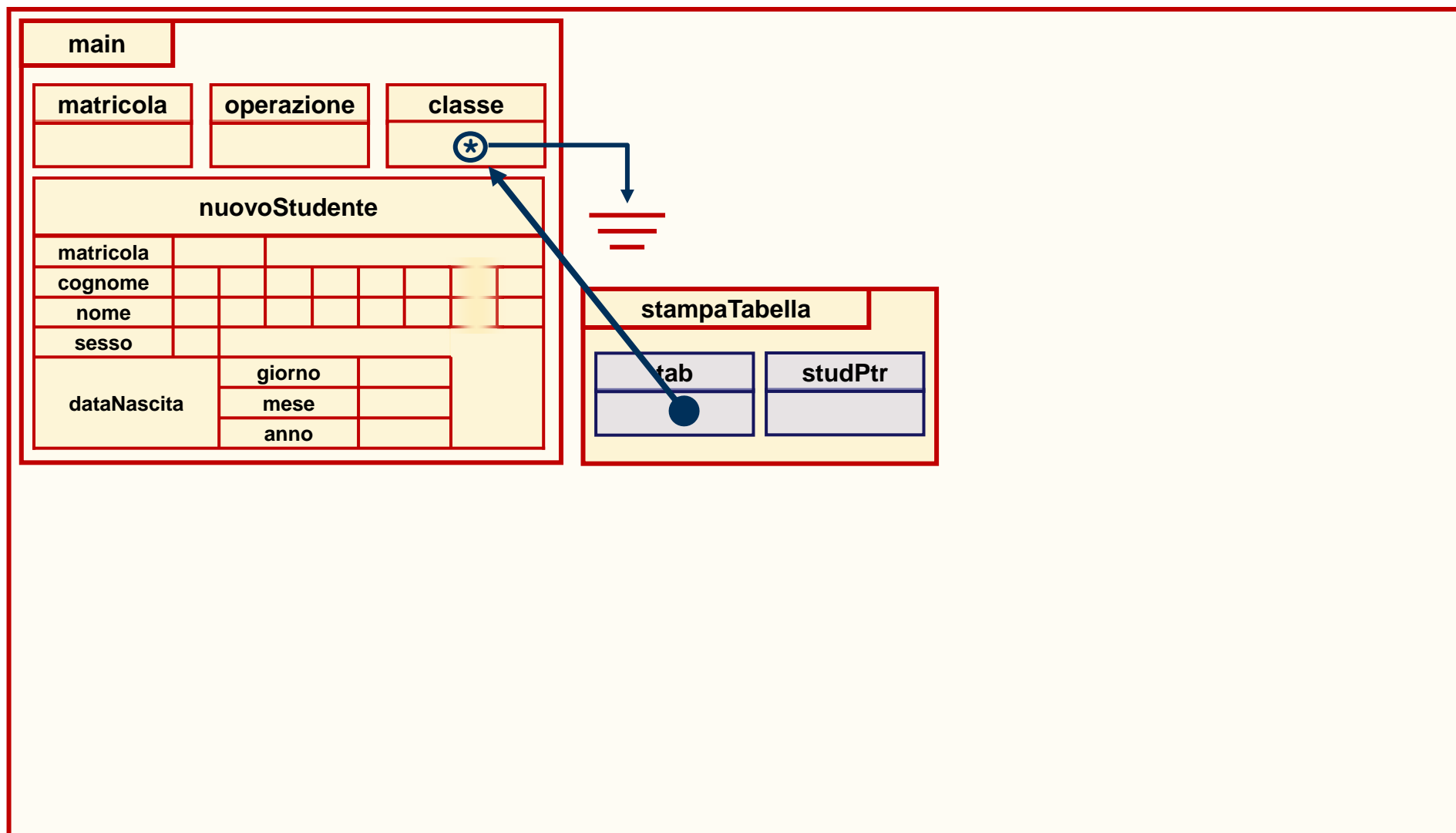


tabella con il solo campo chiave



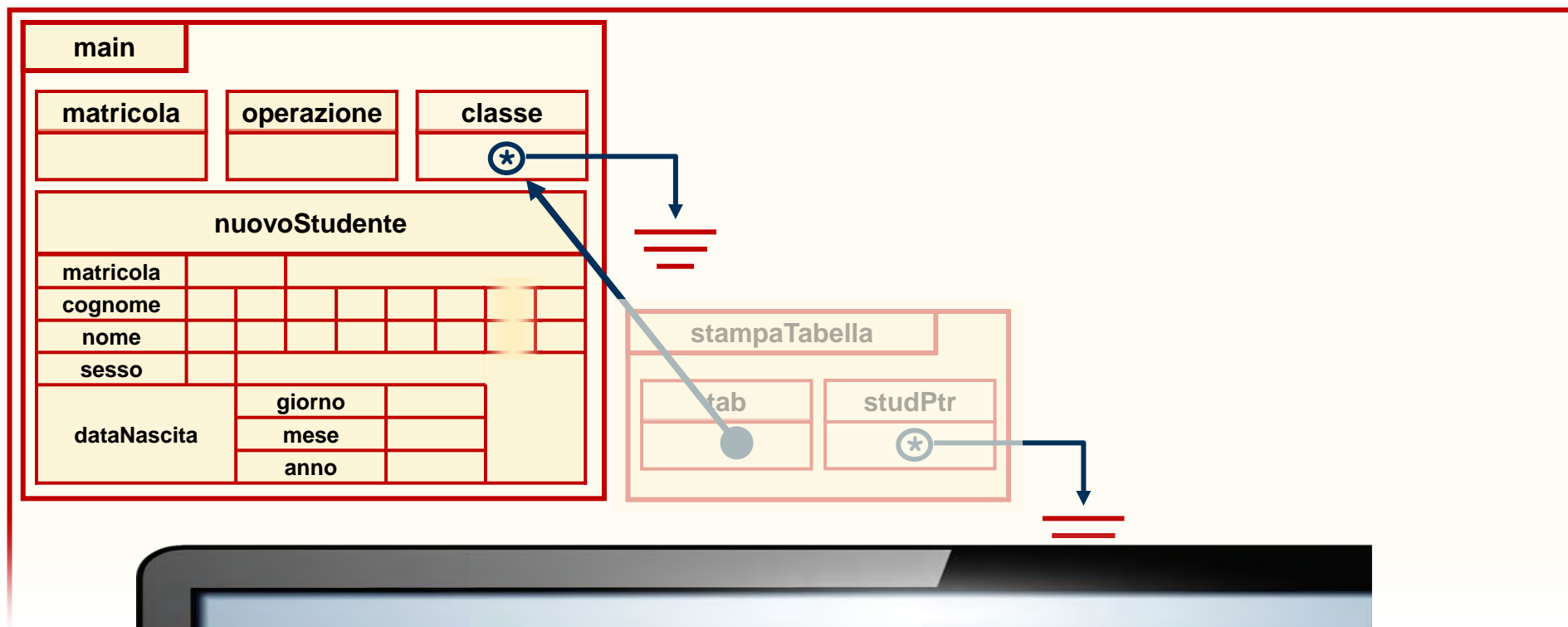
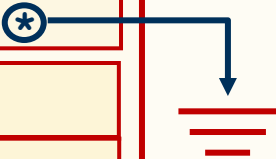


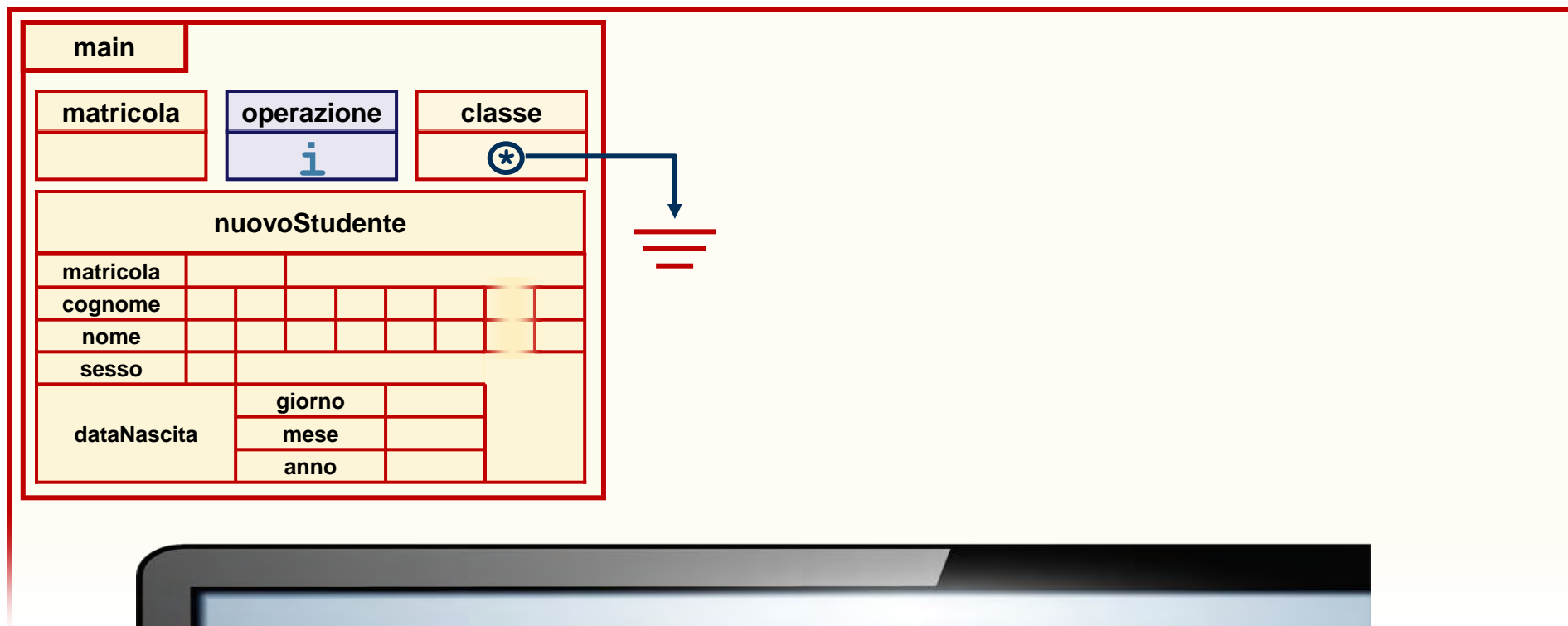
tabella con il solo campo chiave

main														
matricola			operazione			classe								
						⊛								
nuovoStudente														
matricola														
cognome														
nome														
sesso														
dataNascita			giorno											
			mese											
			anno											

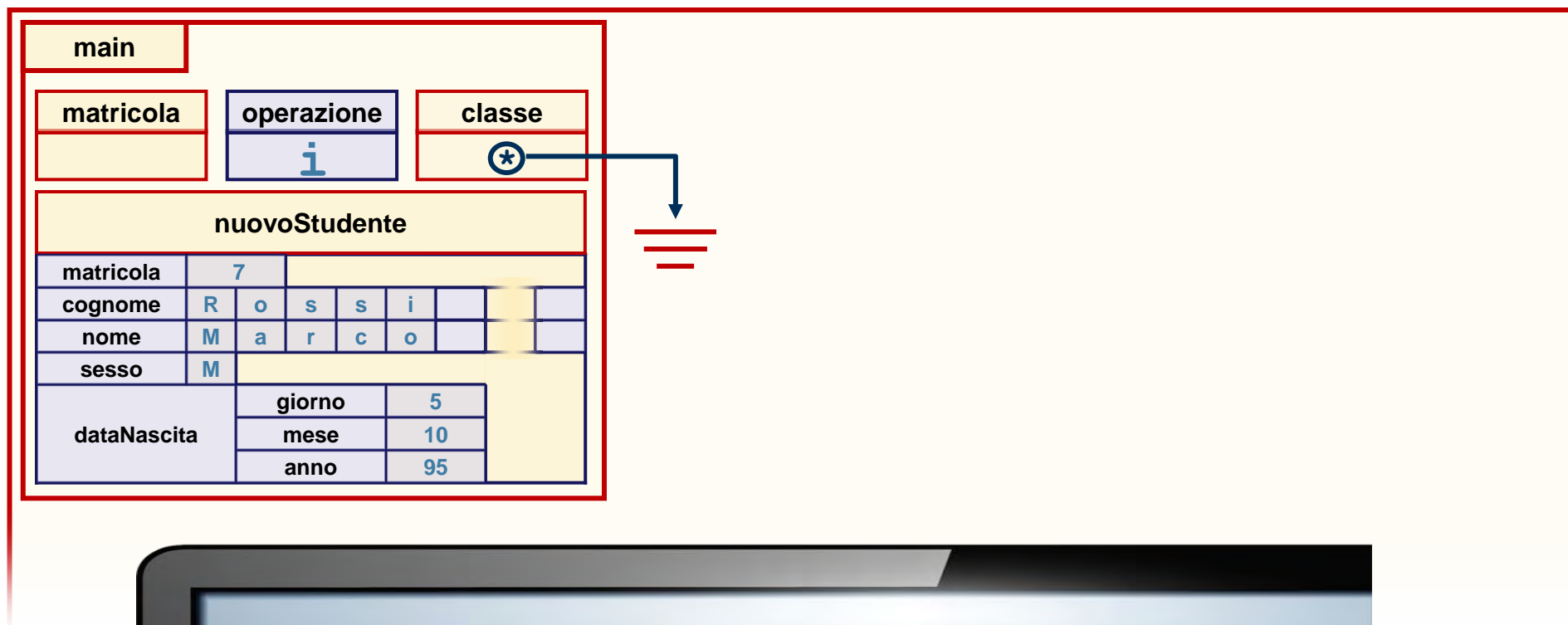


acquisizione operazioni

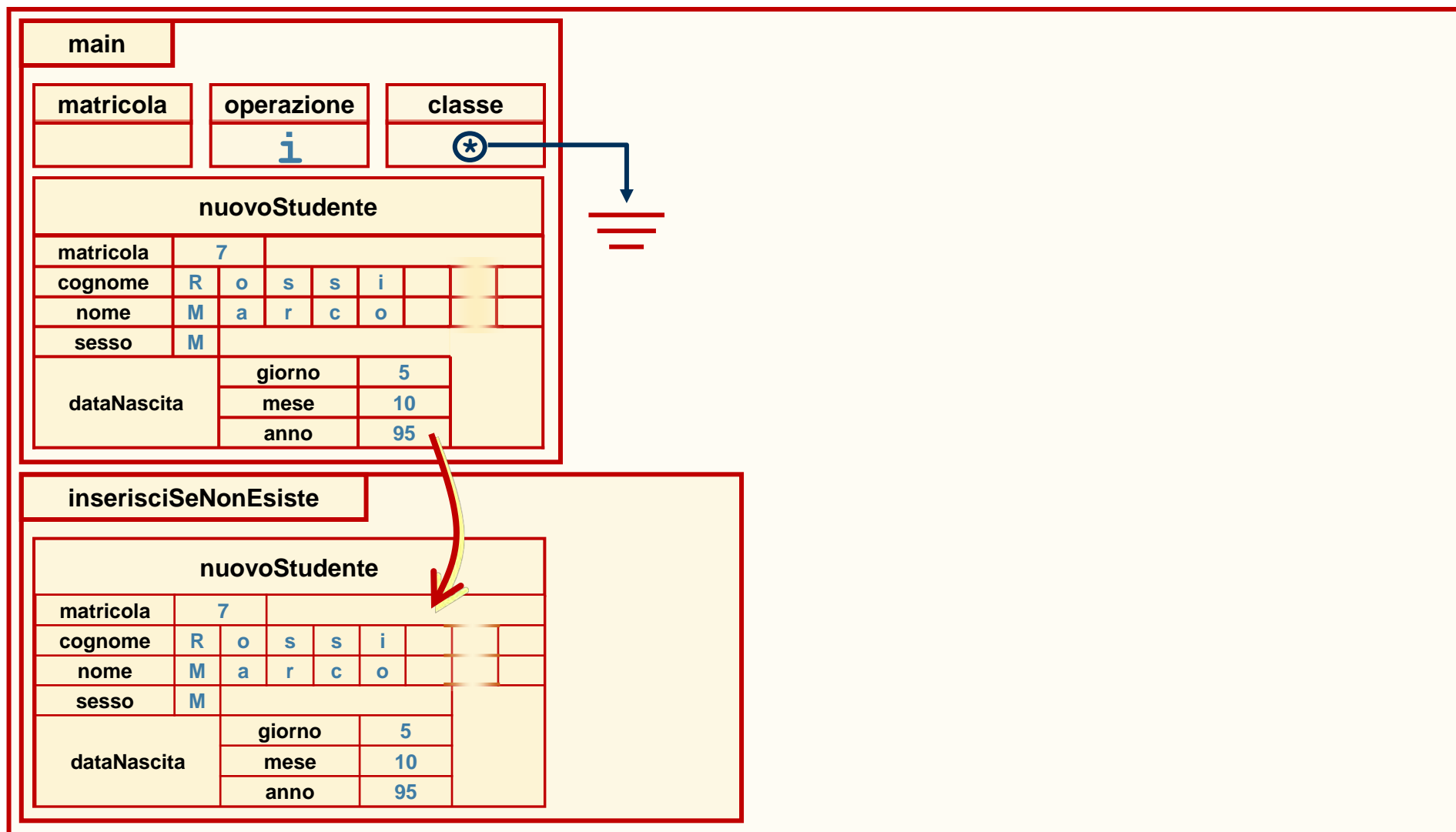
operazione? (i per inserimento, e per eliminazione, f per fine):

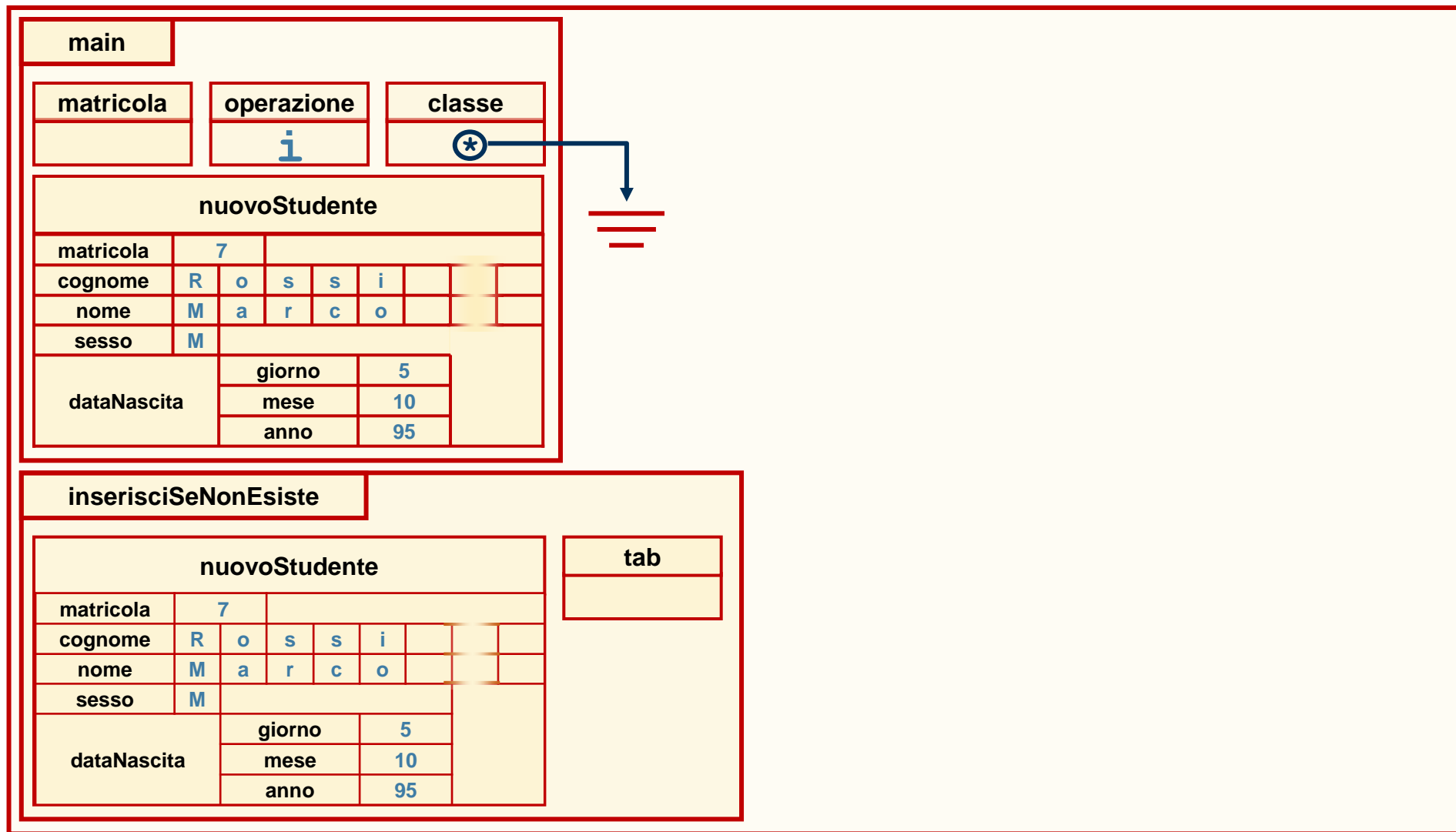


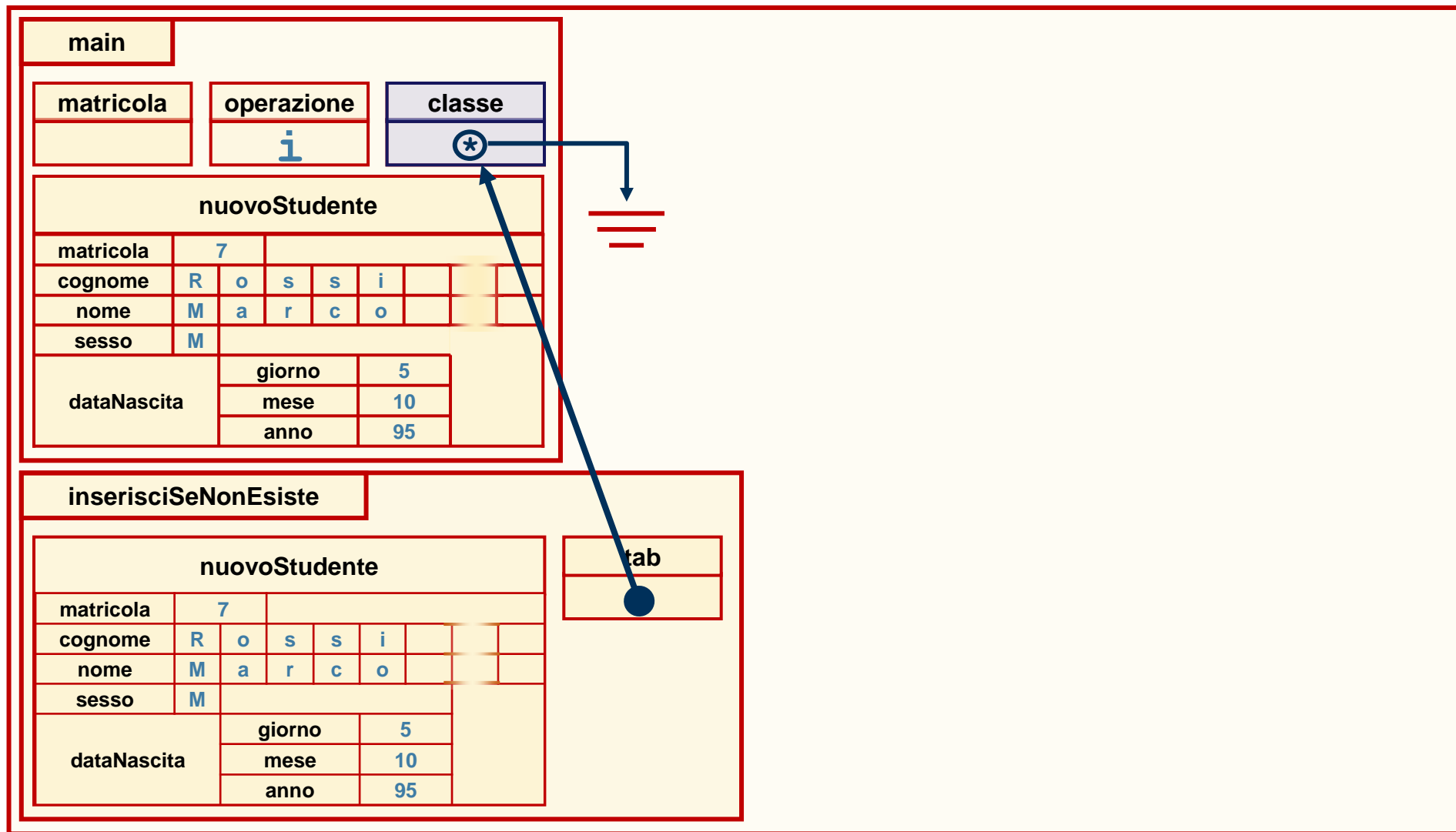
dati del nuovo studente
matricola: 7
cognome: Rossi
nome: Marco
sex(M/F): M
giorno di nascita (1-31): 5
mese di nascita (1-12): 10
anno di nascita (0-99): 95

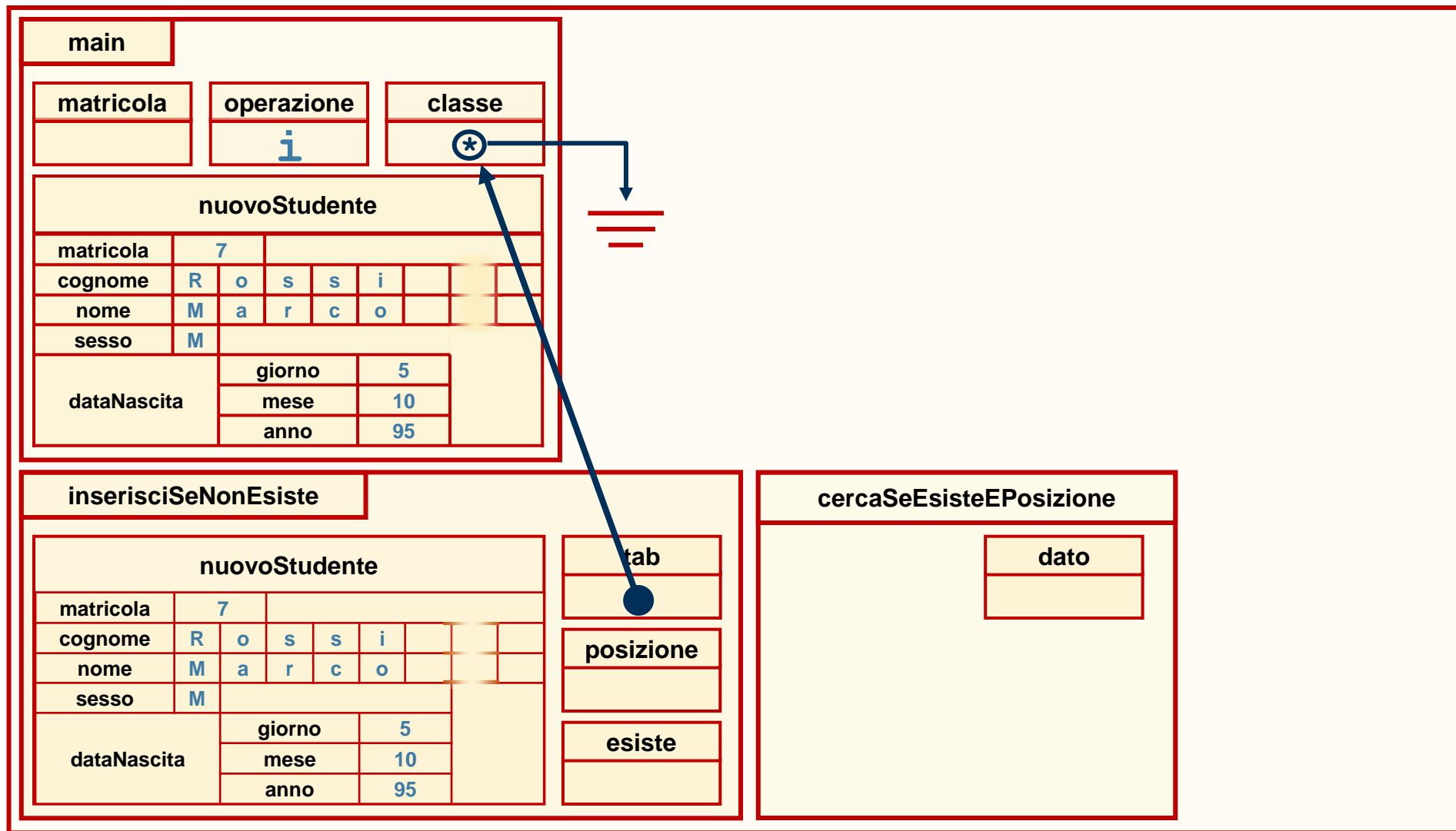


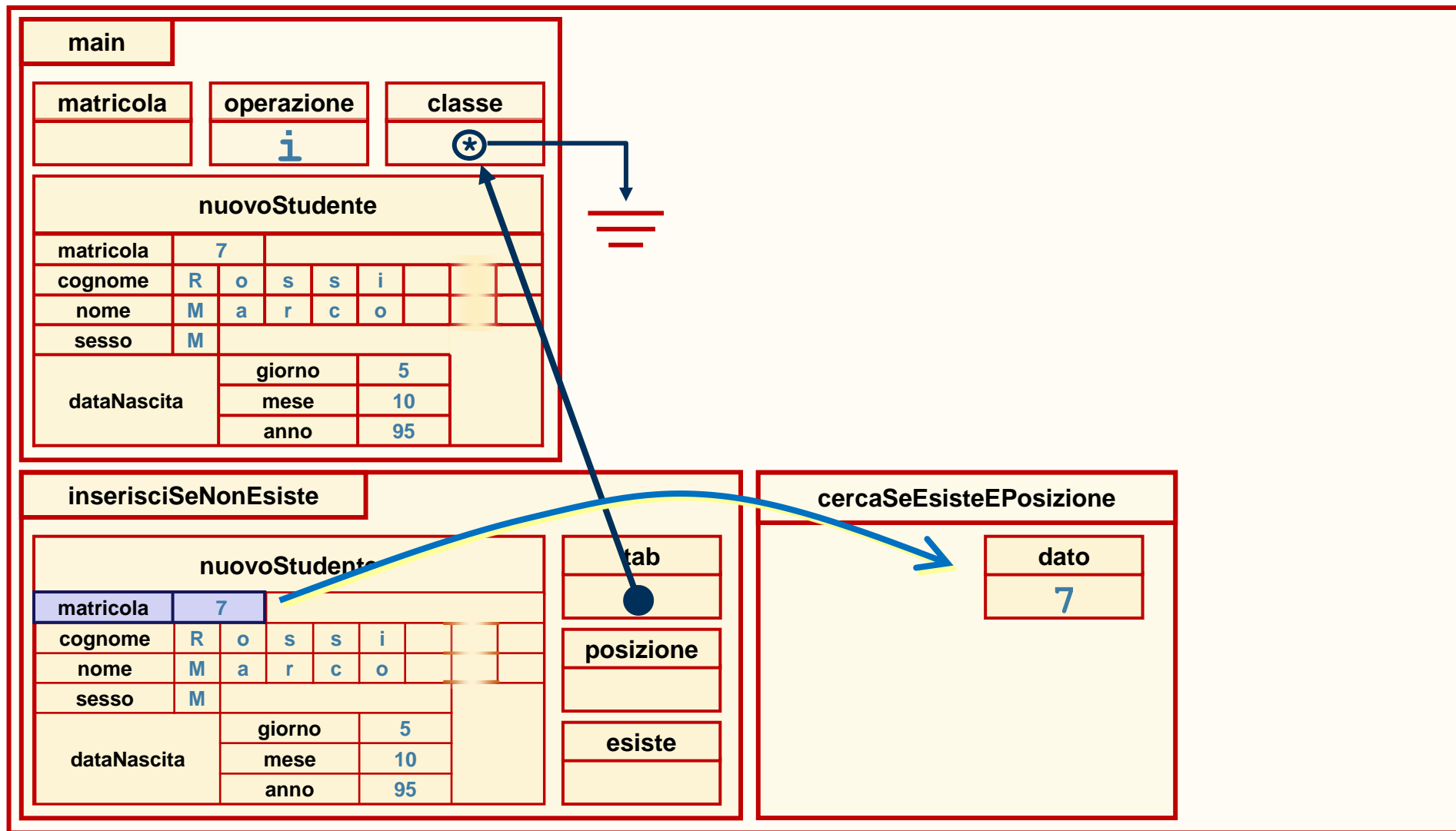
dati del nuovo studente
matricola: 7
cognome: Rossi
nome: Marco
sesso(M/F): M
giorno di nascita (1-31): 5
mese di nascita (1-12): 10
anno di nascita (0-99): 95

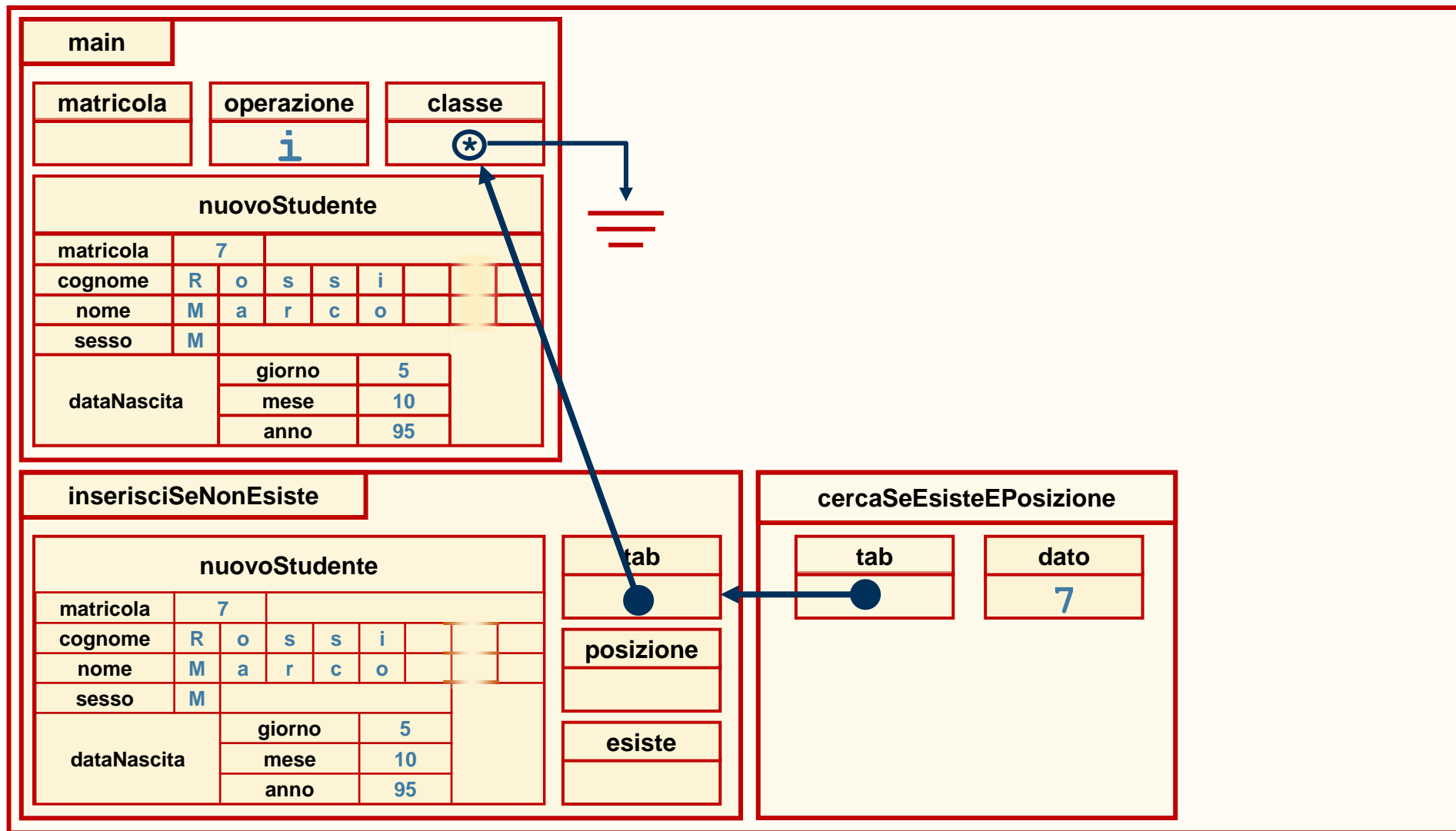


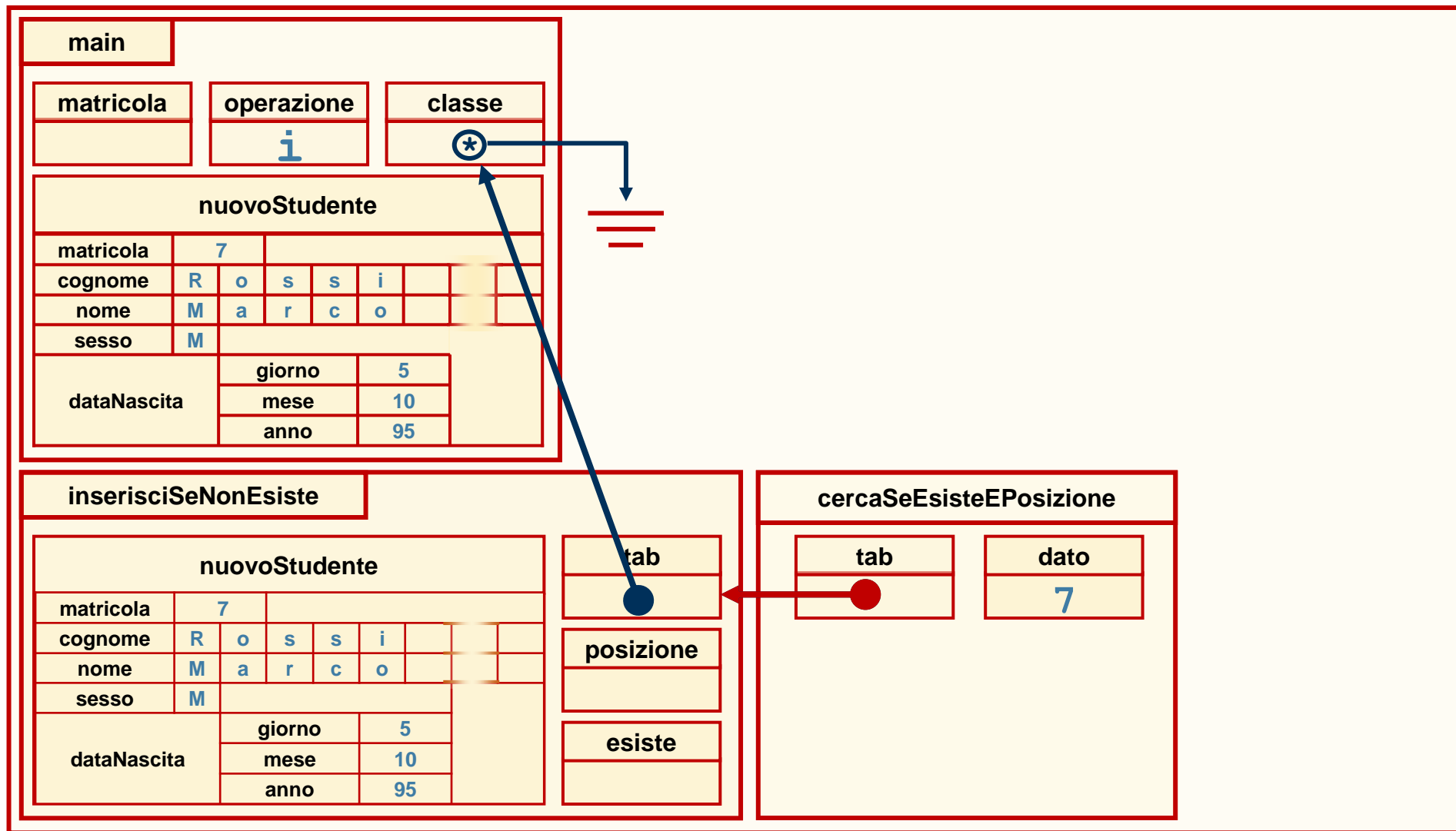


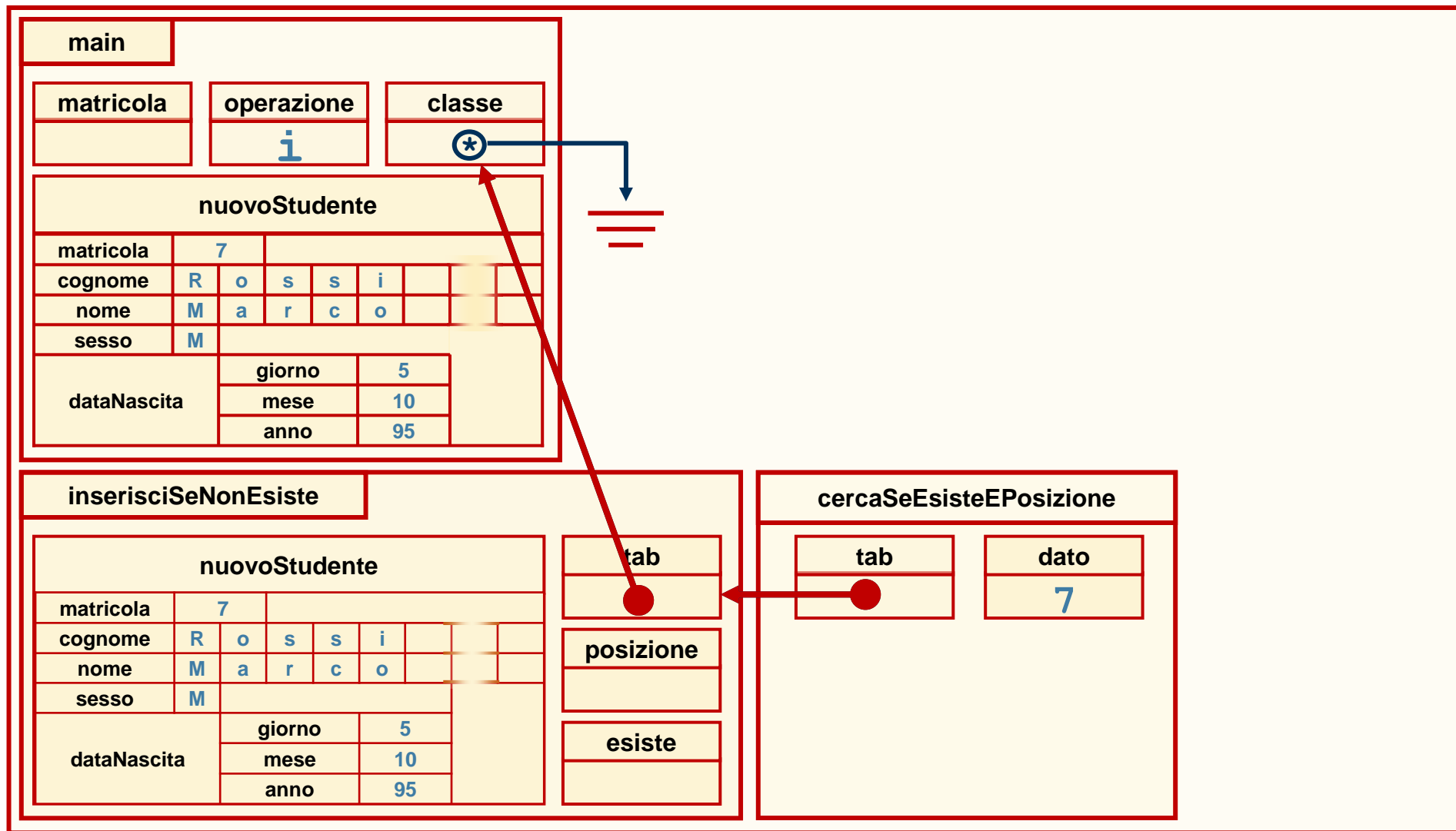


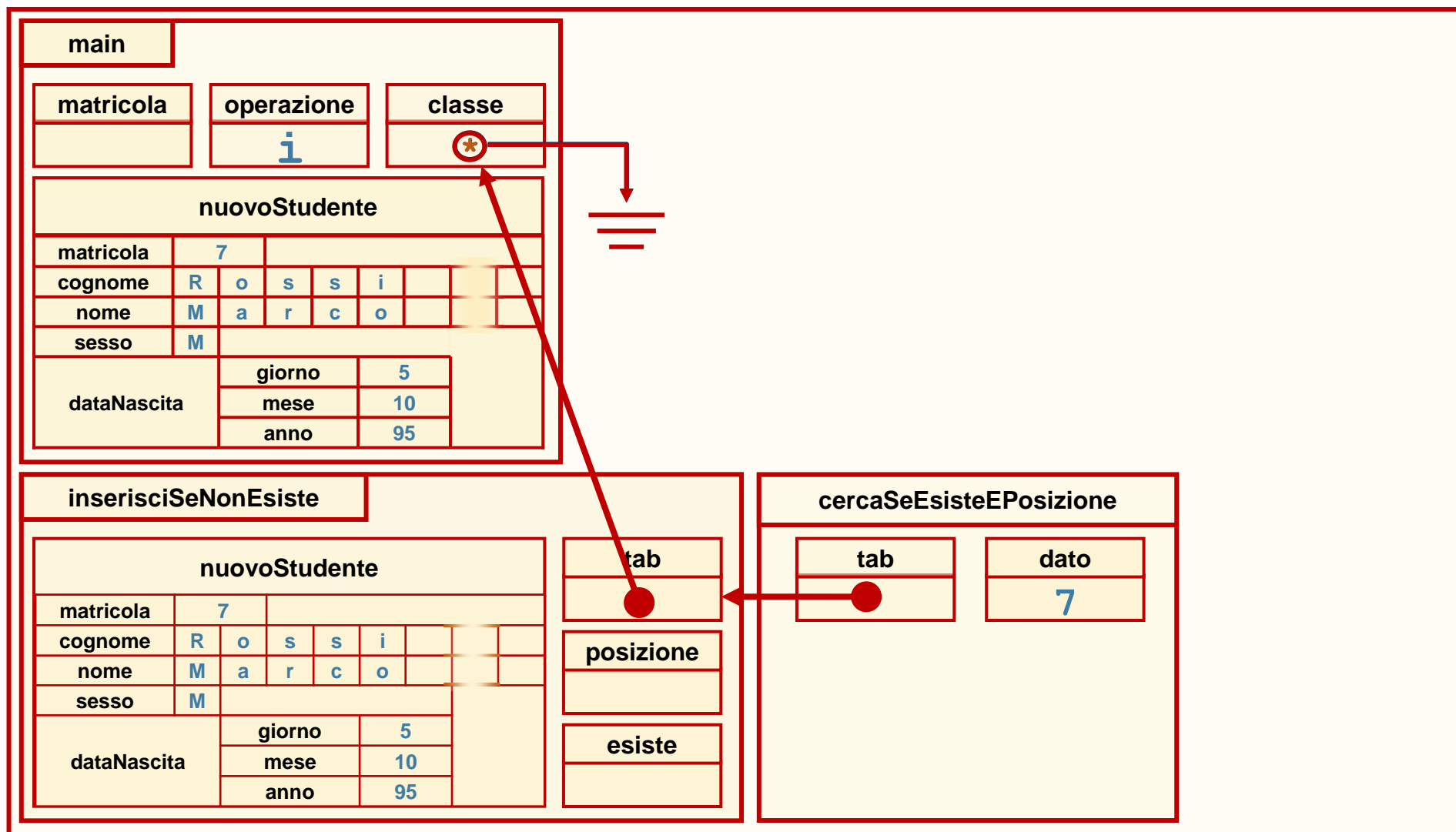


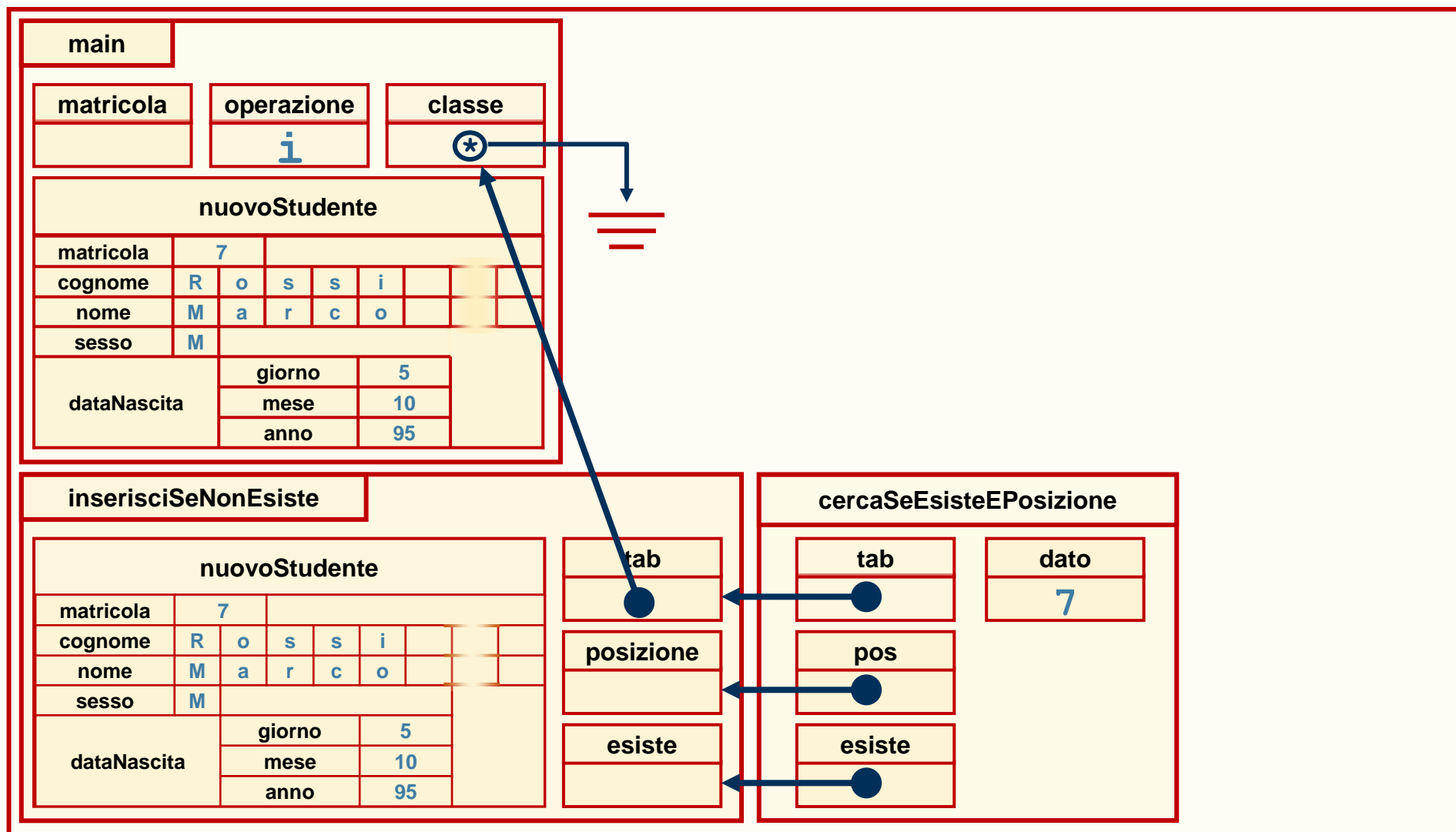




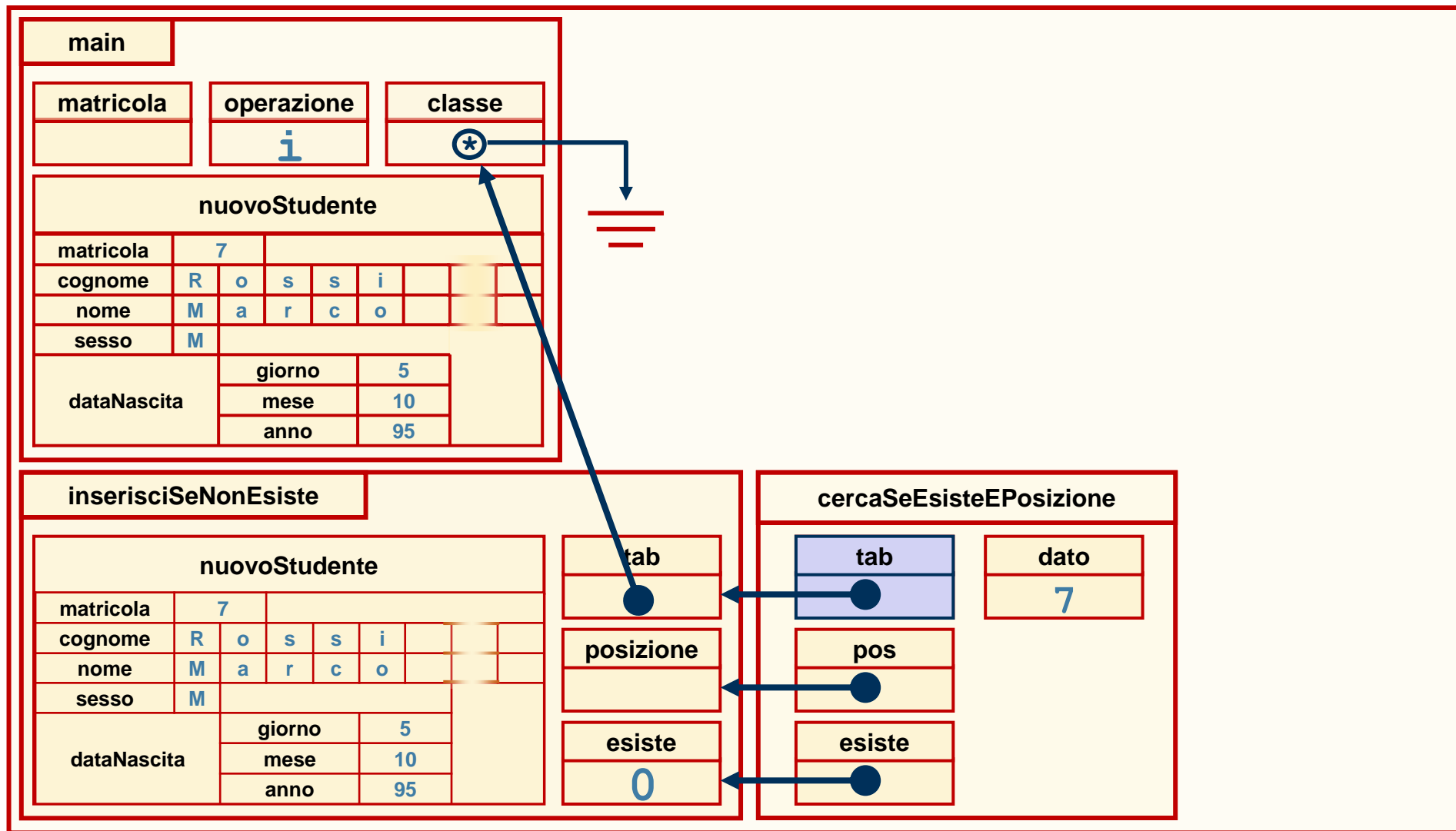


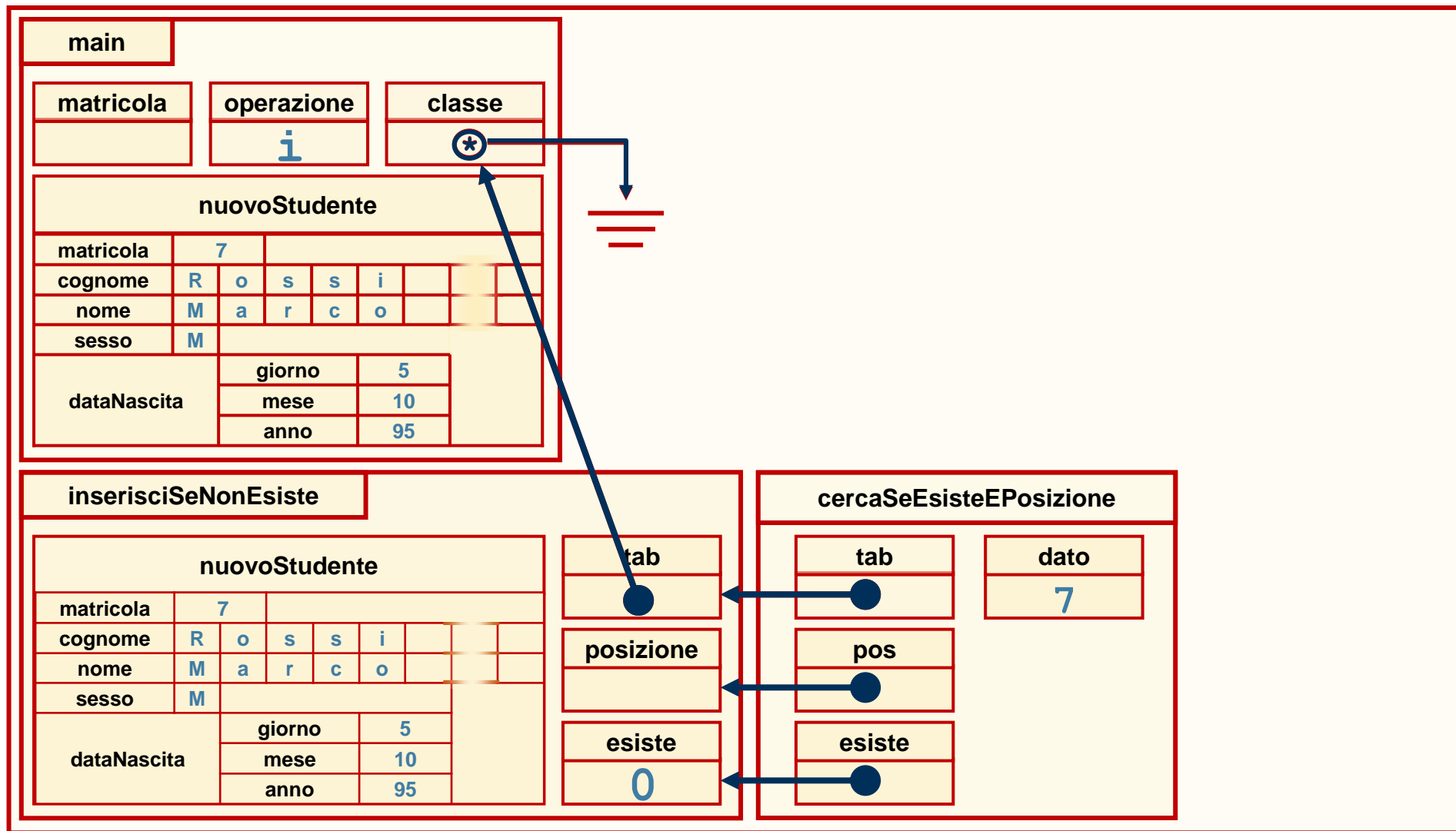


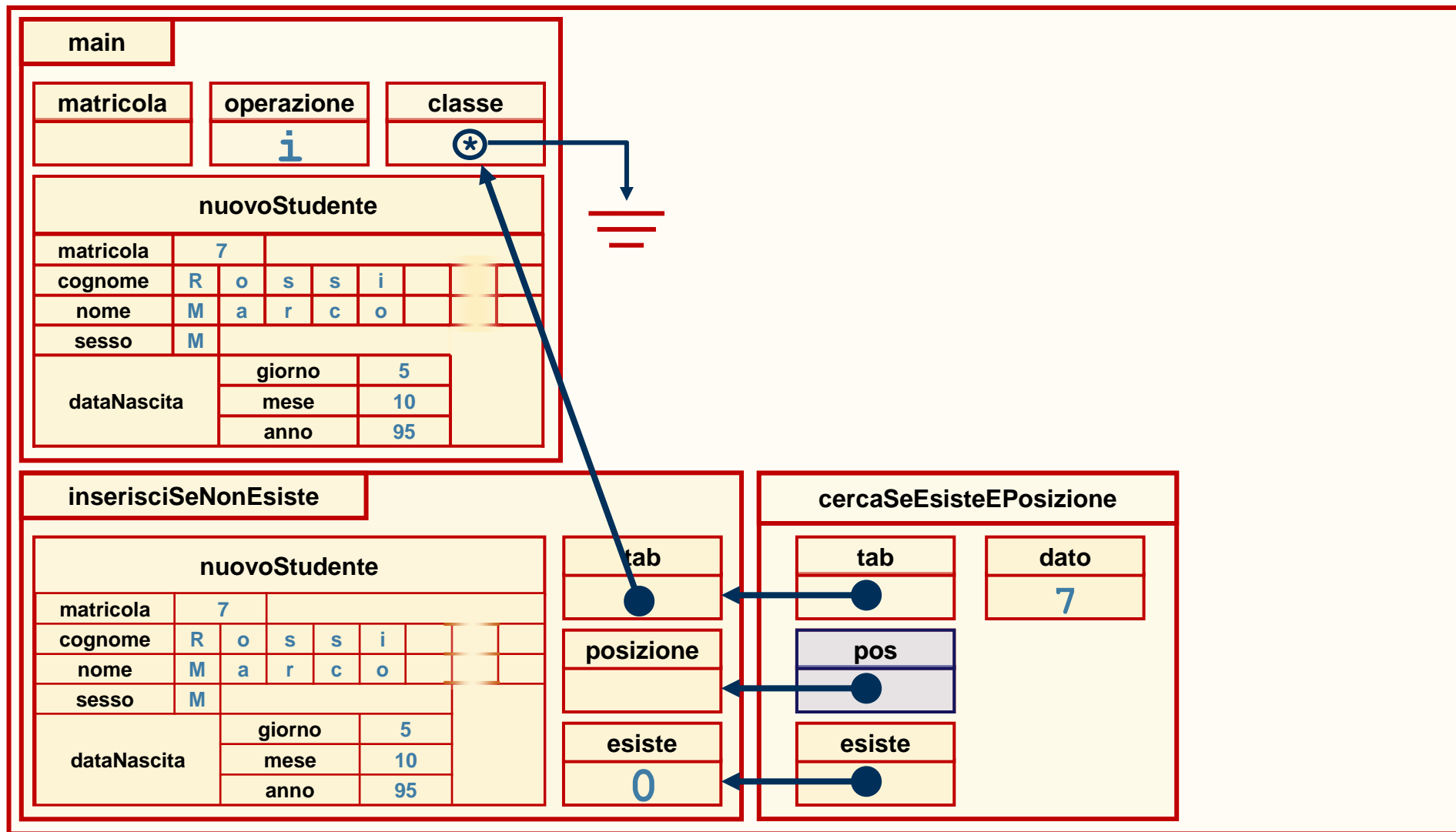


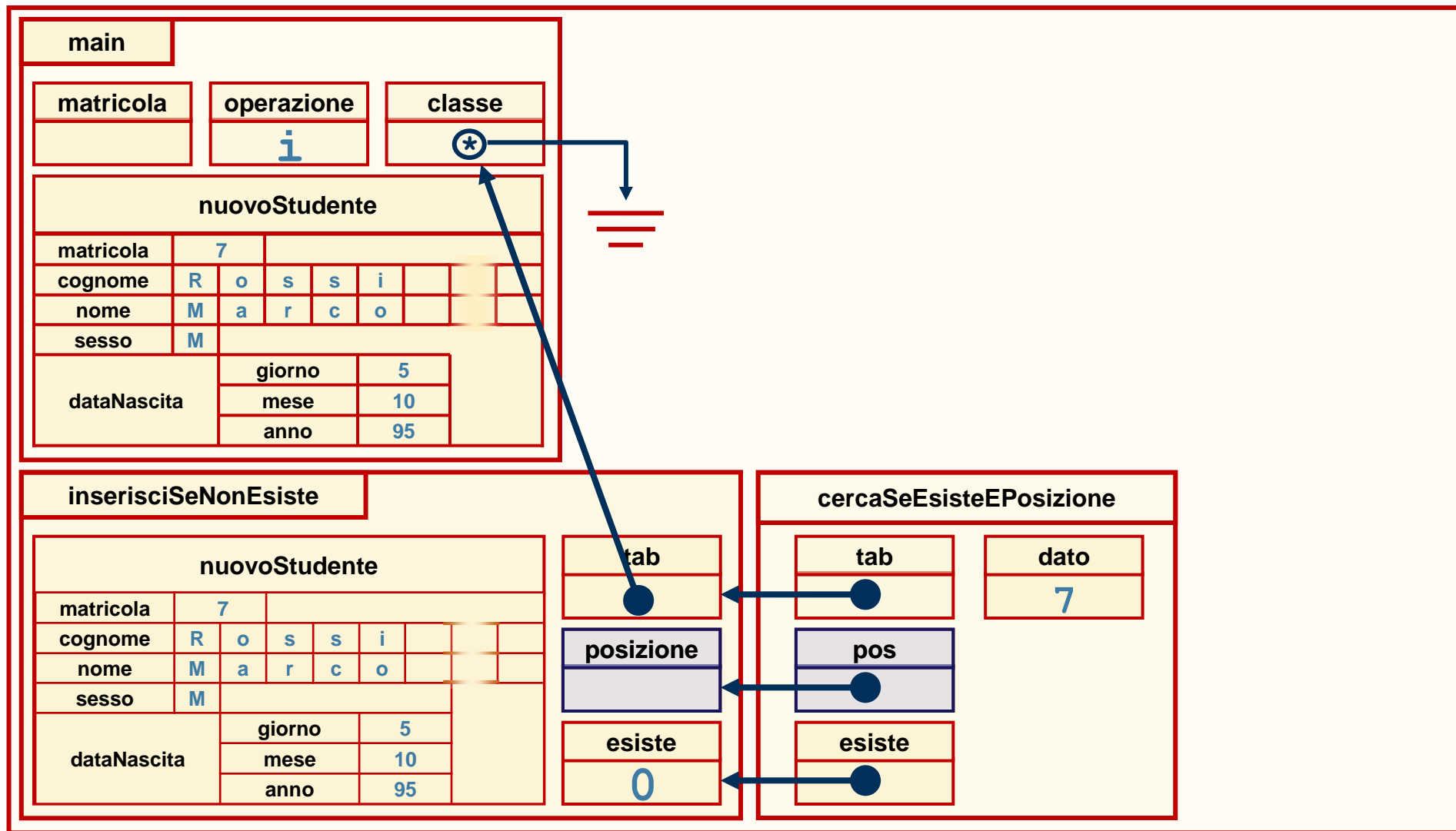


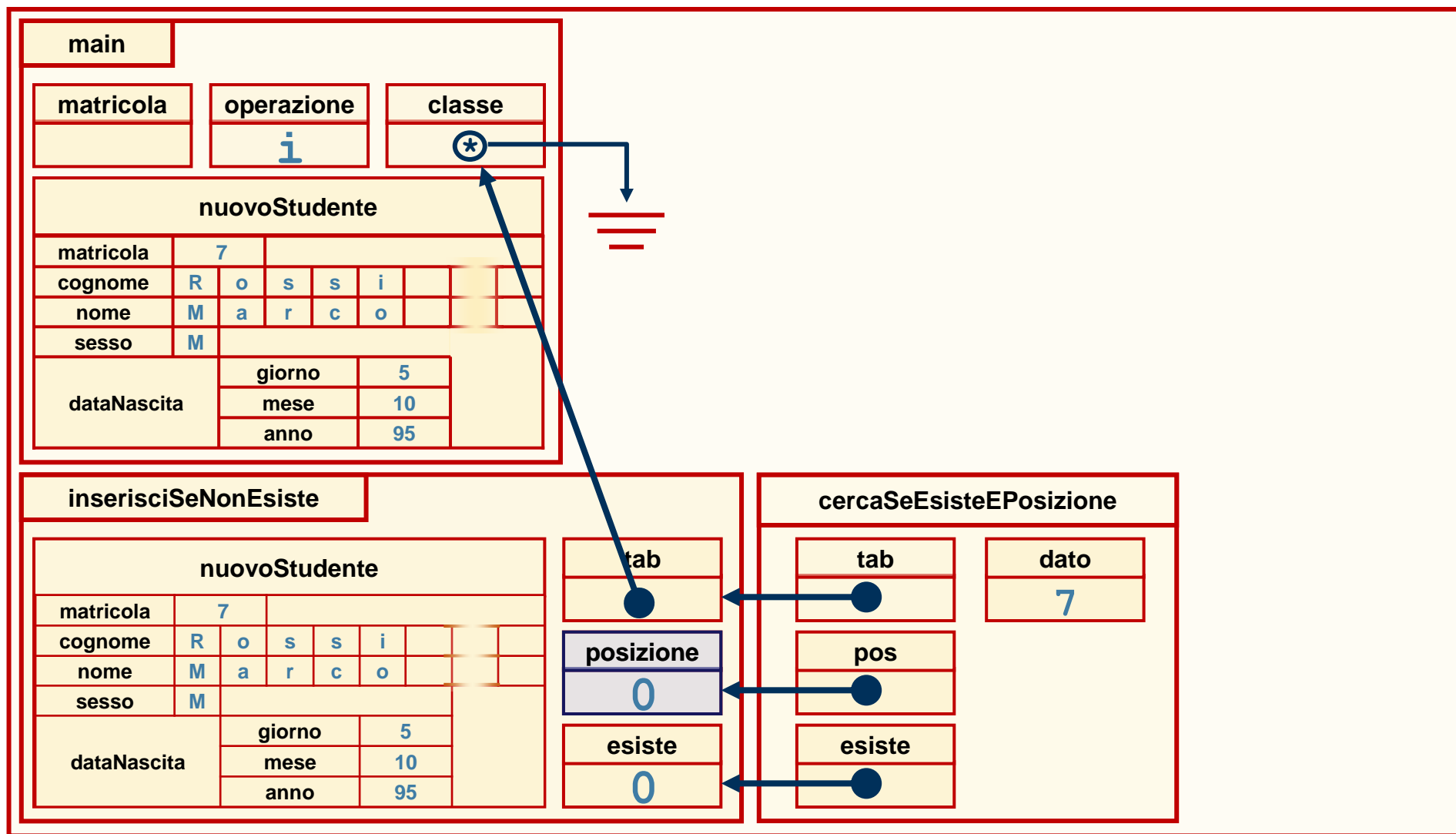


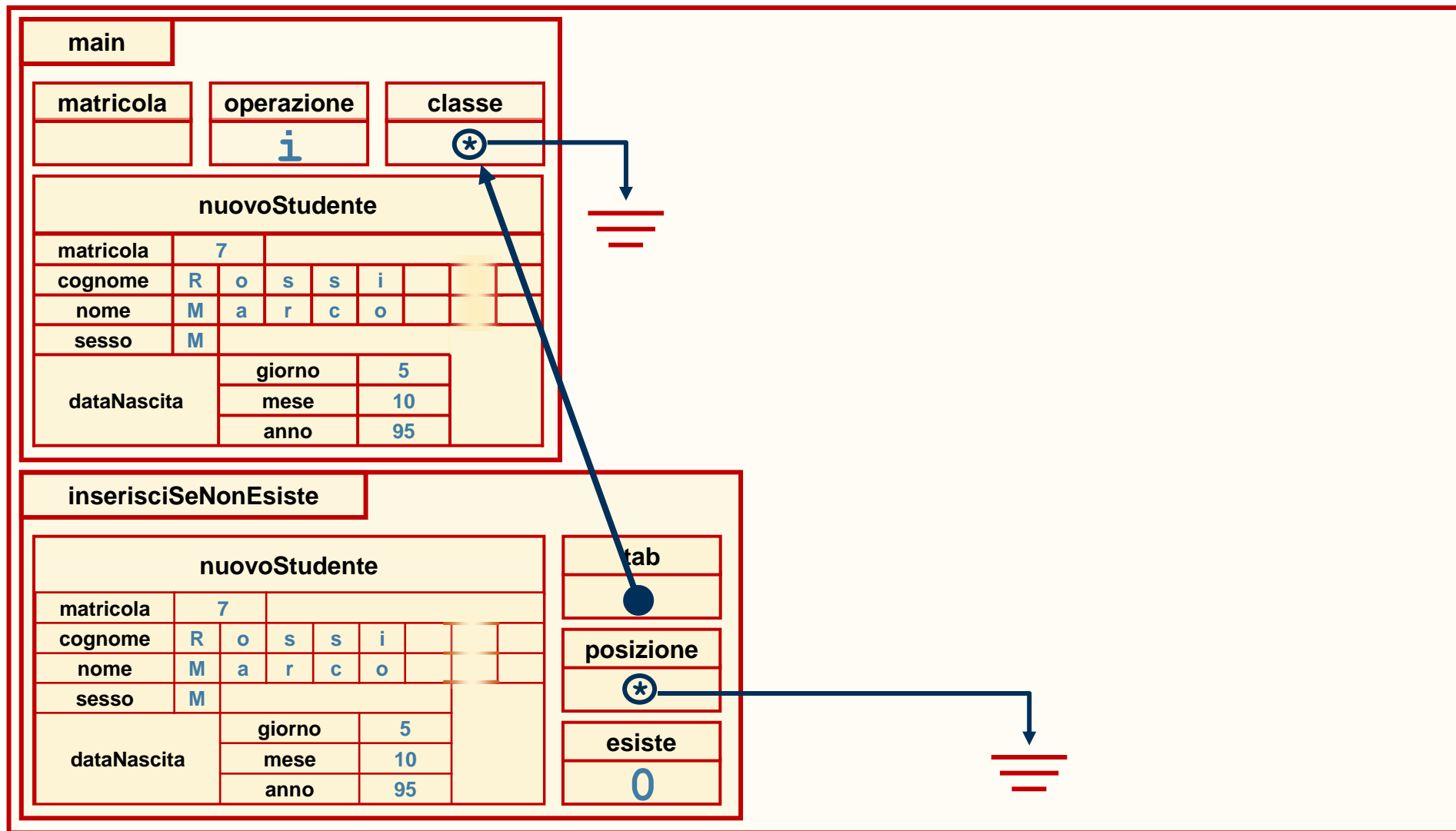






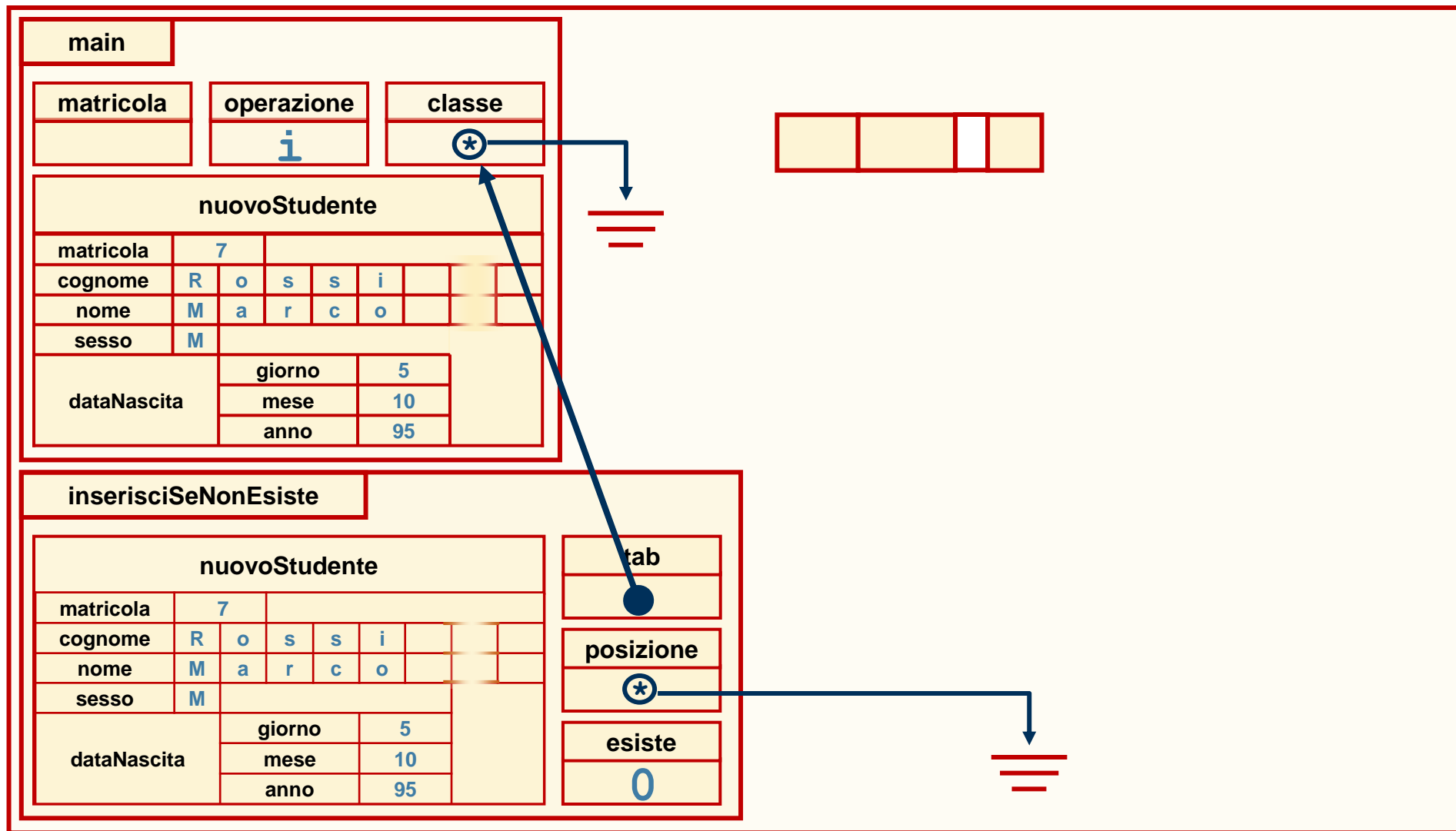


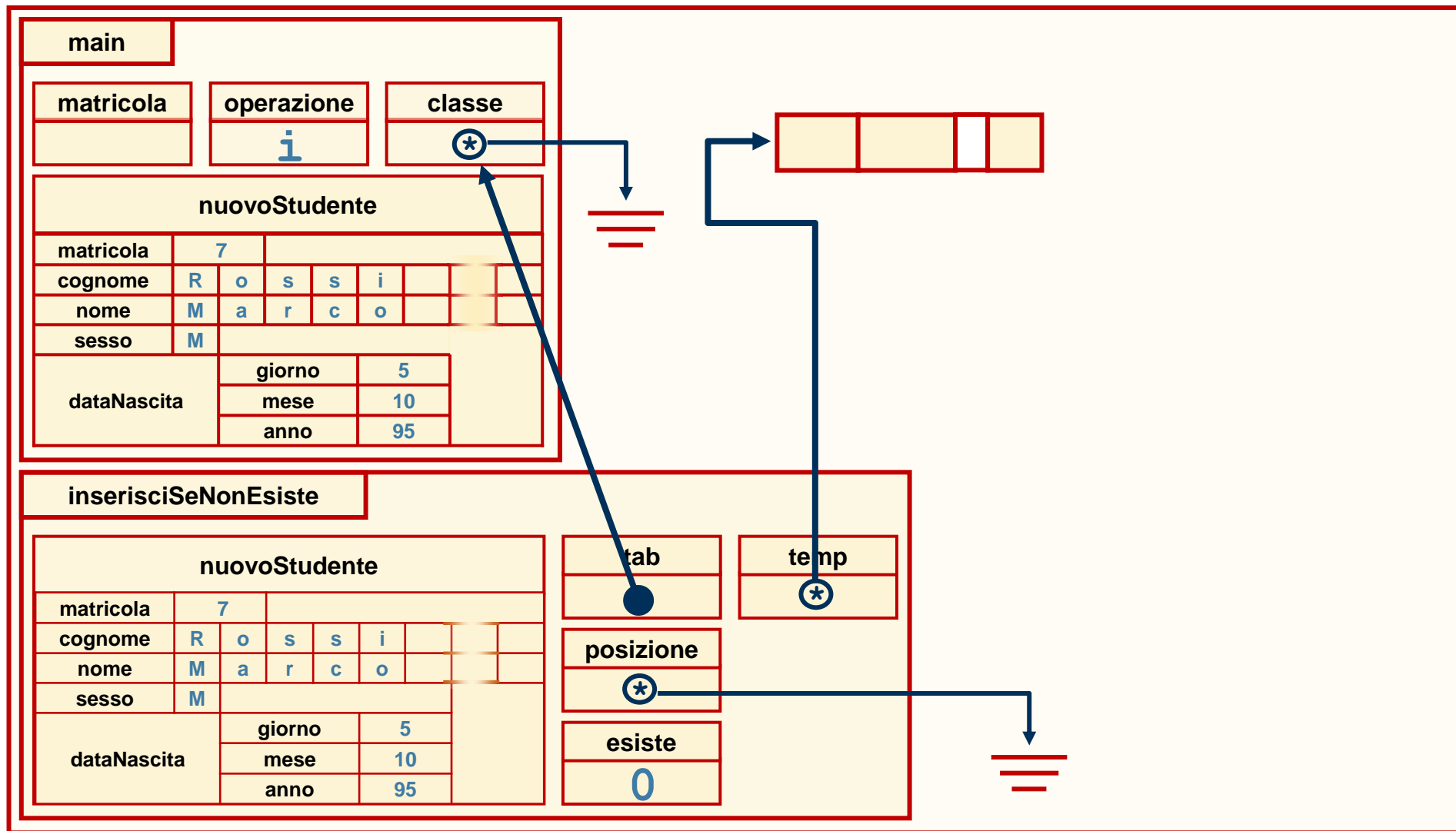


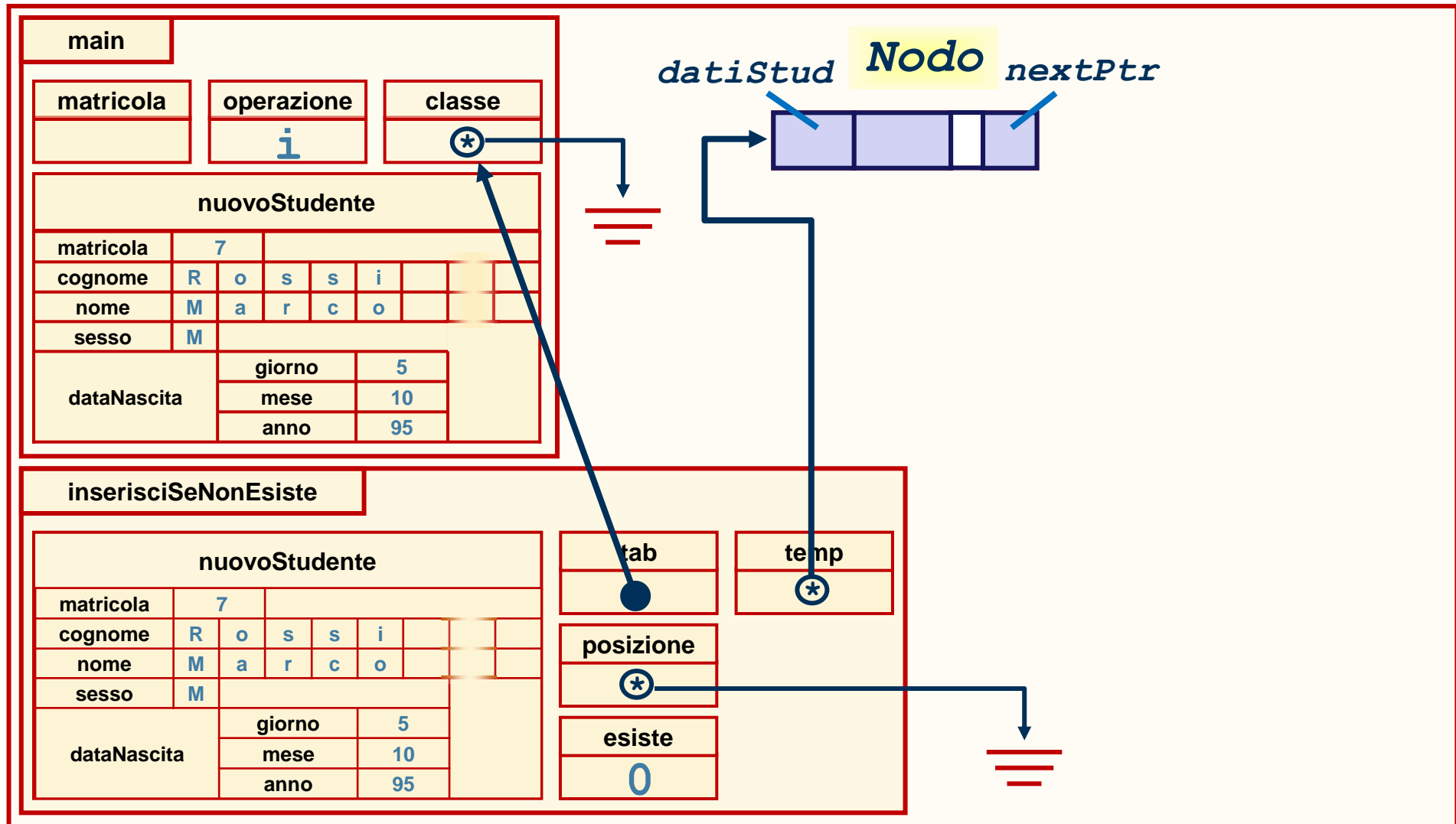


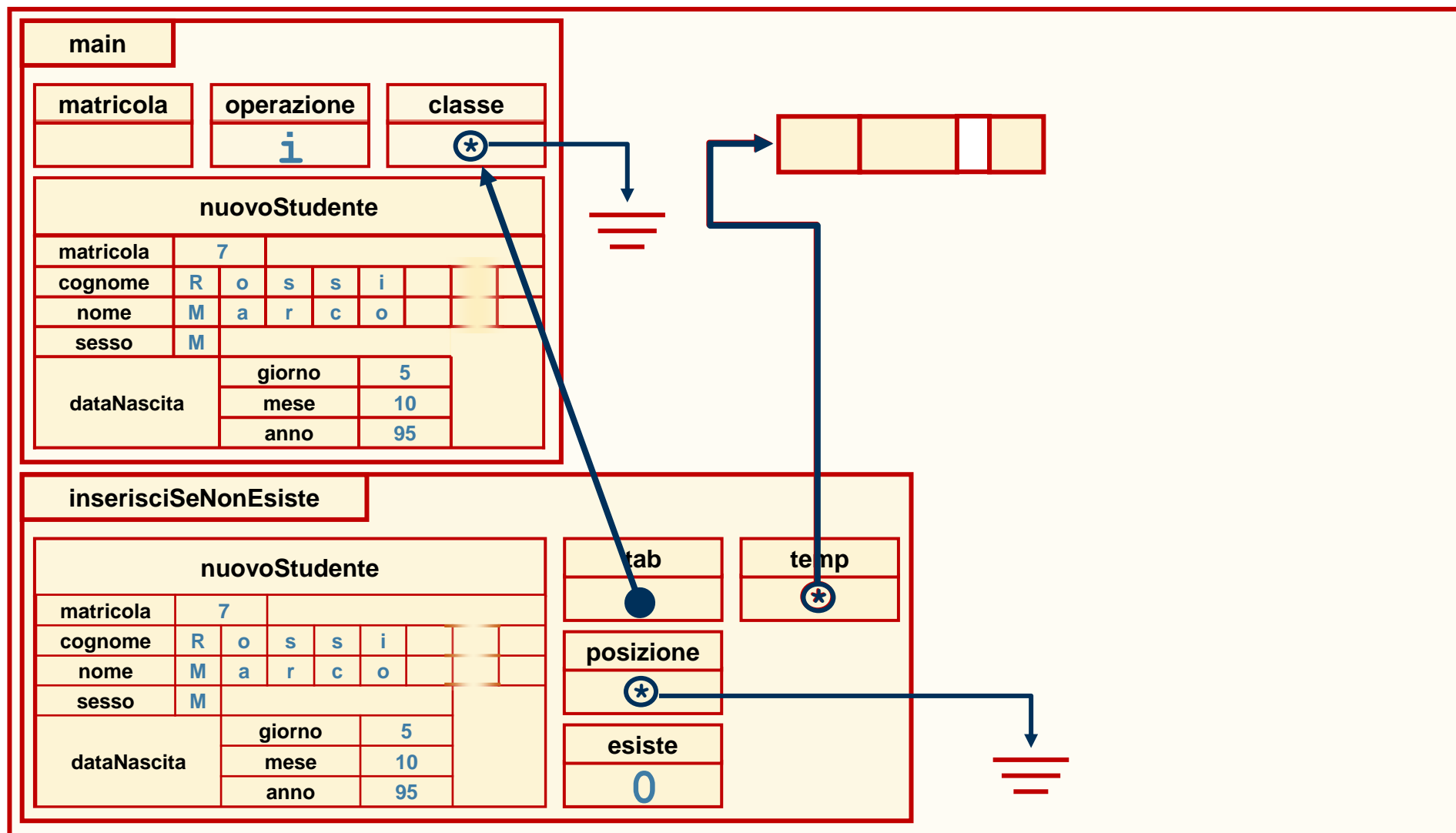
main												
matricola			operazione			classe						
			i			*						
nuovoStudente												
matricola		7										
cognome		R	o	s	s	i						
nome		M	a	r	c	o						
sesso		M										
dataNascita		giorno		5								
		mese		10								
		anno		95								
inserisciSeNonEsiste												

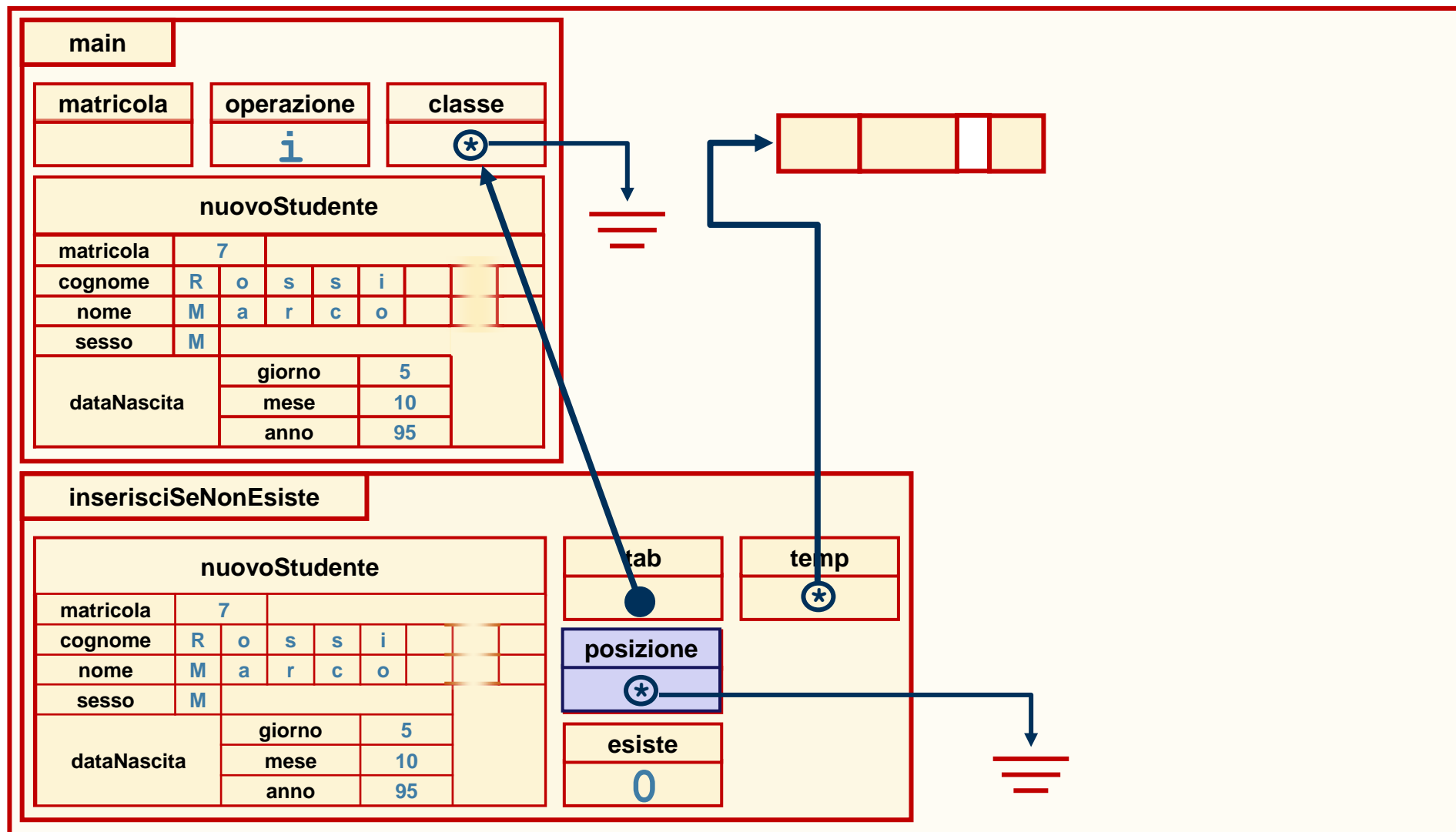
inserimento di studente con matricola 7

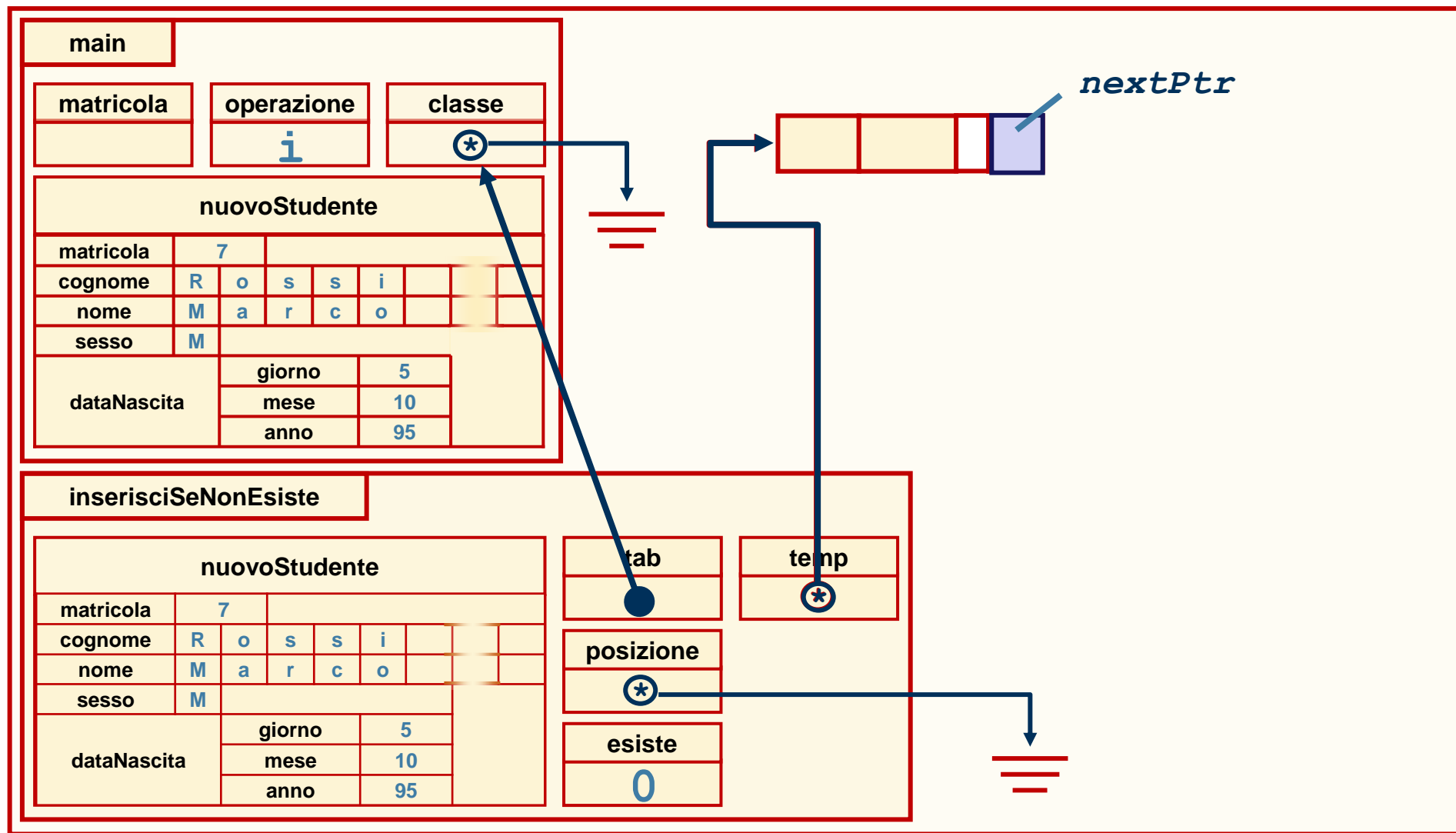


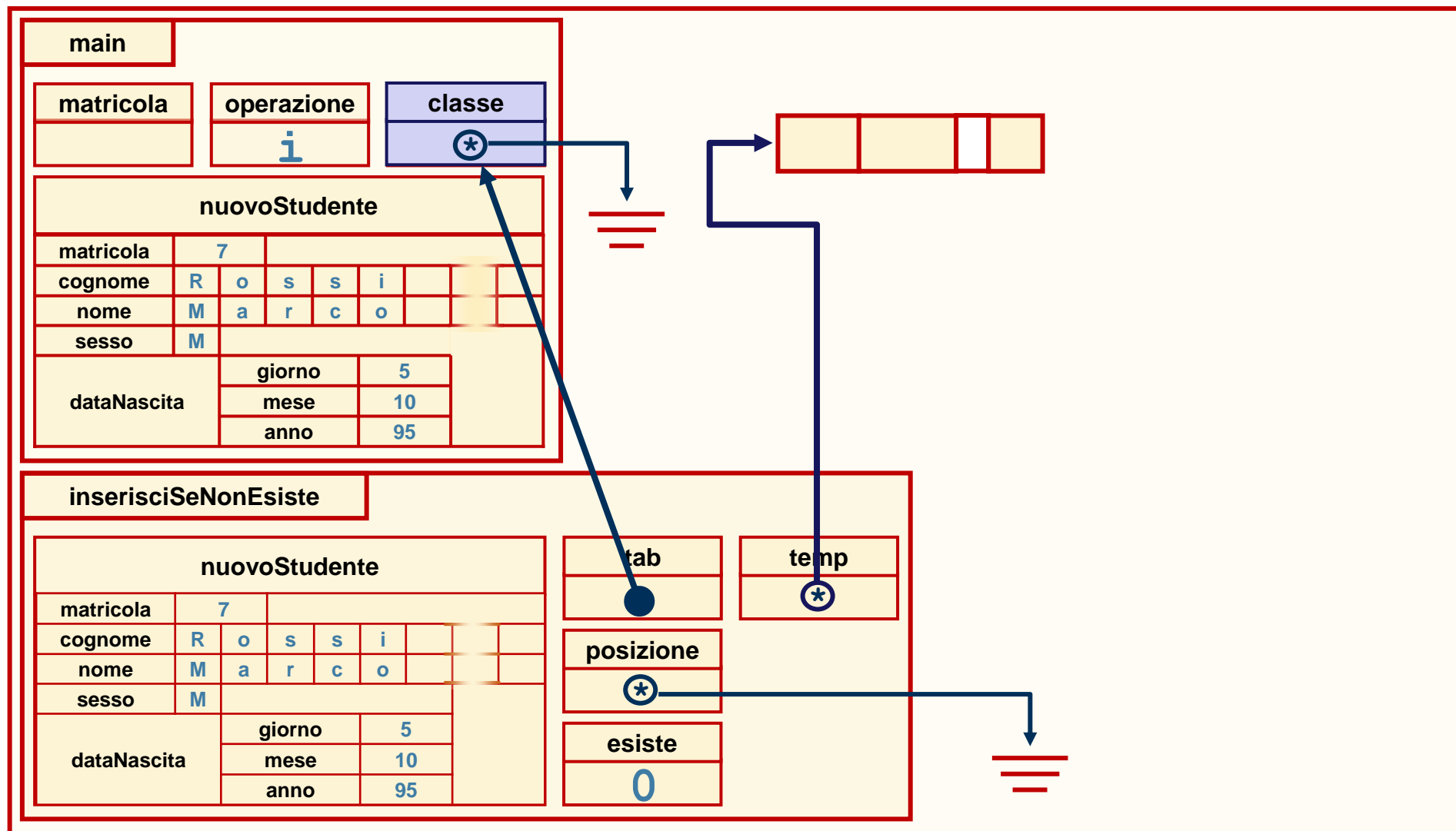


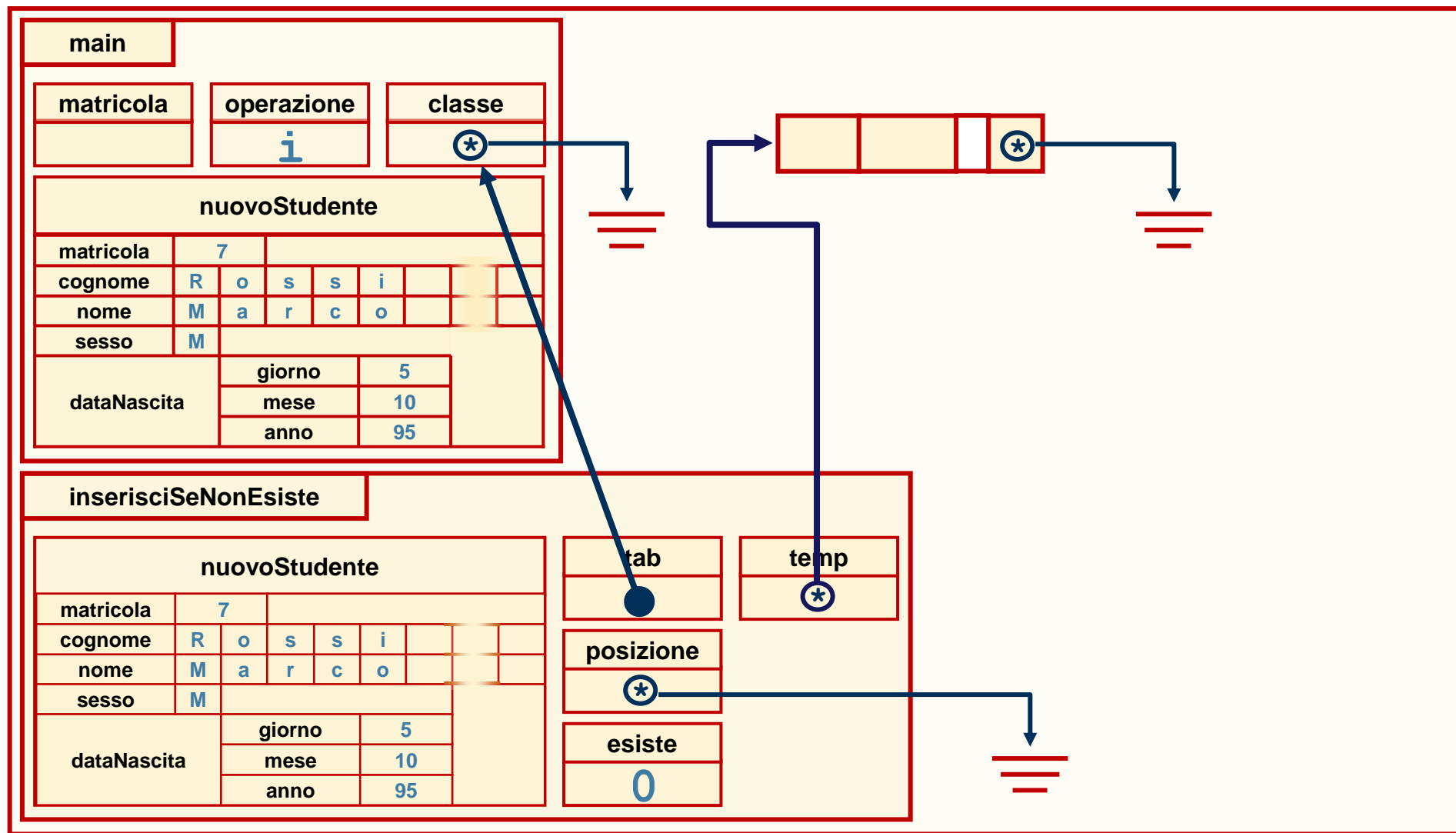


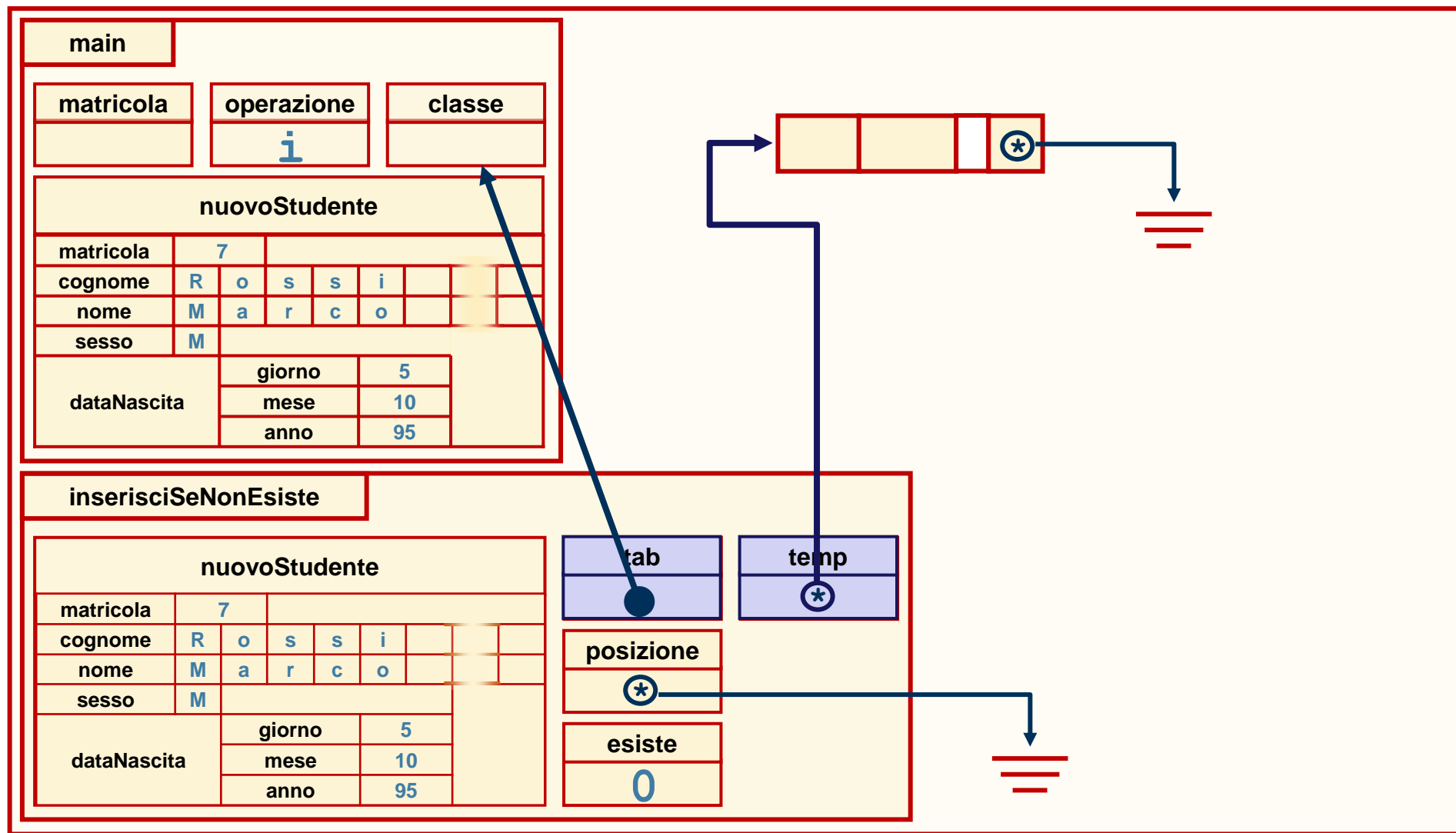


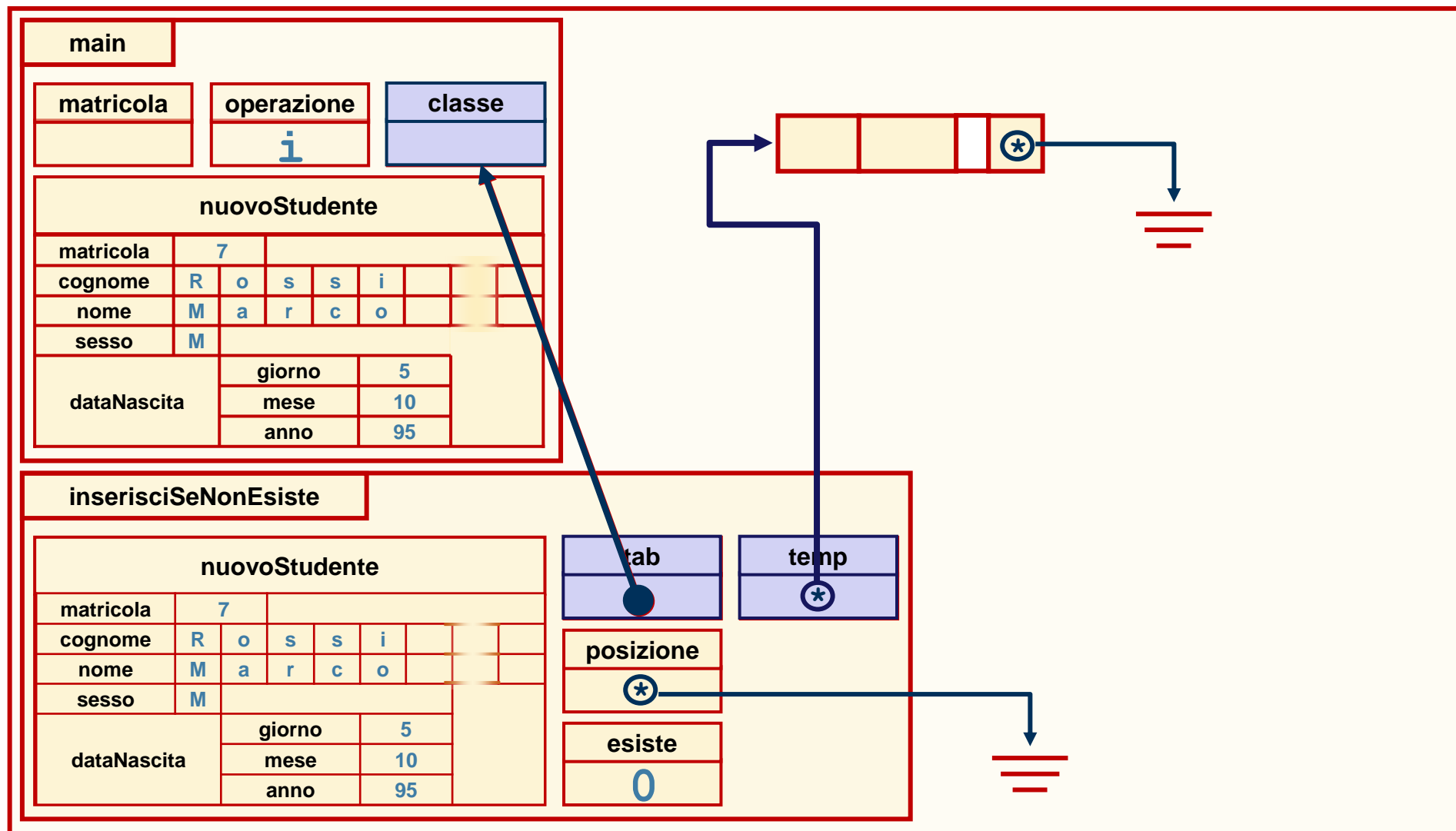


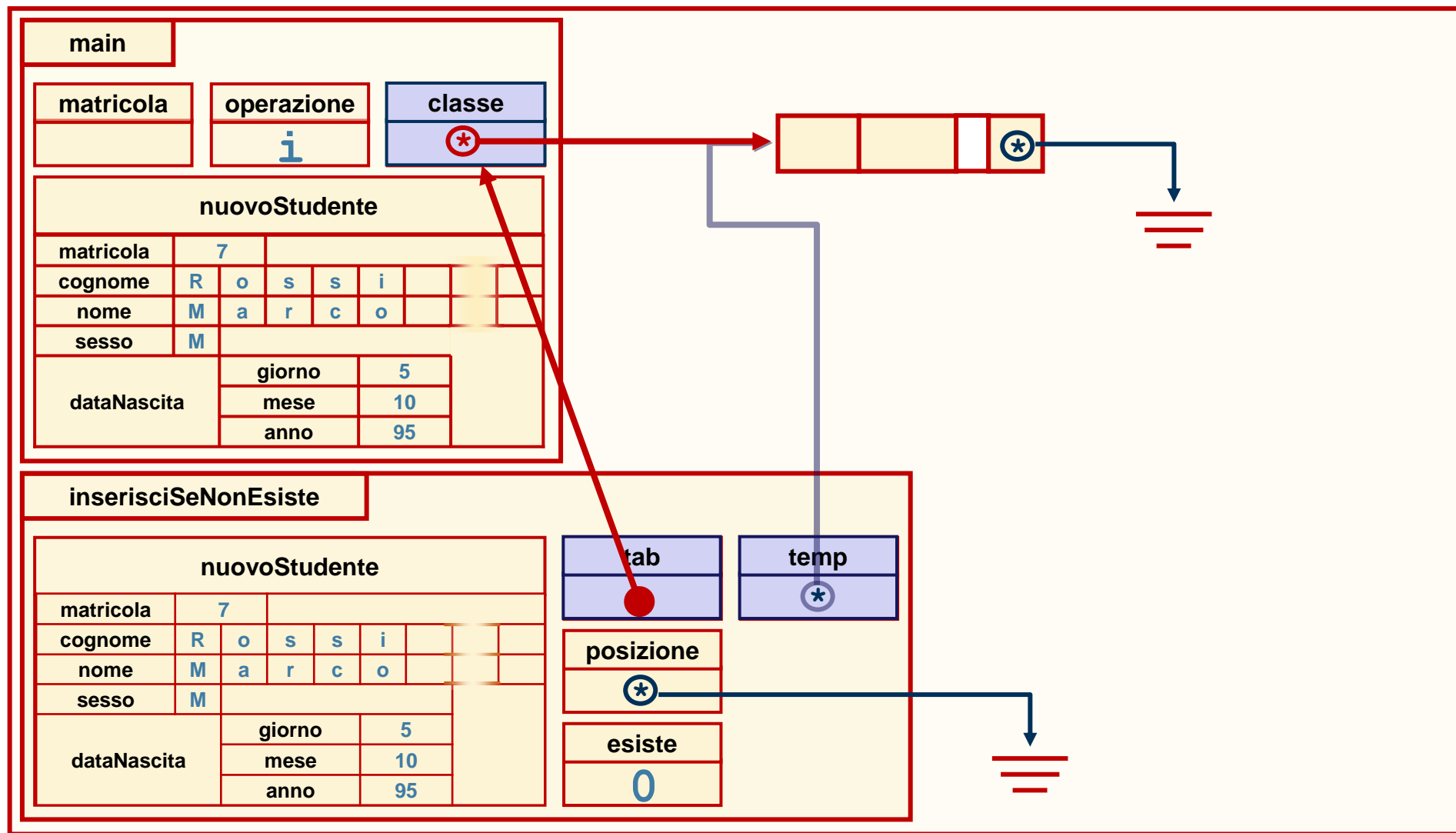


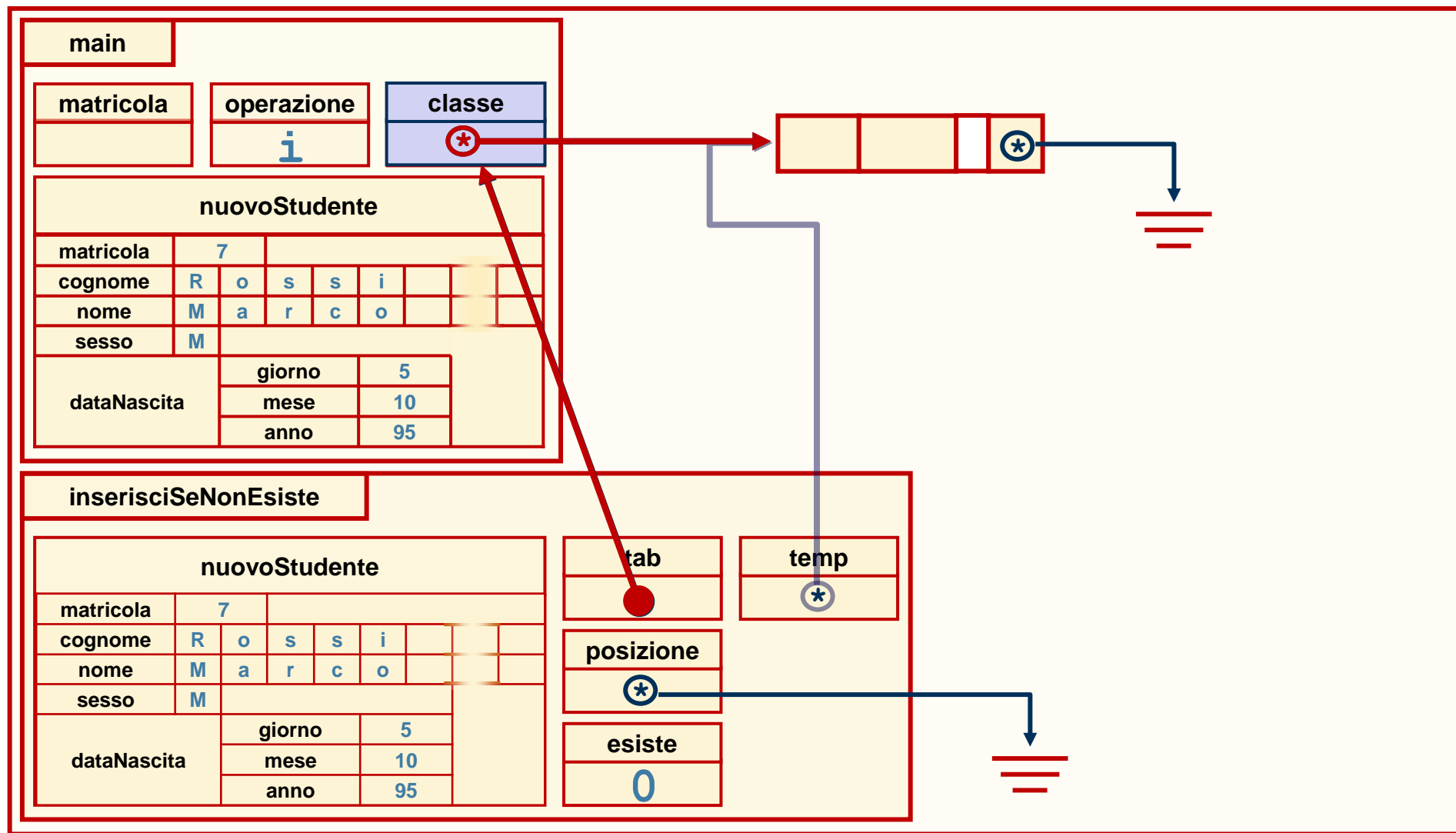


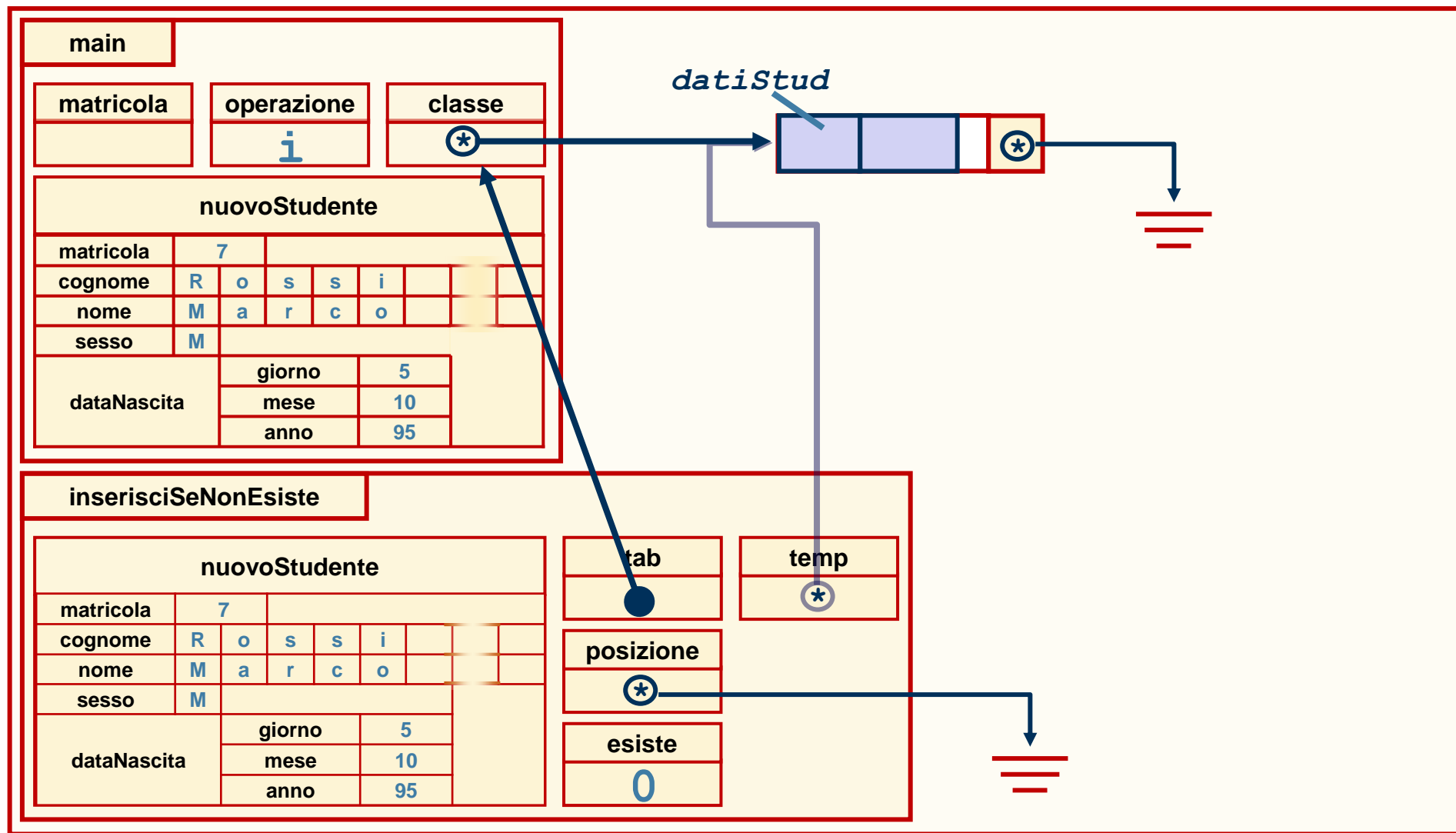


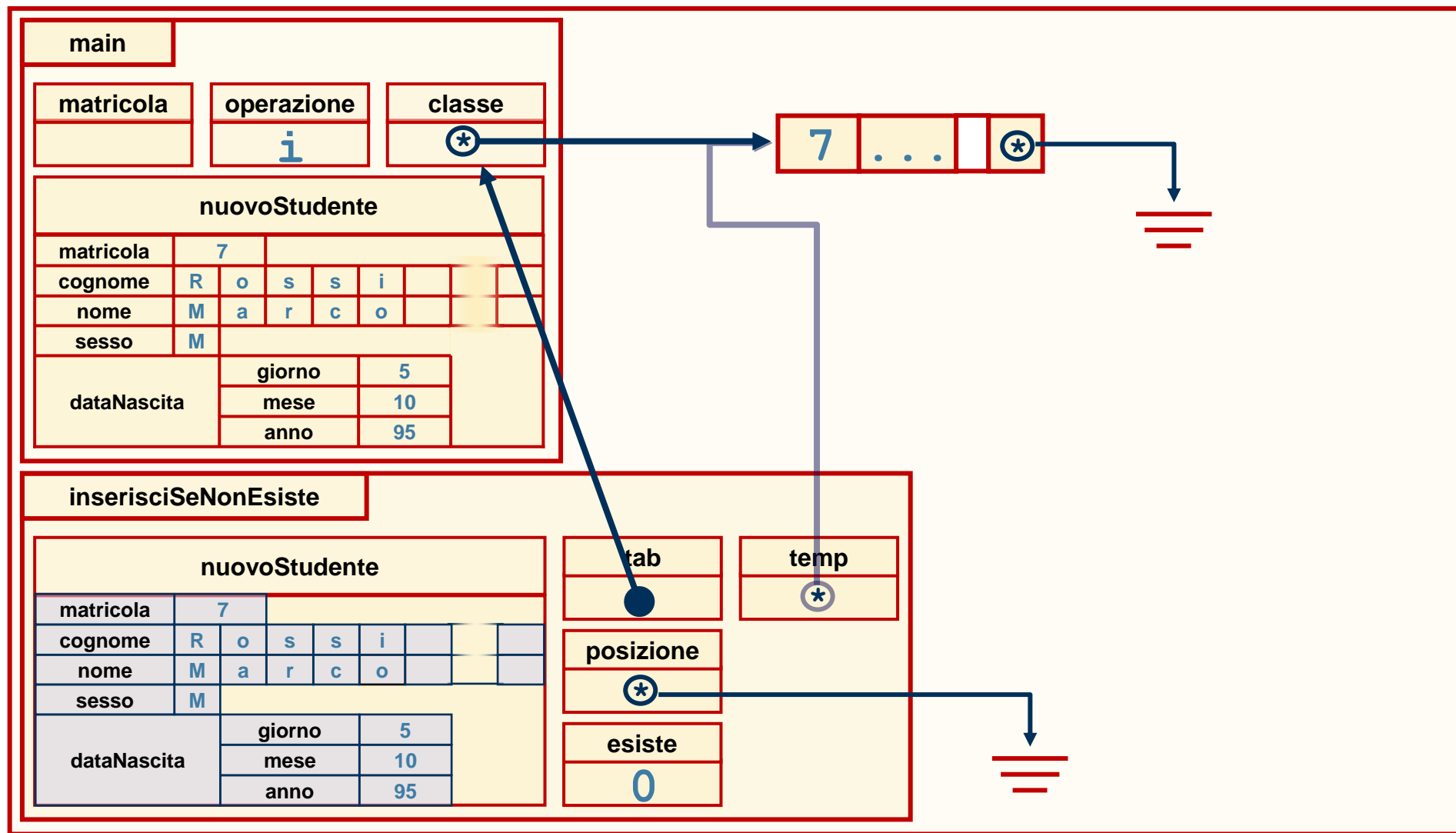


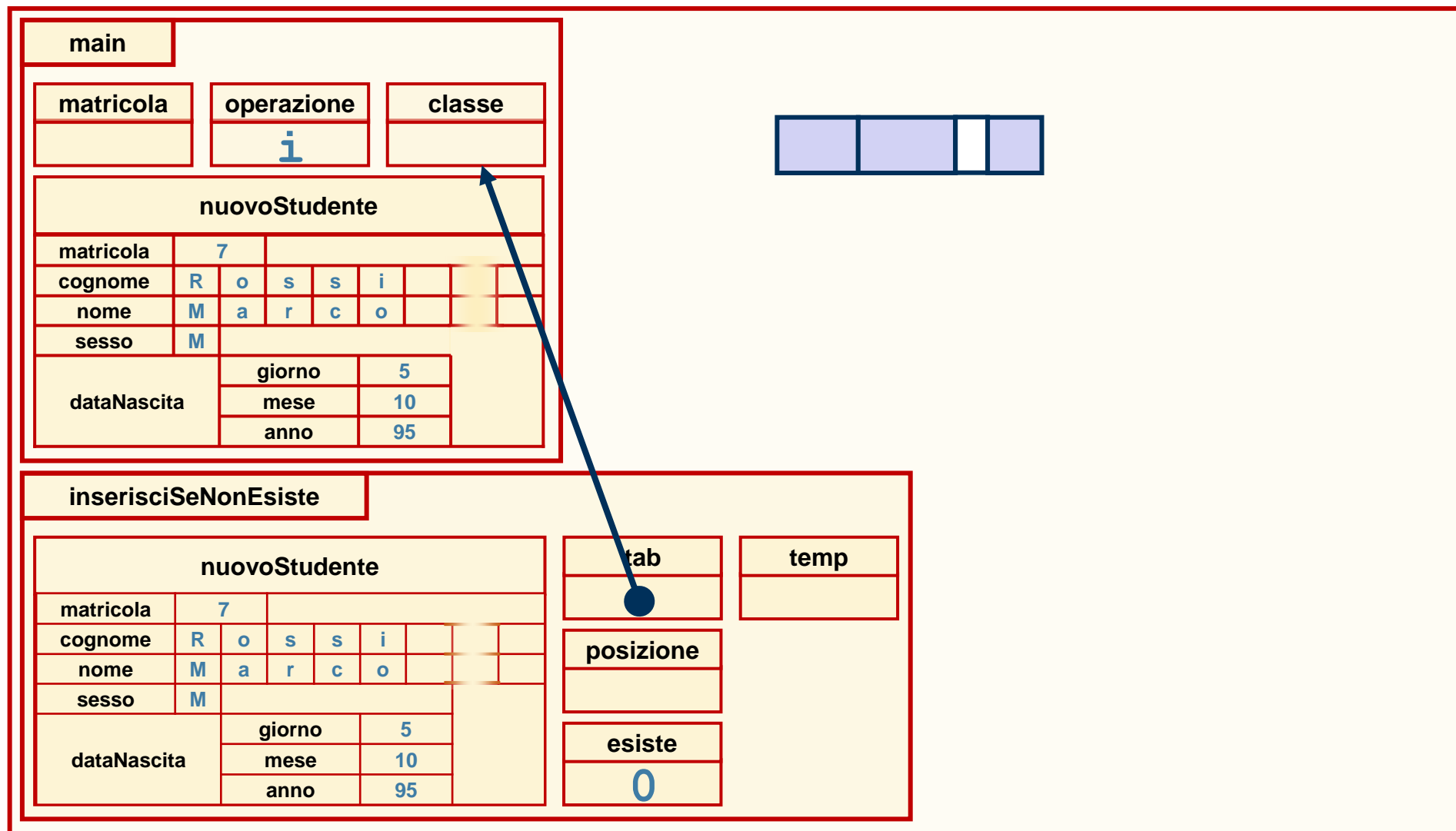


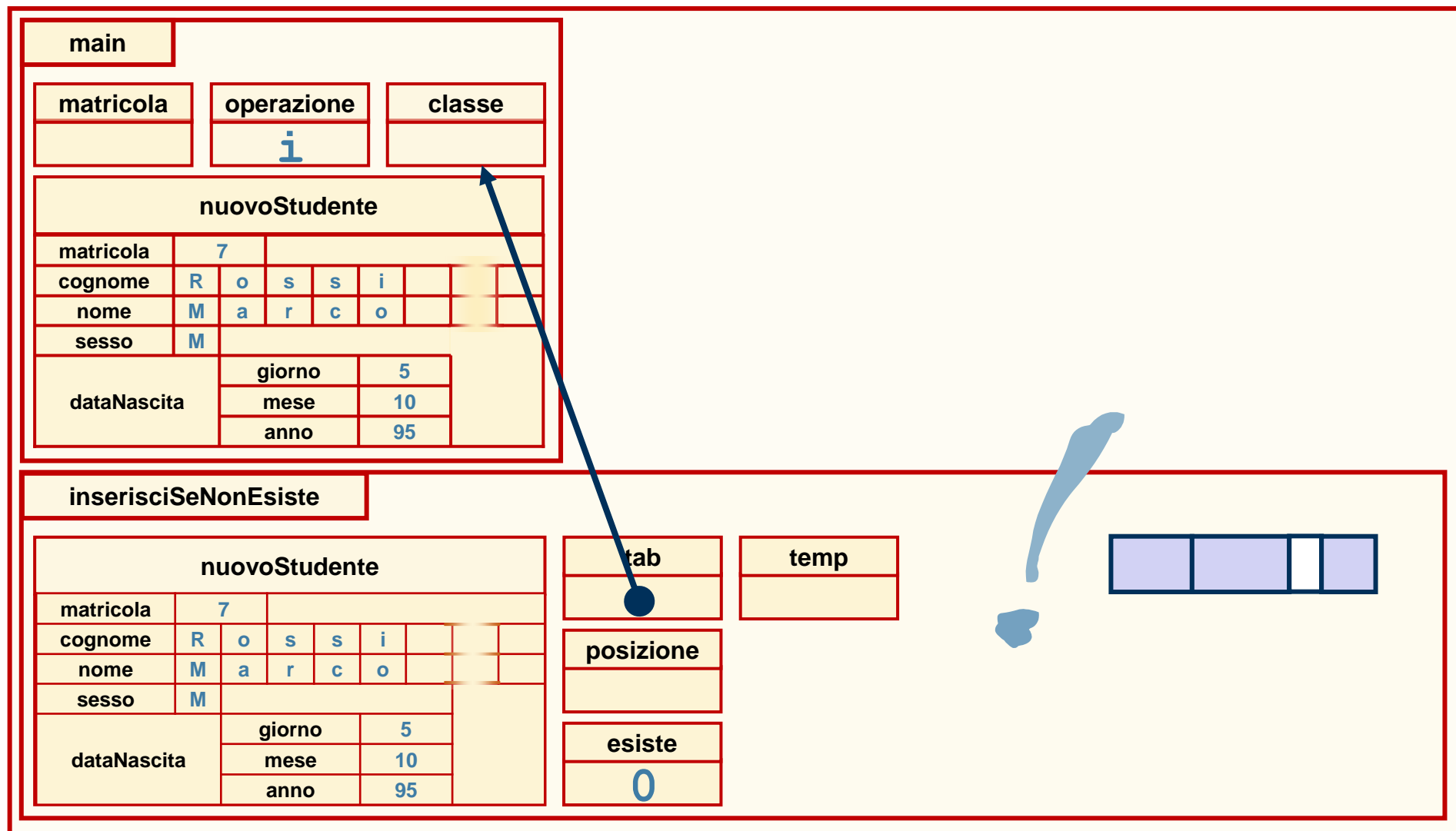


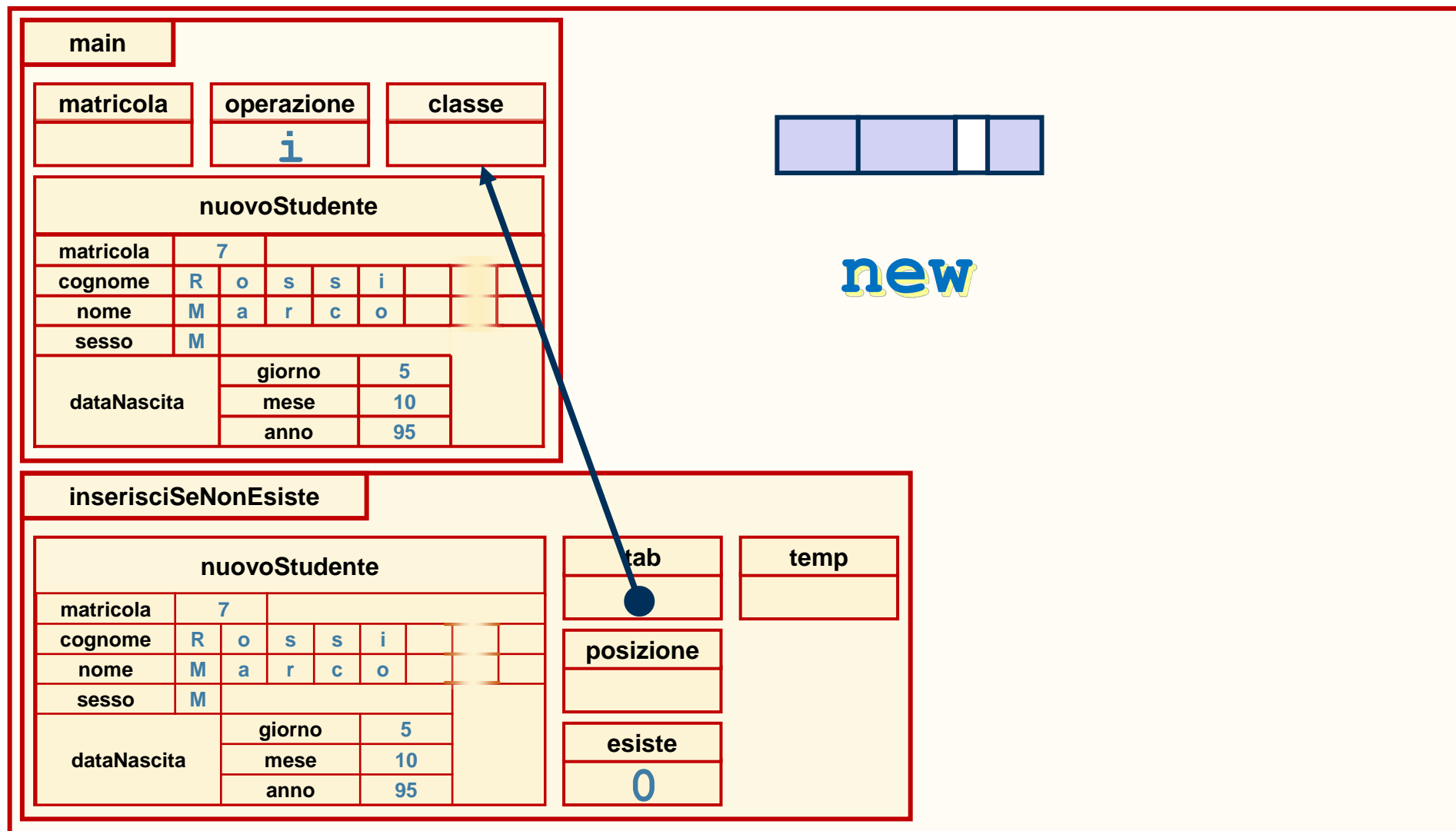


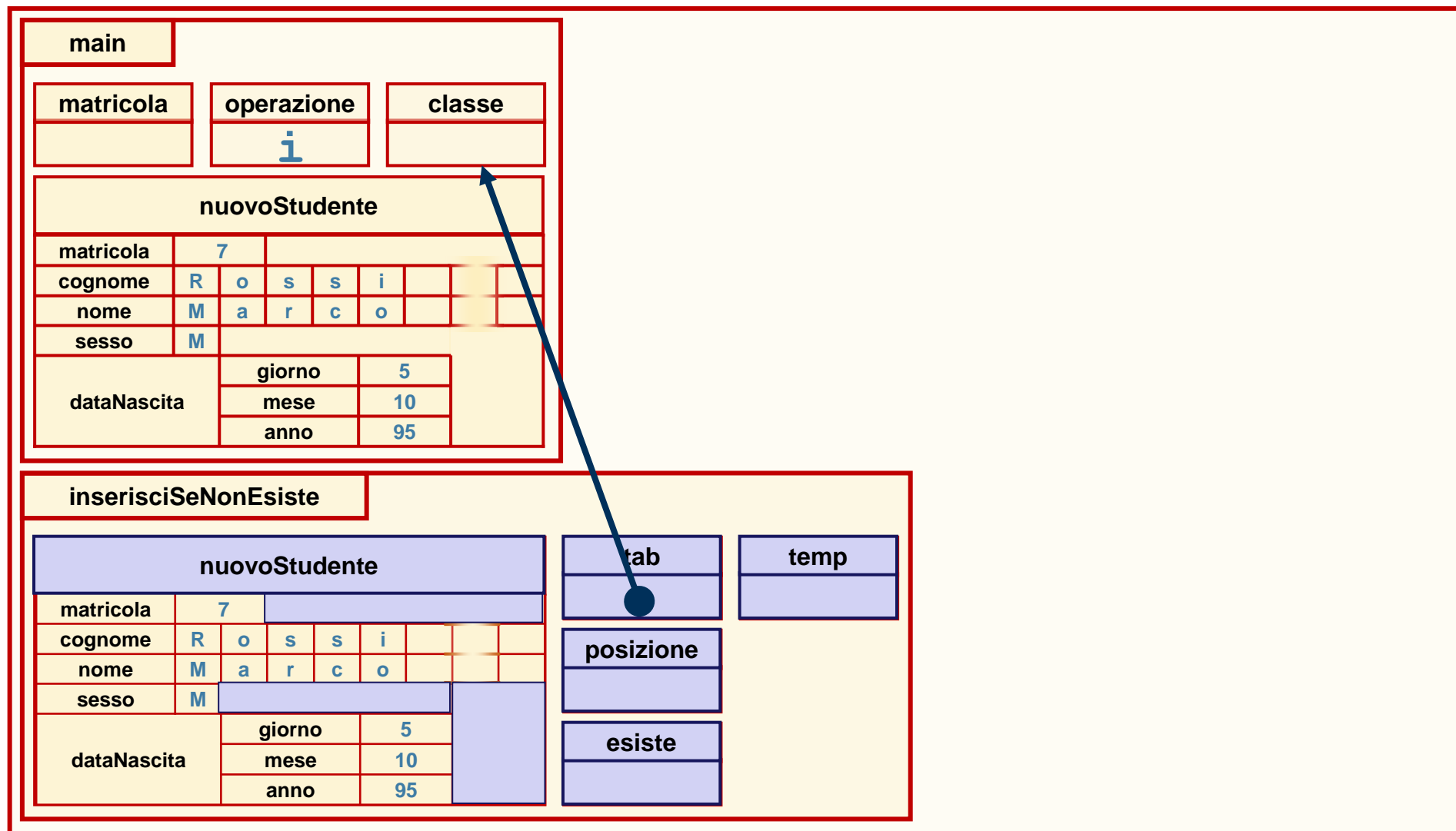






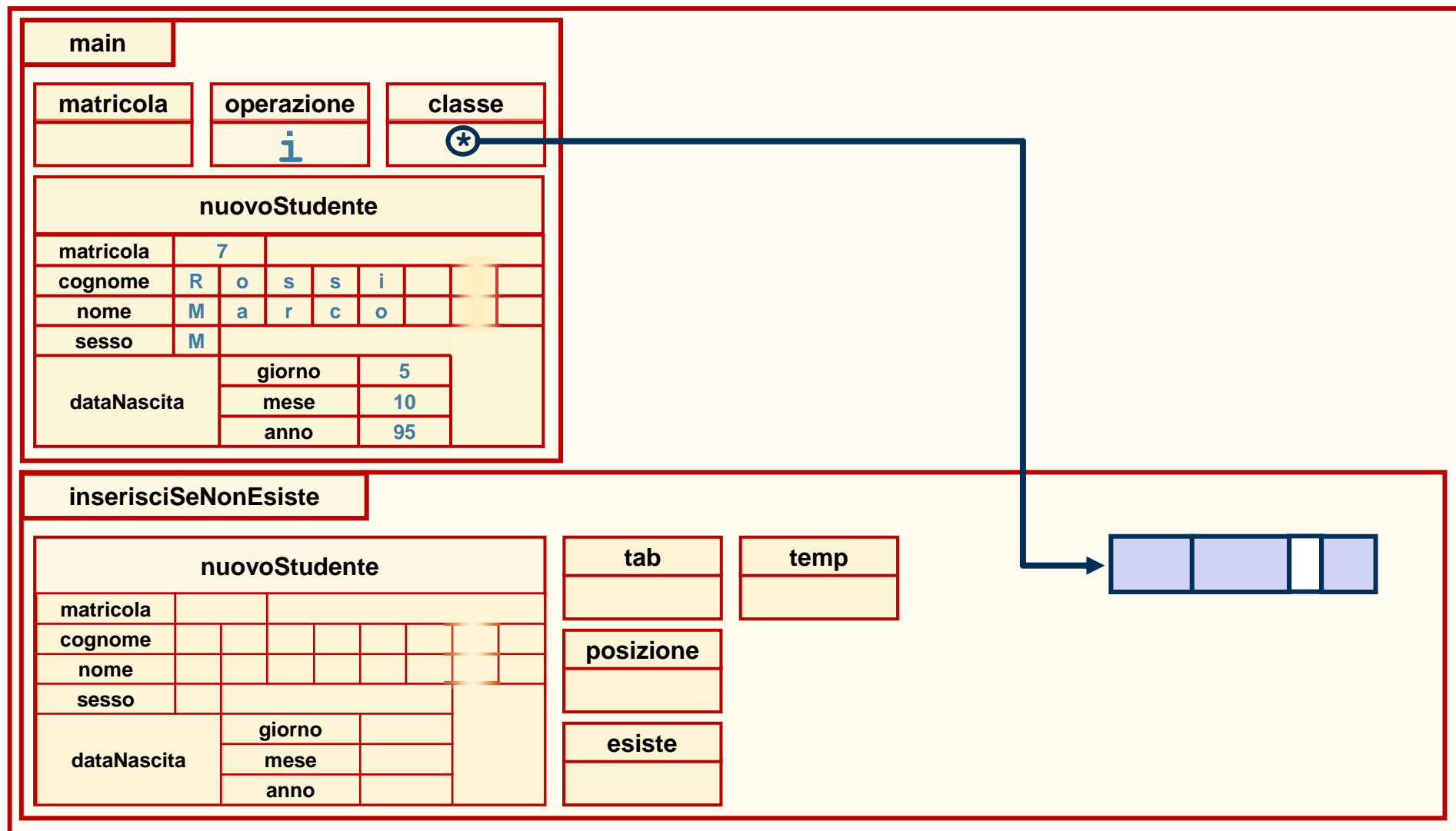


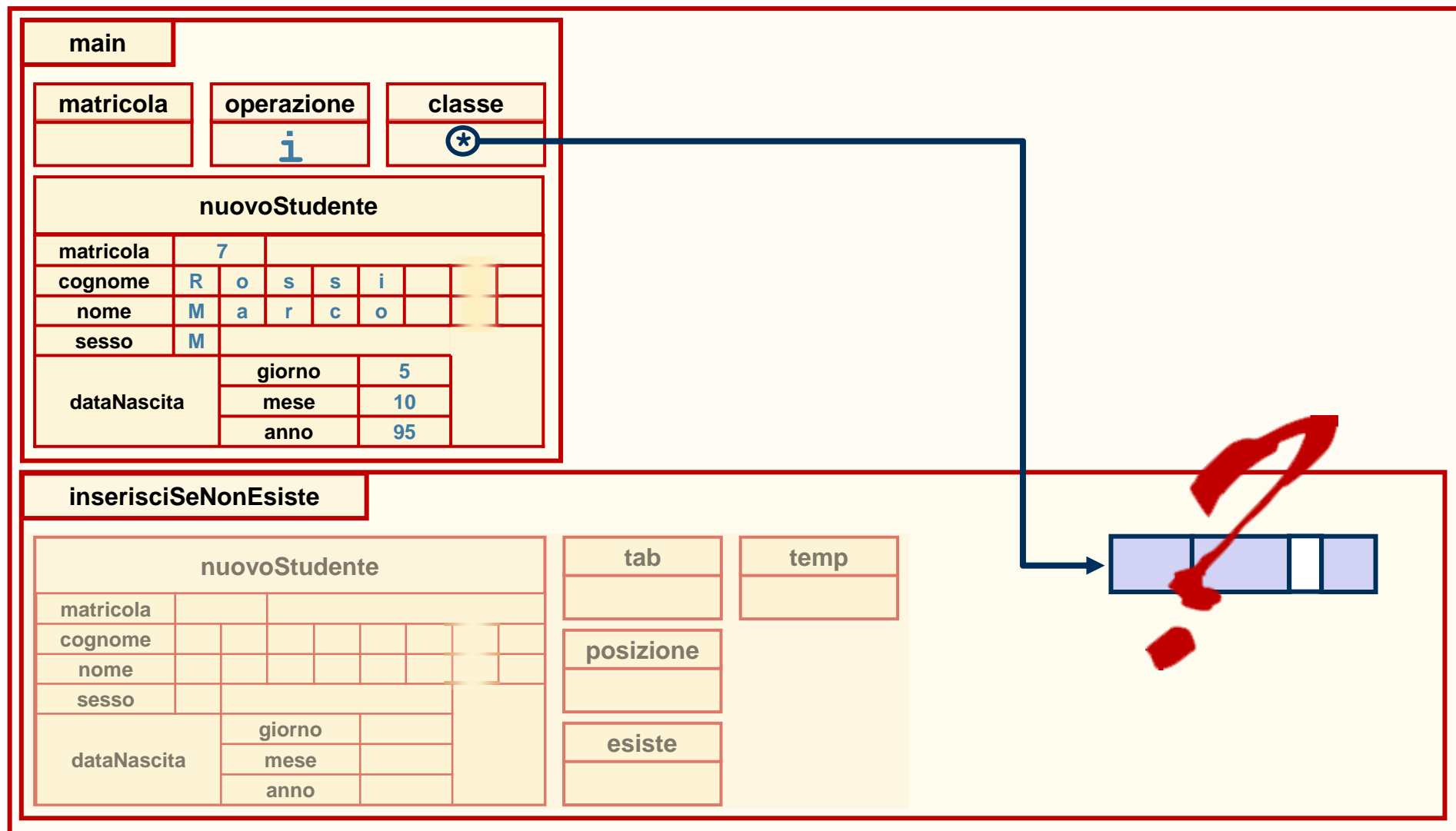




main												
matricola			operazione				classe					
			i									
nuovoStudente												
matricola		7										
cognome		R	o	s	s	i						
nome		M	a	r	c	o						
sesso		M										
dataNascita		giorno		5								
		mese		10								
		anno		95								

inserisciSeNonEsiste												
nuovoStudente												
matricola		7										
cognome		R	o	s	s	i						
nome		M	a	r	c	o						
sesso		M										
dataNascita		giorno		5								
		mese		10								
		anno		95								
tab												
temp												
posizione												
esiste		0										

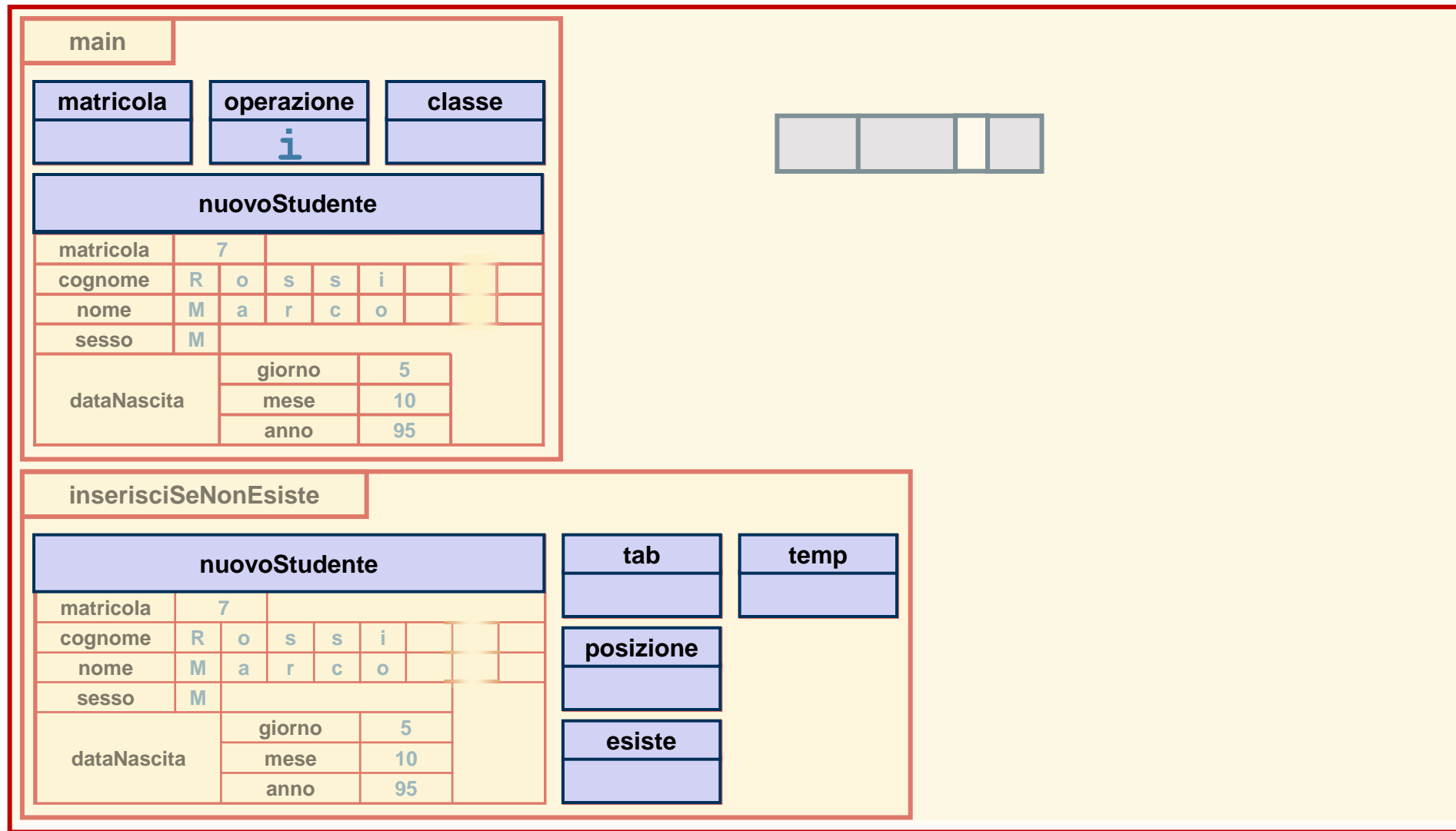


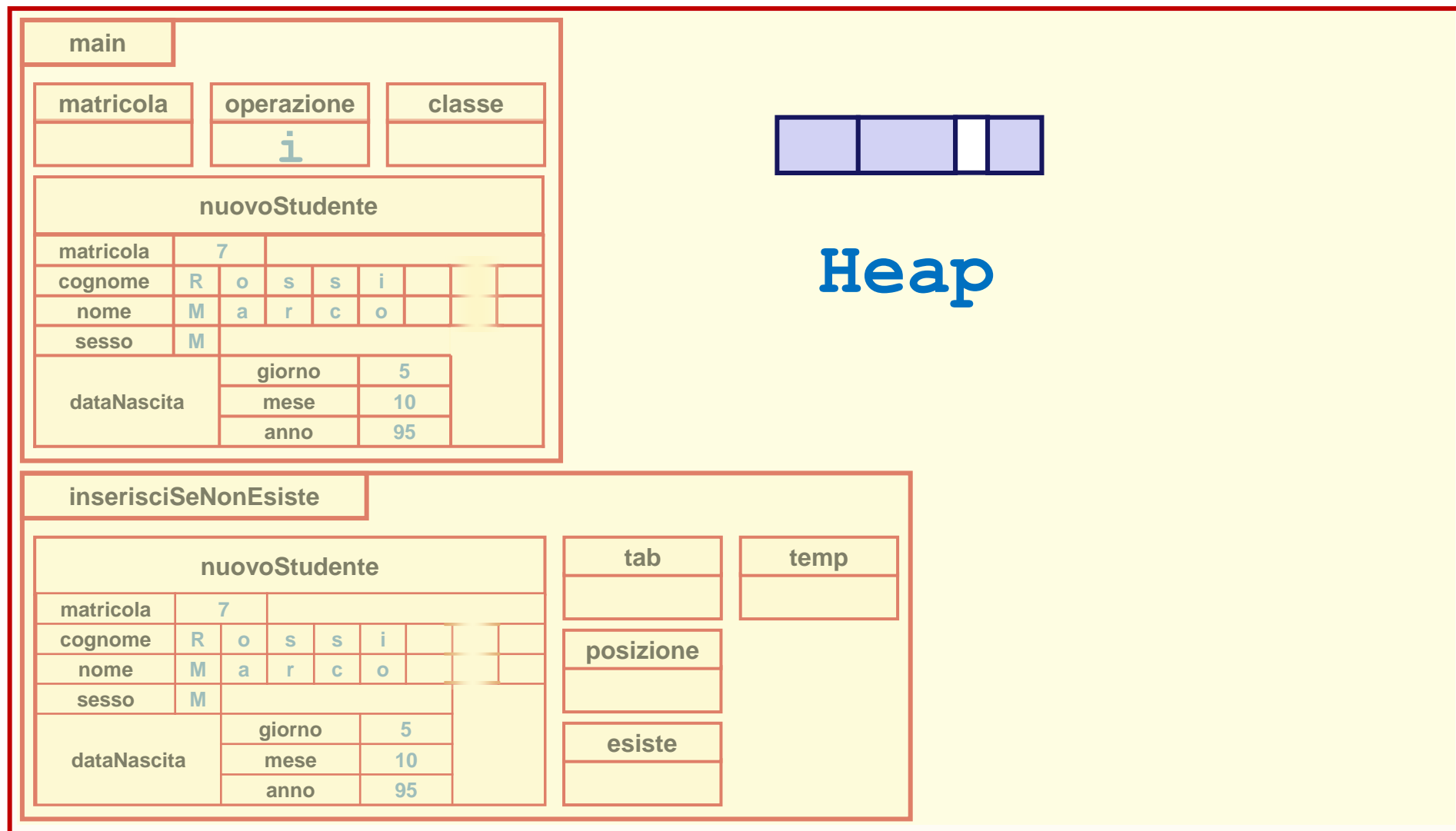


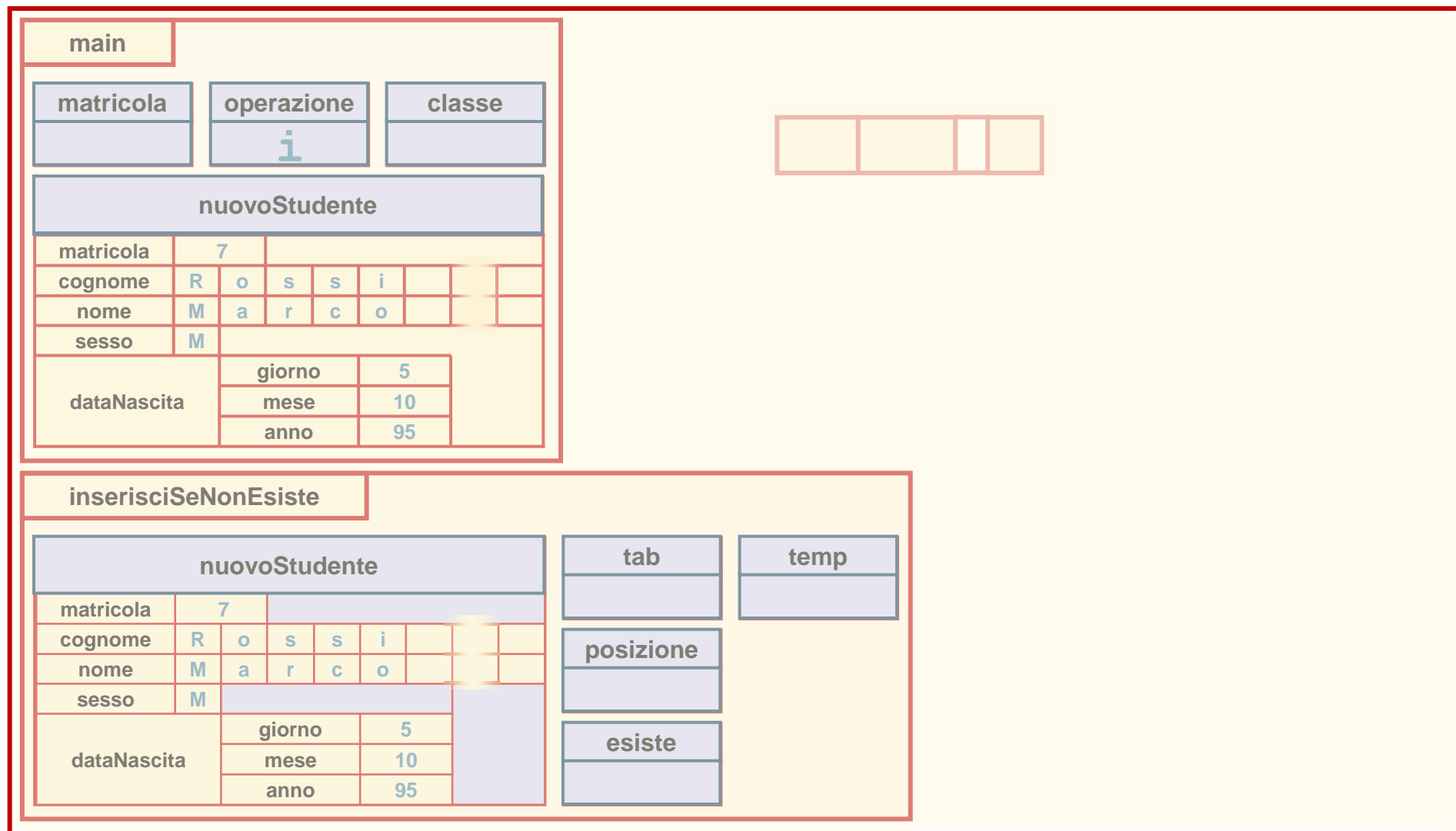
main														
matricola			operazione				classe							
			i				⊛							
nuovoStudente														
matricola		7												
cognome		R	o	s	s	i								
nome		M	a	r	c	o								
sesso		M												
dataNascita		giorno			5									
		mese			10									
		anno			95									

*new
non hanno nome*

inserisciSeNonEsiste														
nuovoStudente														
matricola		7												
cognome		R	o	s	s	i								
nome		M	a	r	c	o								
sesso		M												
dataNascita		giorno			5									
		mese			10									
		anno			95									
tab					temp									
posizione														
esiste														







main												
matricola		operazione				classe						
		i										
nuovoStudente												
matricola		7										
cognome		R	o	s	s	i						
nome		M	a	r	c	o						
sesso		M										
dataNascita		giorno		5								
		mese		10								
		anno		95								

--	--	--	--

inserisciSeNonEsiste												
nuovoStudente												
matricola		7										
cognome		R	o	s	s	i						
nome		M	a	r	c	o						
sesso		M										
dataNascita		giorno		5								
		mese		10								
		anno		95								
tab		temp										
posizione												
esiste		0										

main

matricola	operazione	classe
	i	

nuovoStudente

matricola	7	
cognome	R	o s s i
nome	M	a r c o
sex	M	
dataNascita	giorno	5
	month	10
	year	95

inserisciSeNonEsiste

nuovoStudente

matricola	7	
cognome	R	o s s i
nome	M	a r c o
sex	M	
dataNascita	giorno	5
	month	10
	year	95

tab

temp

posizione

esiste

0

--	--	--	--

main											
matricola		operazione					classe				
		i									
nuovoStudente											
matricola		7									
cognome		R	o	s	s	i					
nome		M	a	r	c	o					
sex		M									
dataNascita			giorno			5					
			mese			10					
			anno			95					

inserisciSeNonEsiste

nuovoStudente

matricola	7							
cognome	R	o	s	s	i			
nome	M	a	r	c	o			
sex	M							
dataNascita	giorno		5					
	mese		10					
	anno		95					

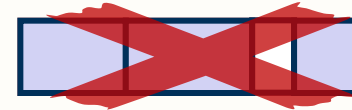
tab

temp

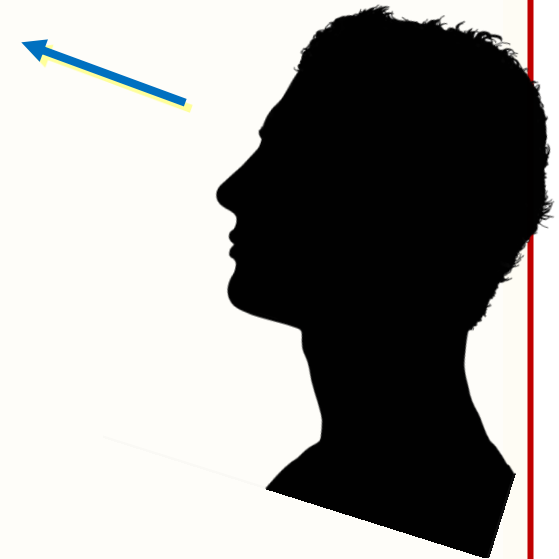
posizione

esiste

0



delete



Ambiente globale



main									
matricola		operazione			classe				
		i							
nuovoStudente									
matricola		7							
cognome		R	o	s	s	i			
nome		M	a	r	c	o			
sesso		M							
dataNascita		giorno		5					
		mese		10					
		anno		95					

inserisciSeNonEsiste									
nuovoStudente									
matricola		7							
cognome		R	o	s	s	i			
nome		M	a	r	c	o			
sesso		M							
dataNascita		giorno		5					
		mese		10					
		anno		95					
tab									
temp									
posizione									
esiste		0							

main

Array “magazzino”

zione

nuovoStudente

matricola	91						
Cognome	V	i	o	l	i		
nome	A	l	d	o			
sex	M						
dataNascita	giorno	10					
	me	5					
	anno	96					

classe

num	elenco						
	matricola	cognome	nome	sex	dataNascita		
					giorno	me	anno
4							
0	7	Rossi	Marco	M	5	10	95
1	48	Neri	Anna	F	4	7	95
2	63	Verdi	Remo	M	5	8	96
3	84	Gialli	Carla	F	5	11	95
4							

inserisciSeNonEsiste

nuovoStudente

matricola	91						
cognome	V	i	o	l	i		
nome	A	l	d	o			
sex	M						
dataNascita	giorno	10					
	me	5					
	anno	96					

tab

posizione

esiste

cercaSeEsisteEPosizione

pos

dato

esiste

tab

main

matricola

operazione

nuovoStudente

matricola	91						
Cognome	V	i	o	l	i		
nome	A	l	d	o			
sex	M						
dataNascita	giorno	10					
	me	5					
	anno	96					

classe

num	elenco						
	matricola	cognome	nome	sex	dataNascita		
					giorno	me	anno
0							
1							
2							
3							
4							

inserisciSeNonEsiste

nuovoStudente

matricola	91						
cognome	V	i	o	l	i		
nome	A	l	d	o			
sex	M						
dataNascita	giorno	10					
	me	5					
	anno	96					

tab

posizione

esiste

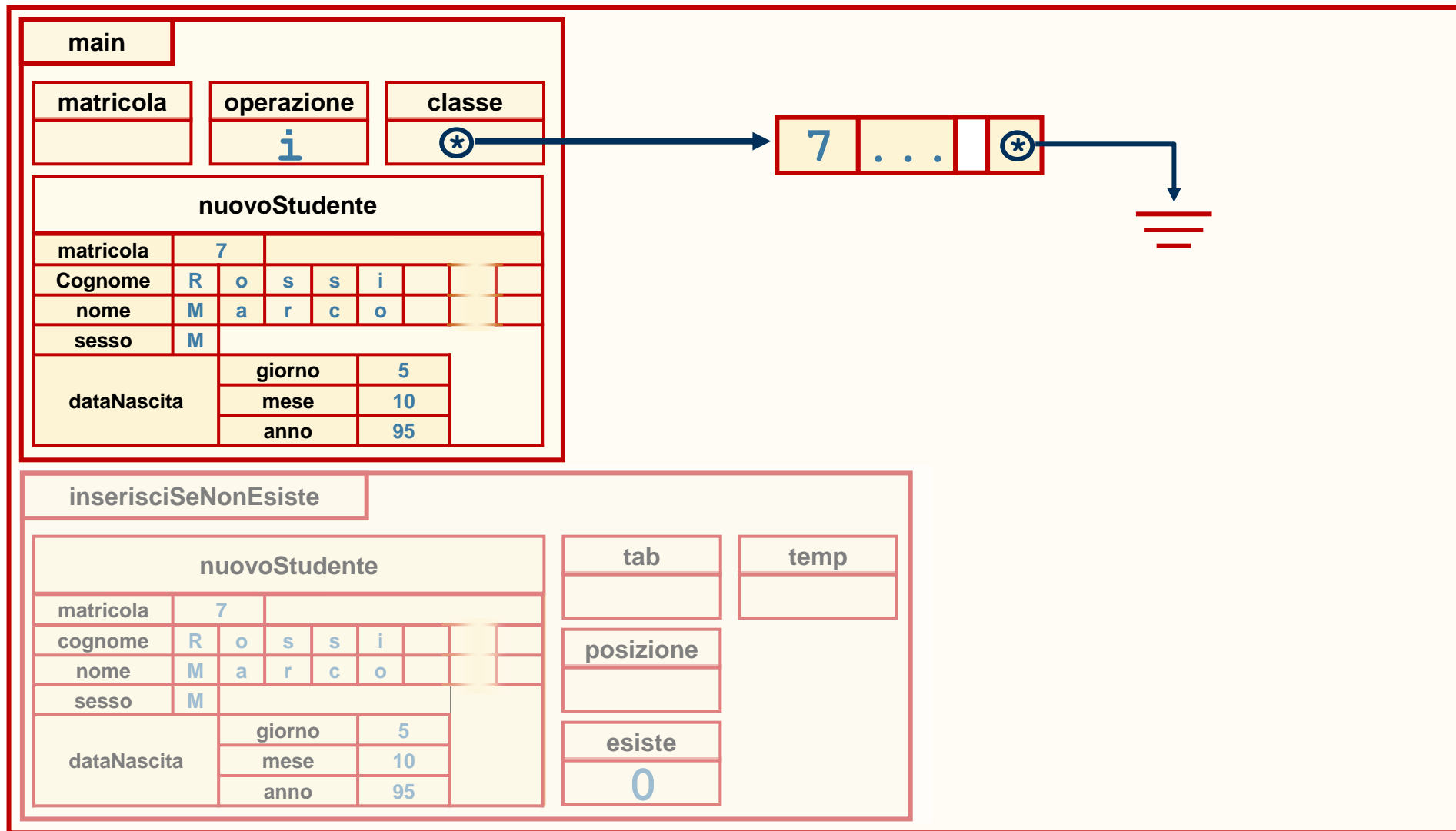
cercaSeEsisteEPosizione

pos

dato

esiste

tab



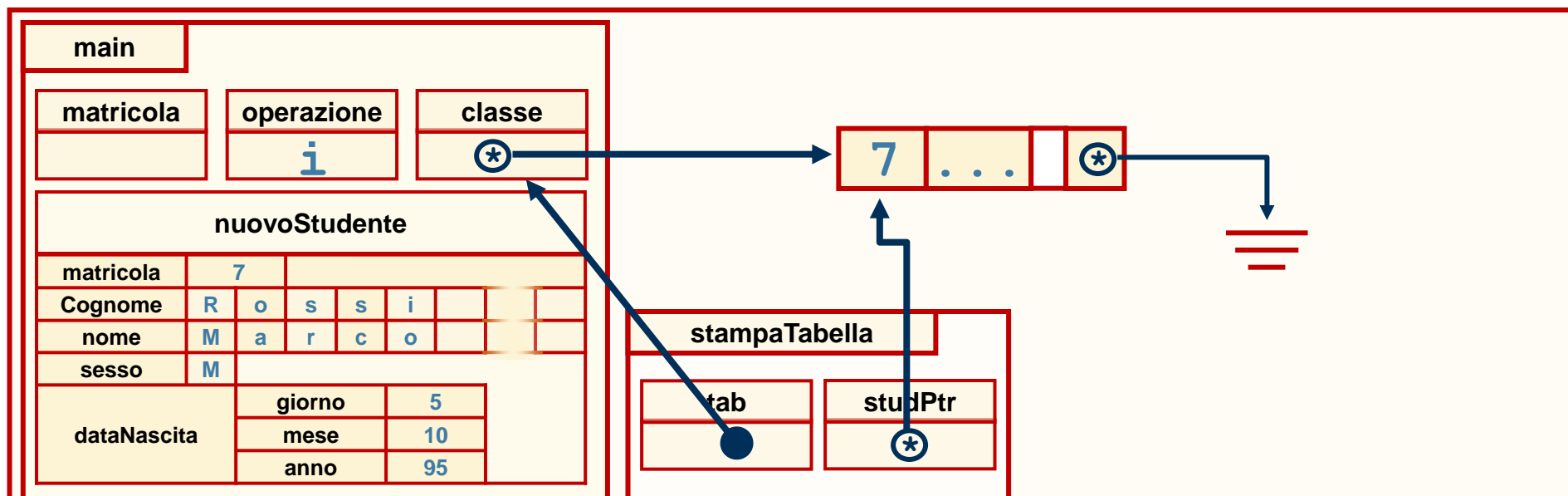
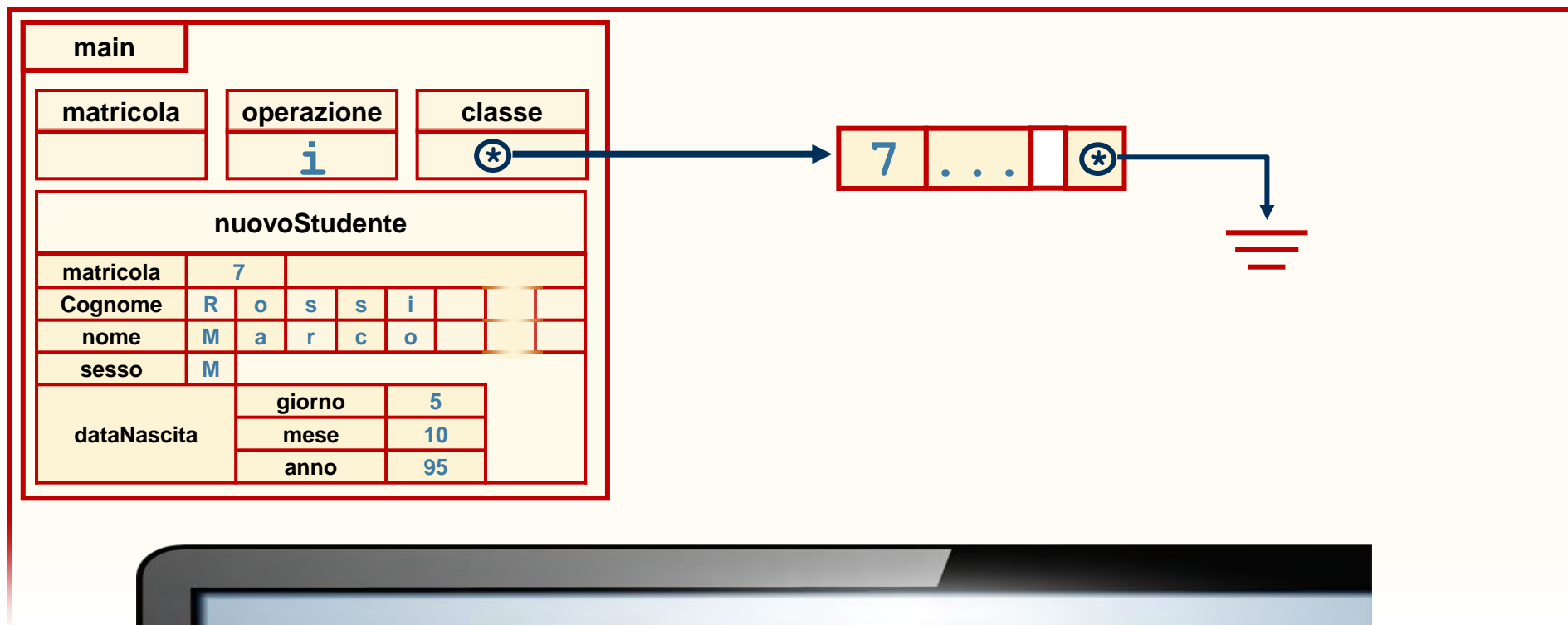
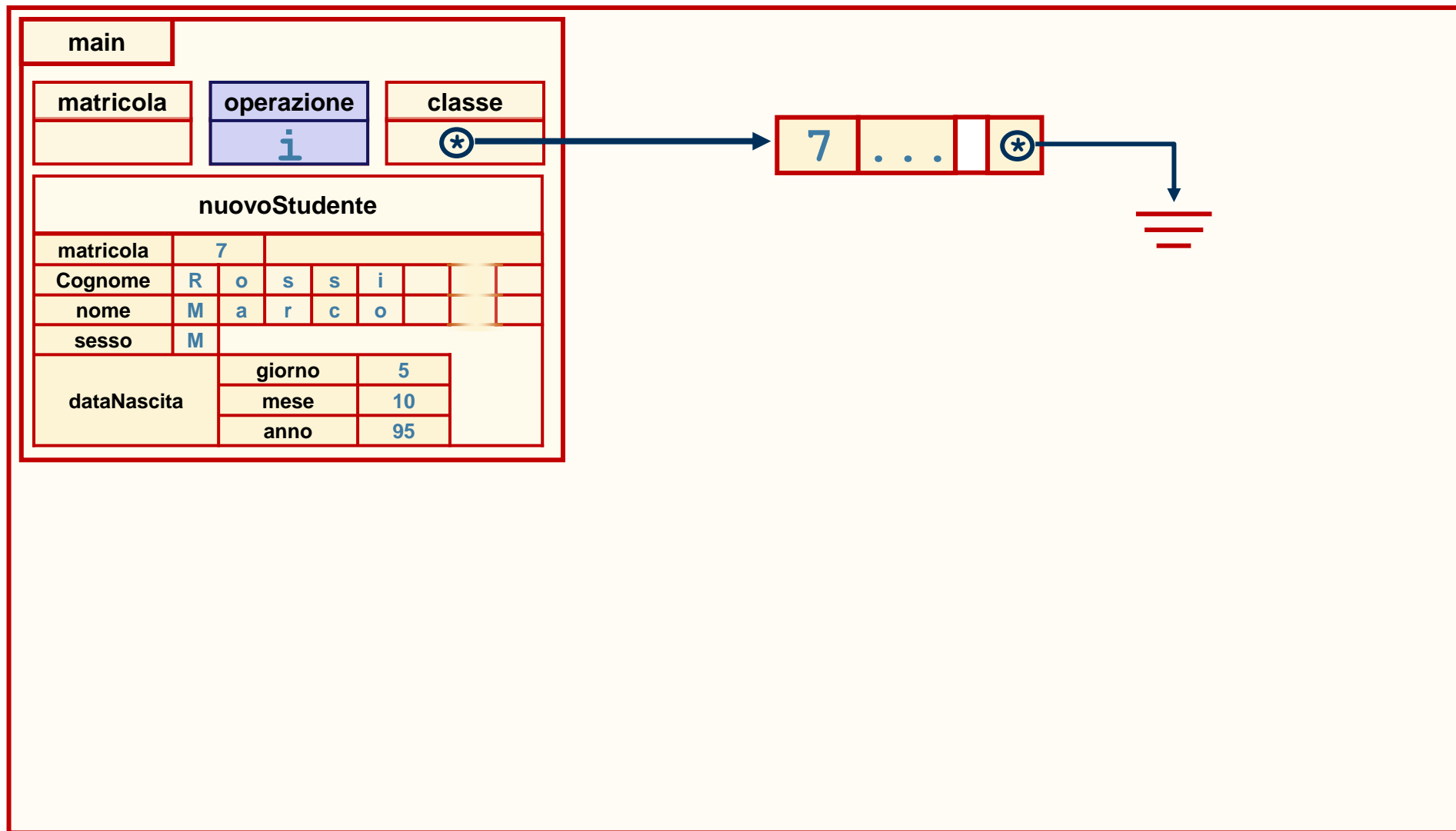


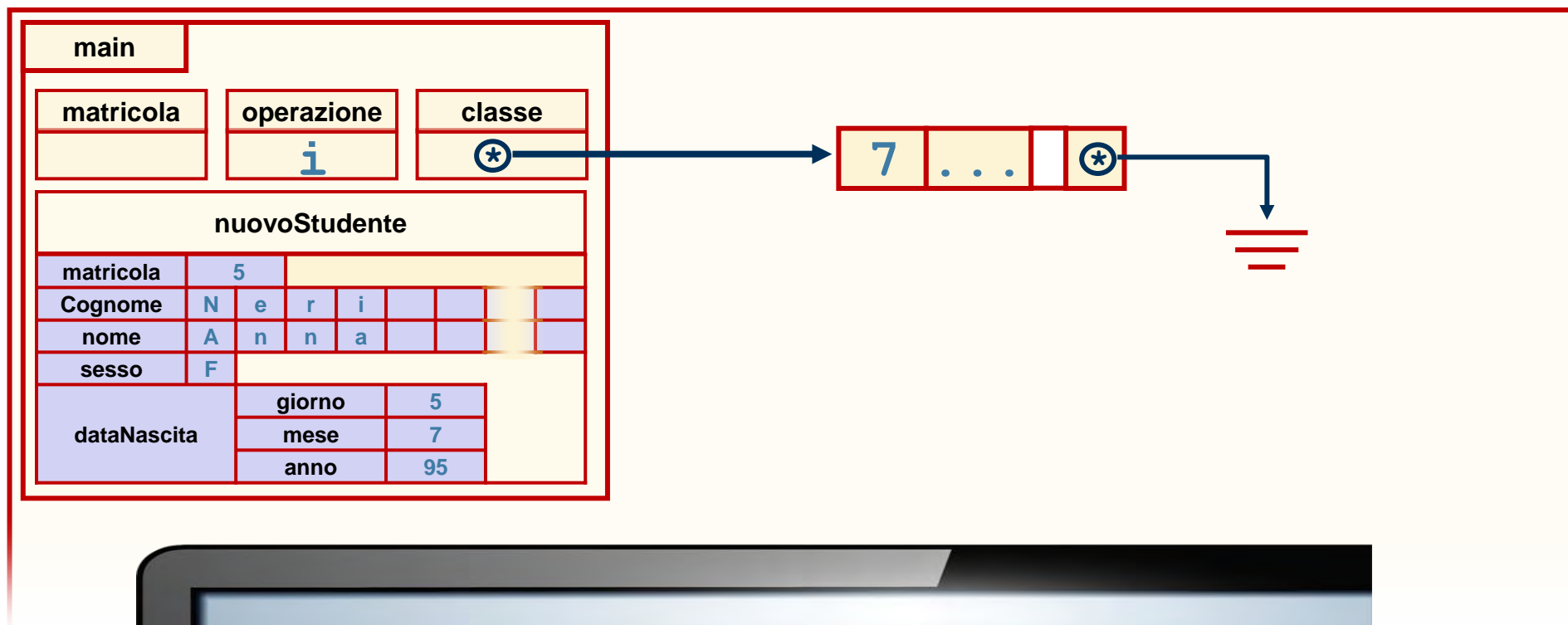
tabella con il solo campo chiave
7



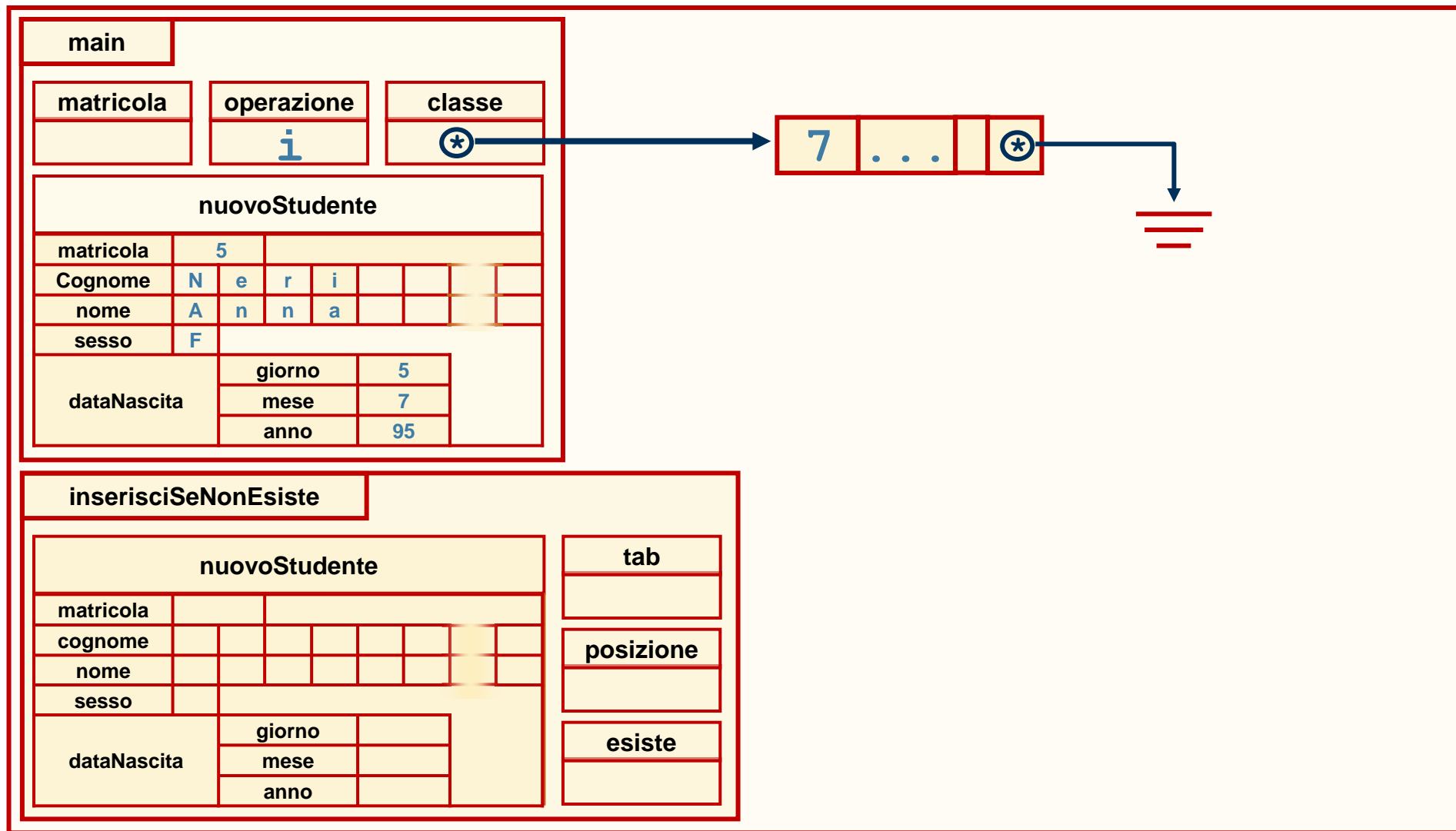
acquisizione operazioni

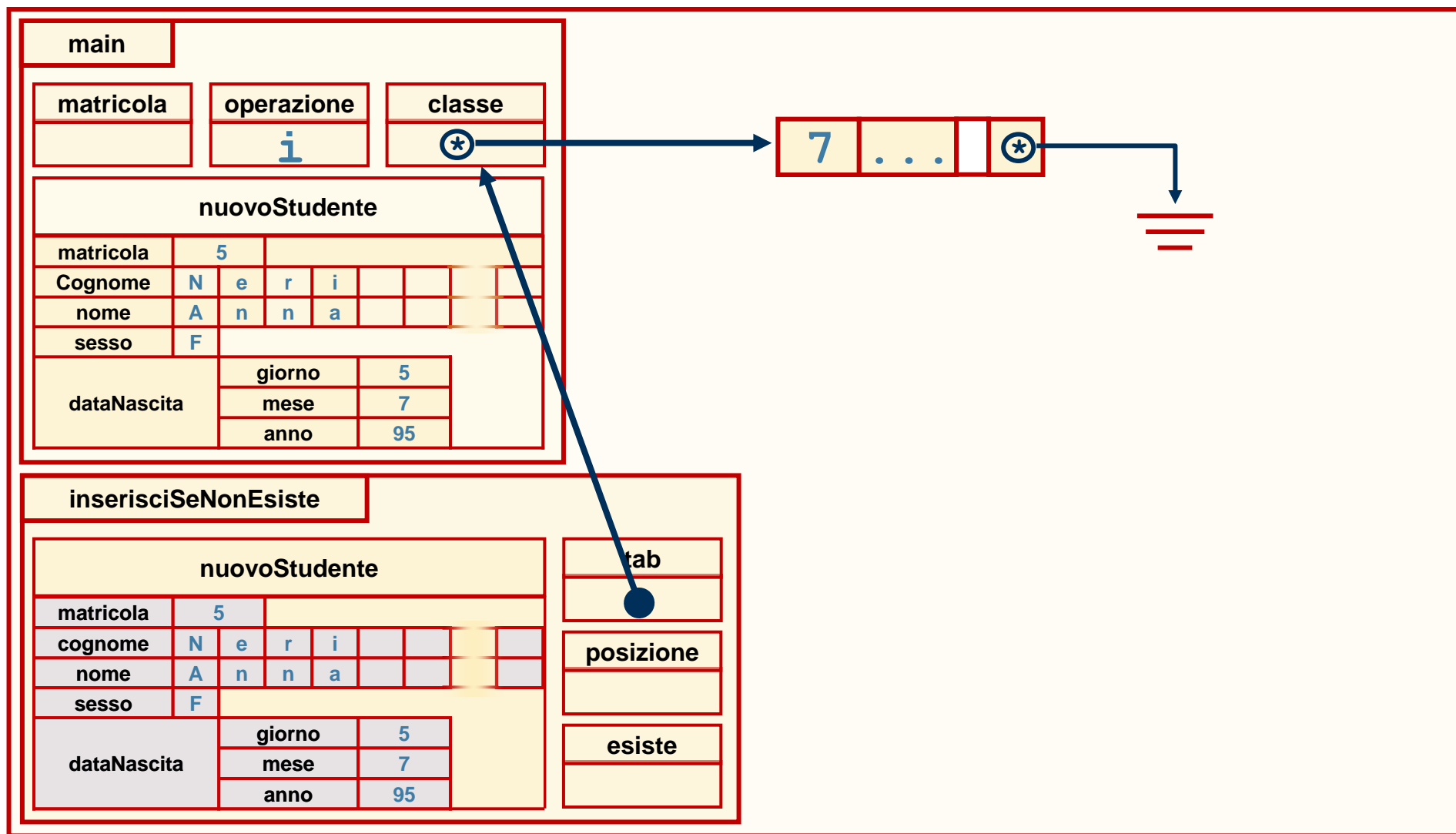
operazione? (i per inserimento, e per eliminazione, f per fine):

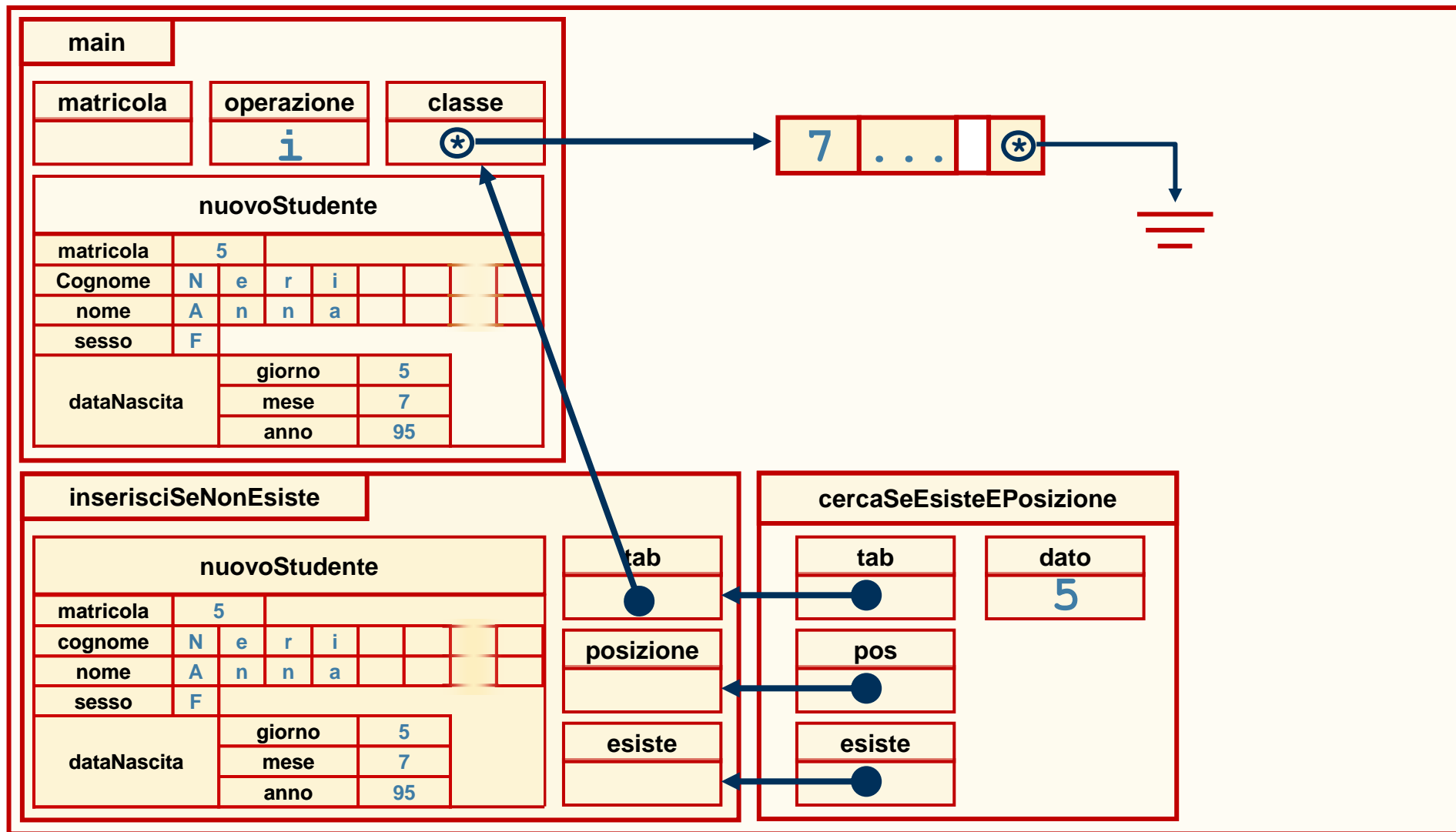


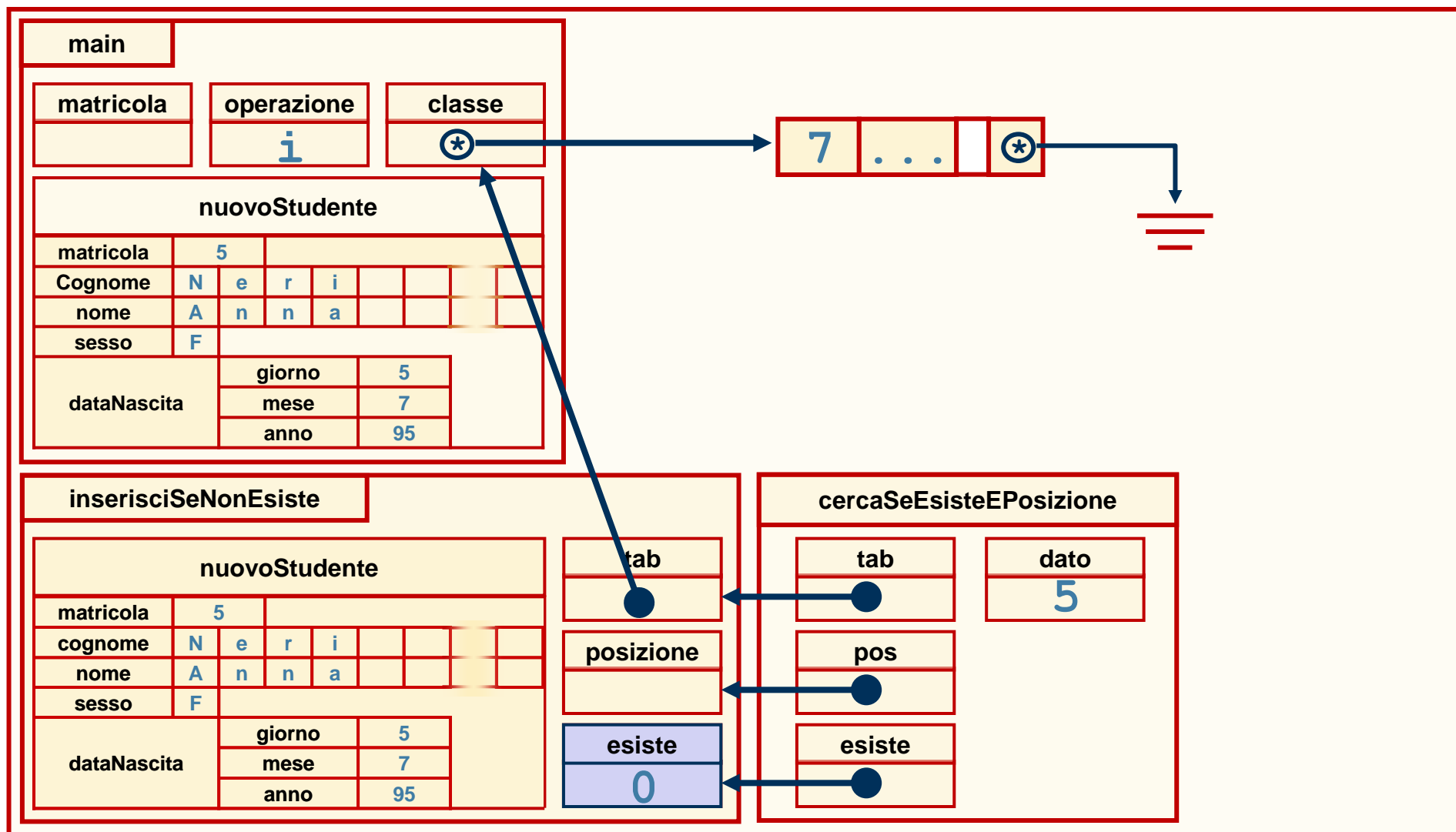


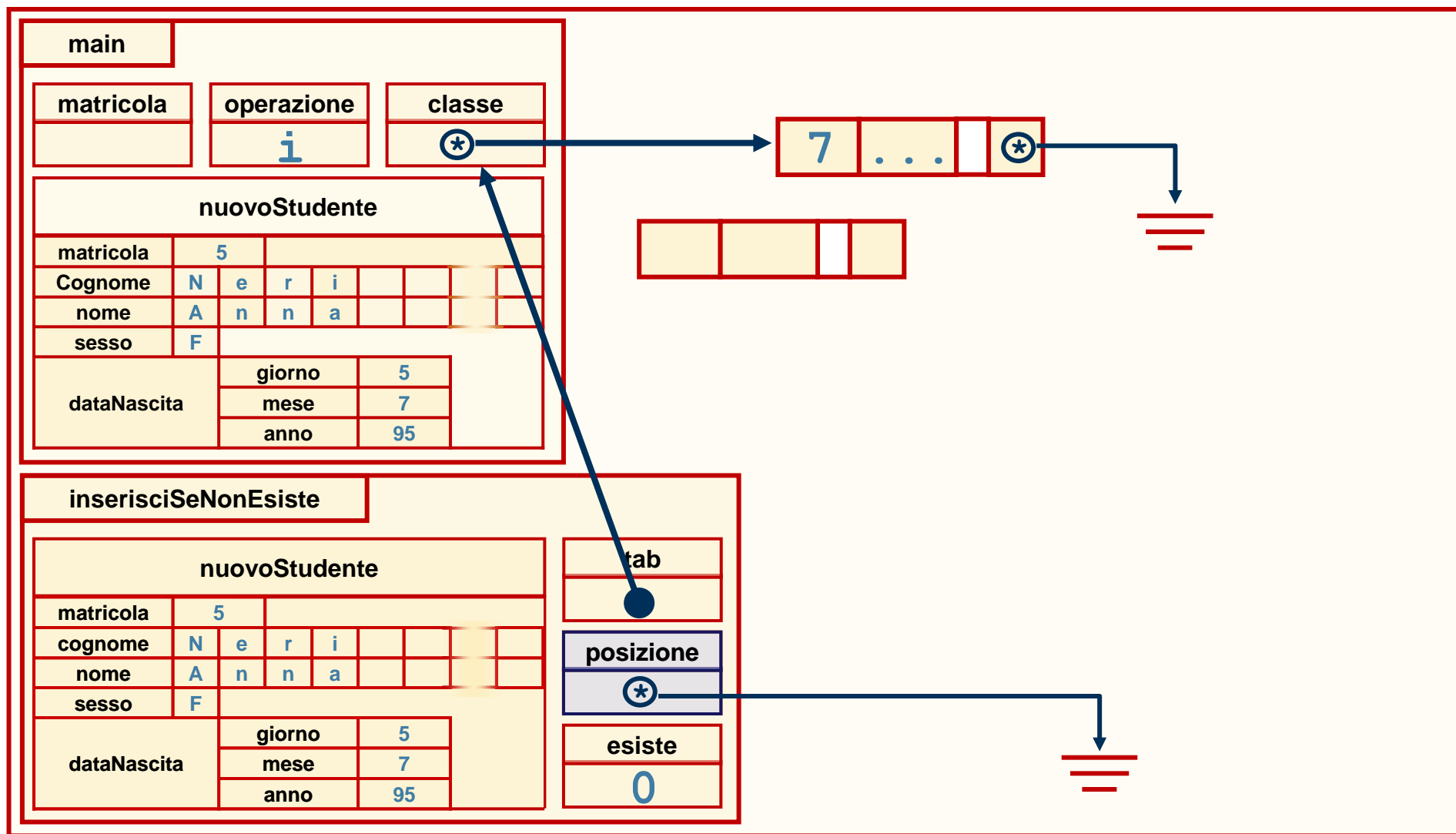
dati del nuovo studente
matricola: 5
cognome: Neri
nome: Anna
sesso(M/F): F
giorno di nascita (1-31): 5
mese di nascita (1-12): 7
anno di nascita (0-99): 95

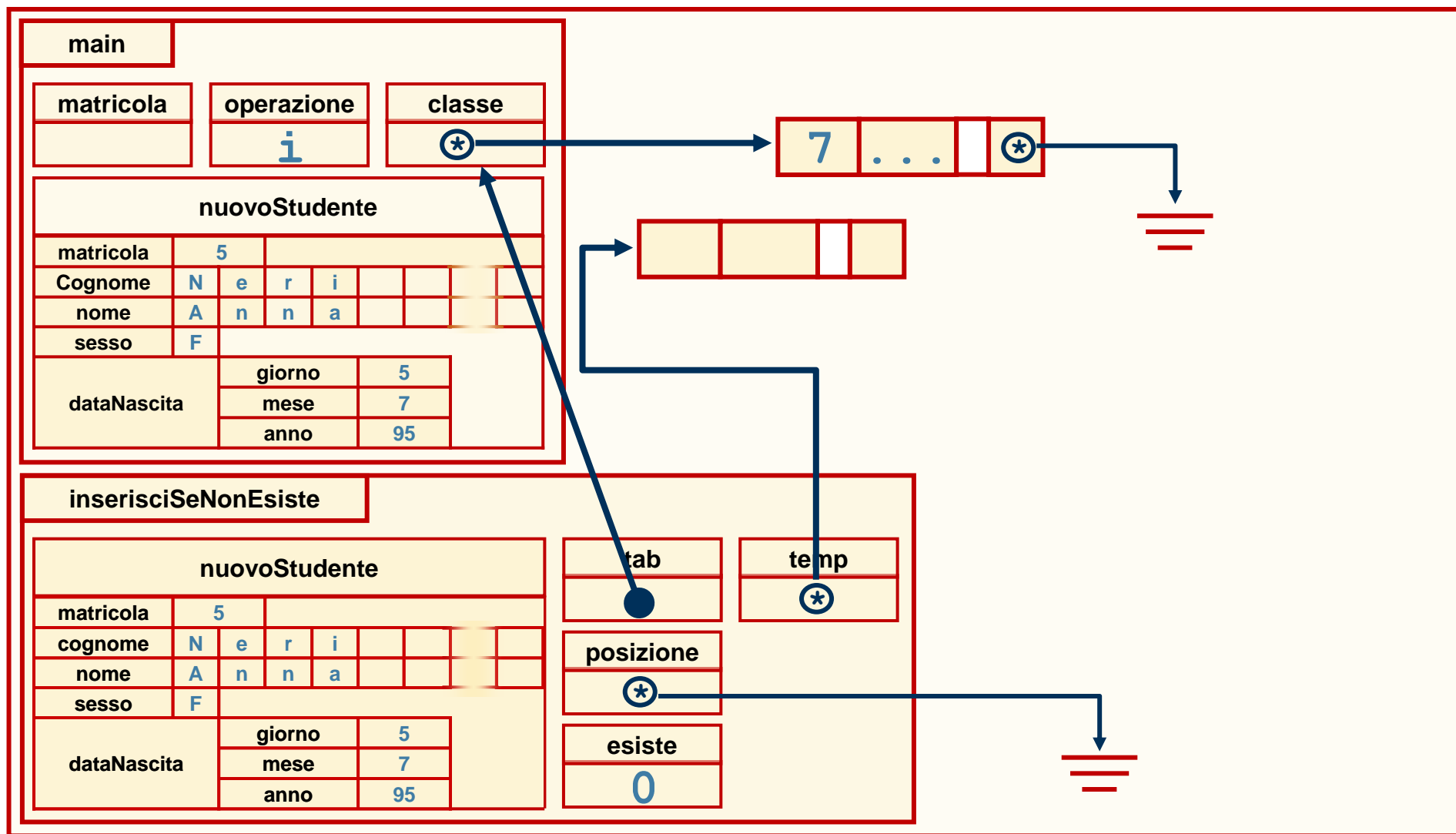






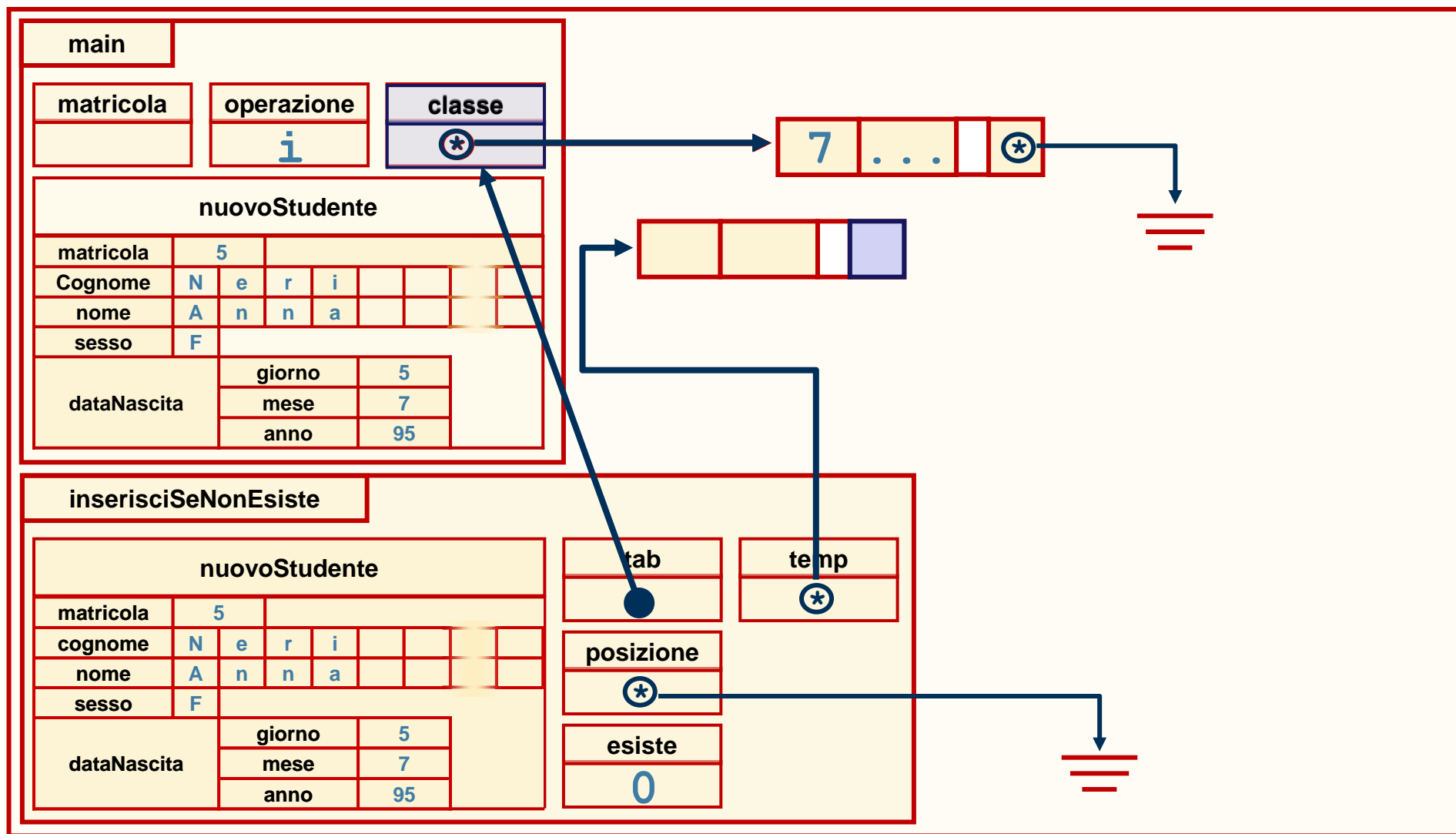


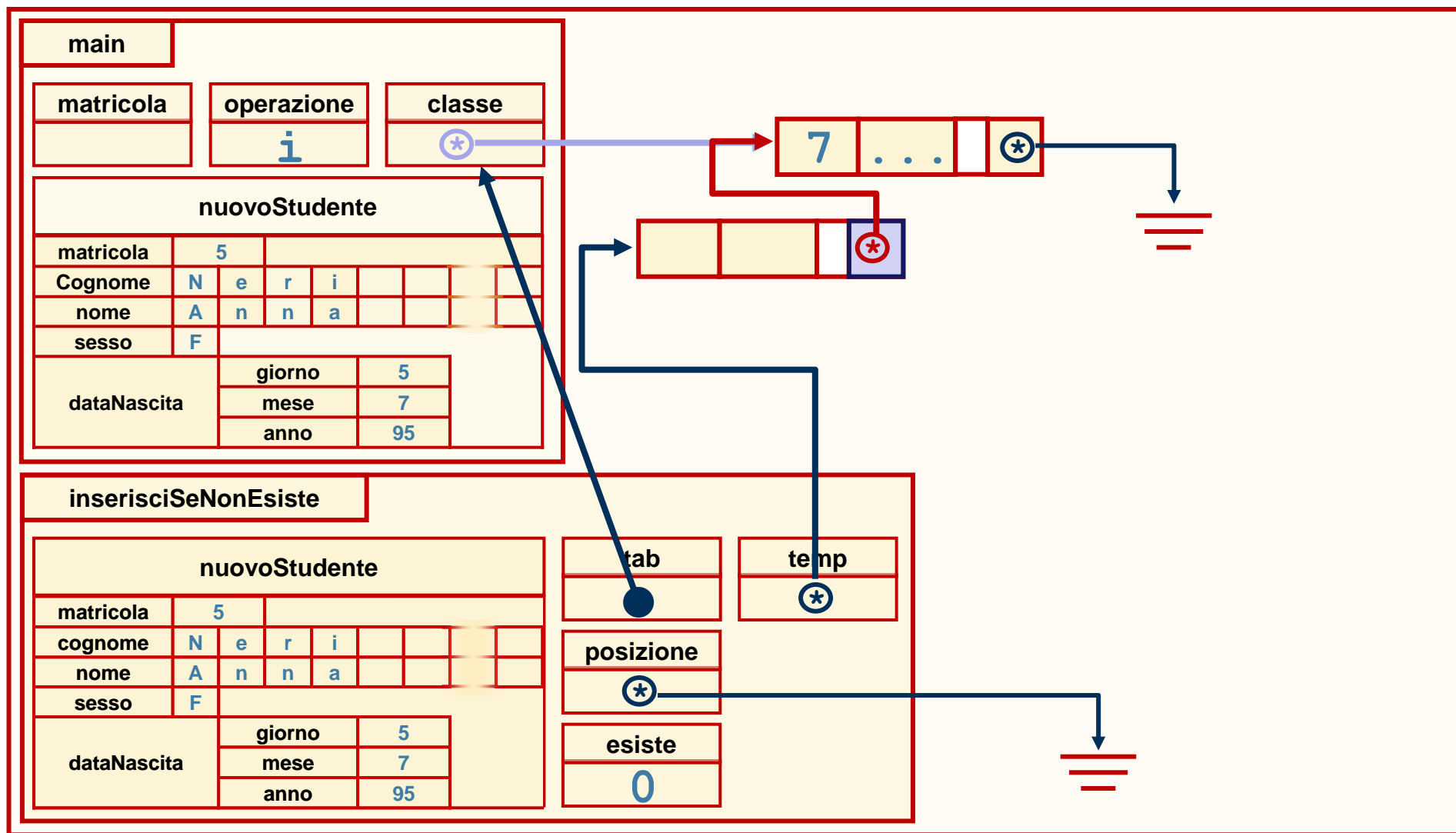


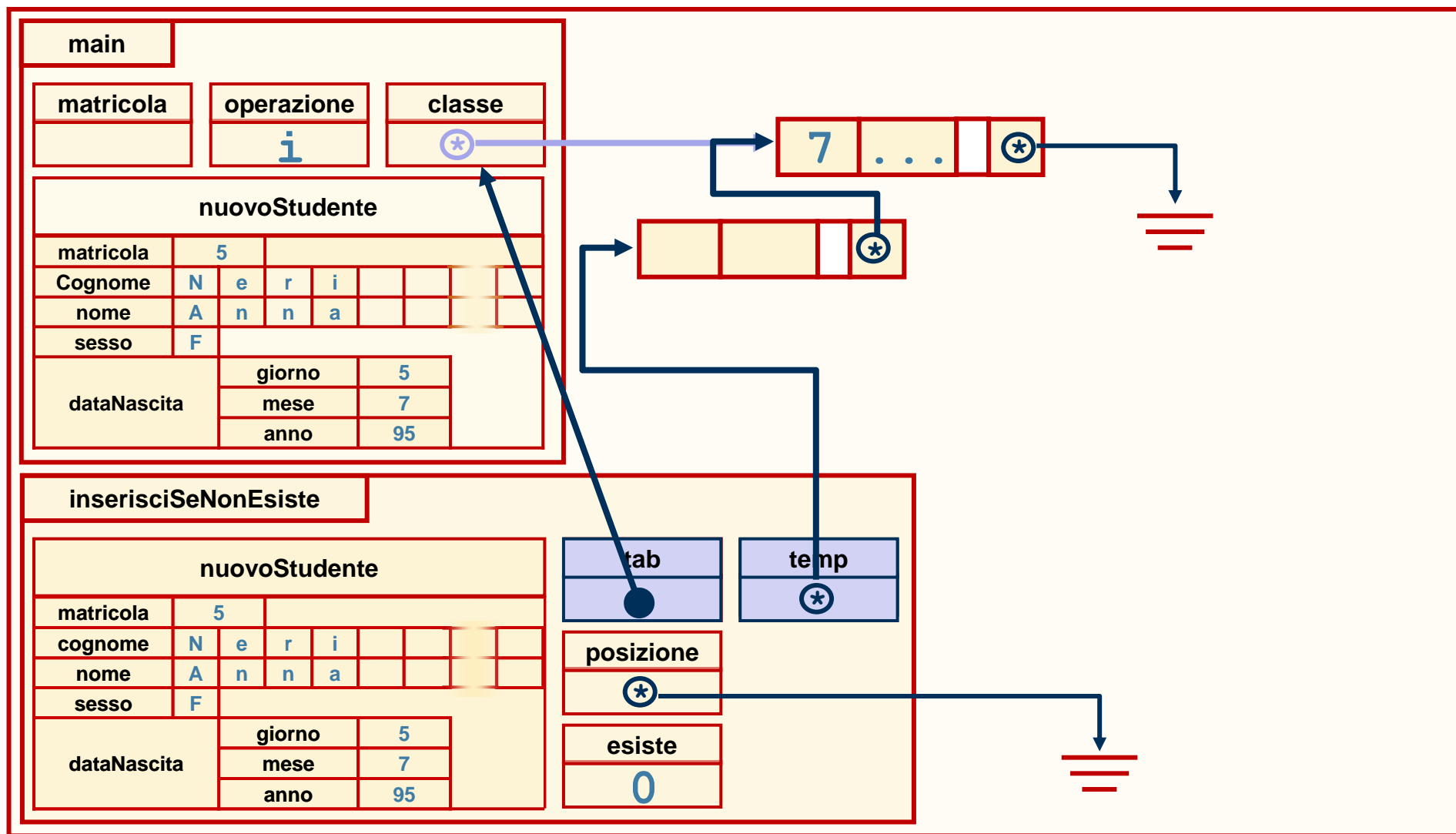


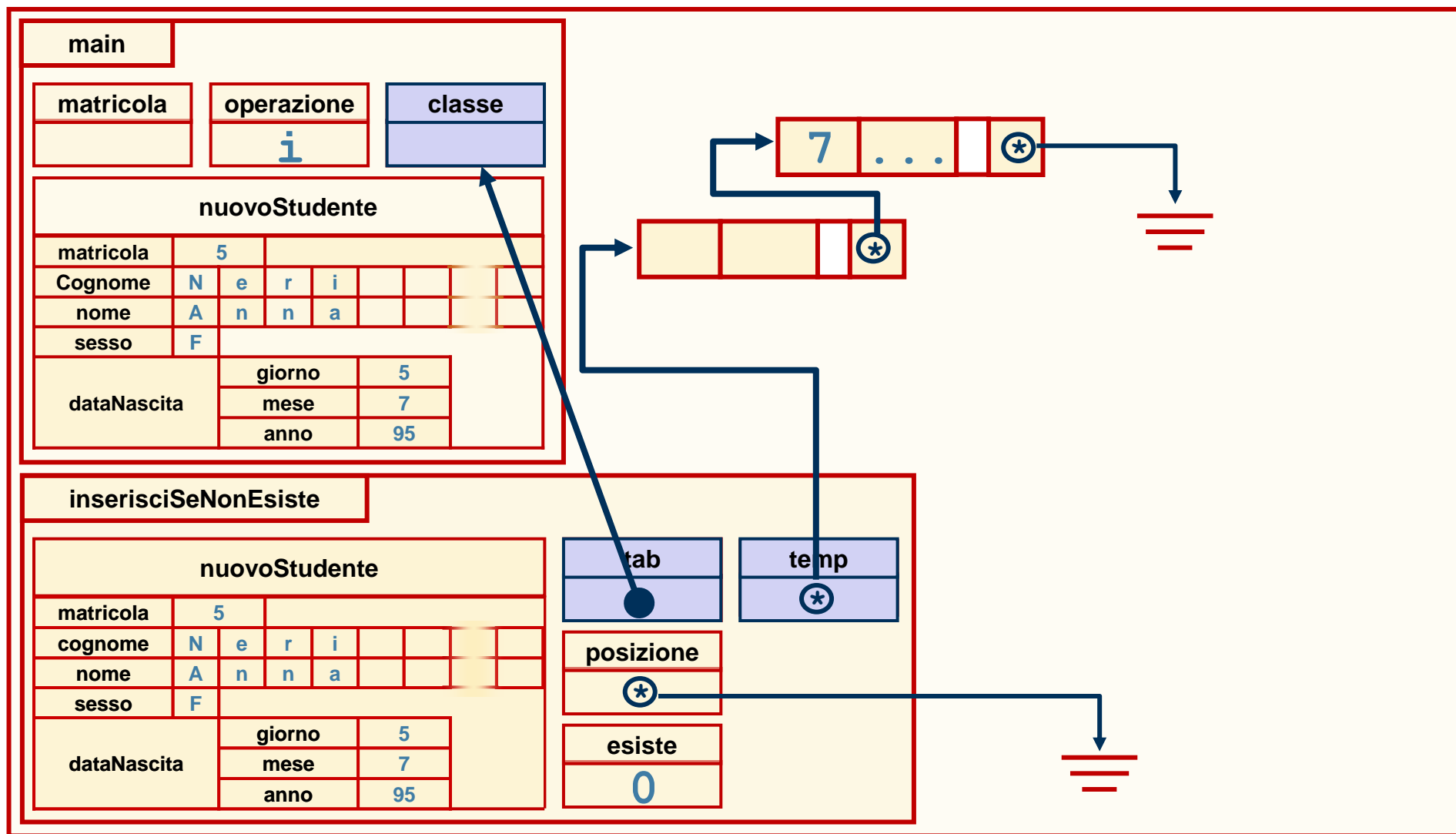




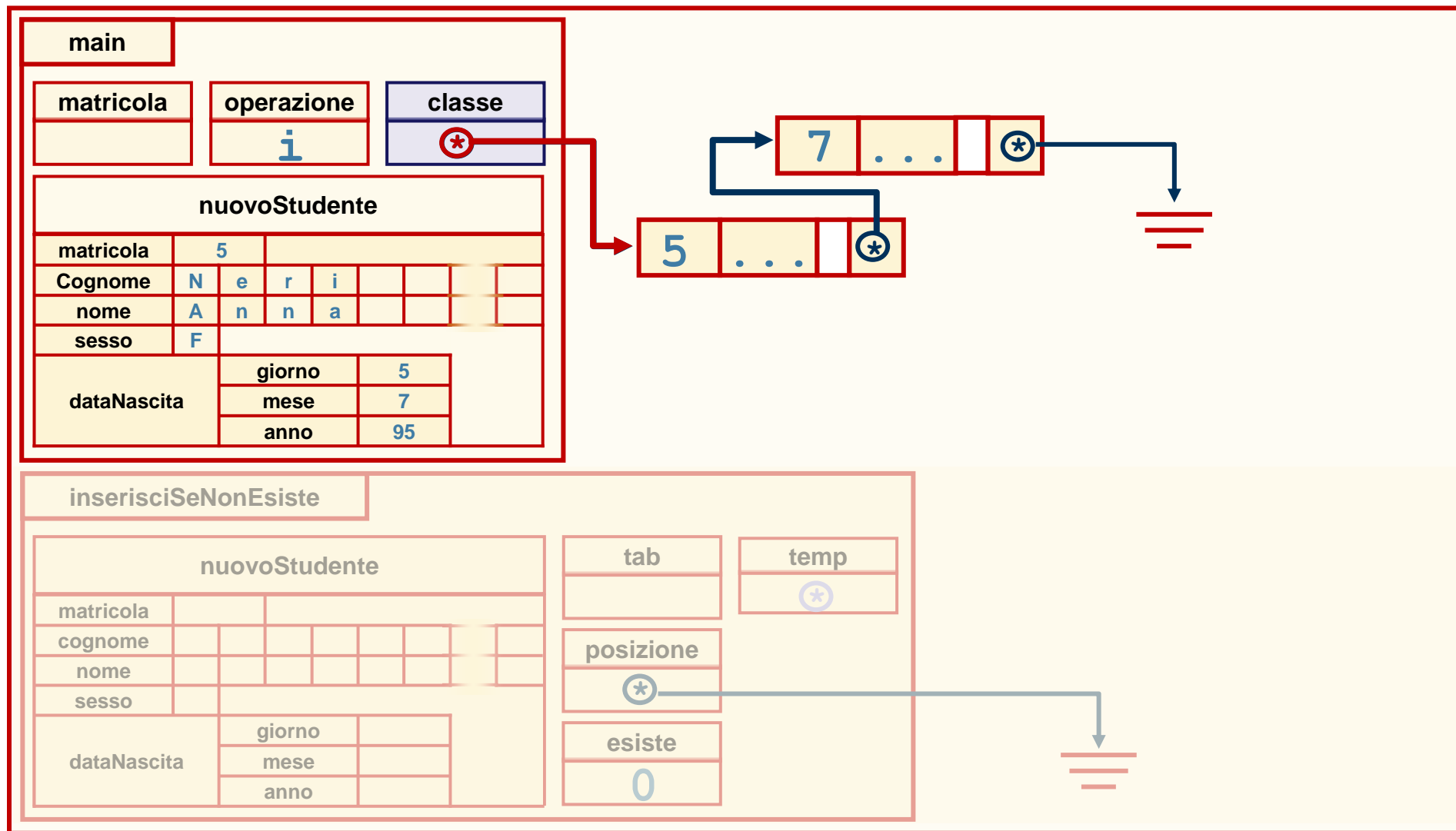


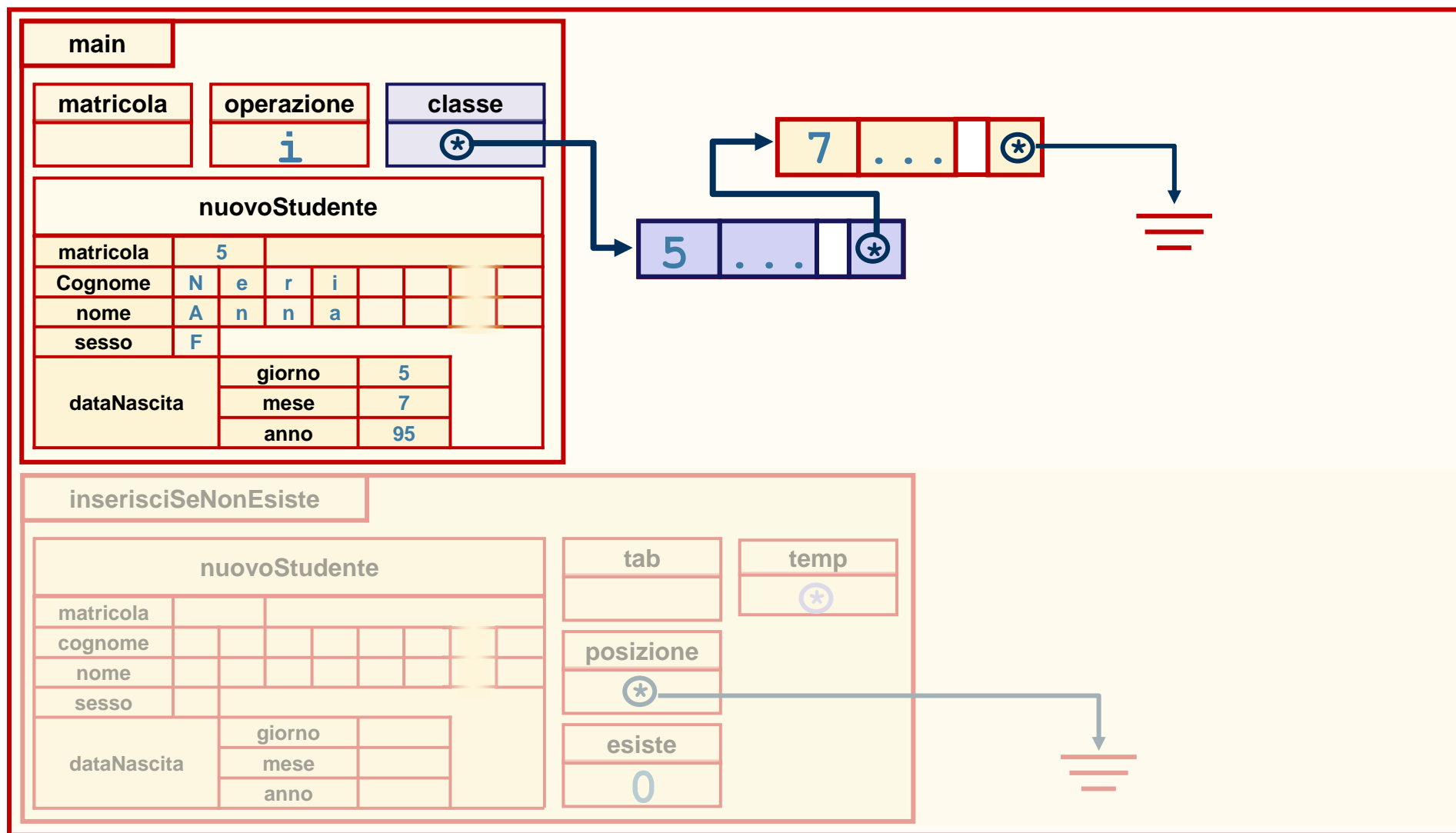


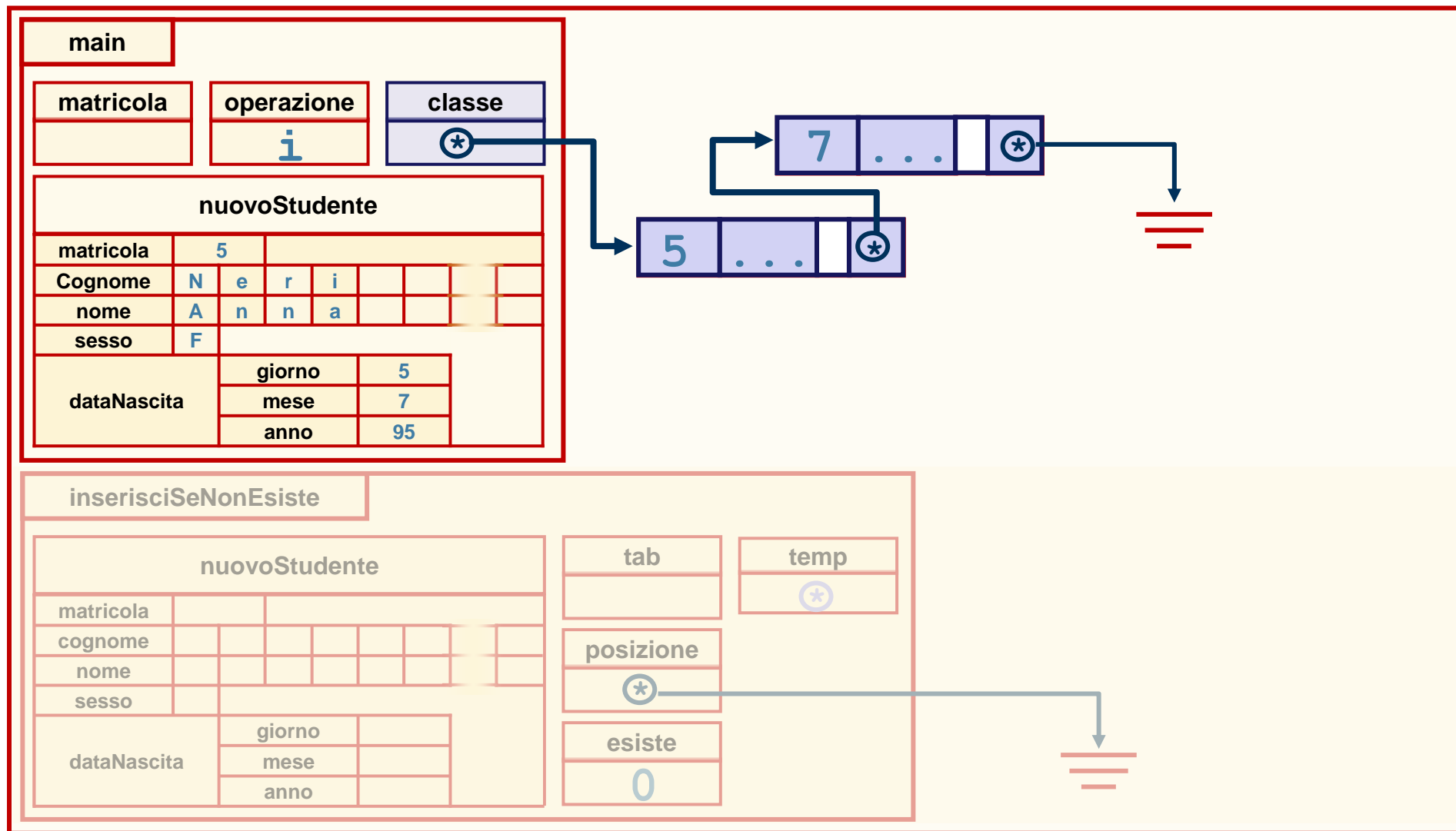


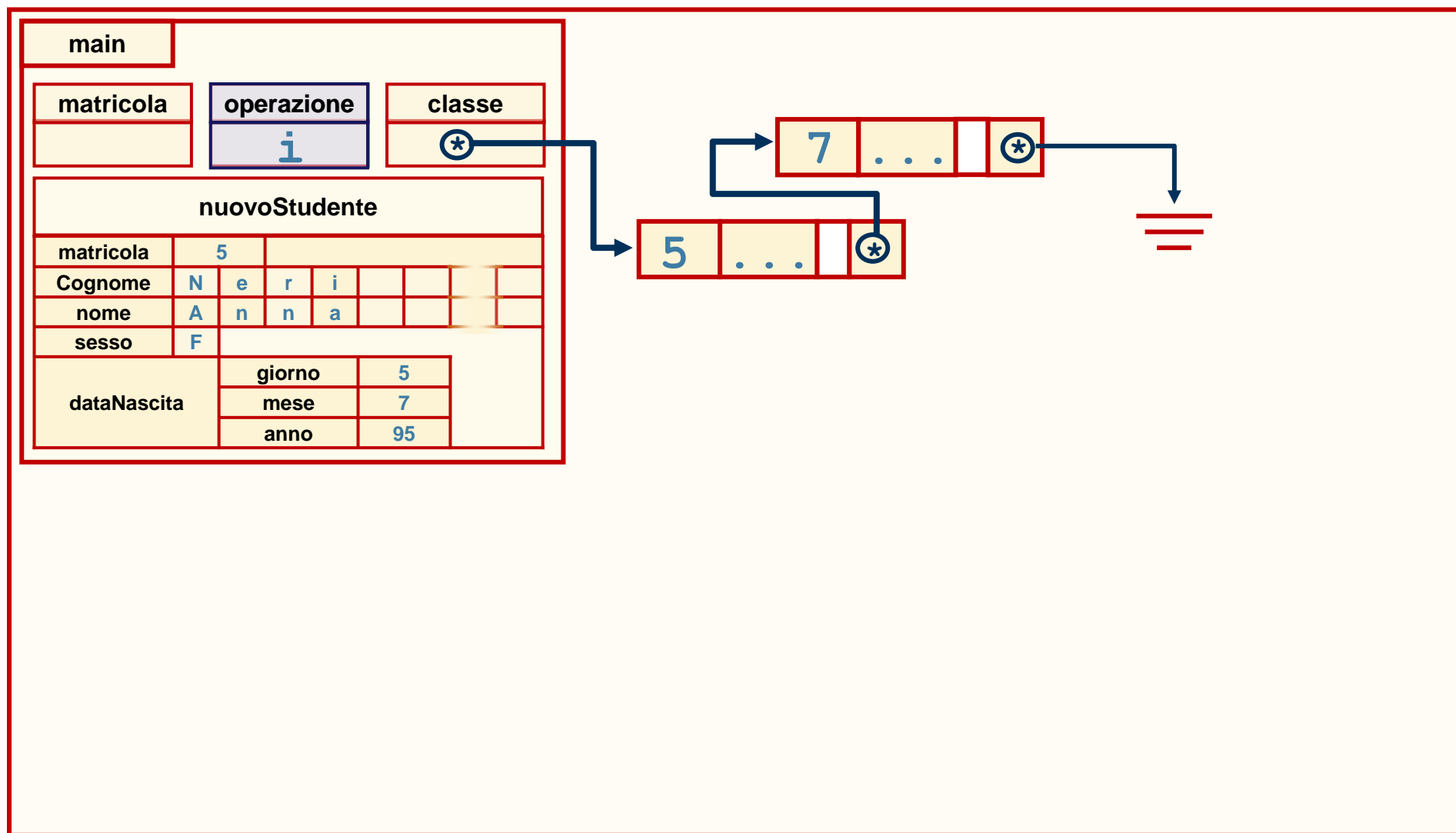


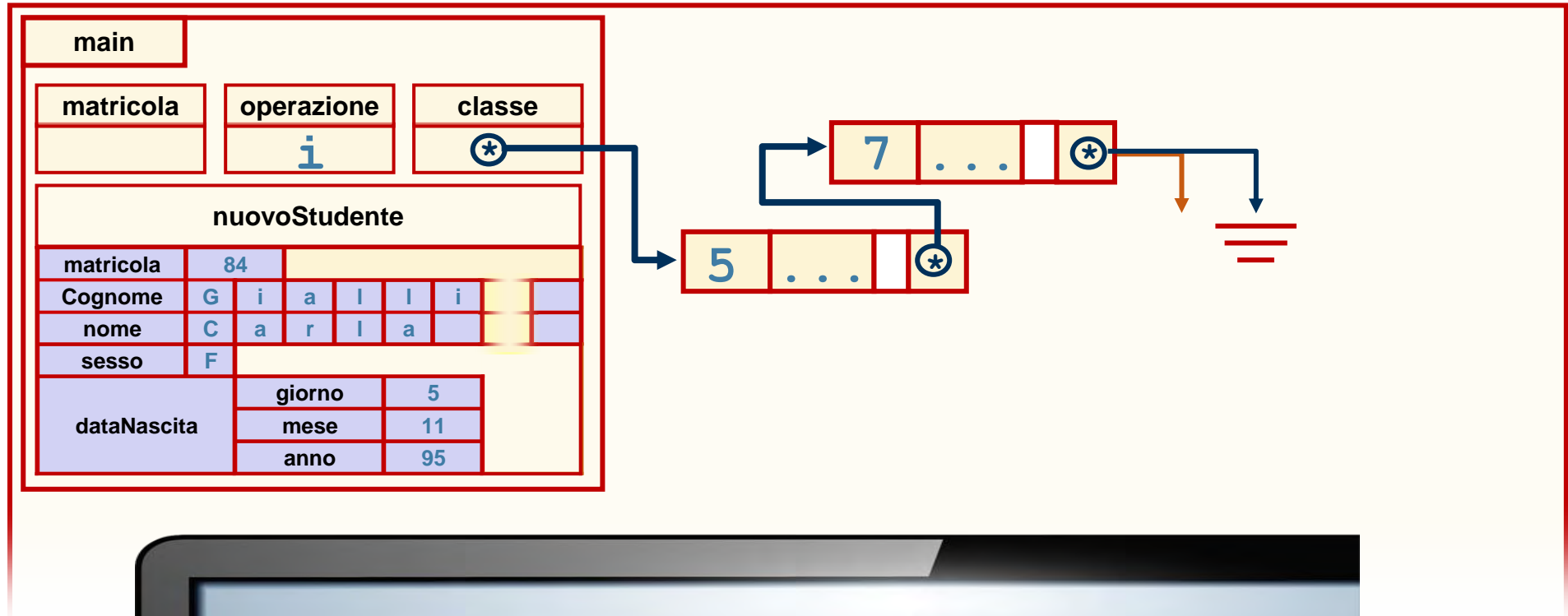




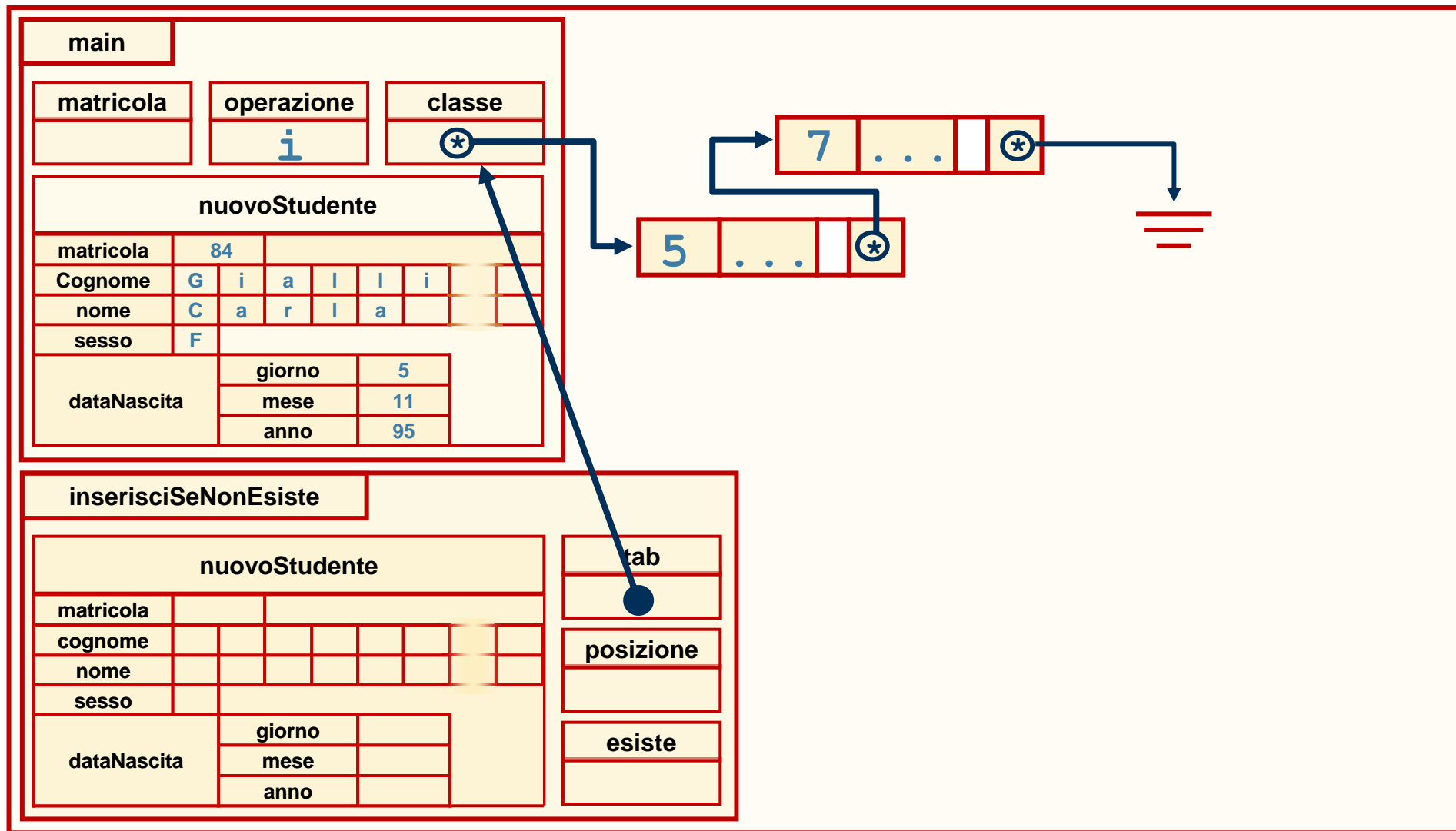


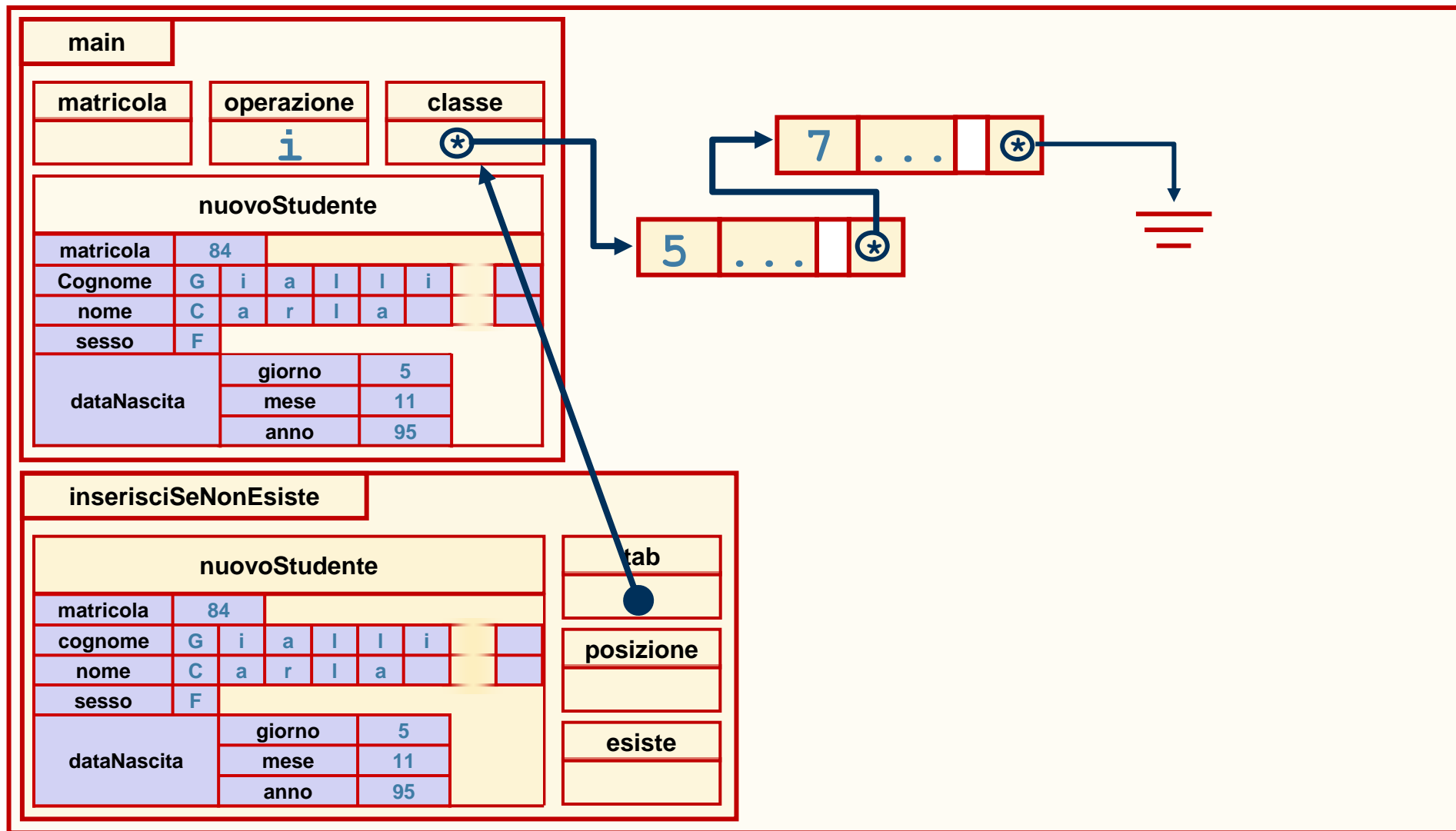


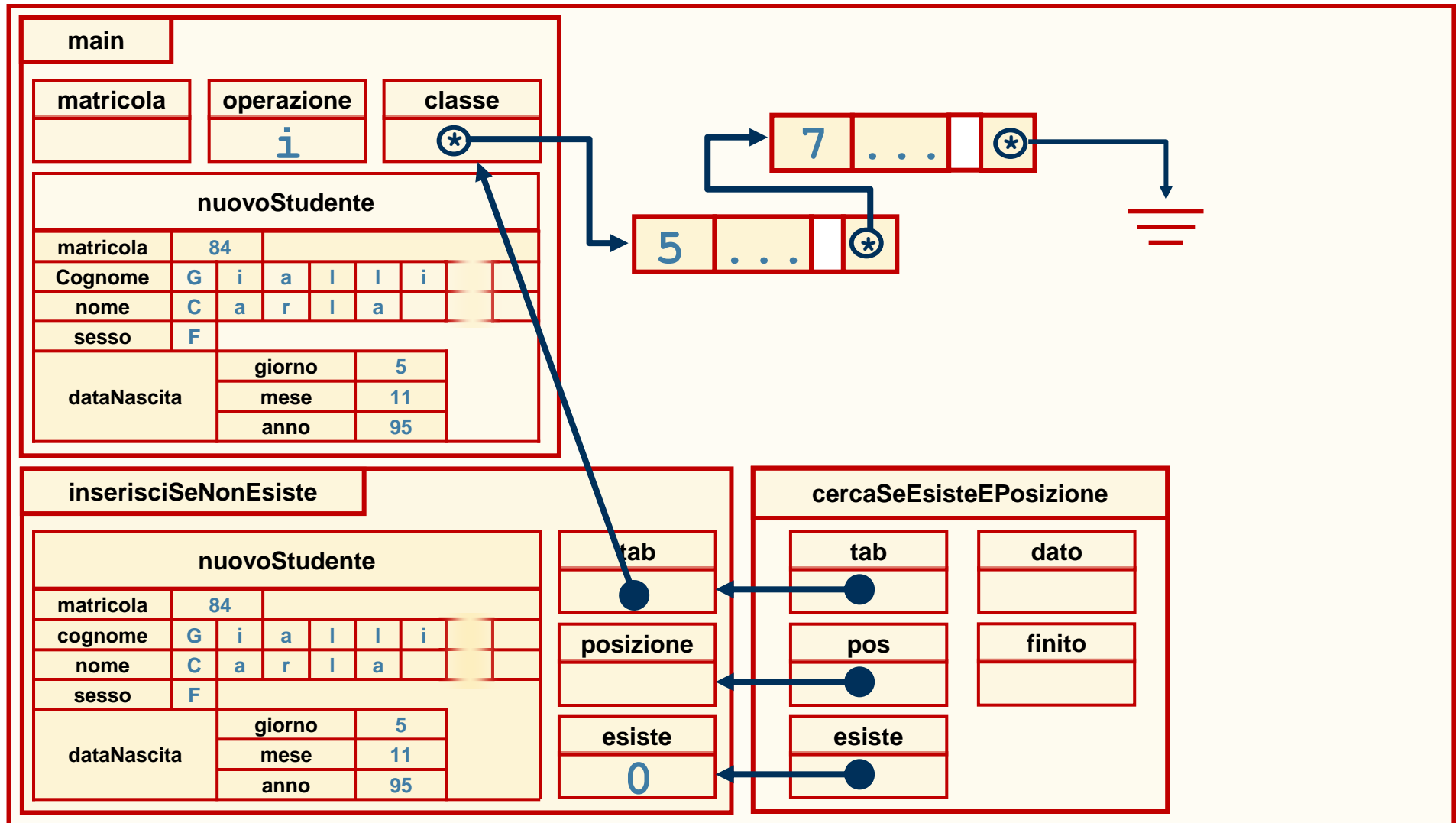


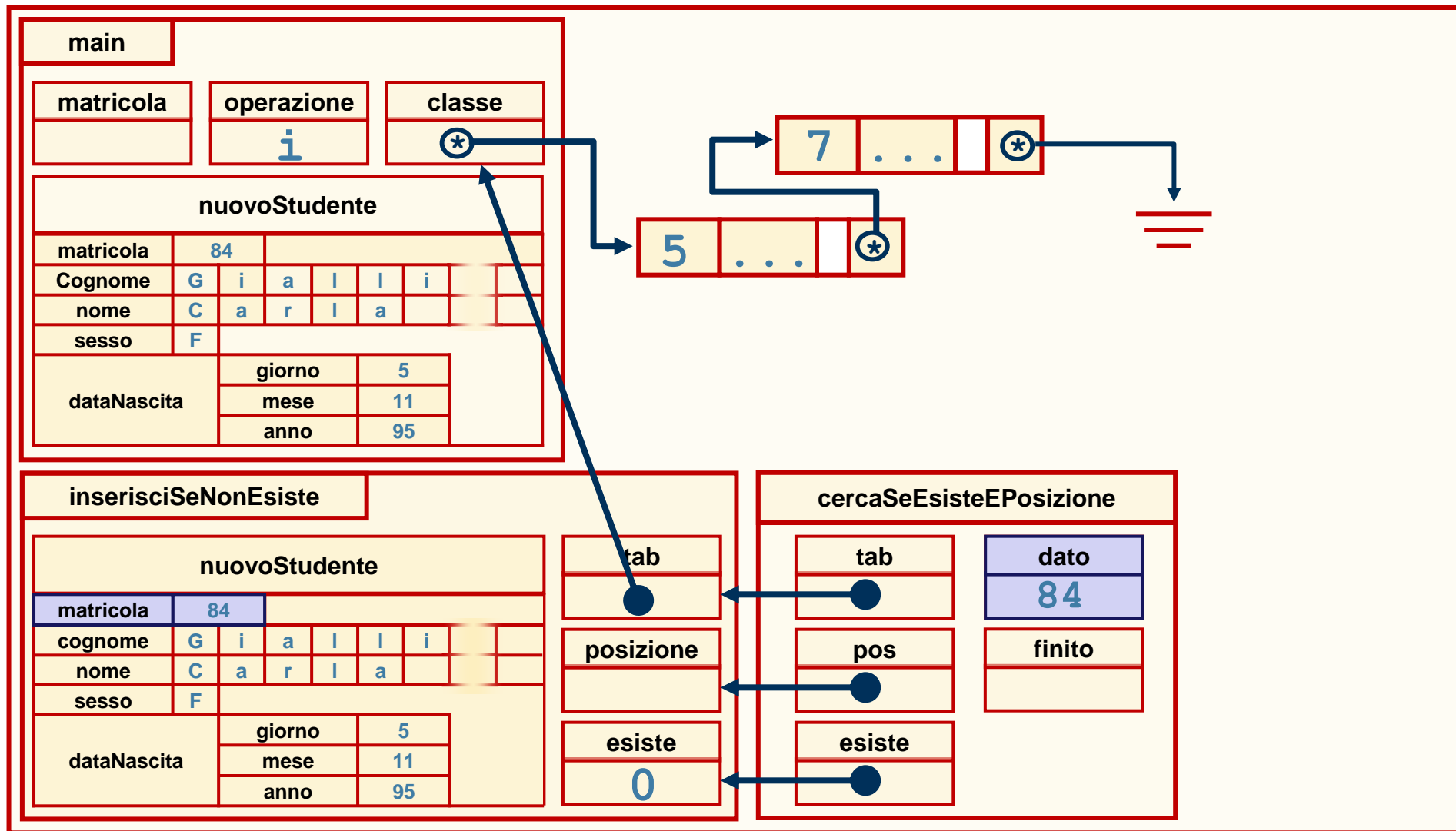


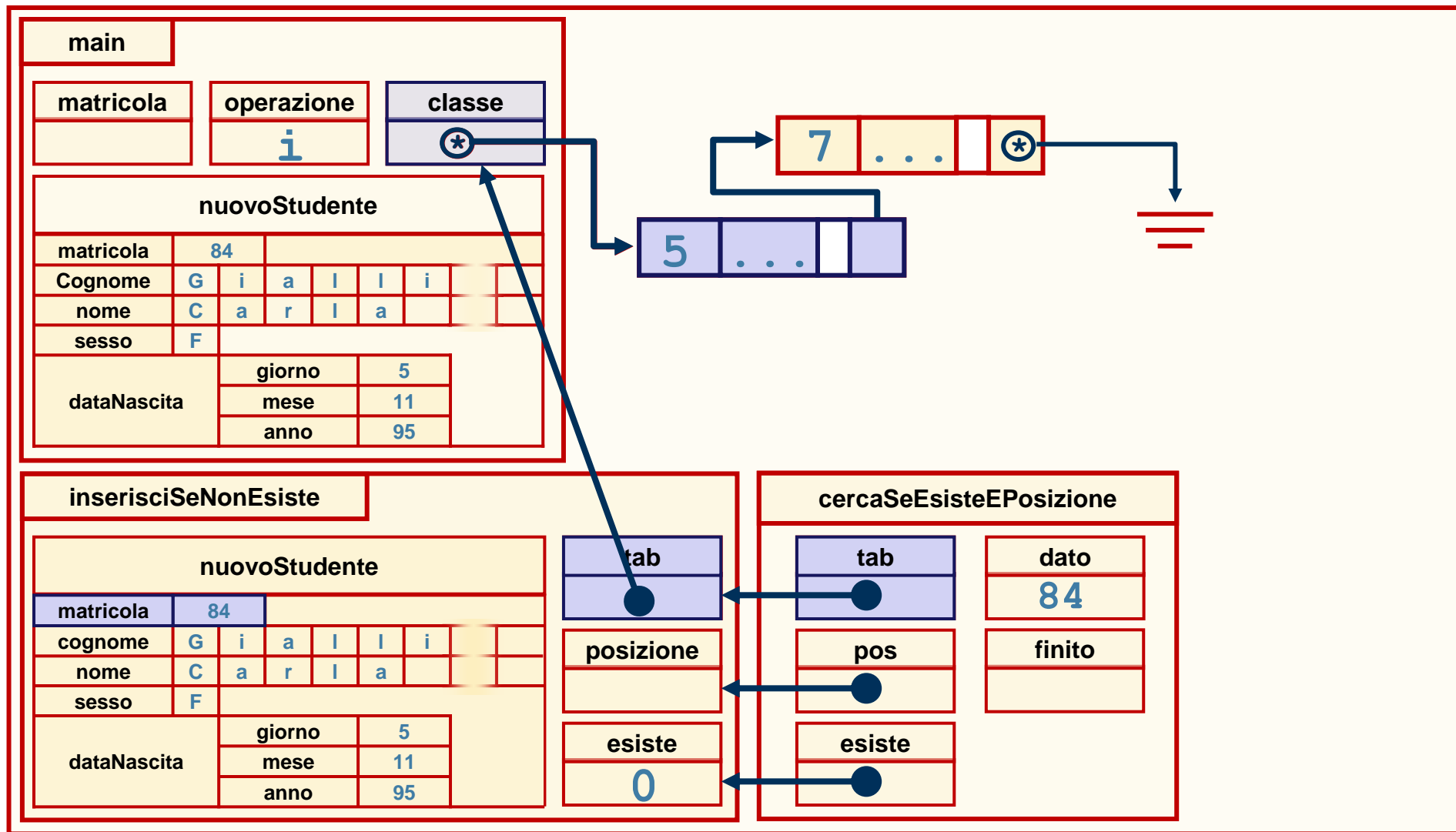
dati del nuovo studente
matricola: 84
cognome: Gialli
nome: Carla
sesso(M/F): F
giorno di nascita (1-31): 5
mese di nascita (1-12): 11
anno di nascita (0-99): 95

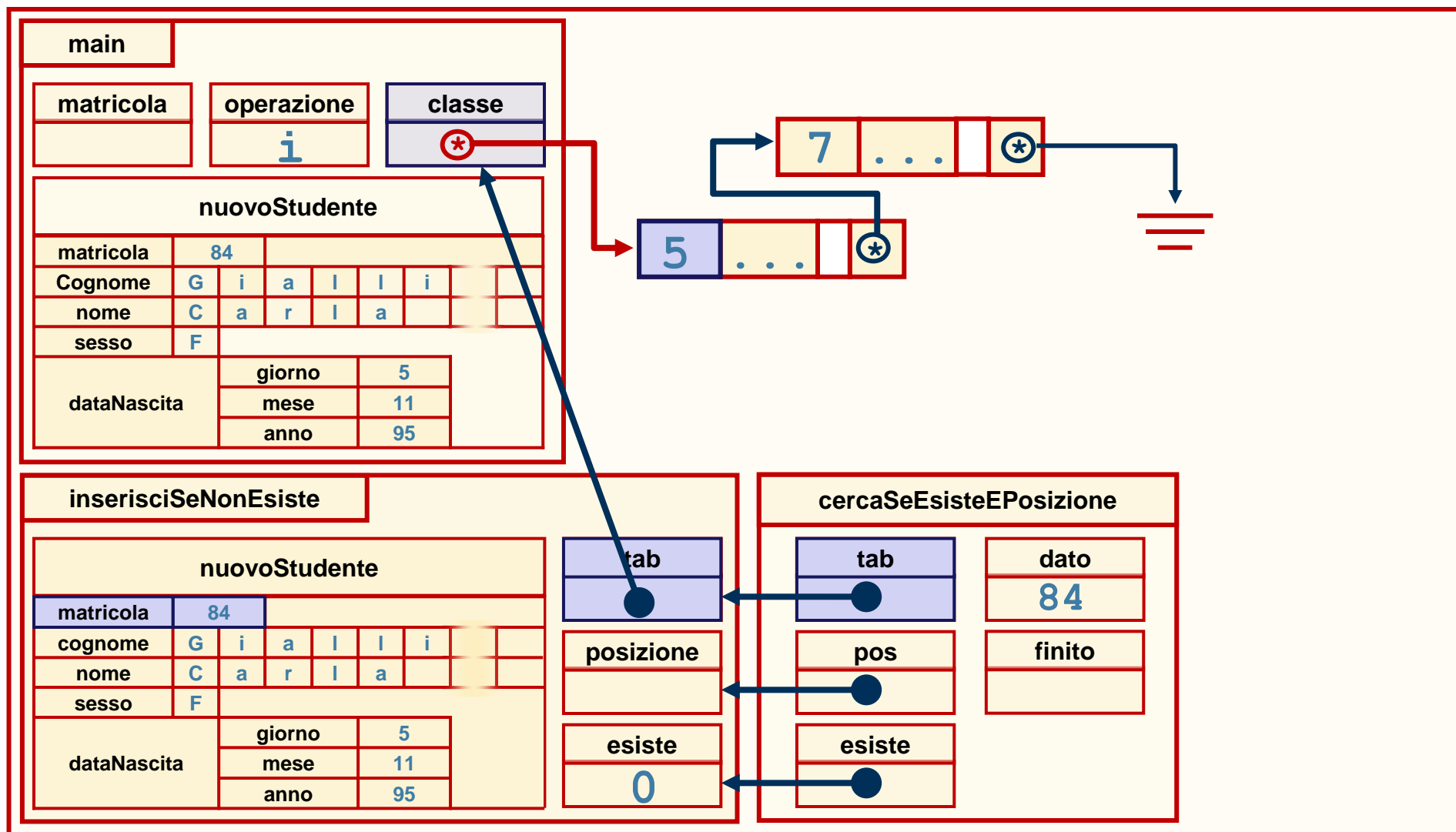


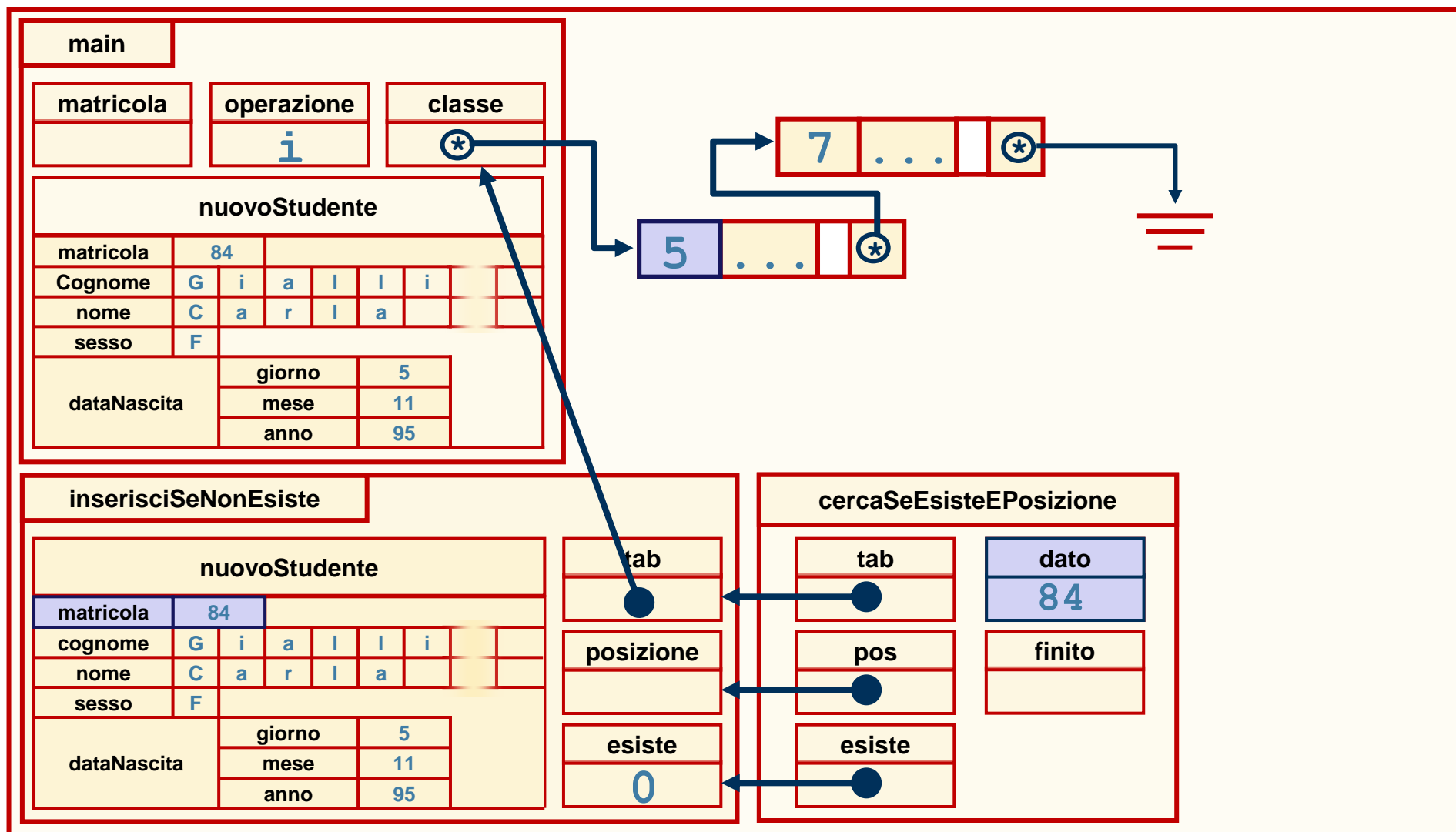


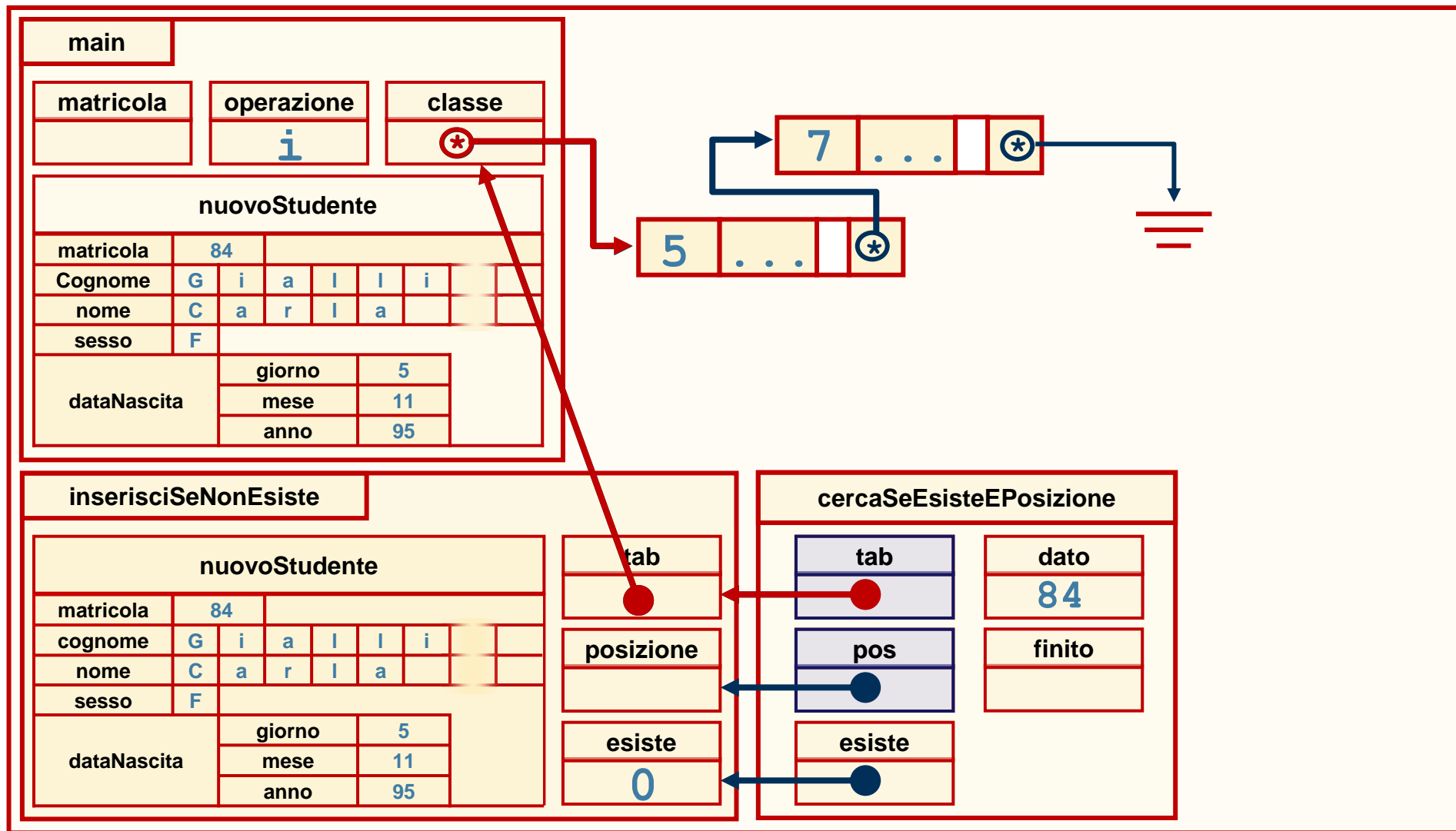


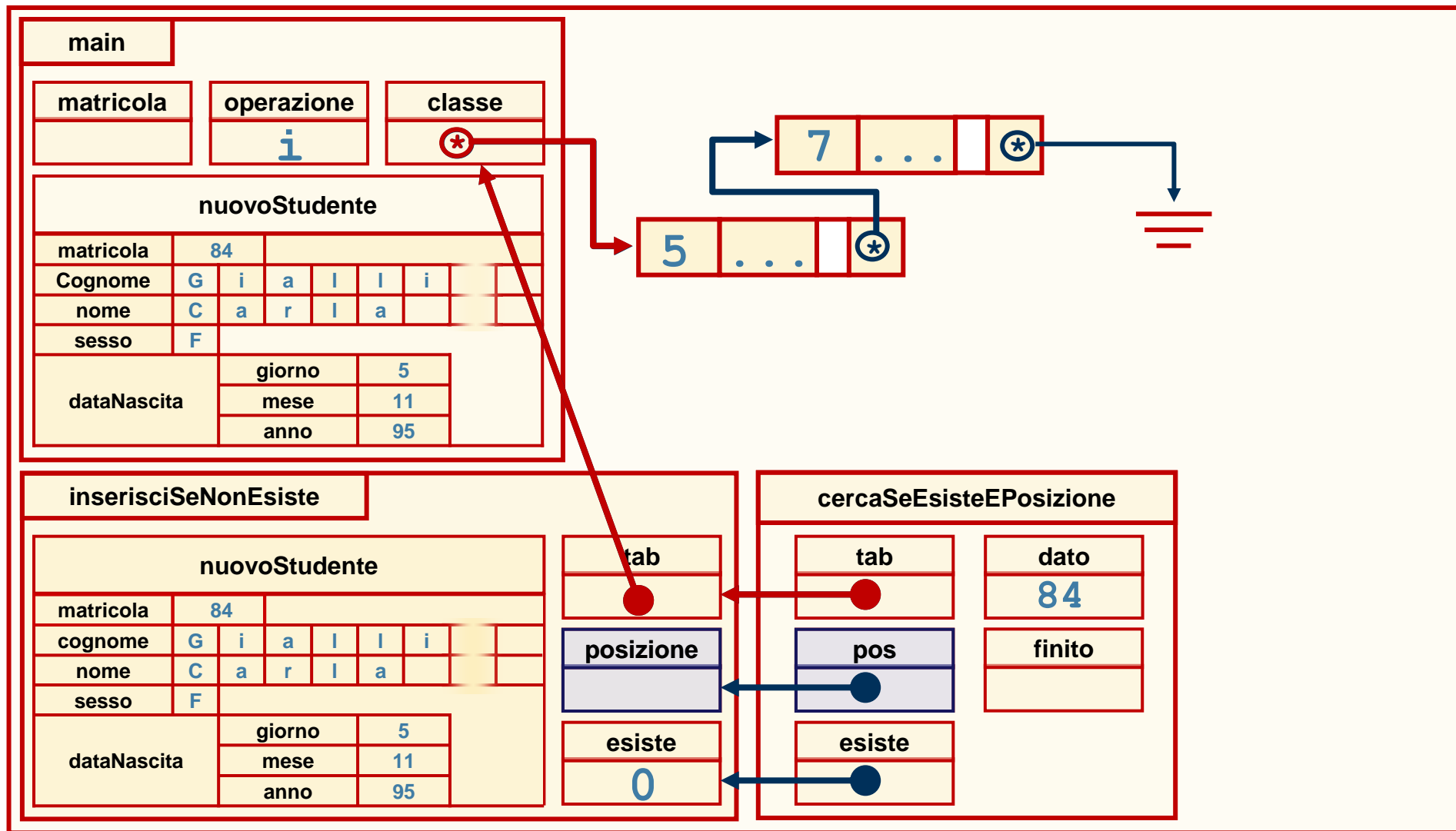


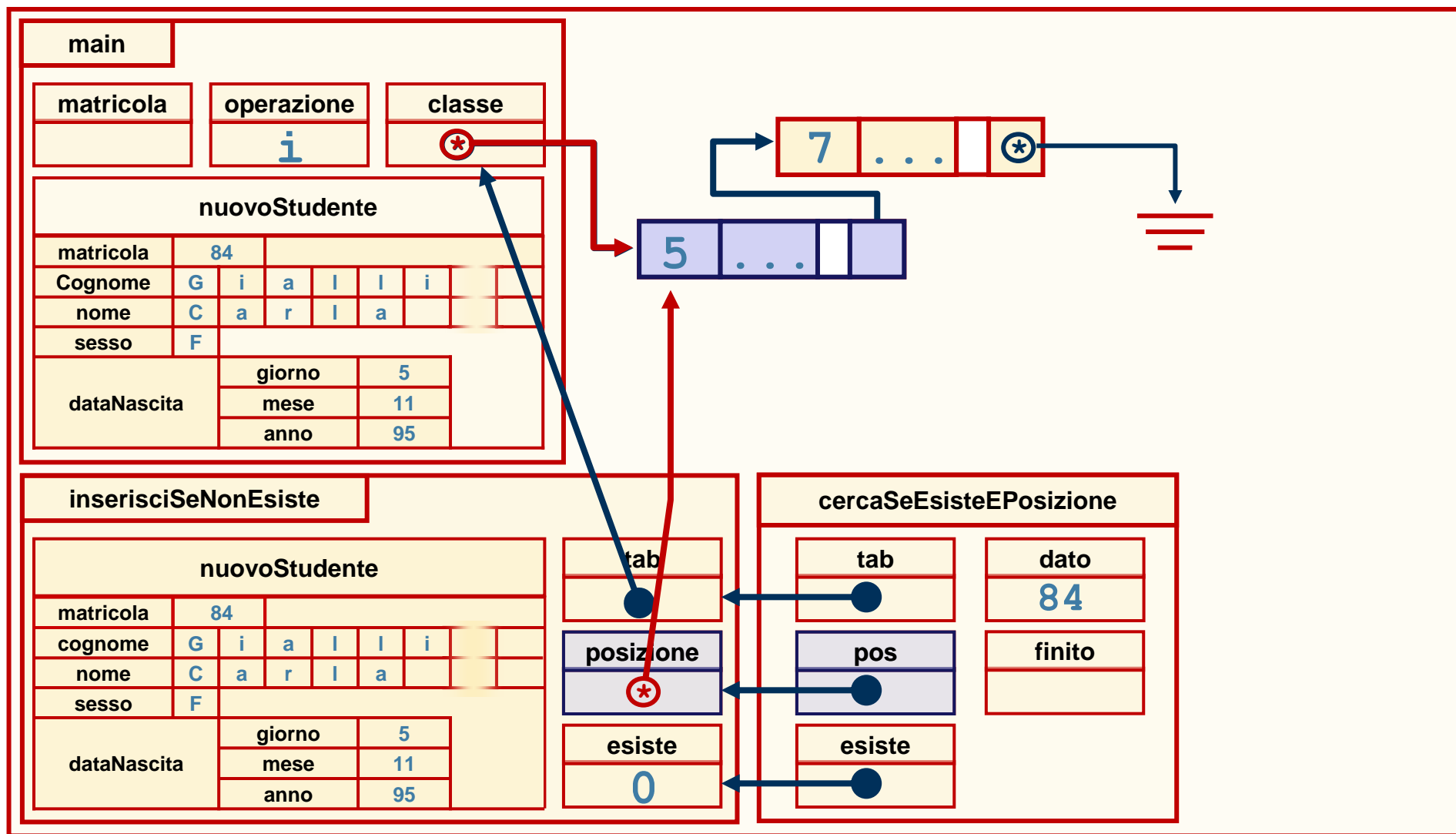


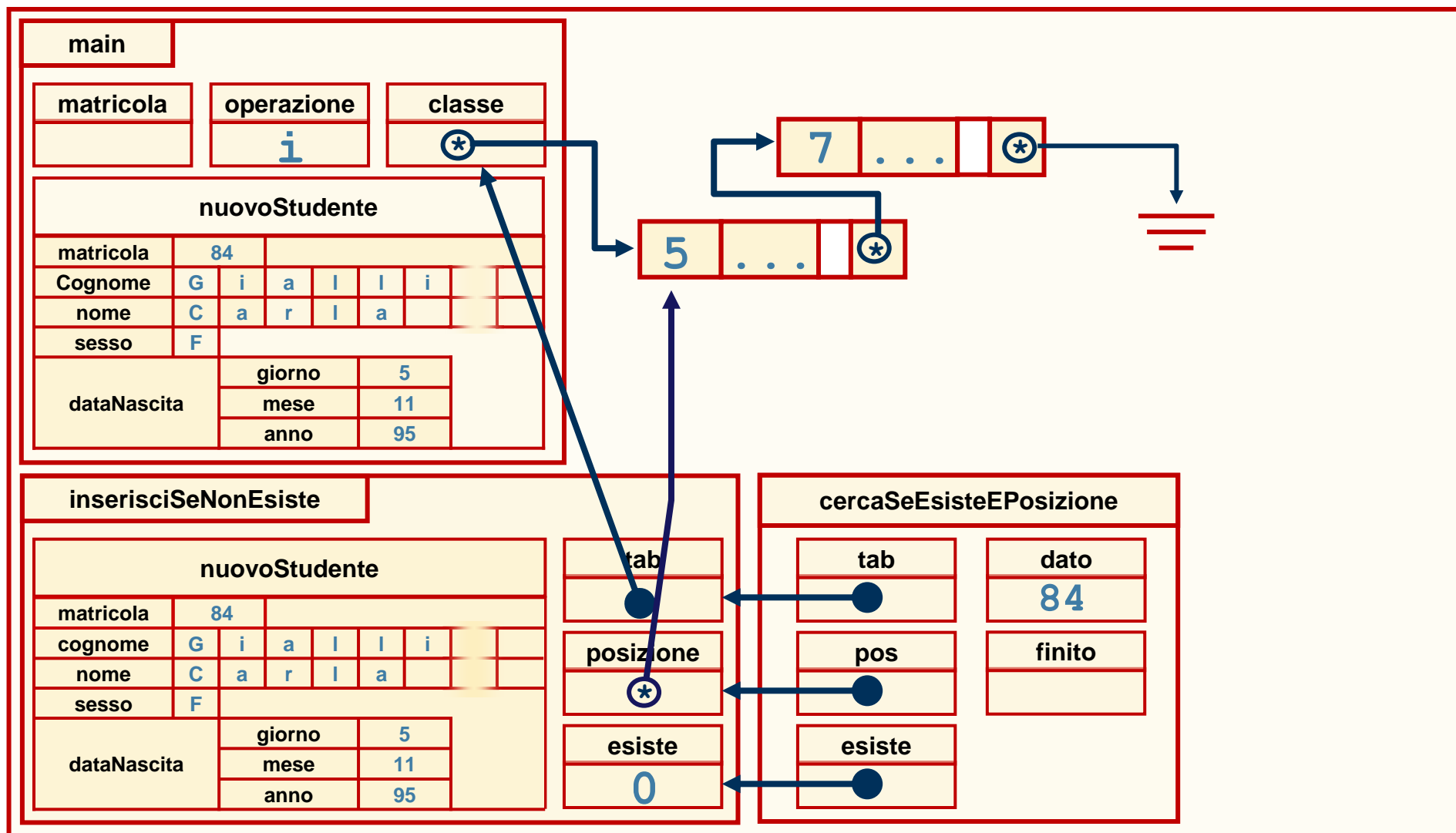


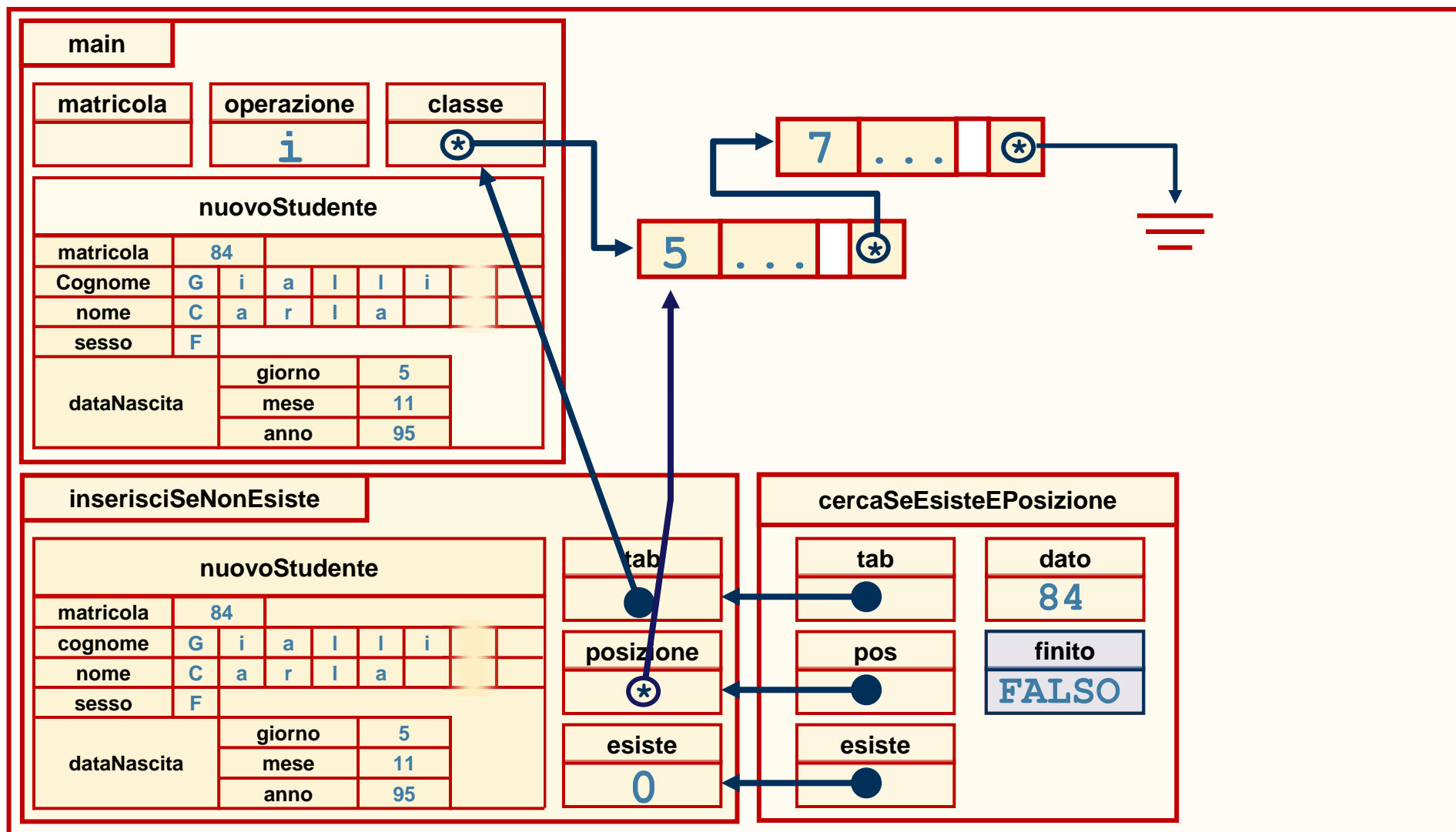


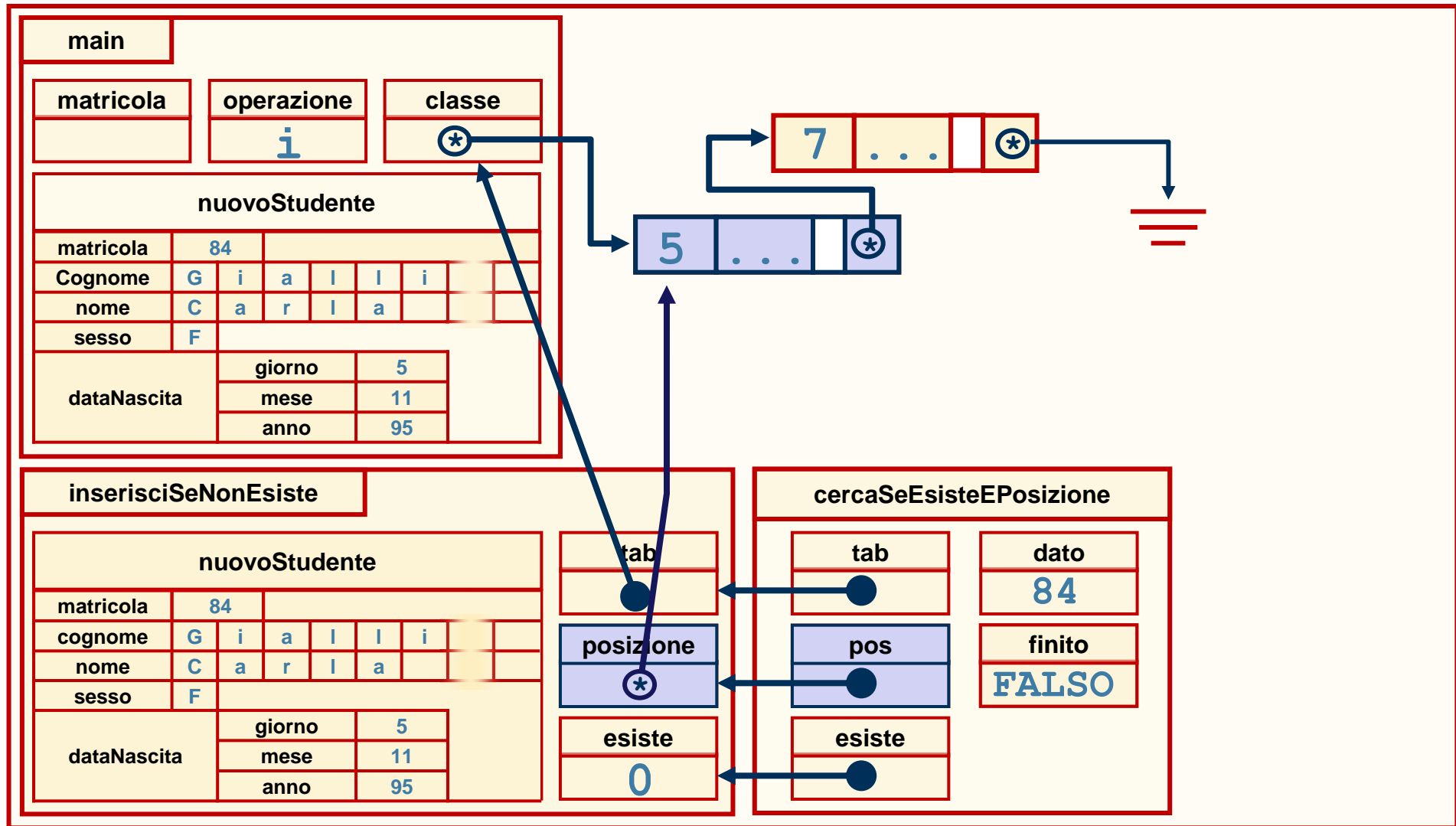


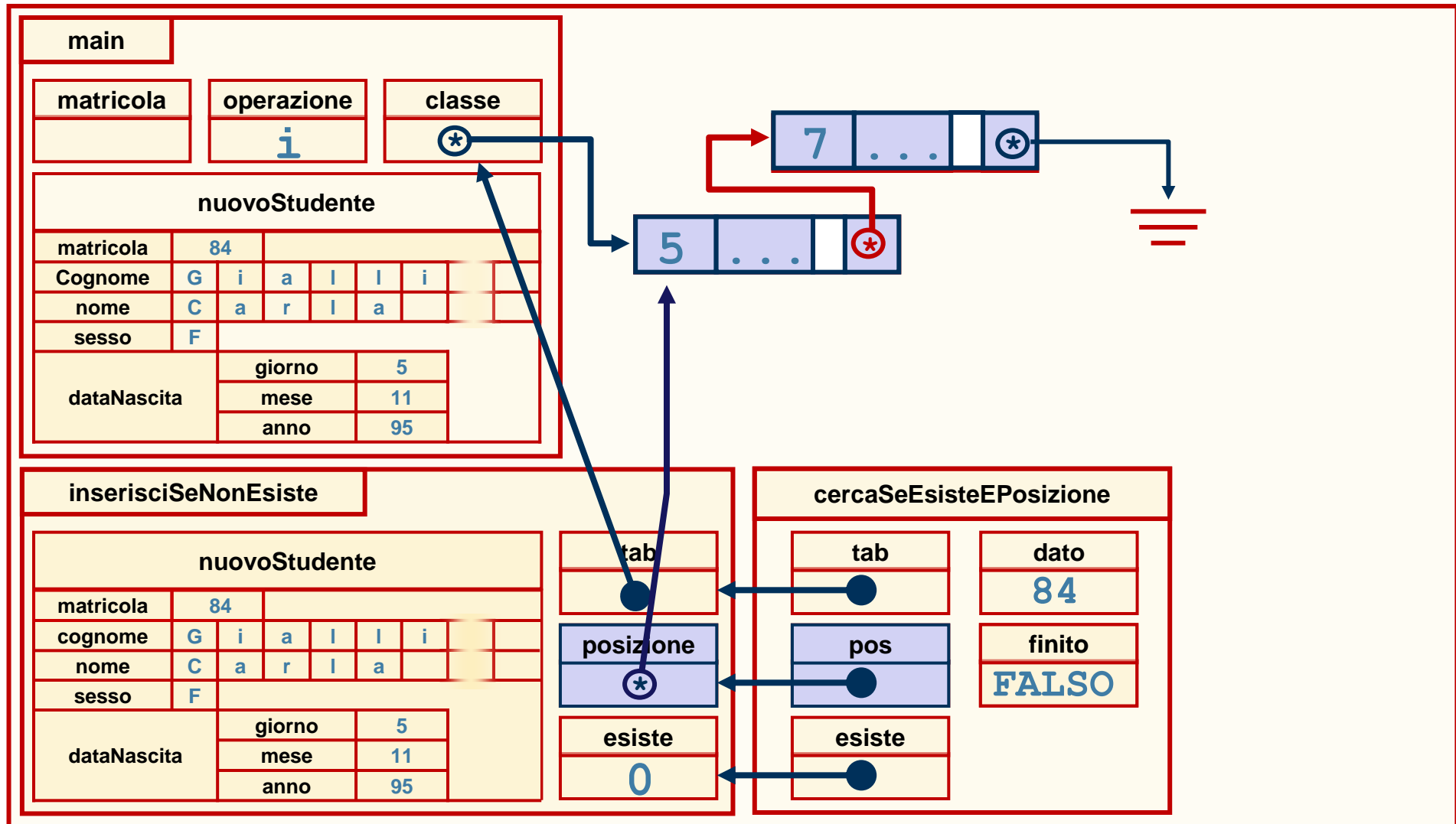


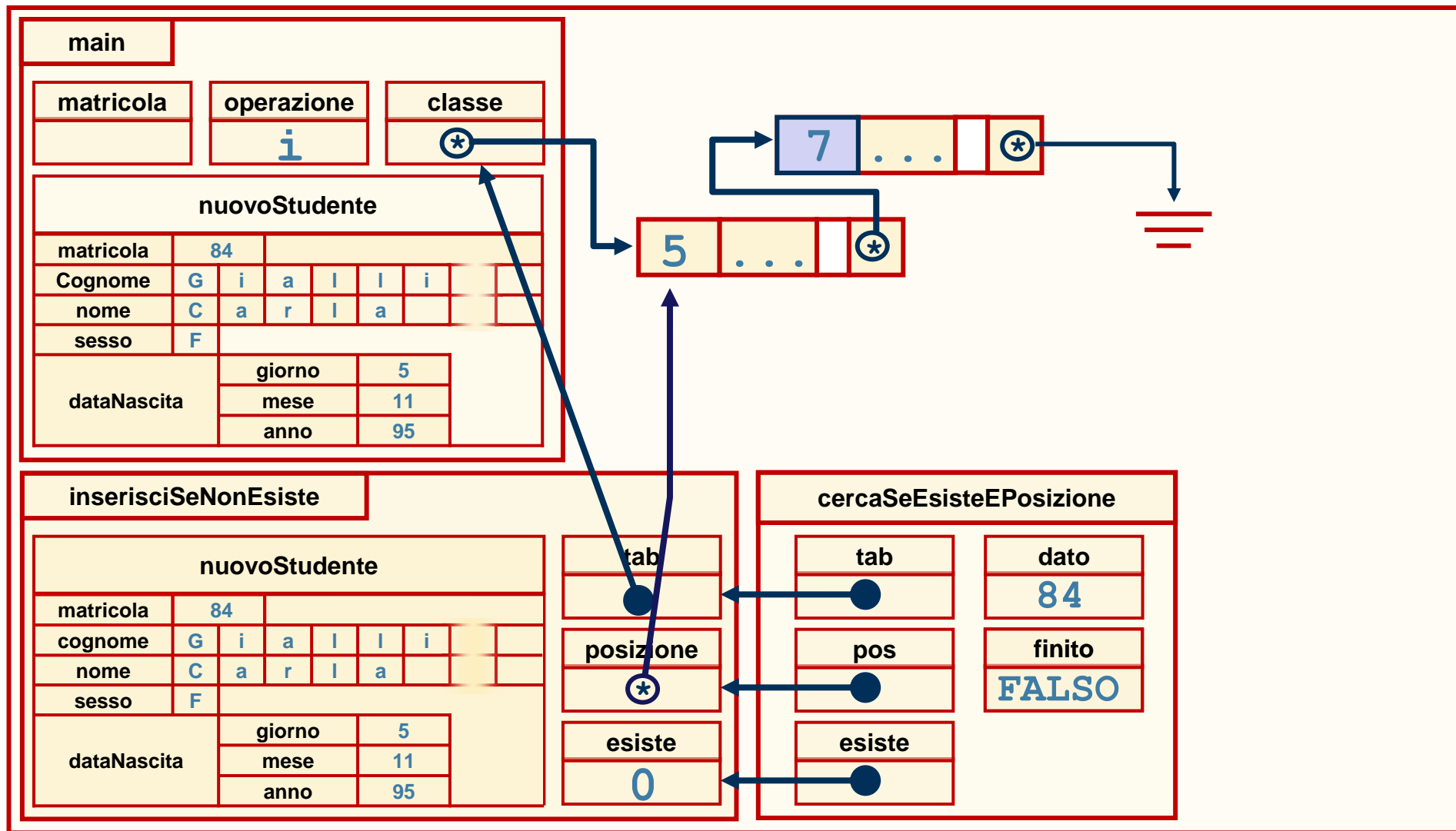


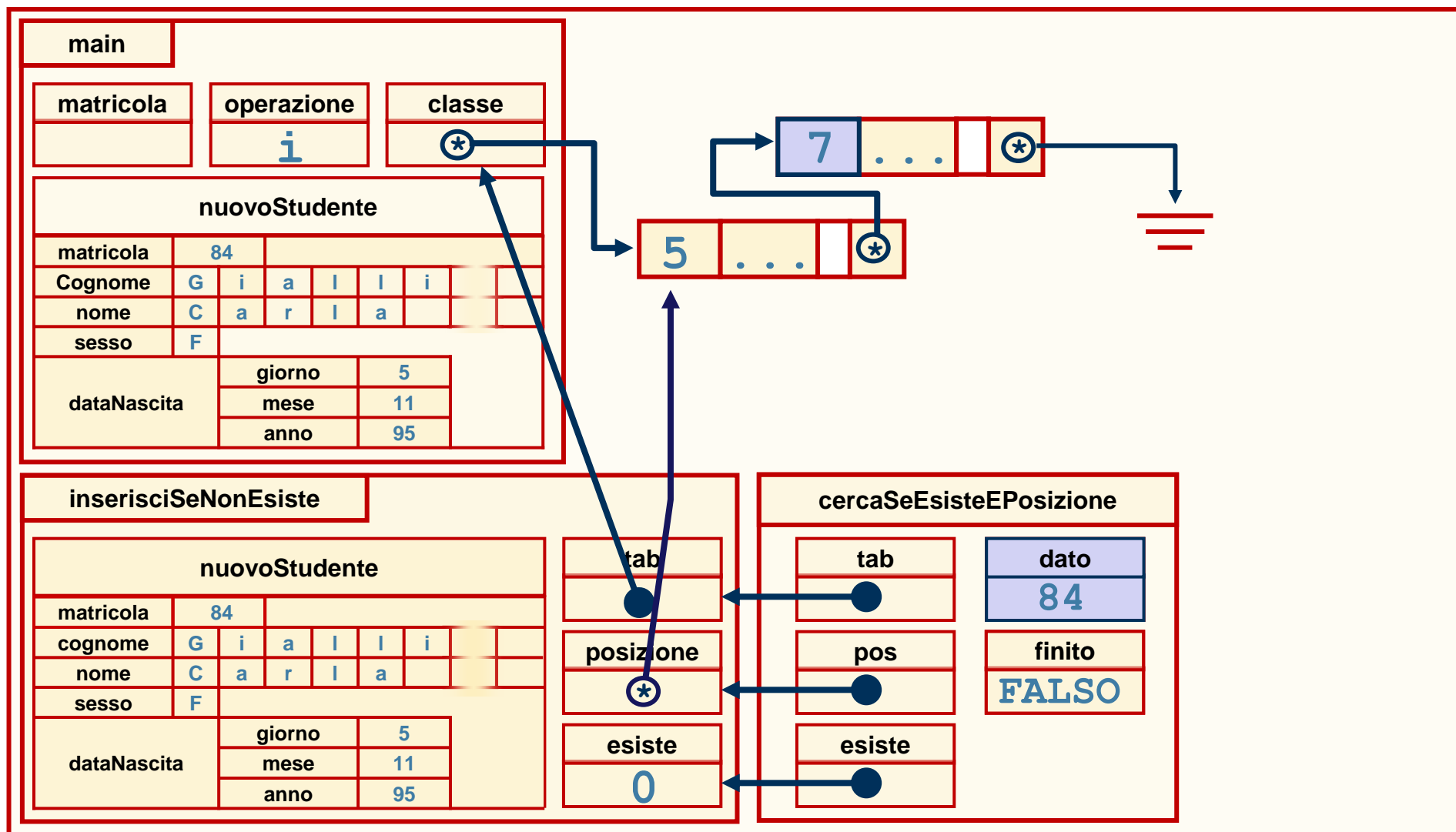


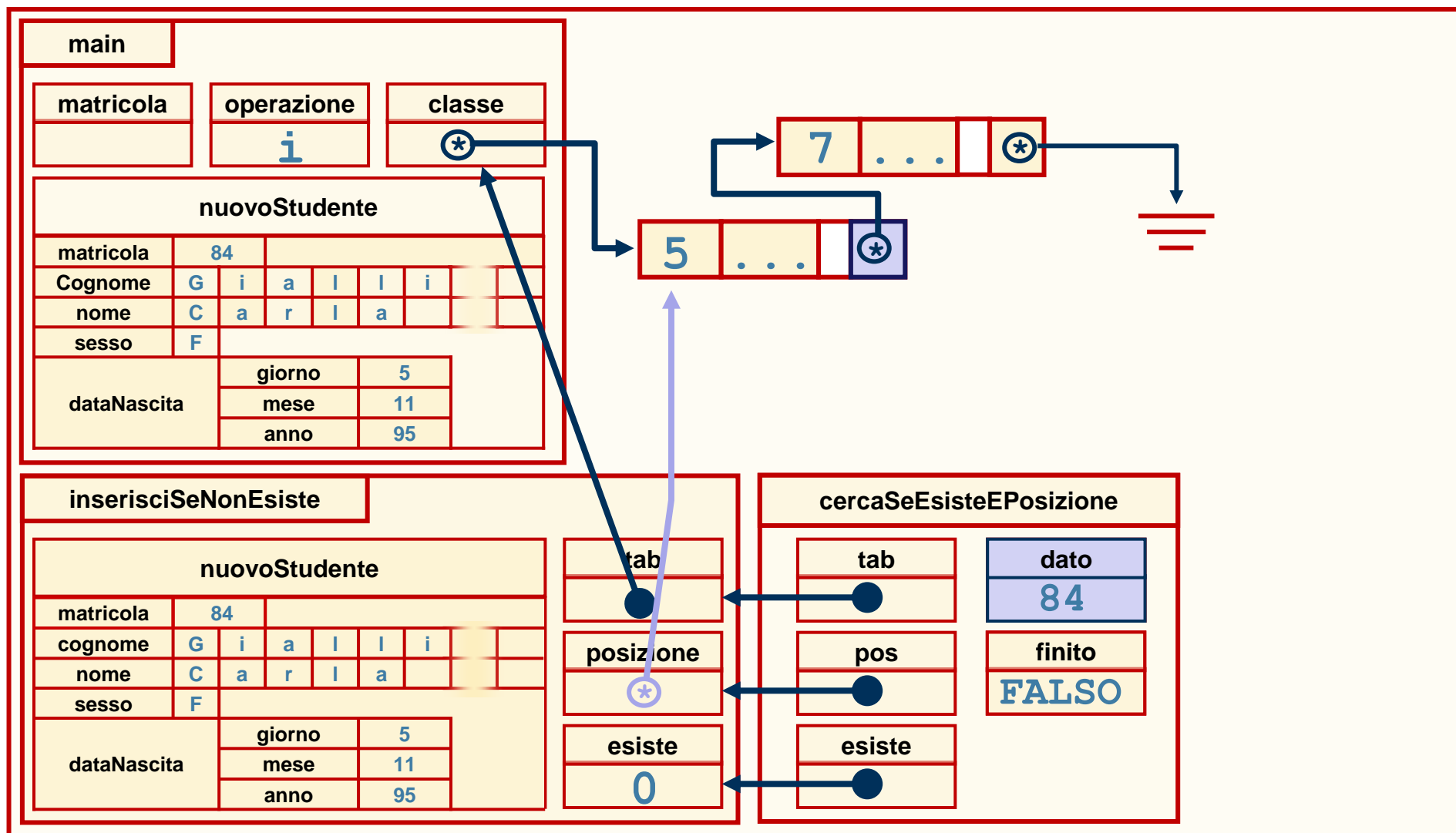


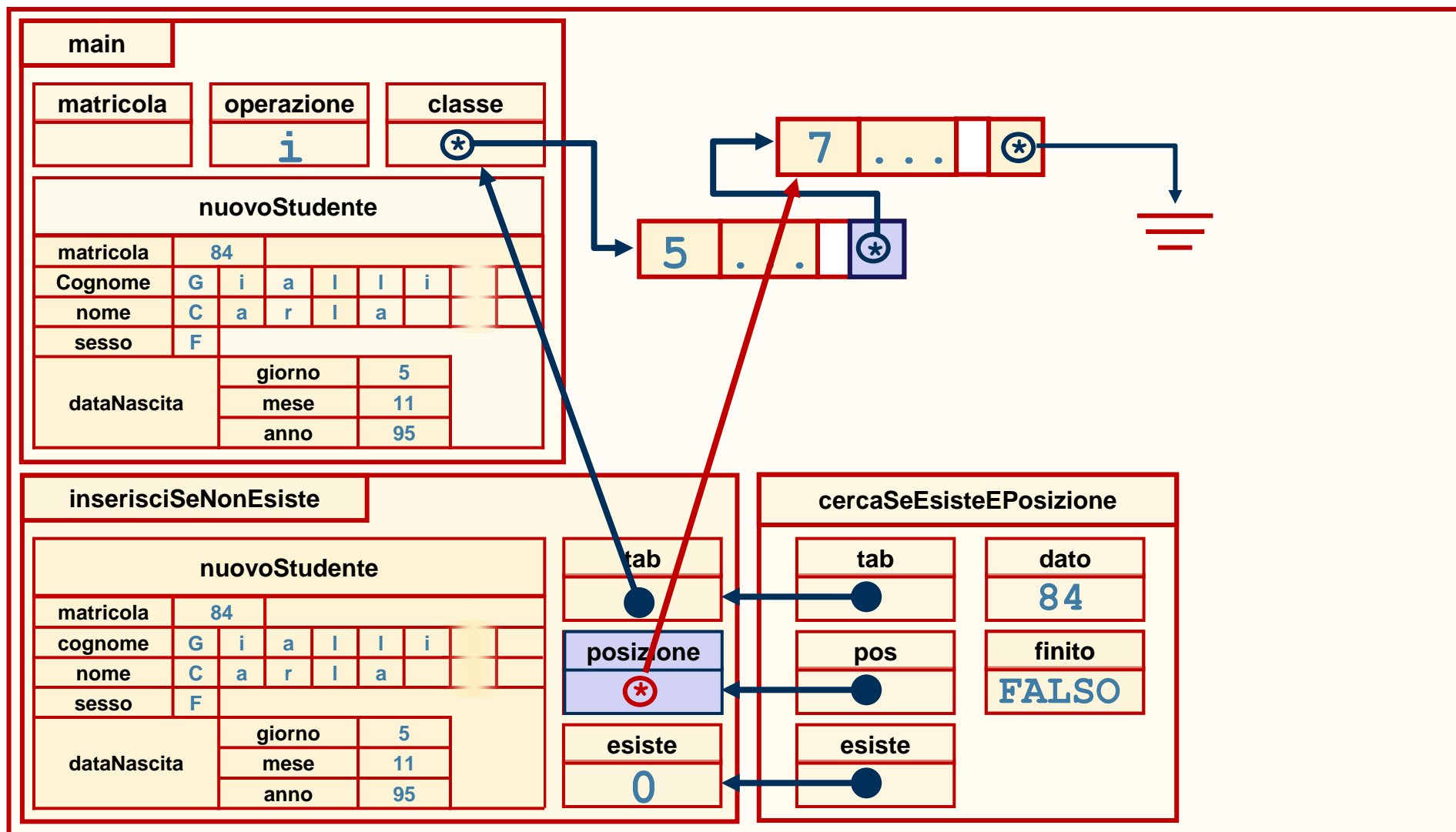


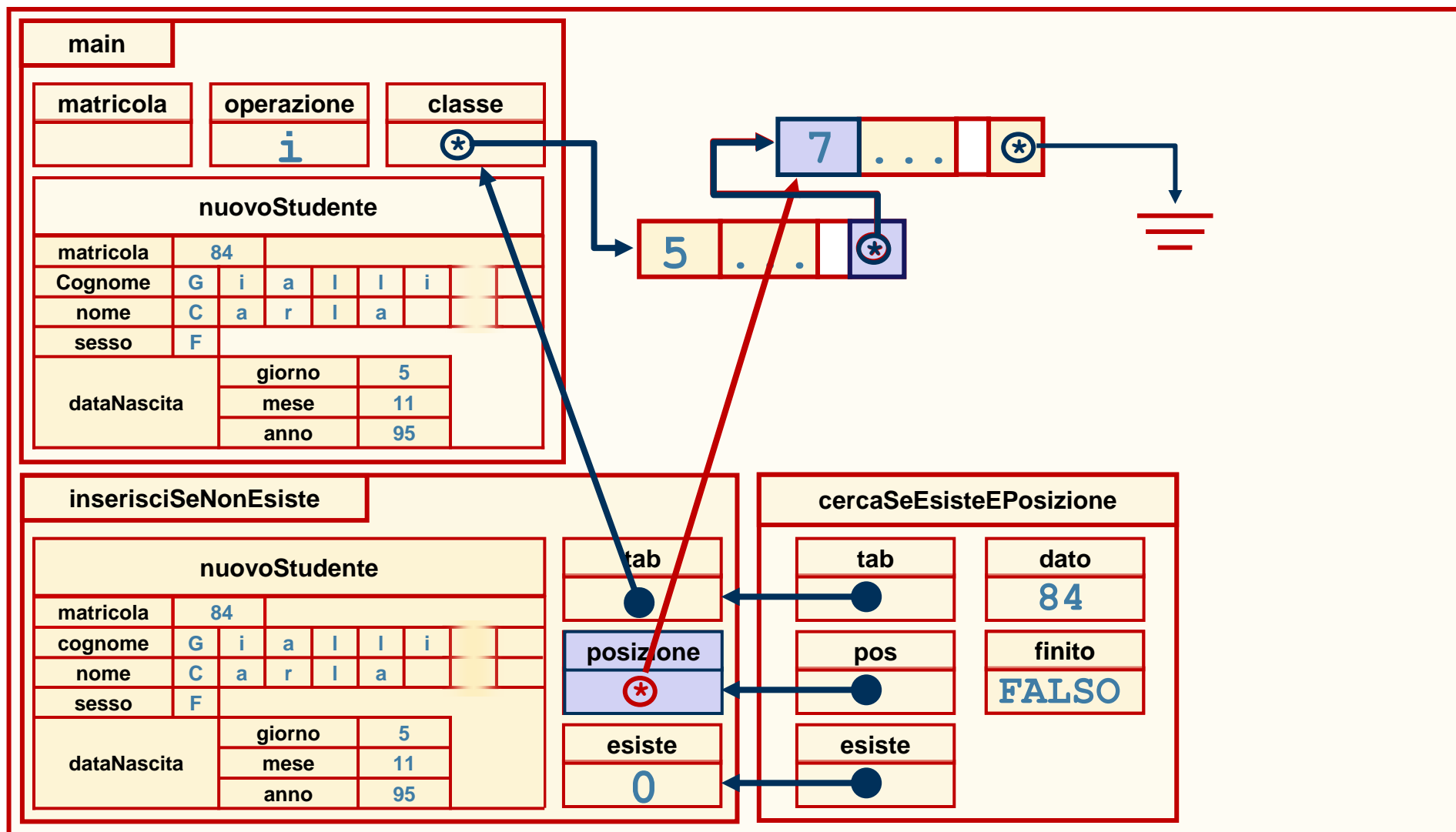


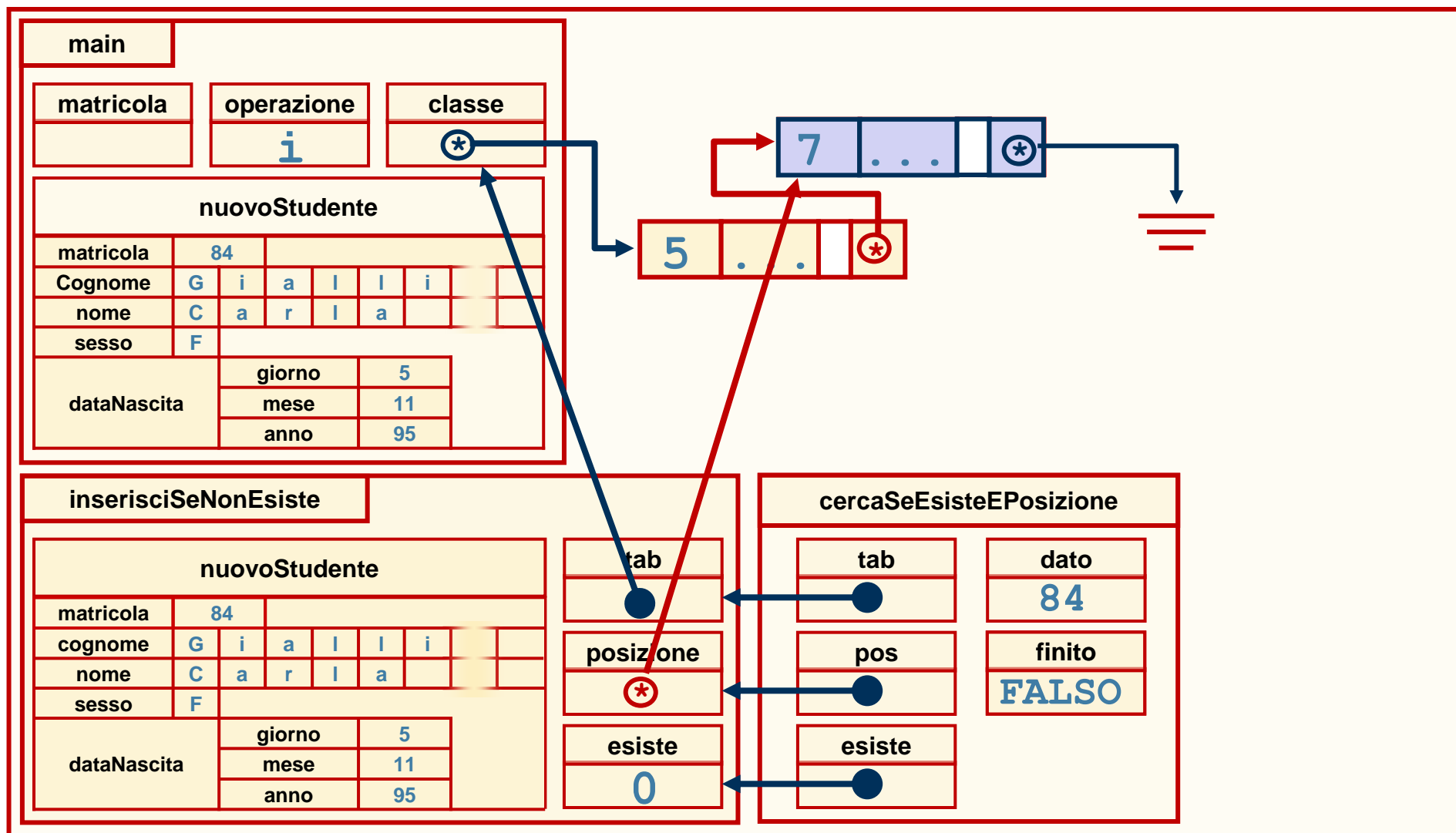


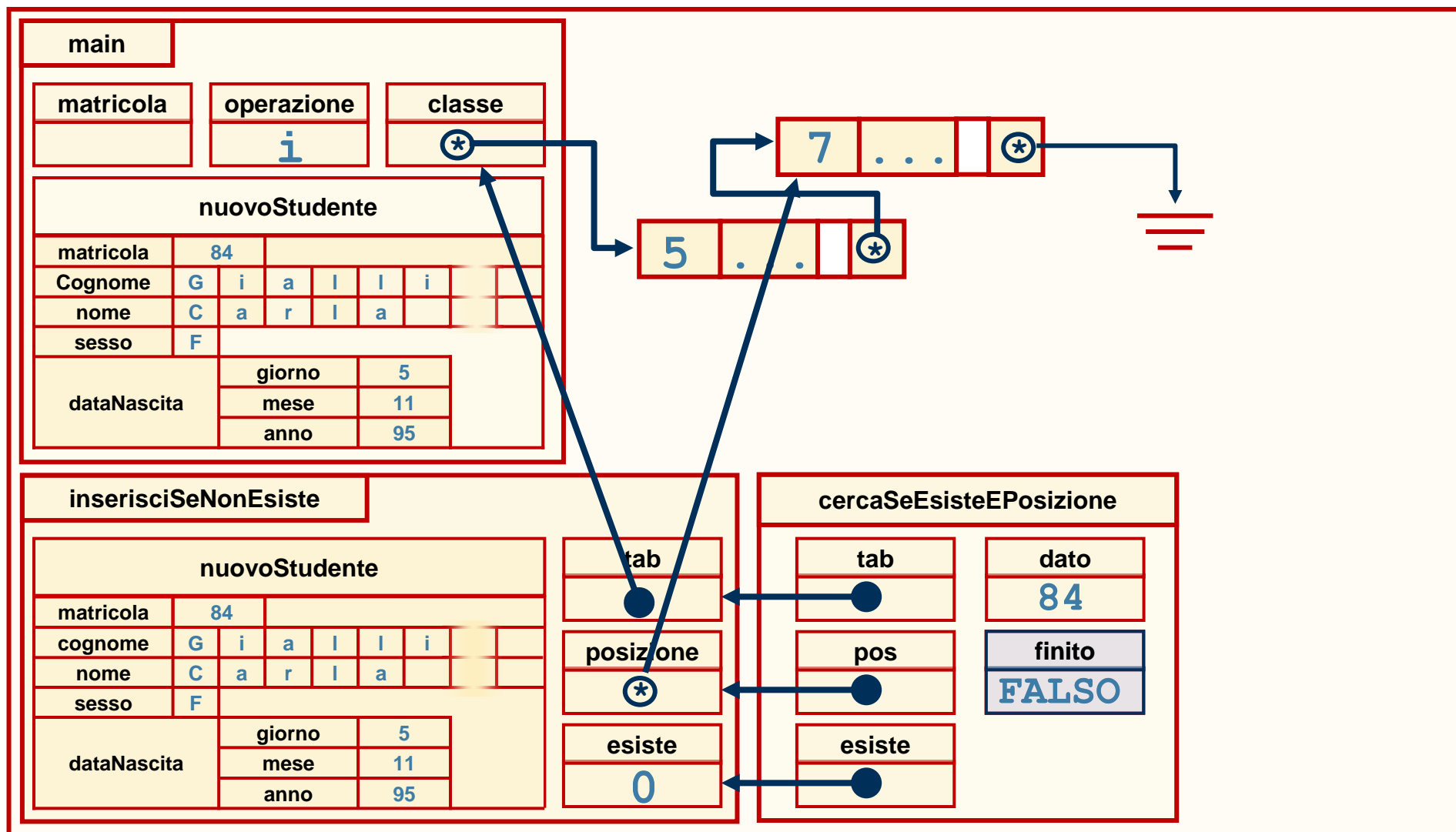


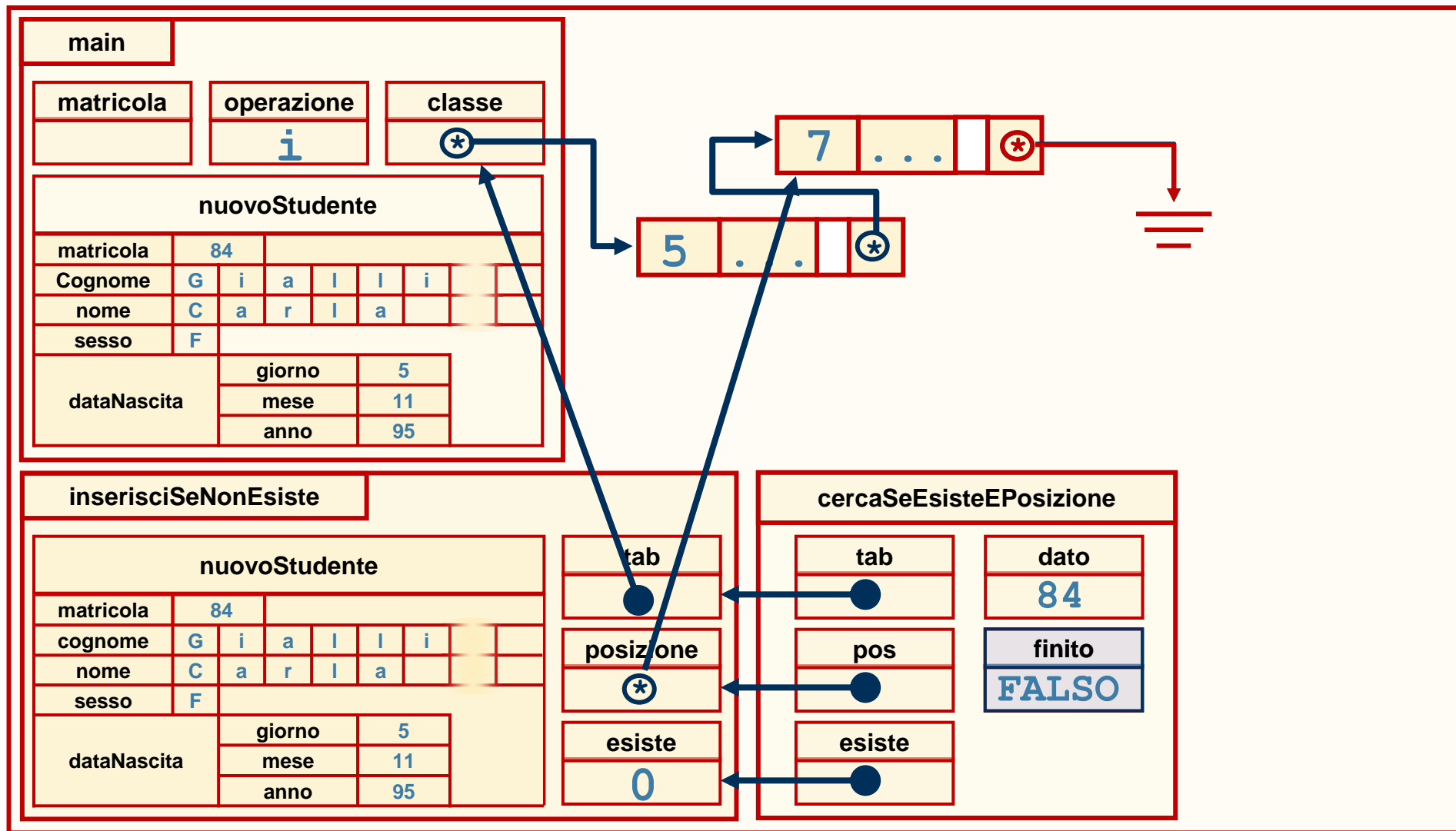


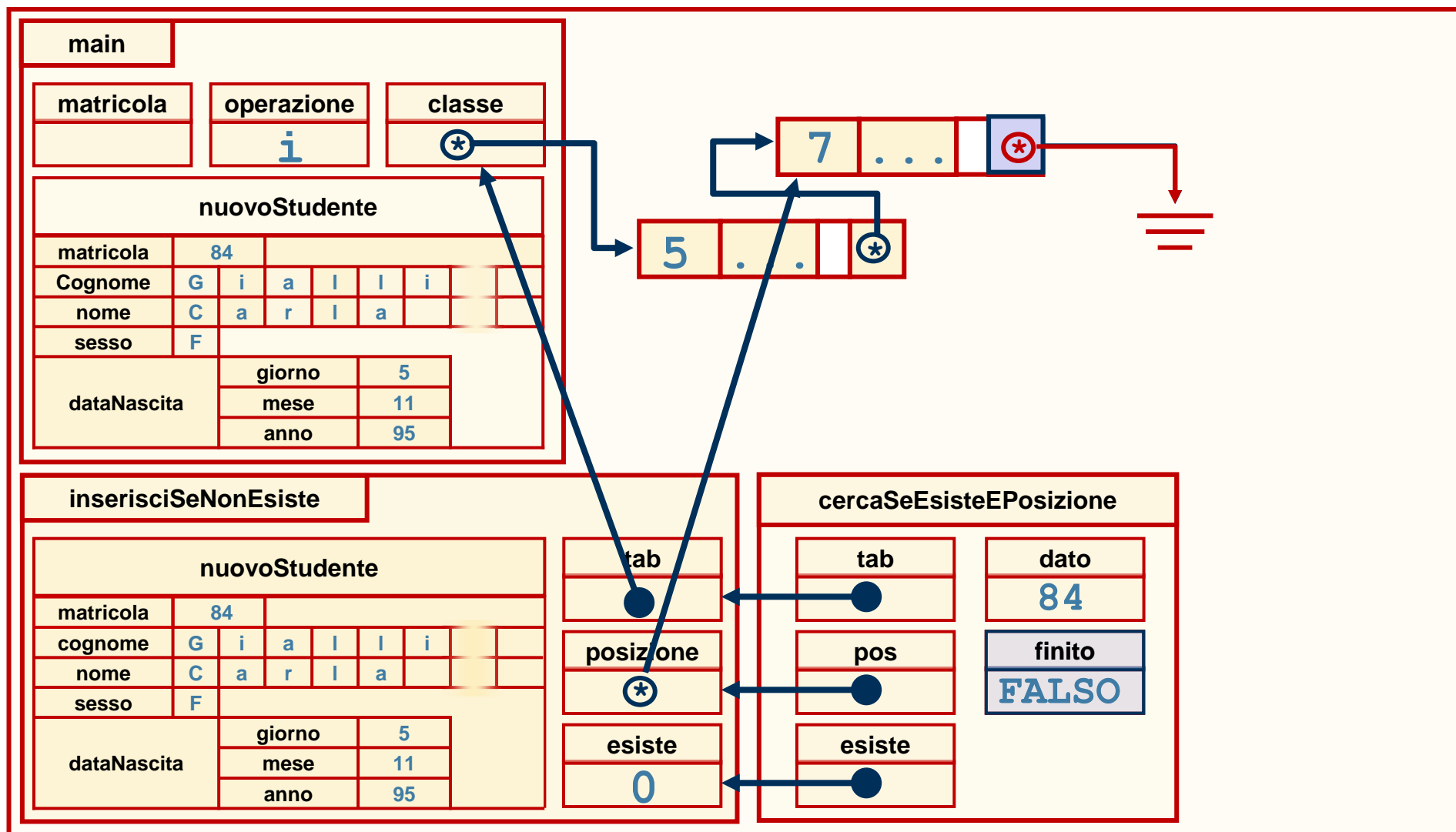


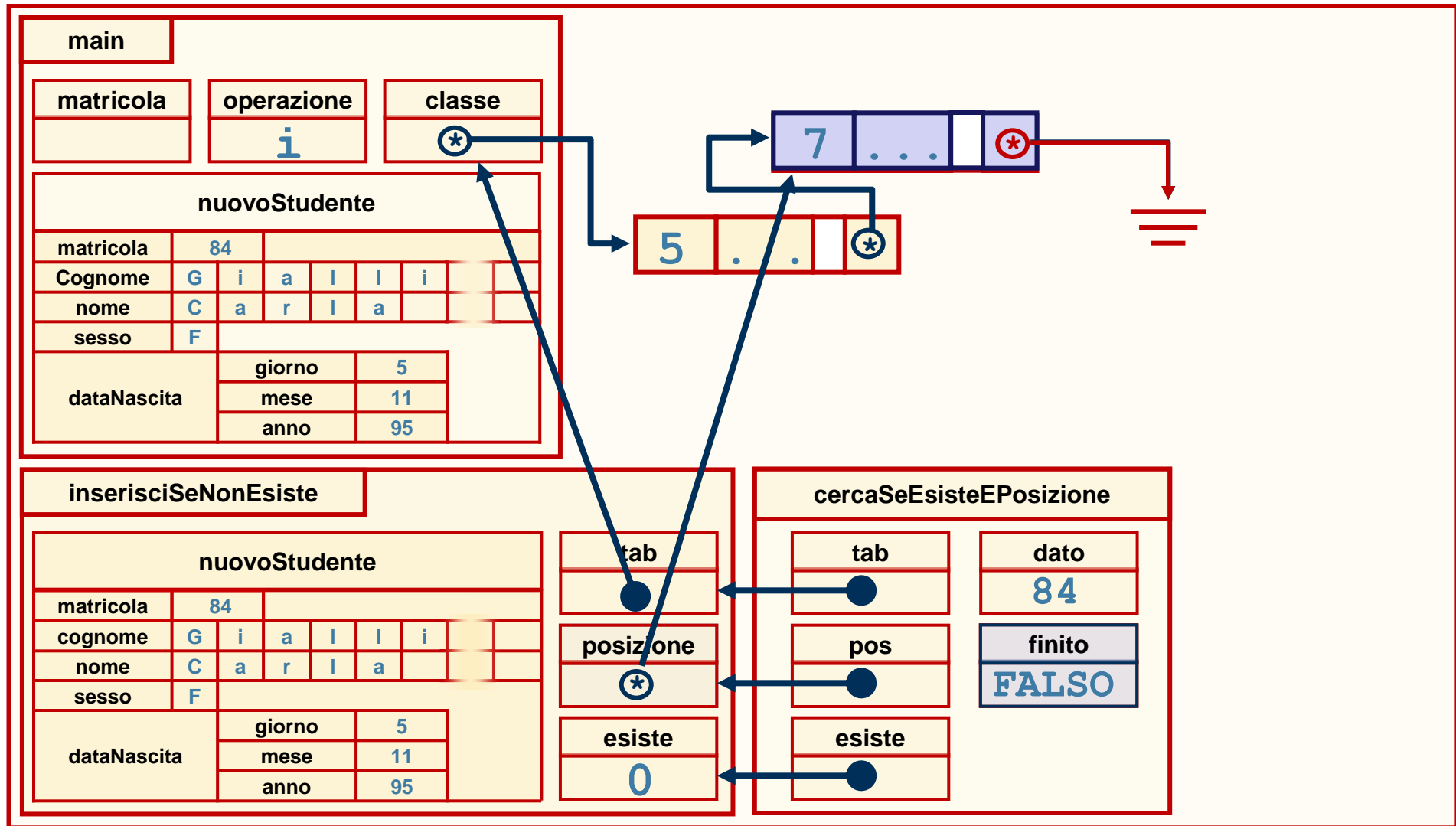


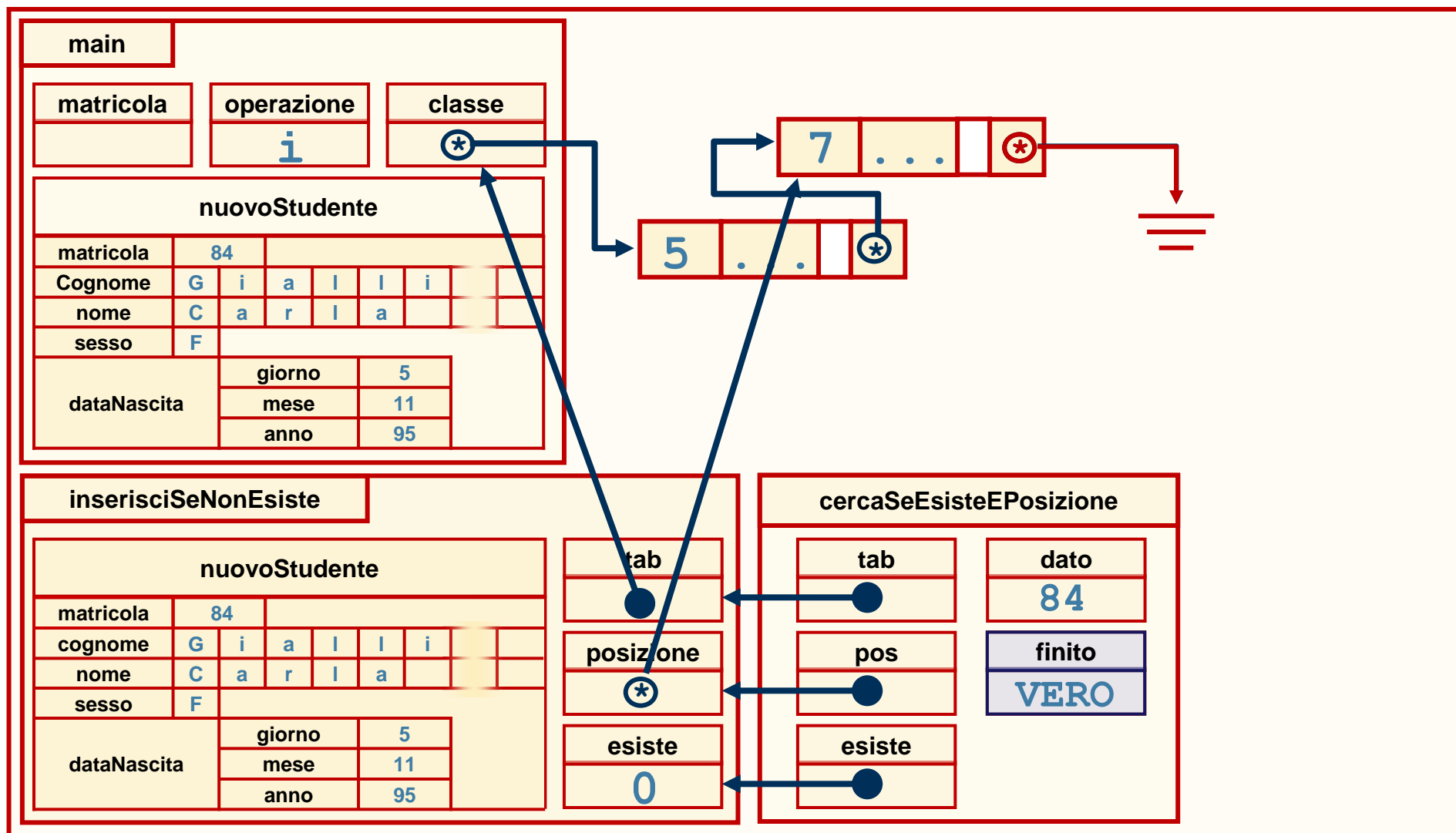


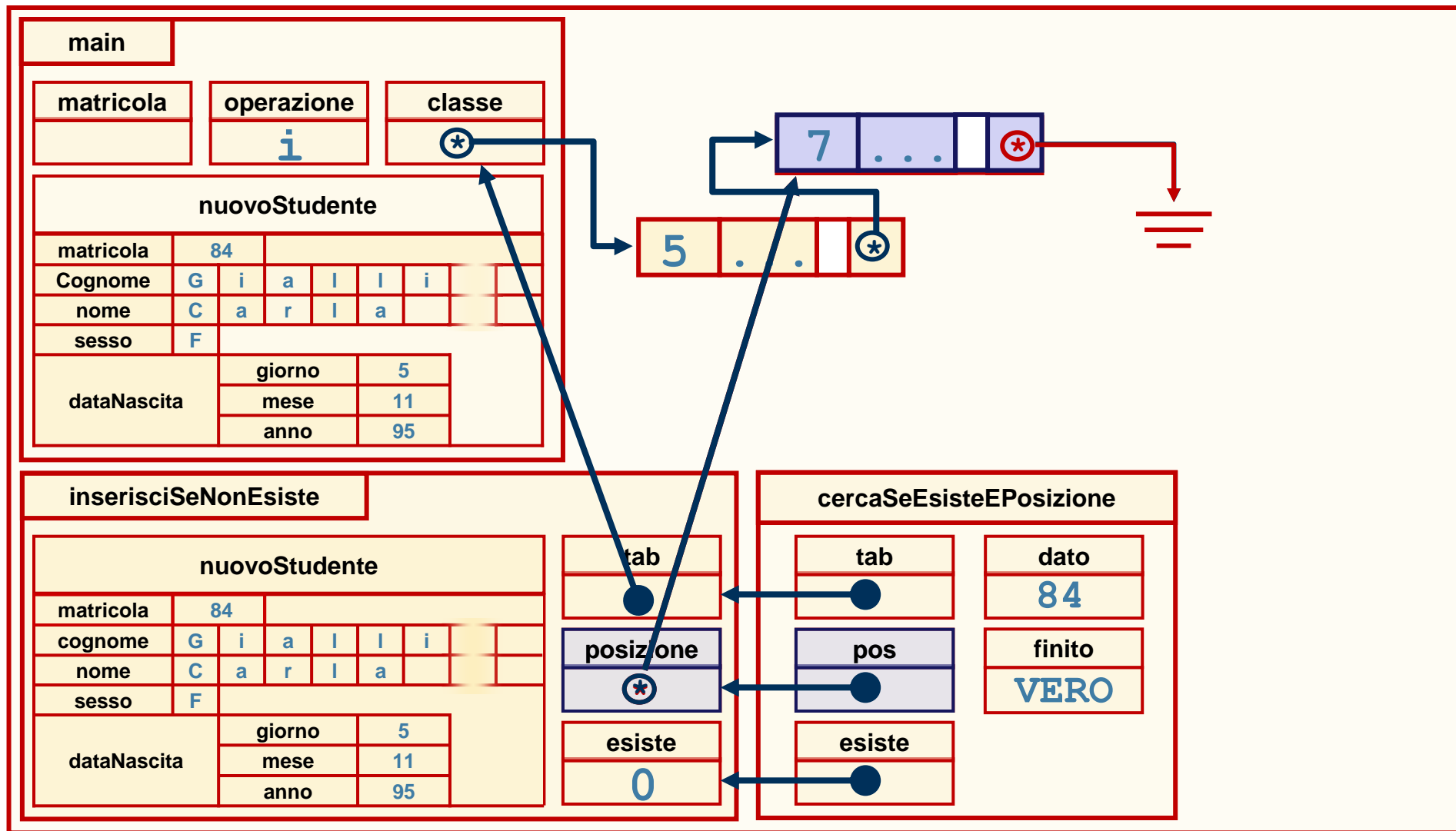


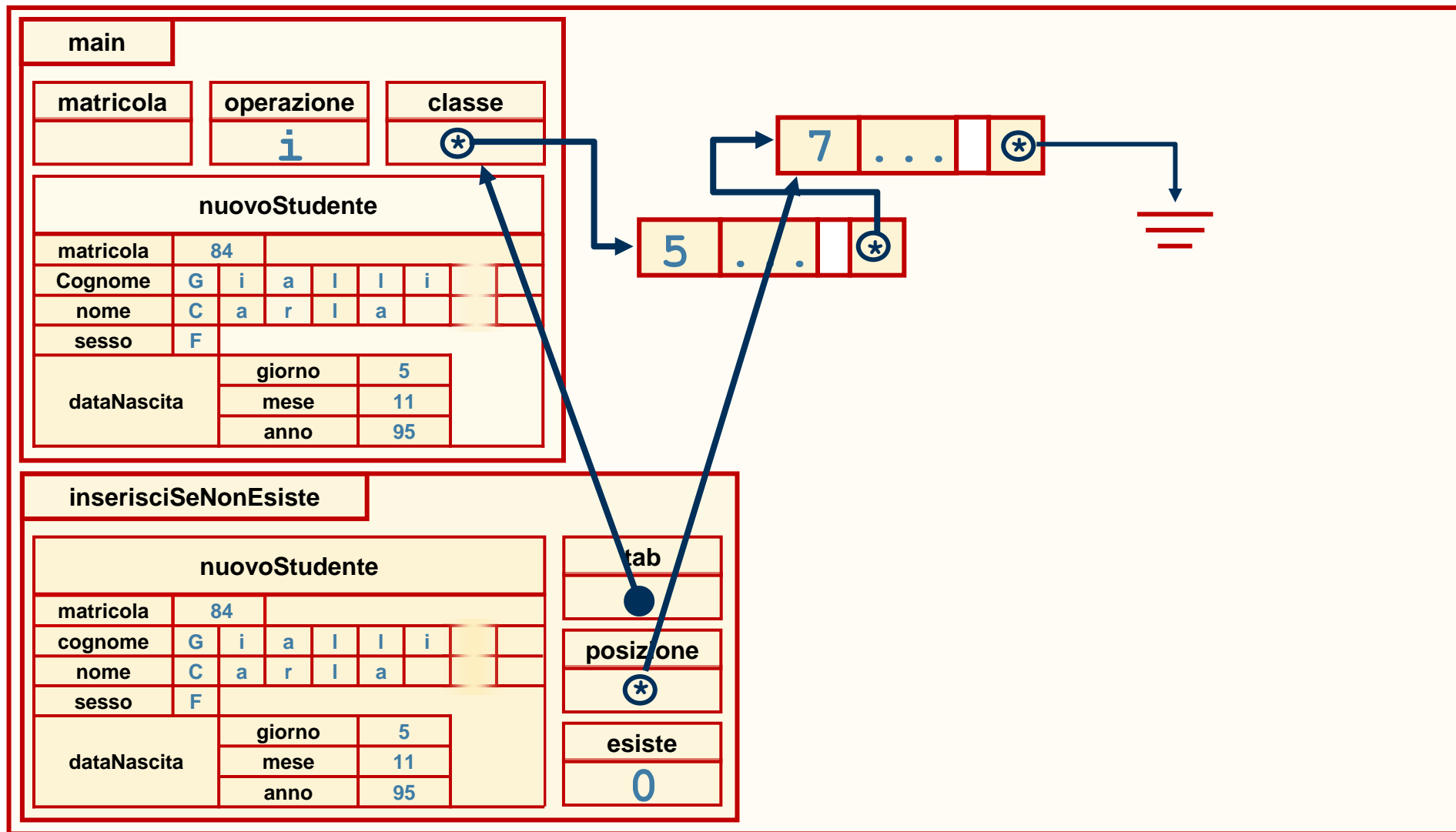


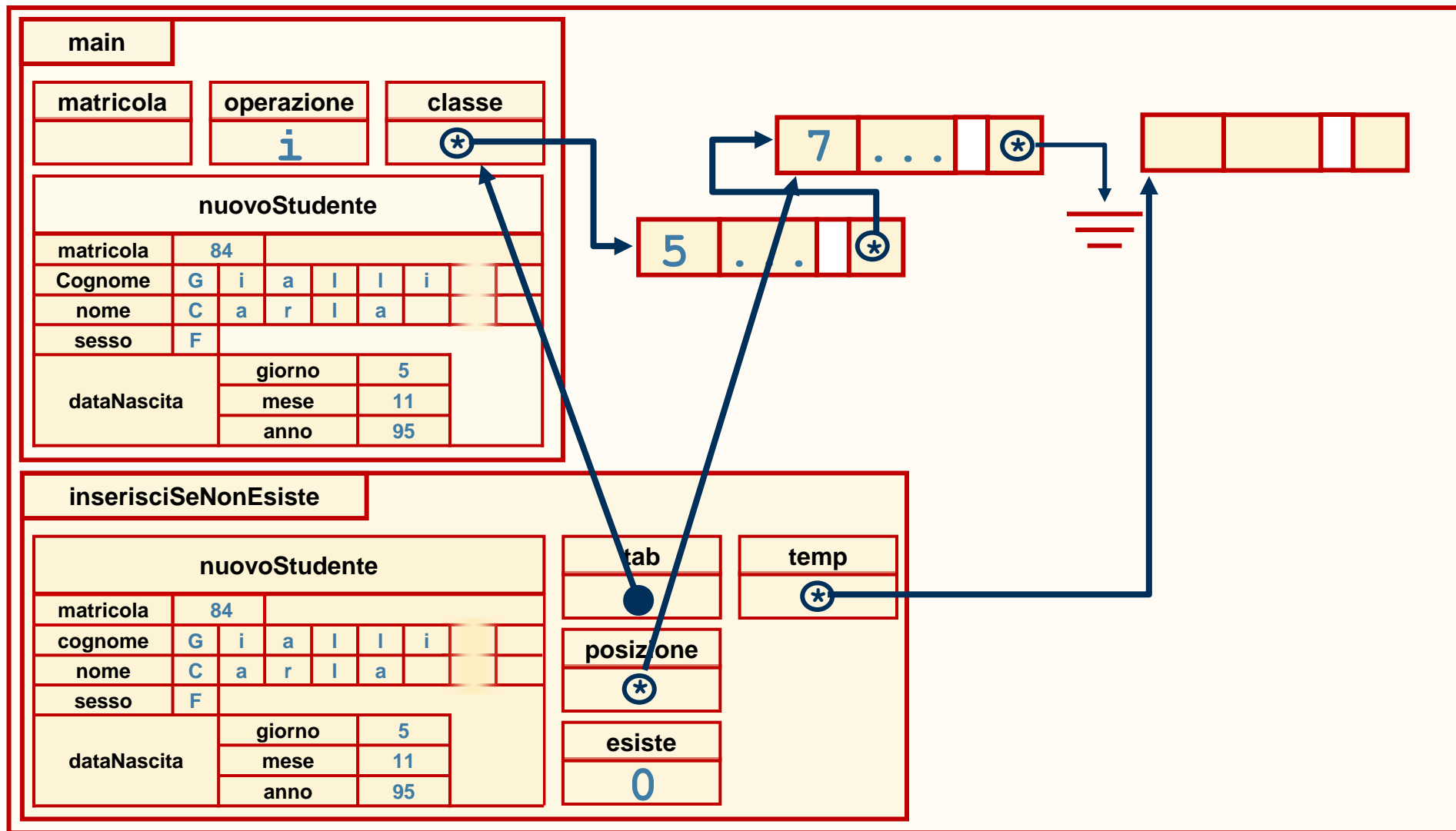


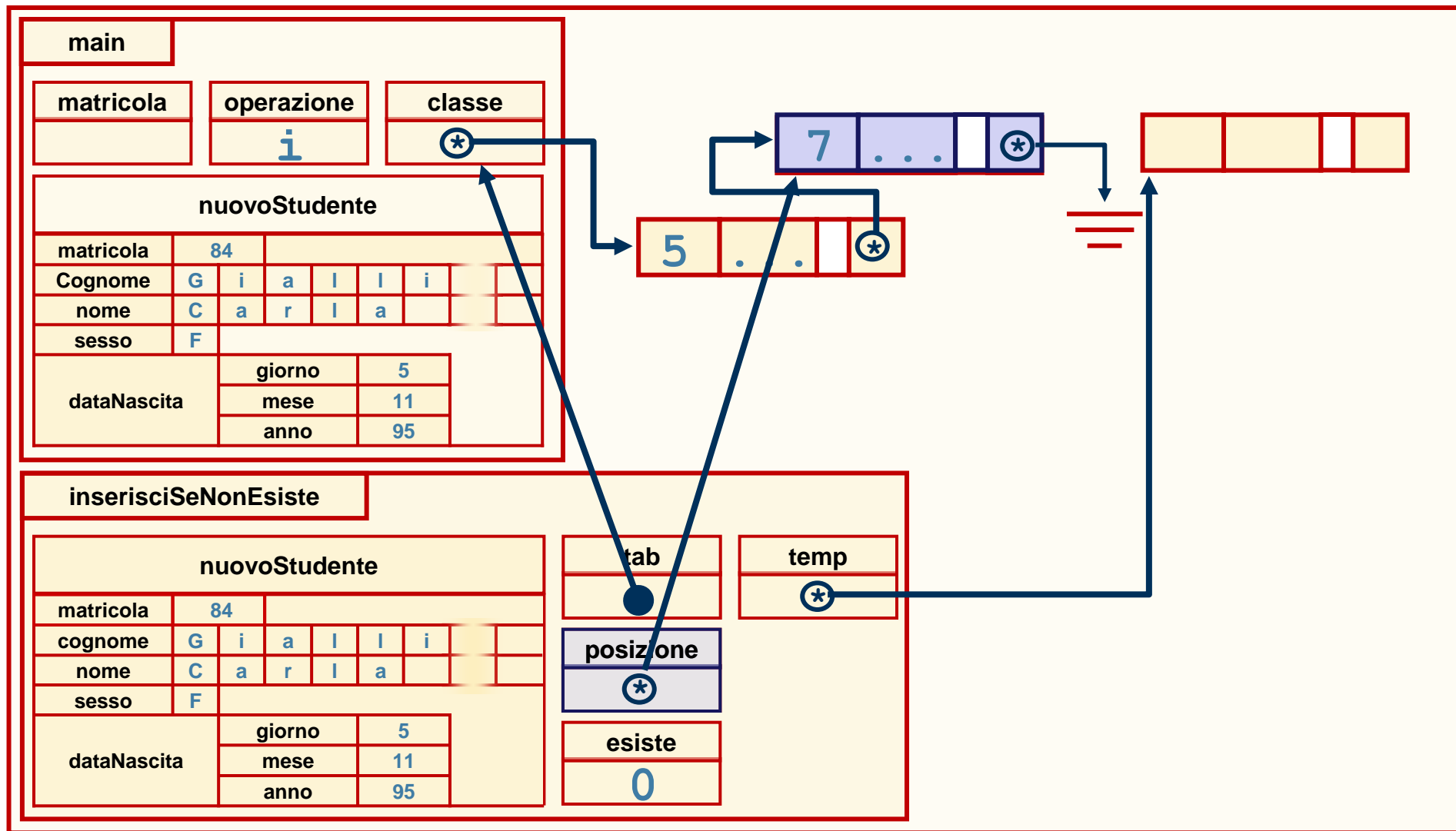


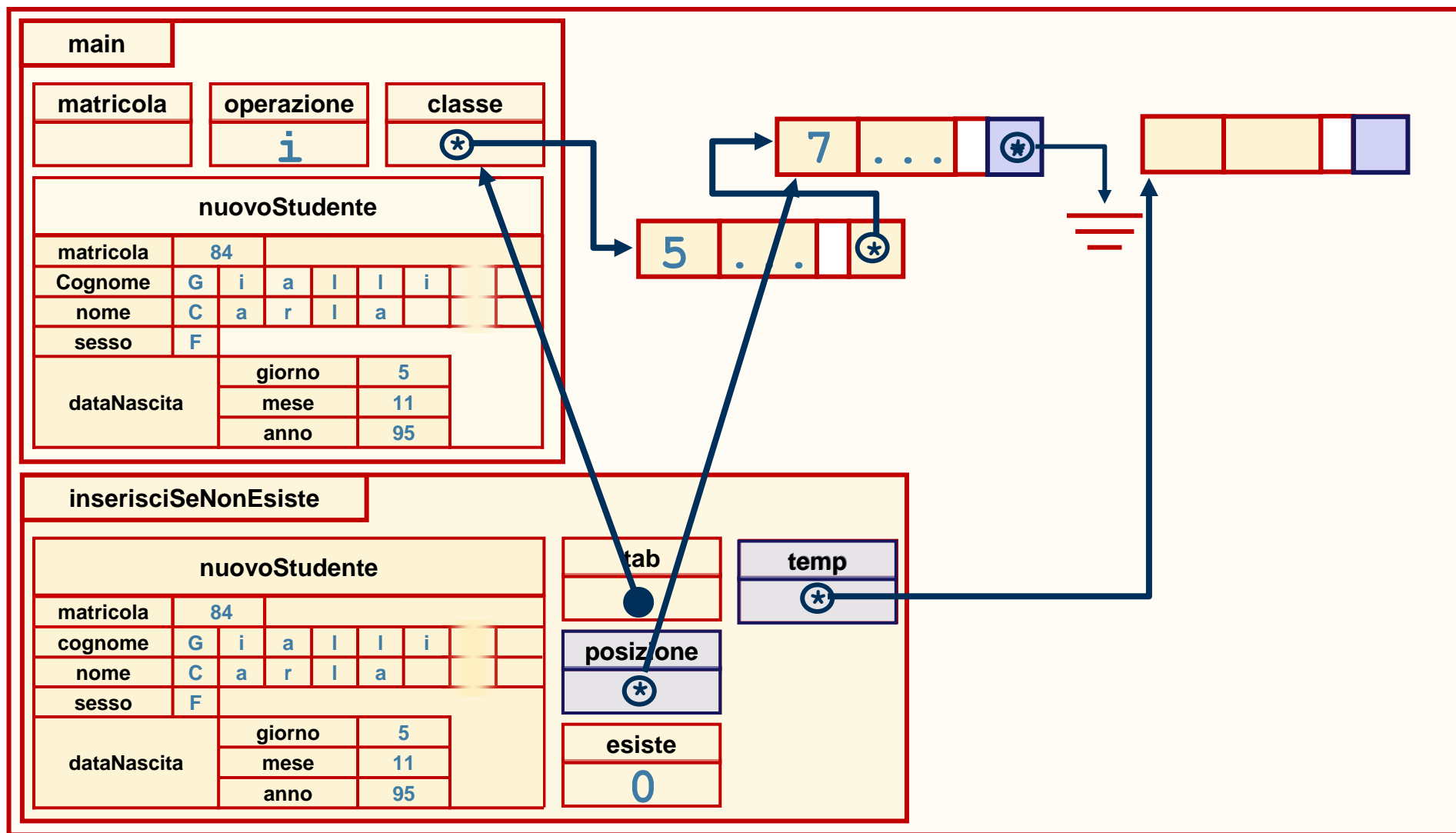


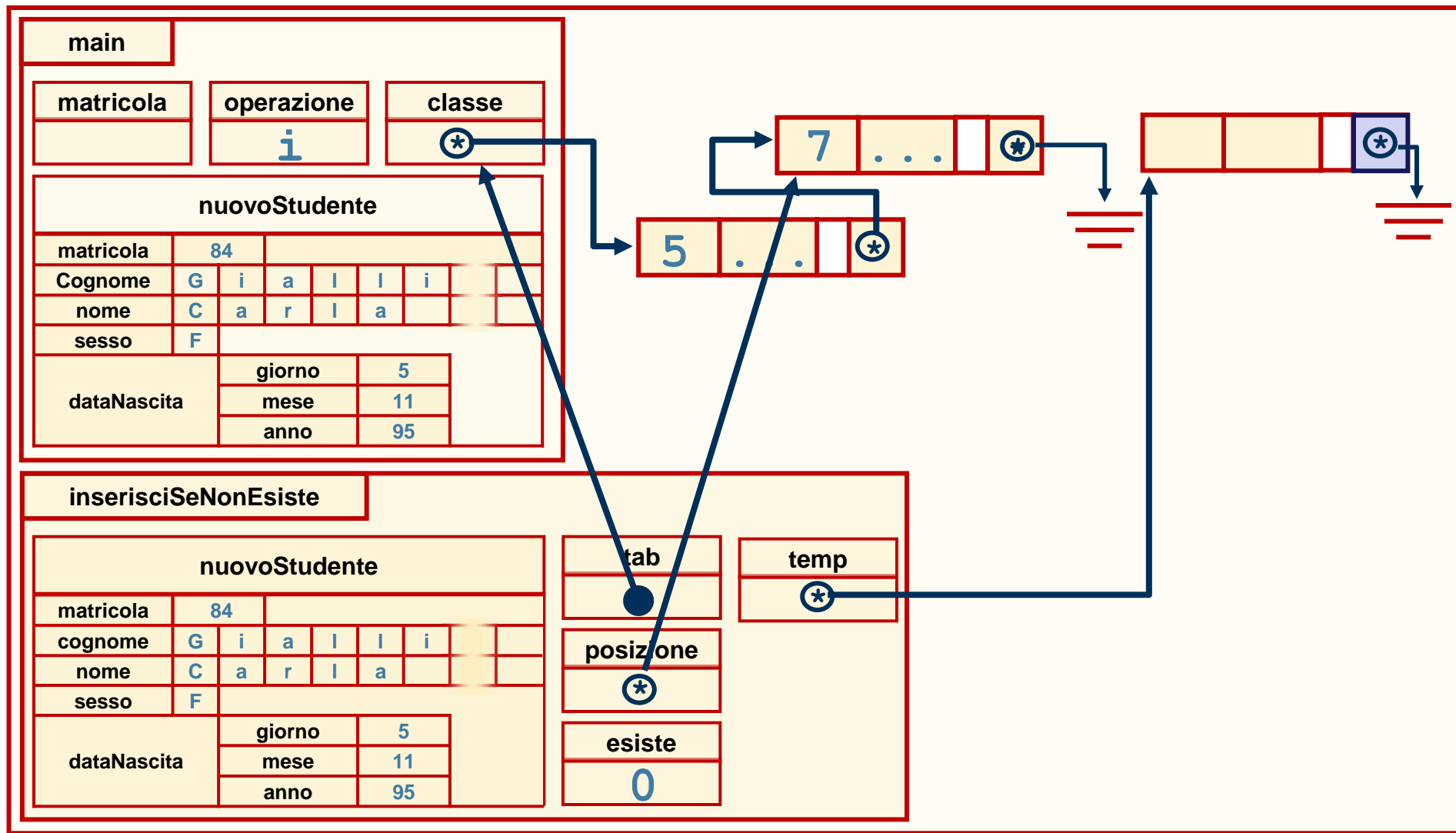


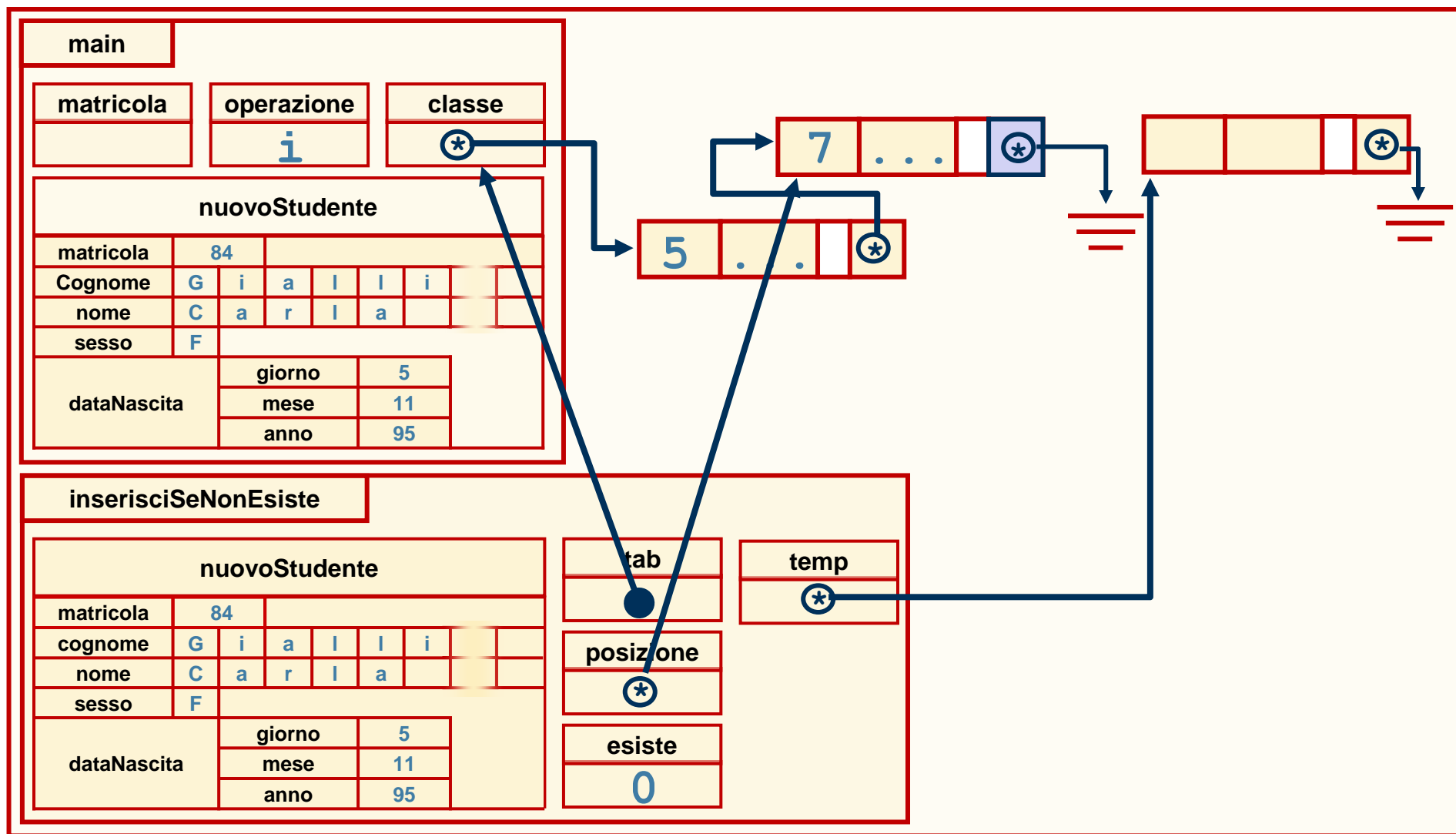




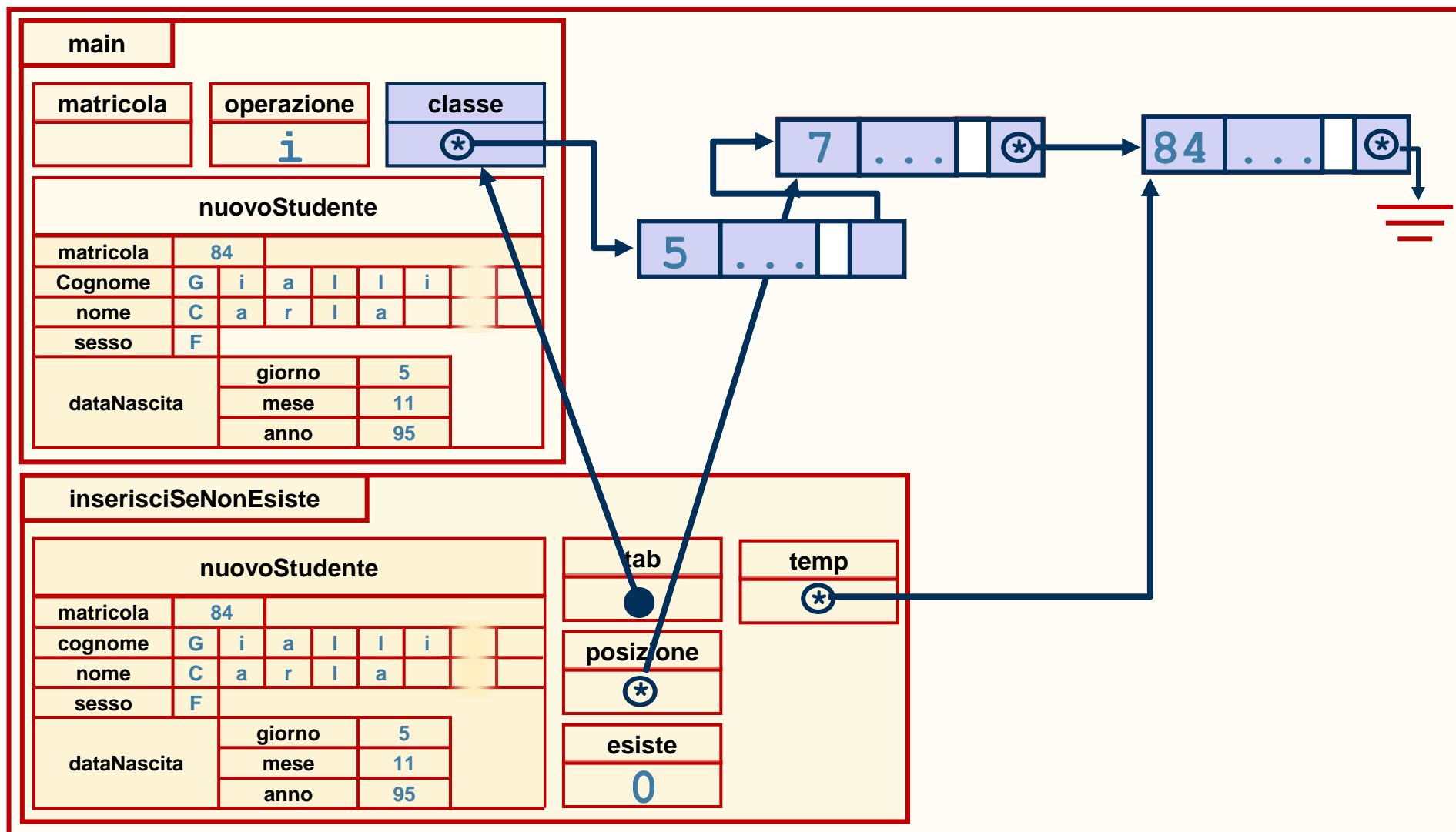


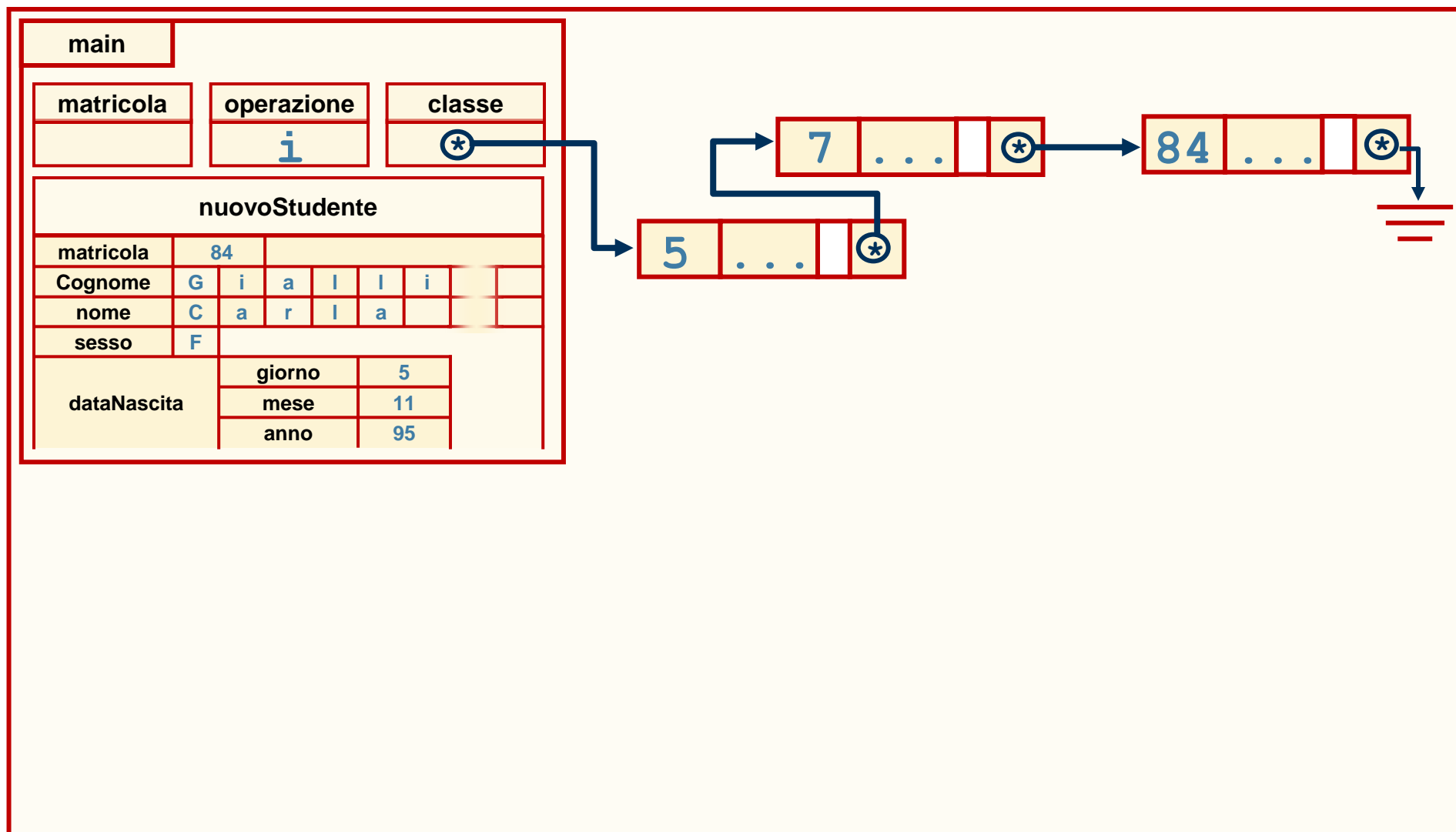


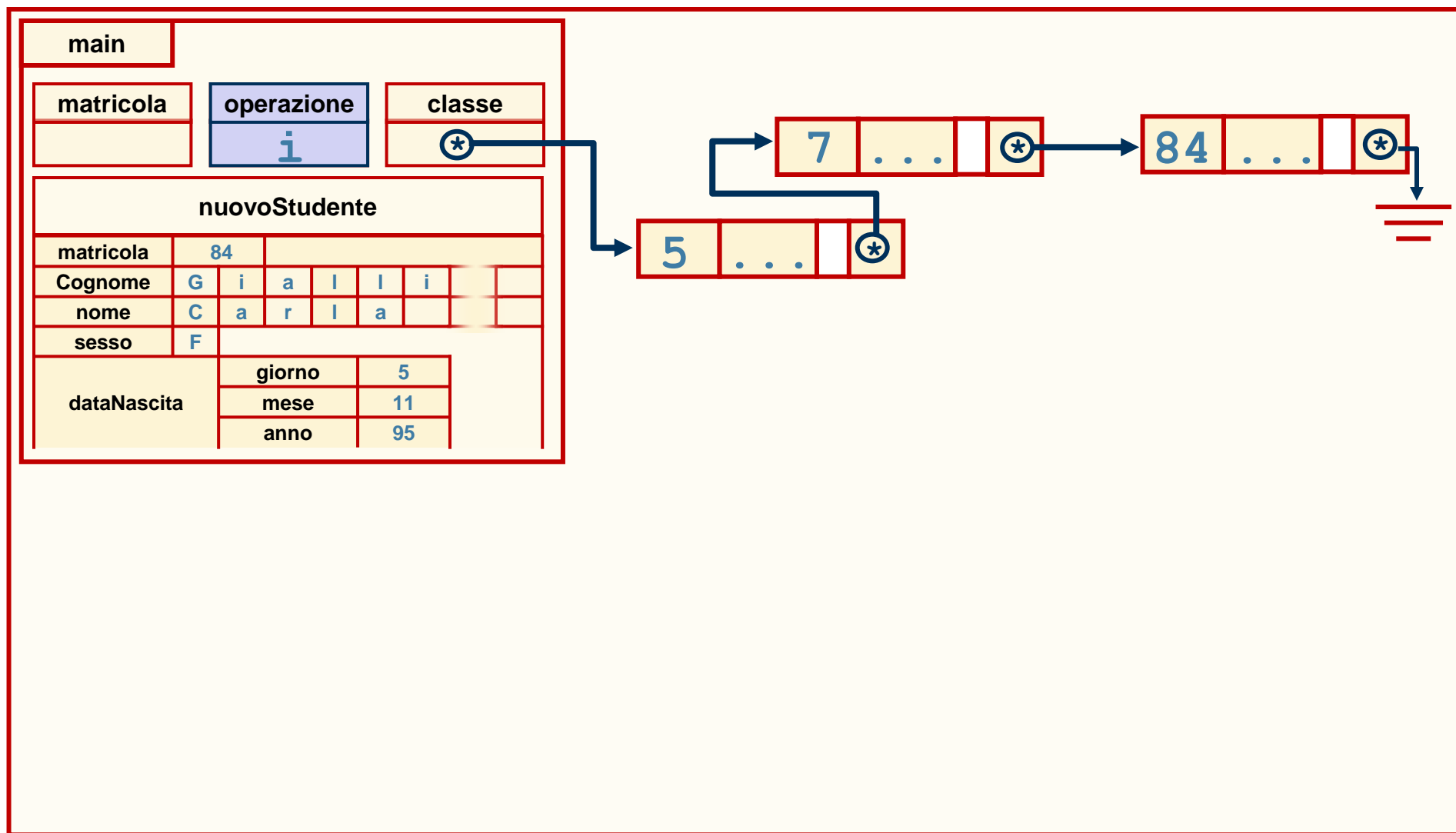


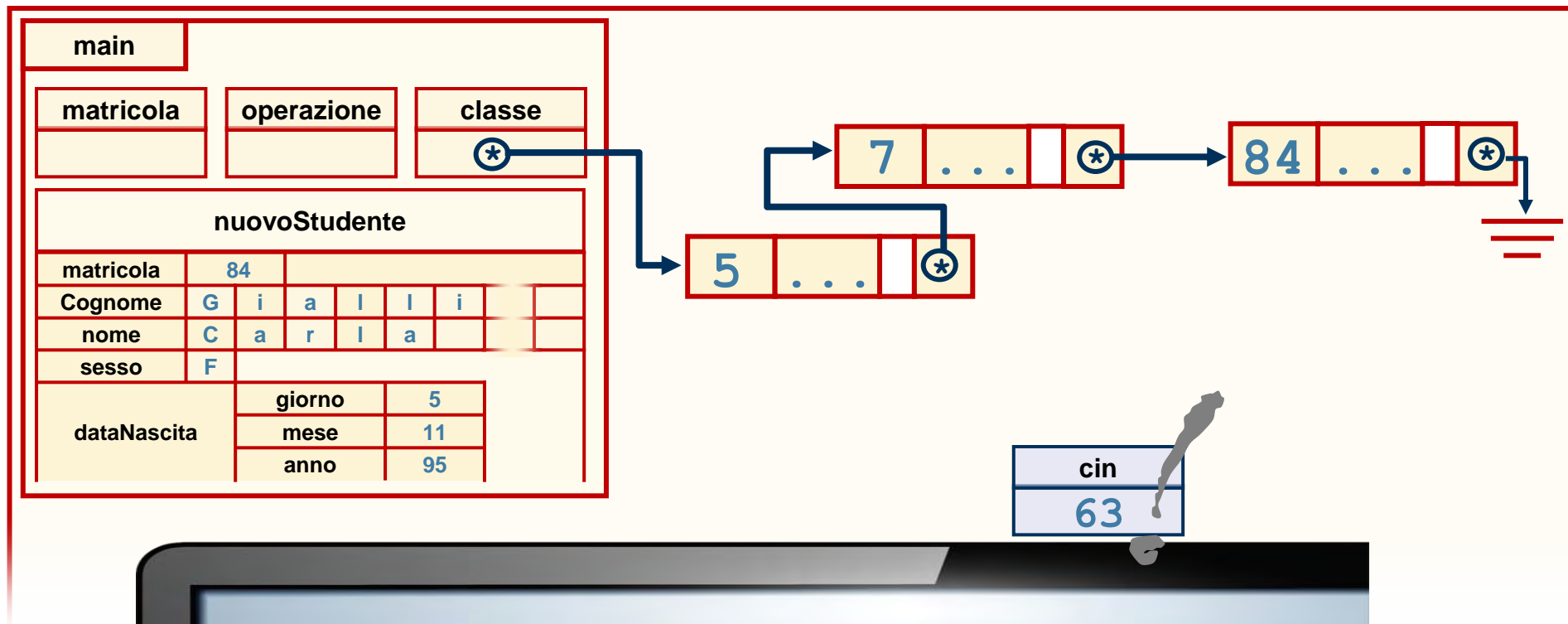




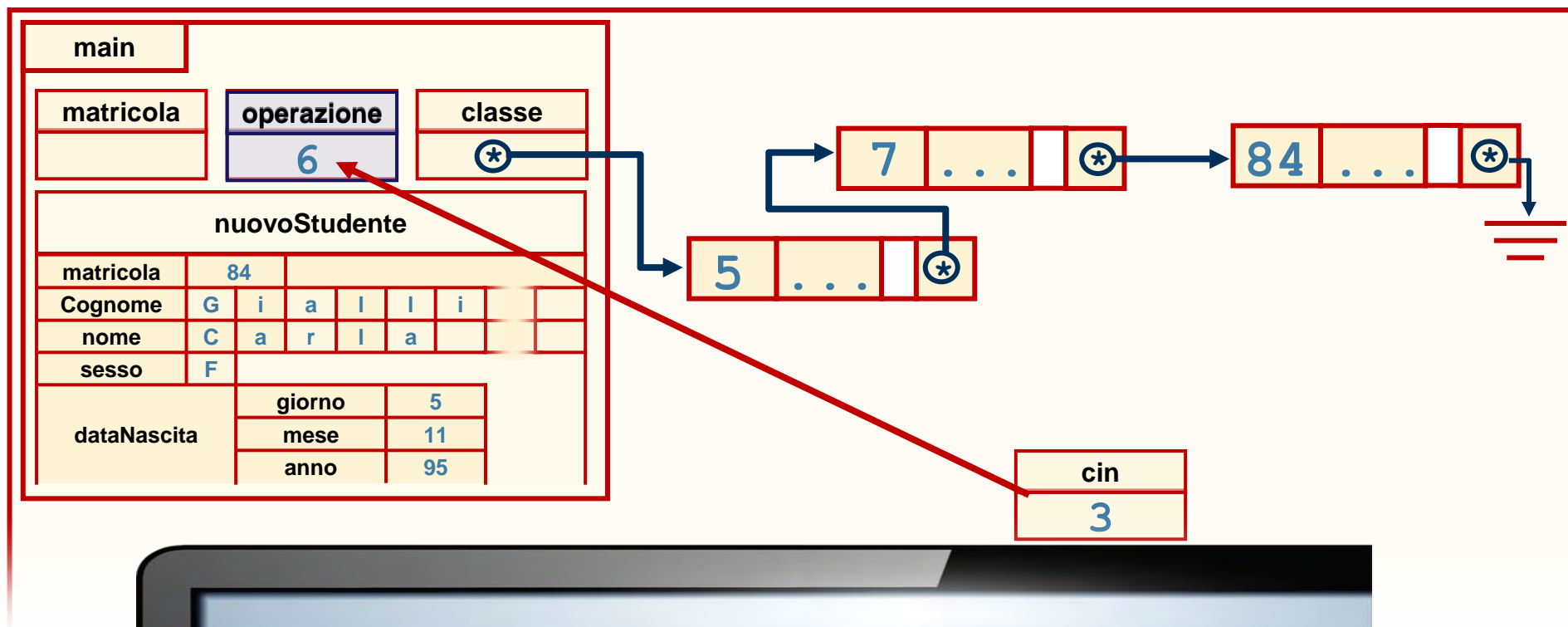




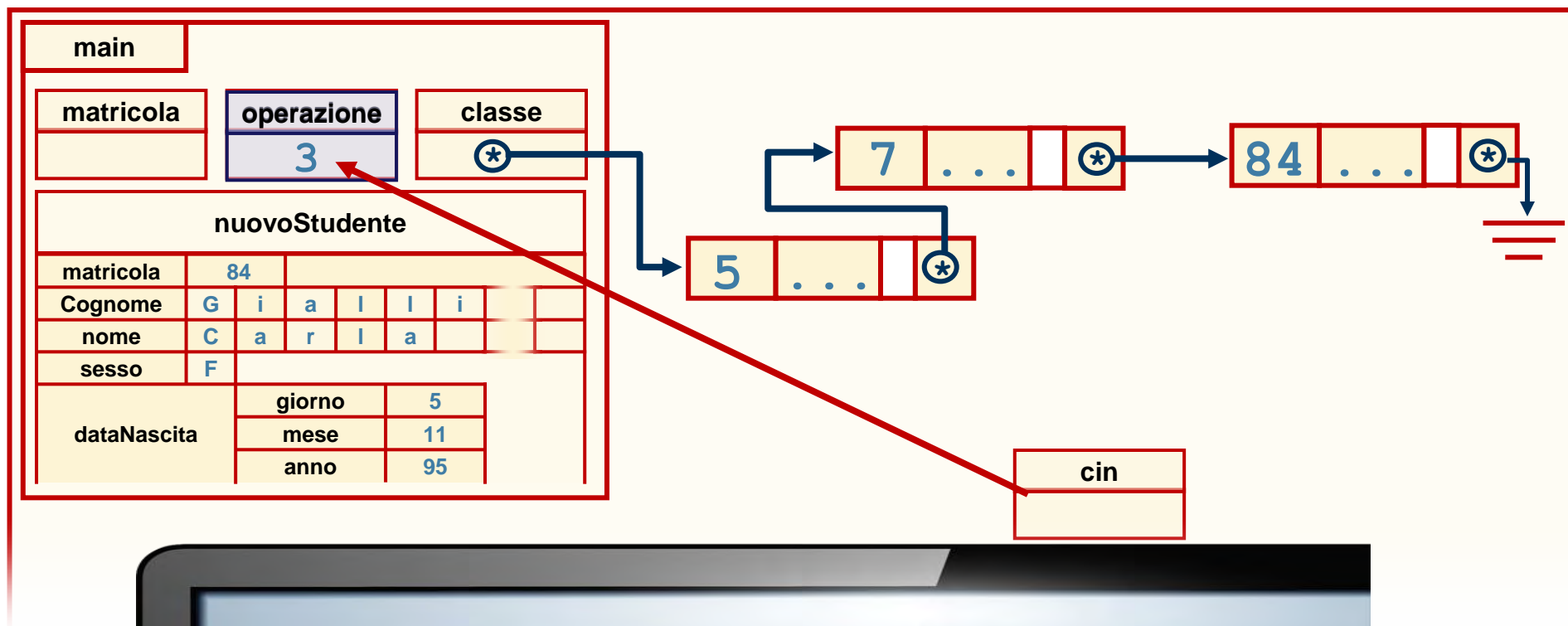




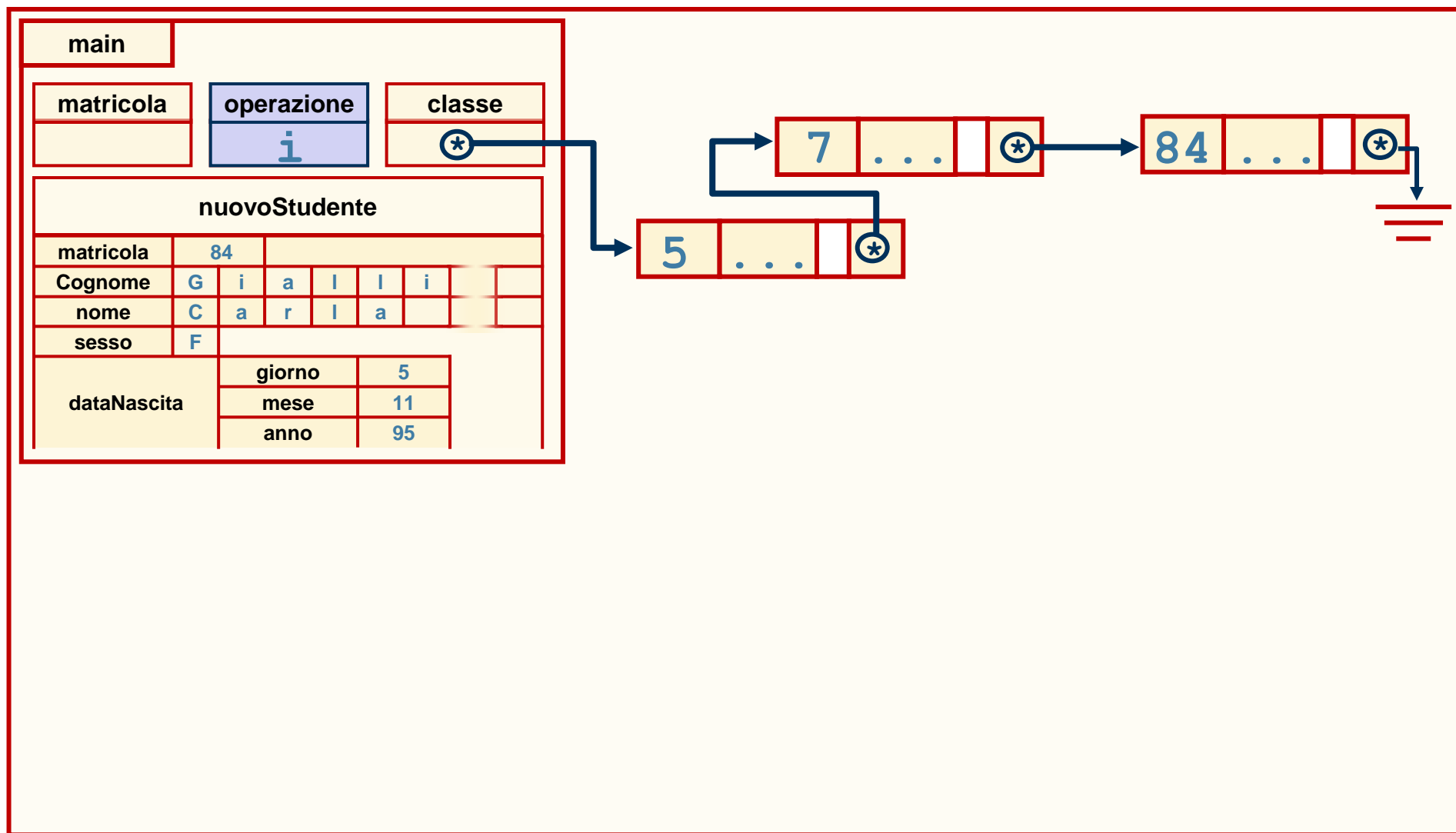
operazione? (i per inserimento, e per eliminazione, f per fine):
 operazione? (i per inserimento, e per eliminazione, f per fine):

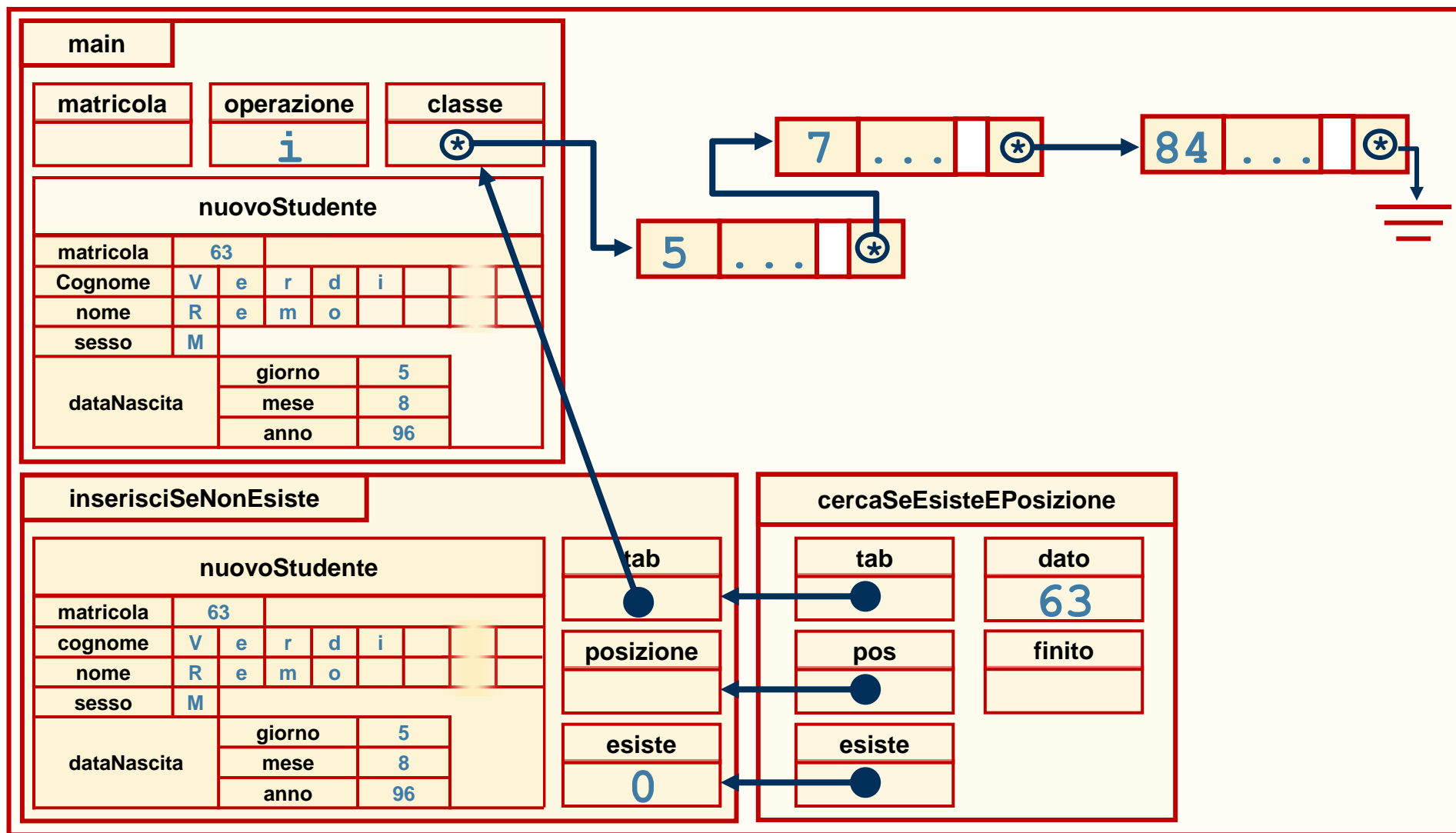


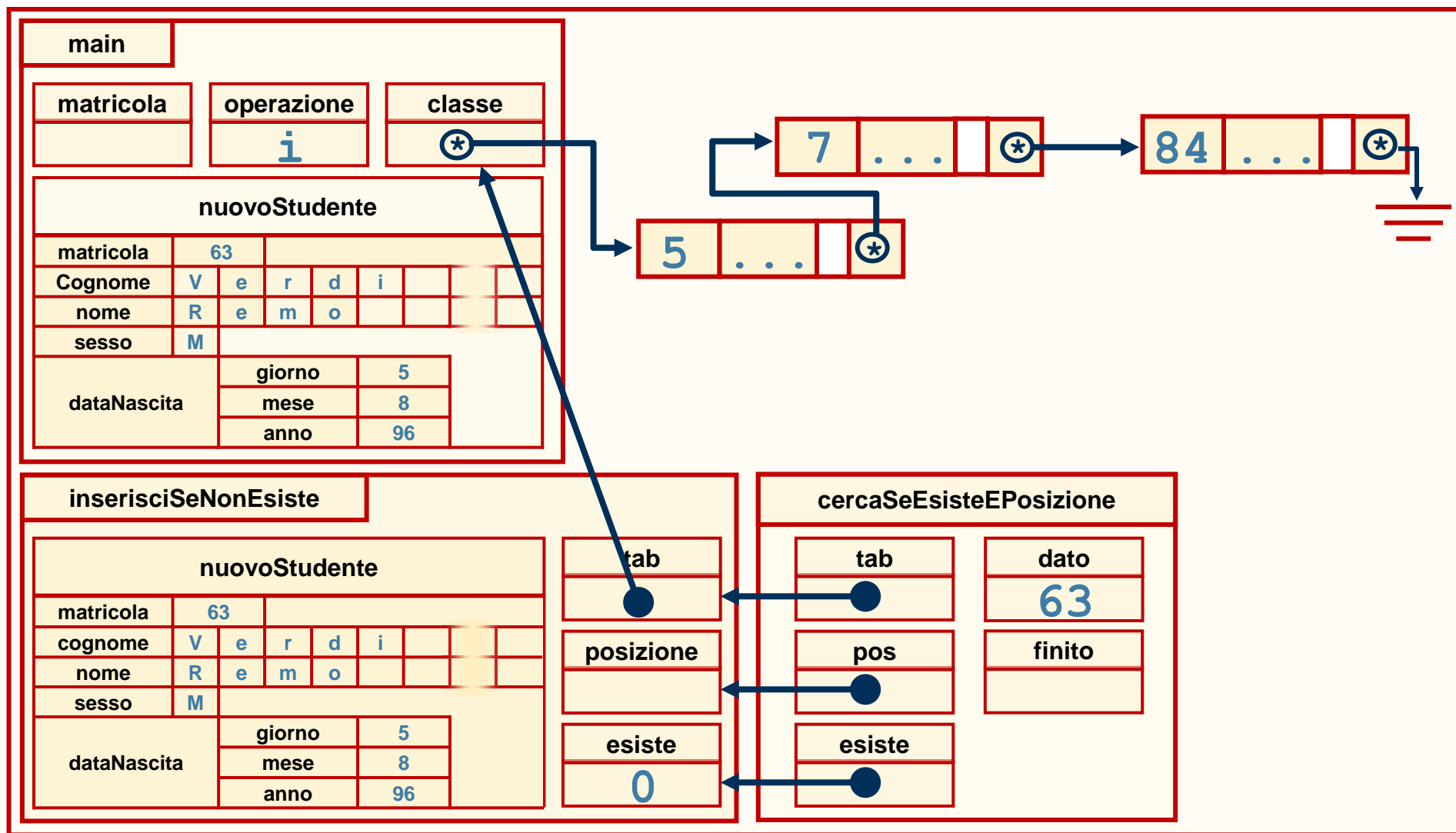
operazione? (i per inserimento, e per eliminazione, f per fine):

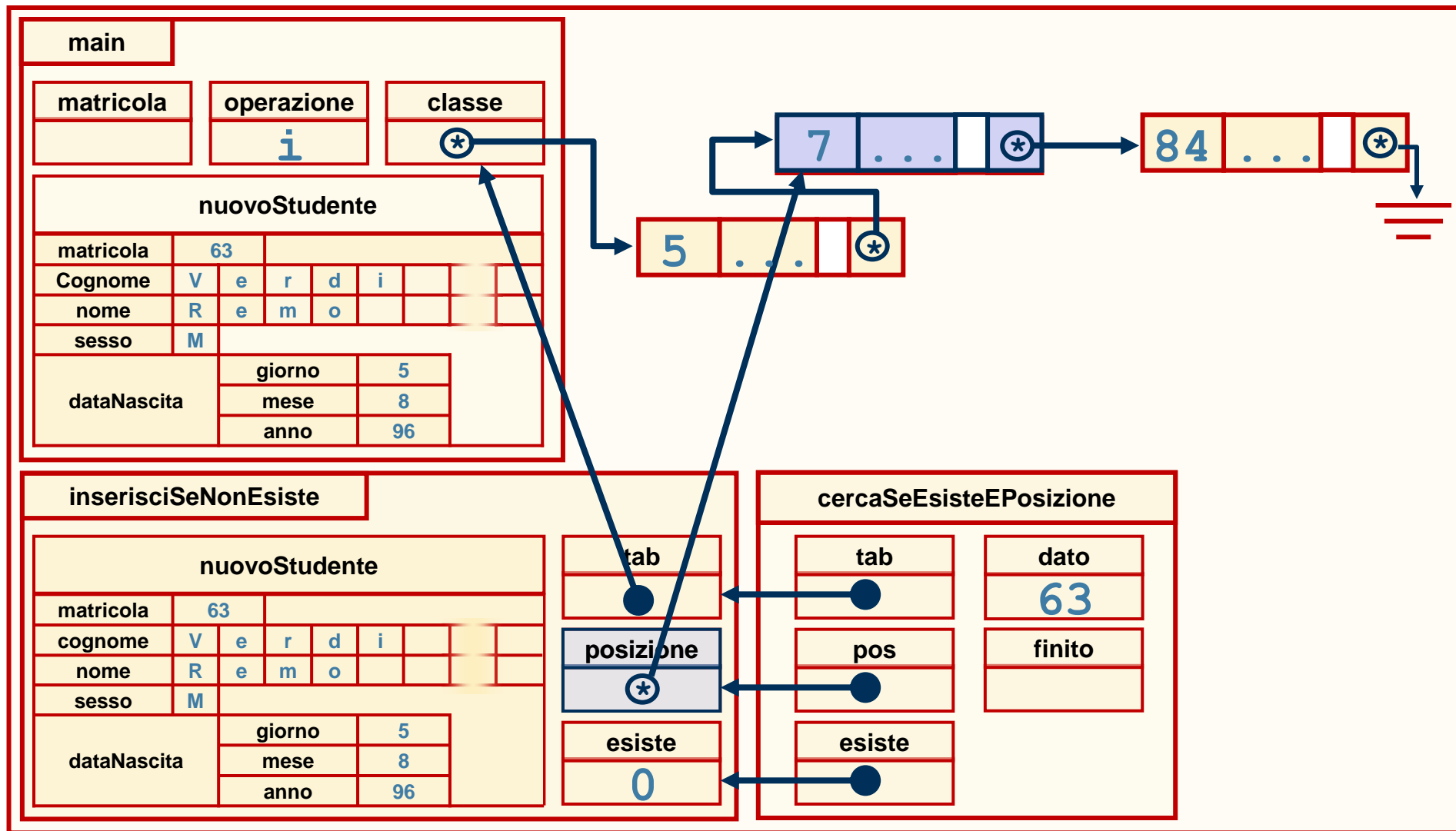


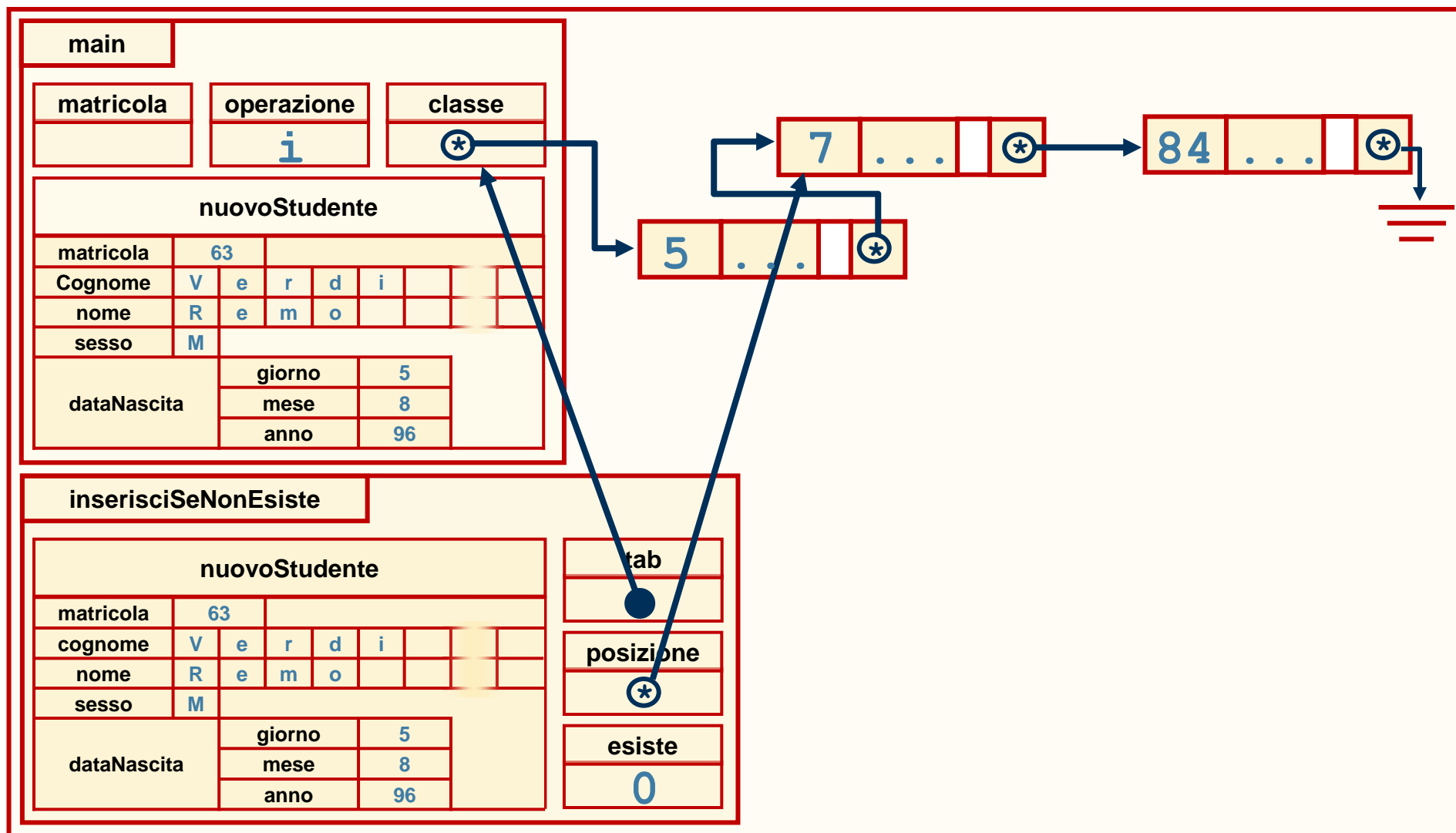
operazione? (i per inserimento, e per eliminazione, f per fine):
operazione? (i per inserimento, e per eliminazione, f per fine):



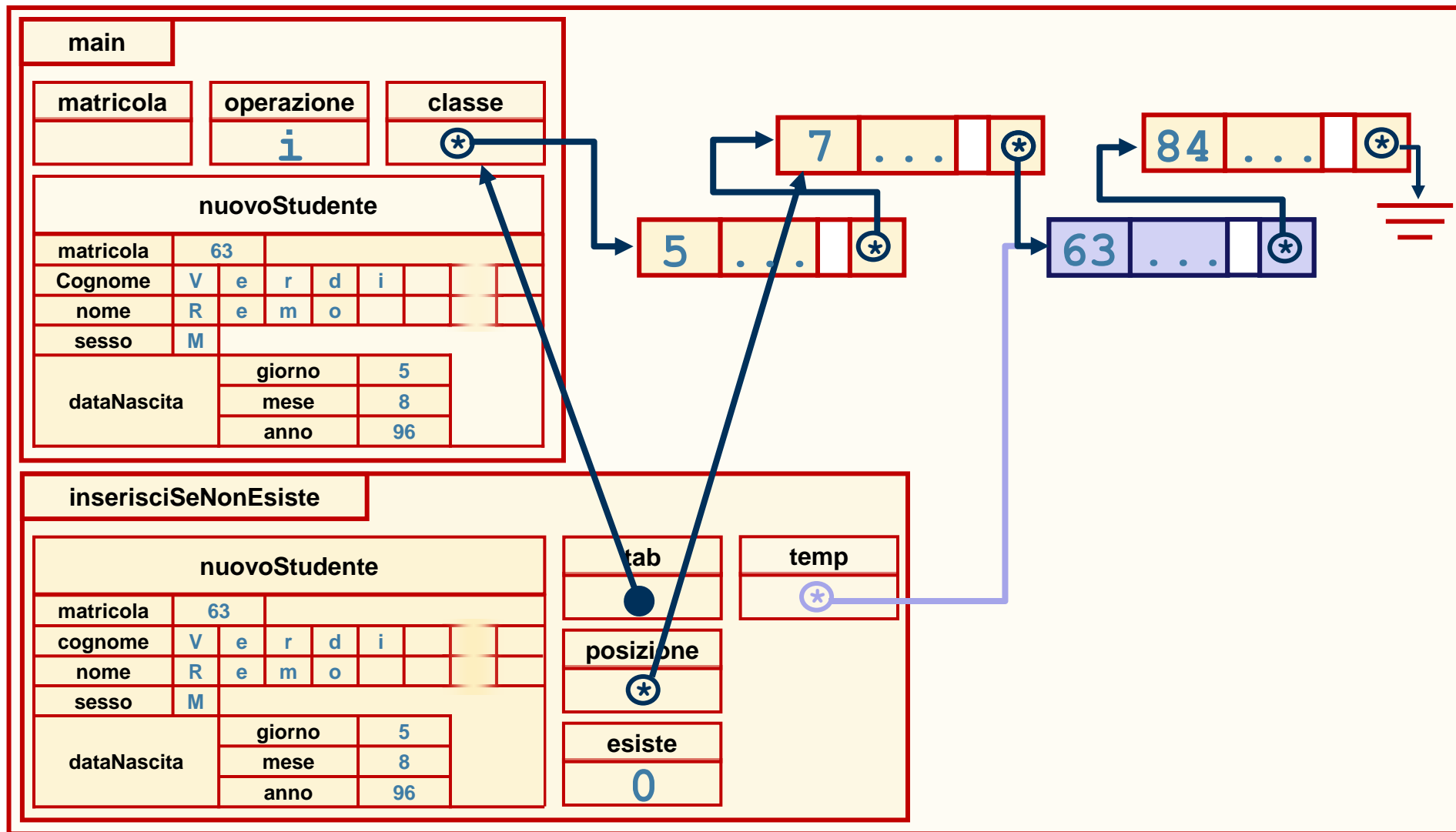


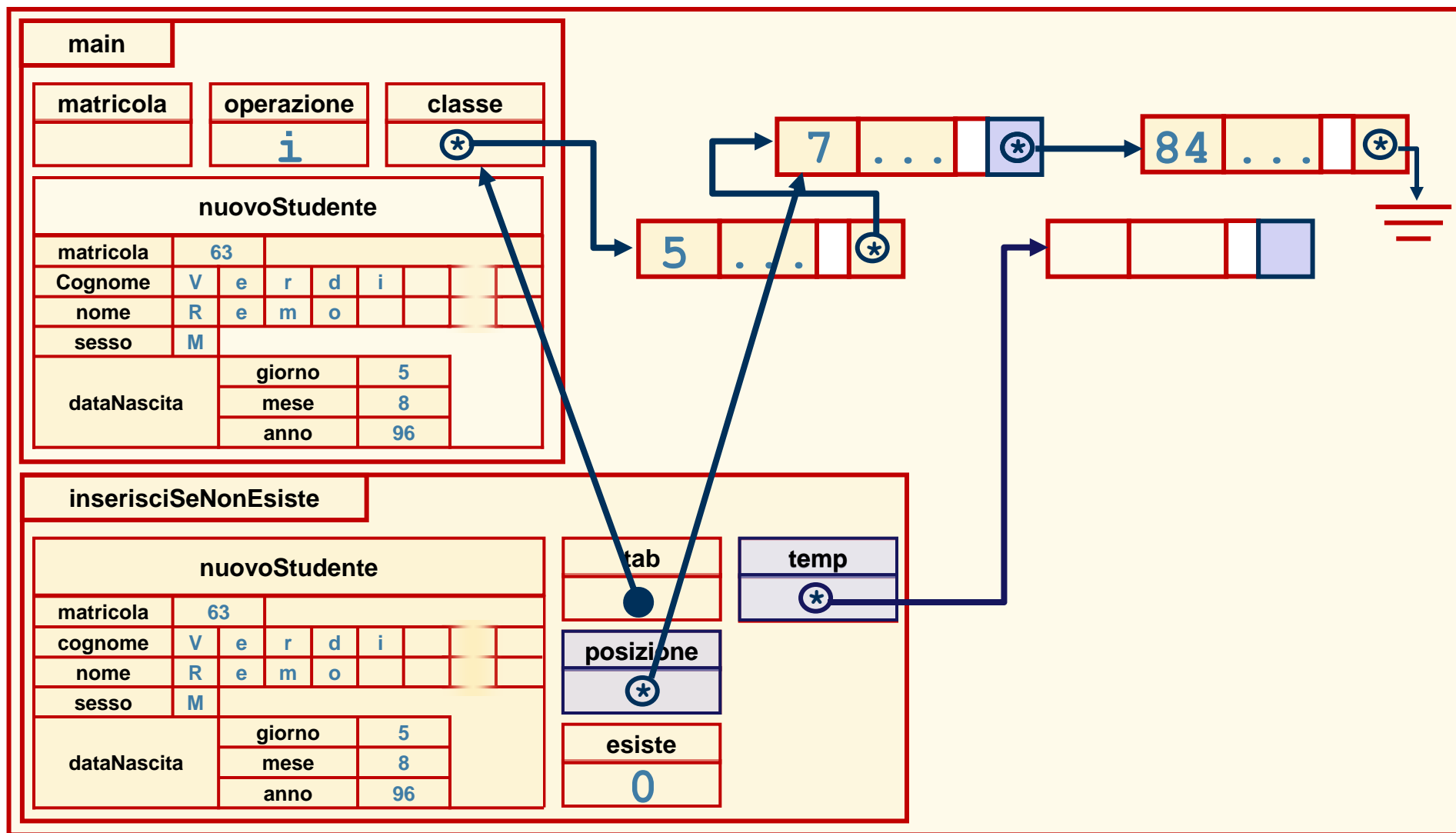


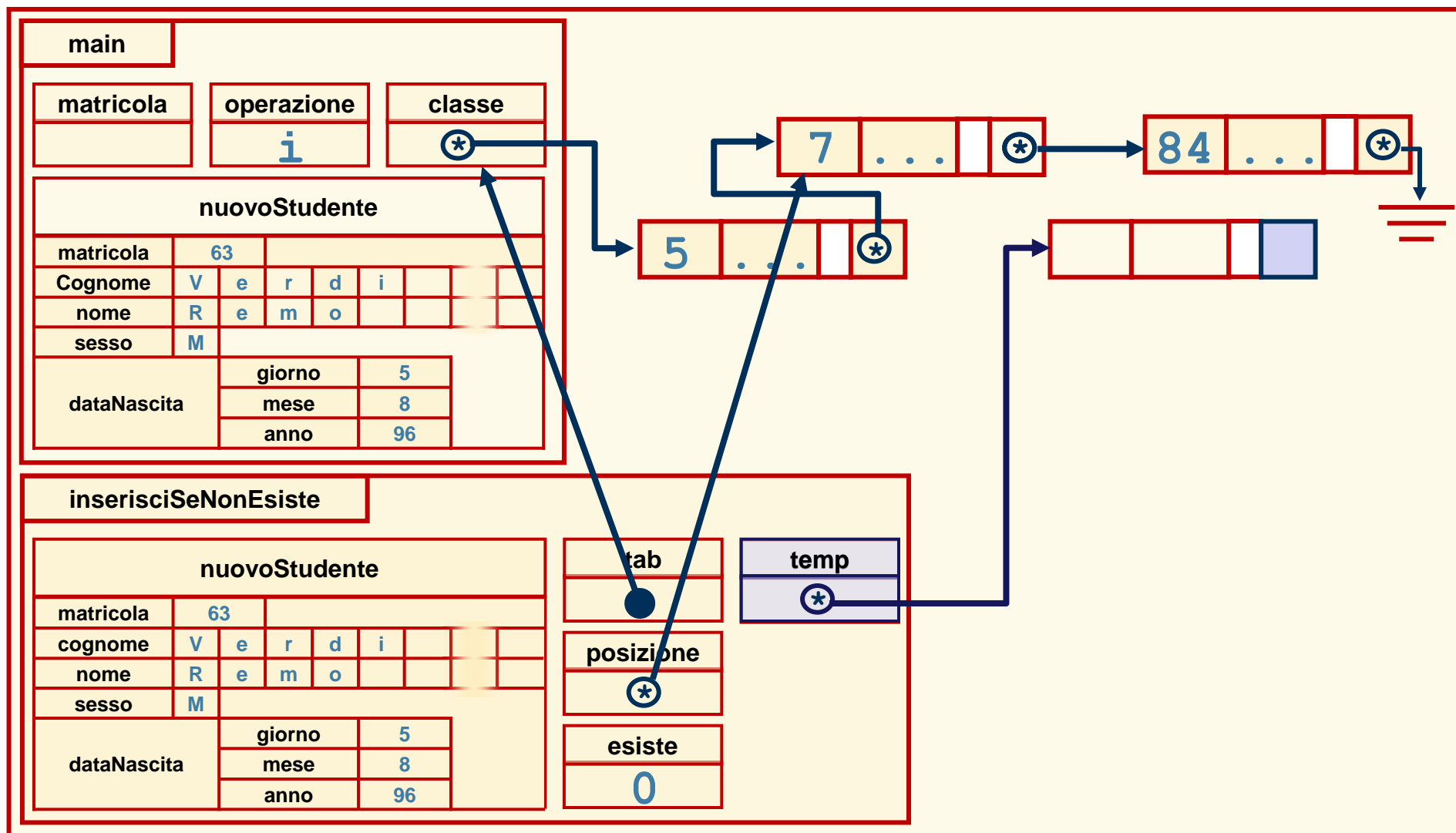


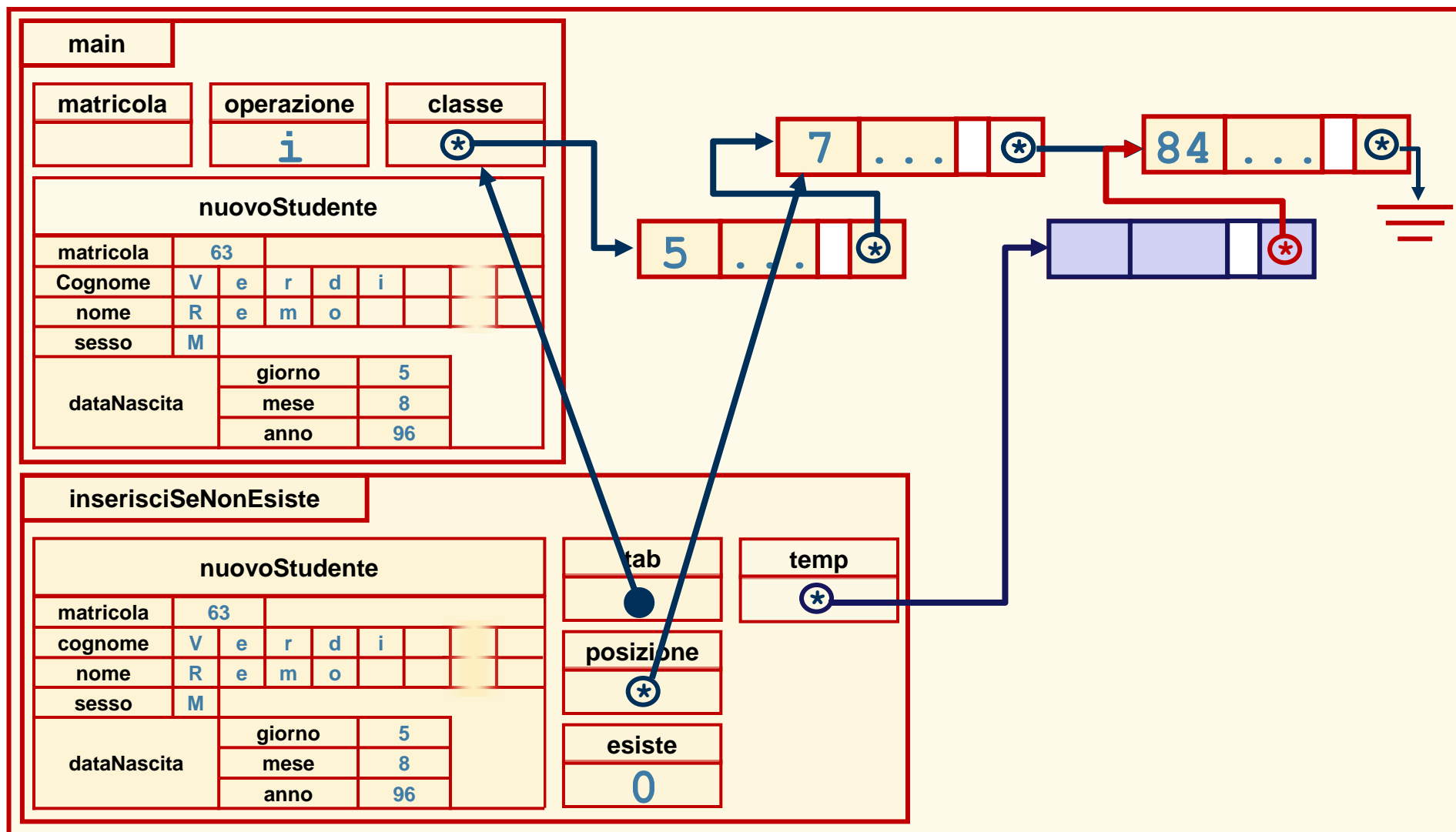


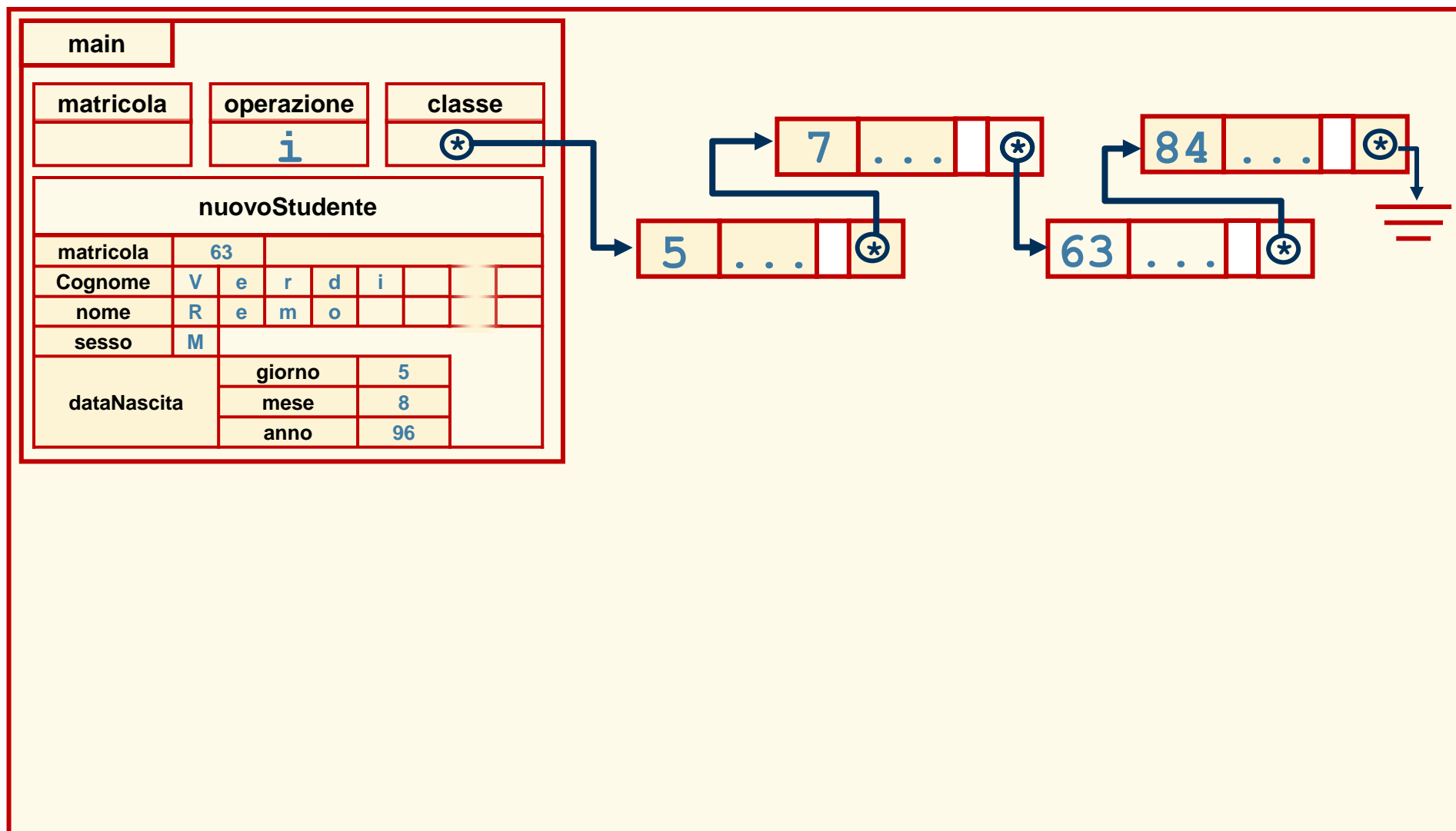


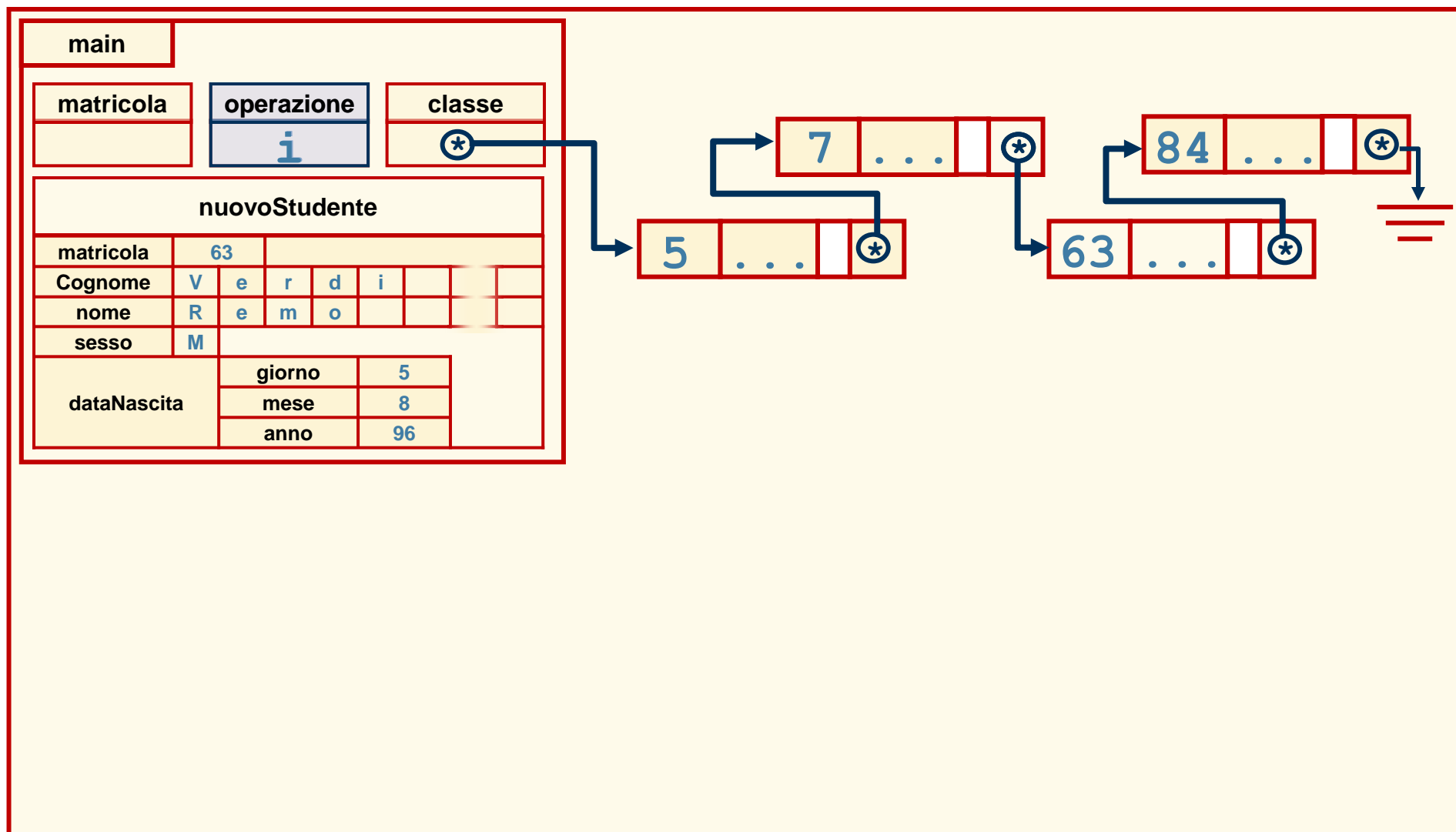


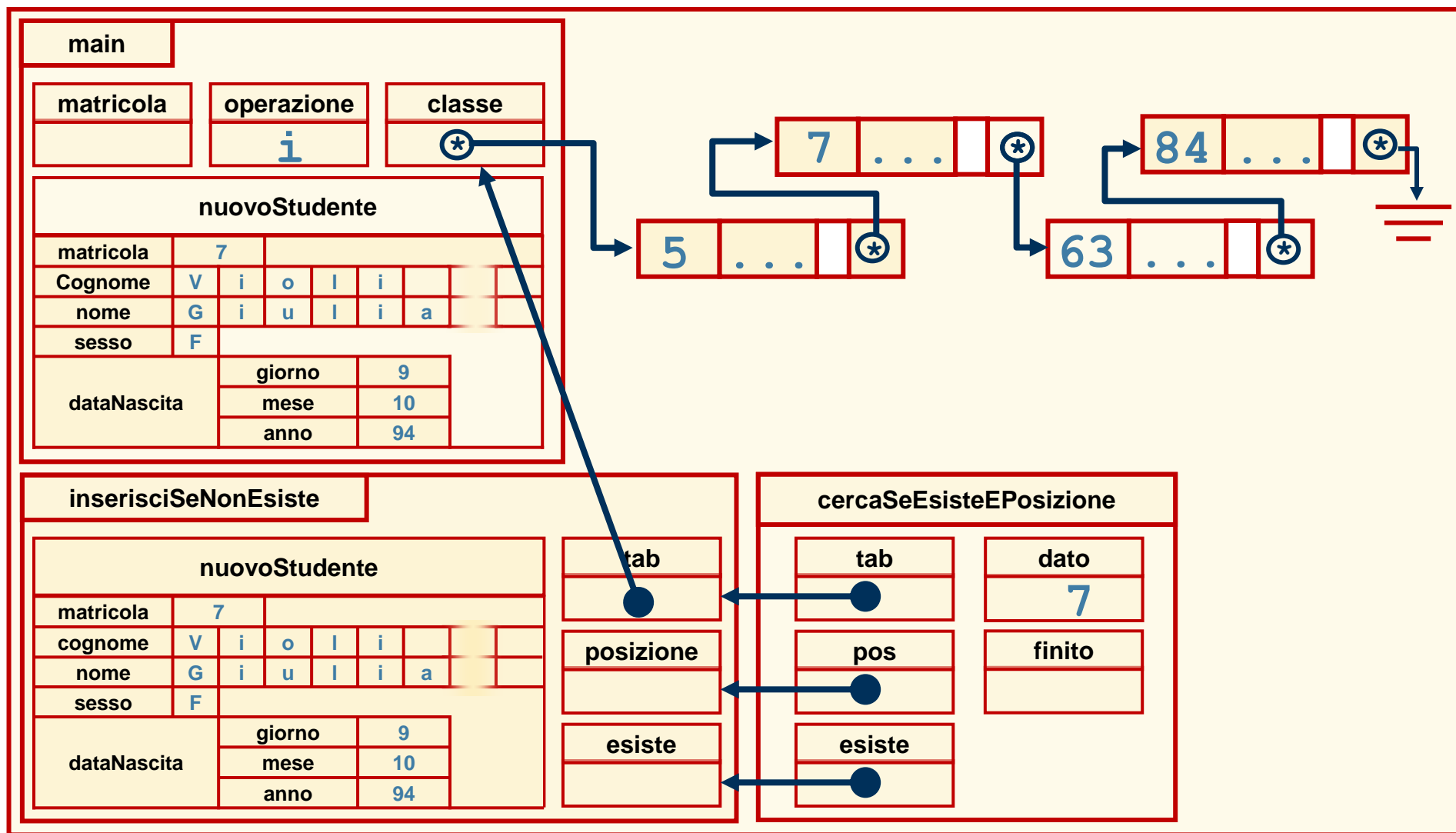






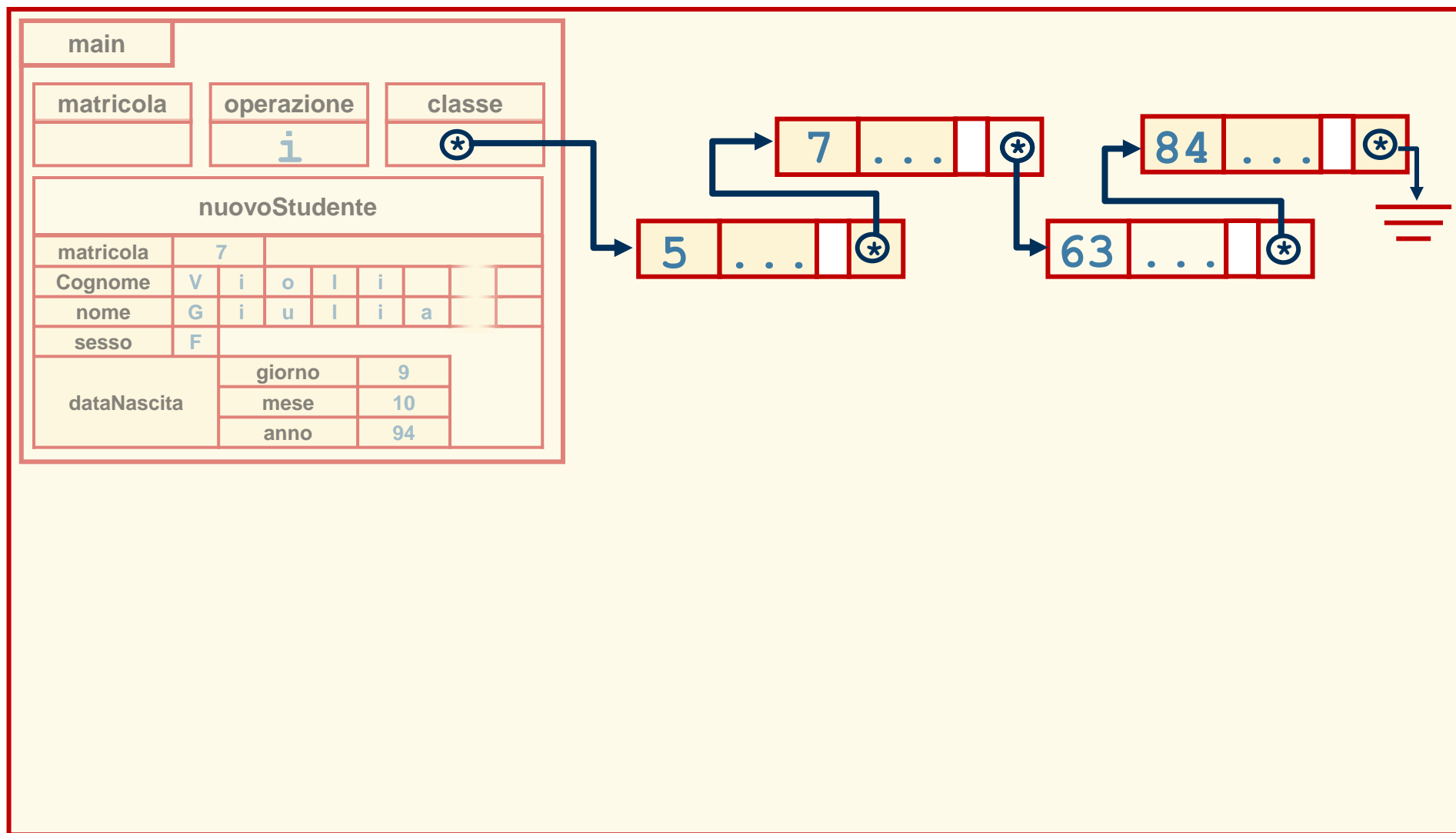












main												
matricola		operazione				classe						
		i				*						
nuovoStudente												
matricola		7										
Cognome		V	i	o	l	i						
nome		G	i	u	l	i	a					
sesso		F										
dataNascita		giorno		9								
		mese		10								
		anno		94								



main												
matricola		operazione				classe						
nuovoStudente												
matricola												
cognome												
nome												
sesso												
dataNascita		giorno										
		mese										
		anno										

diversoSeNonEsiste

nuovoStudente

cog
nome
sesso

data

tab

posizione

esiste

cercaSeEs

tab

p

- eliminazione di studente con matricola 63
- eliminazione di studente con matricola 28
- eliminazione di studente con matricola 5
- eliminazione di studente con matricola 7
- eliminazione di studente con matricola 43 da tabella vuota
- fine