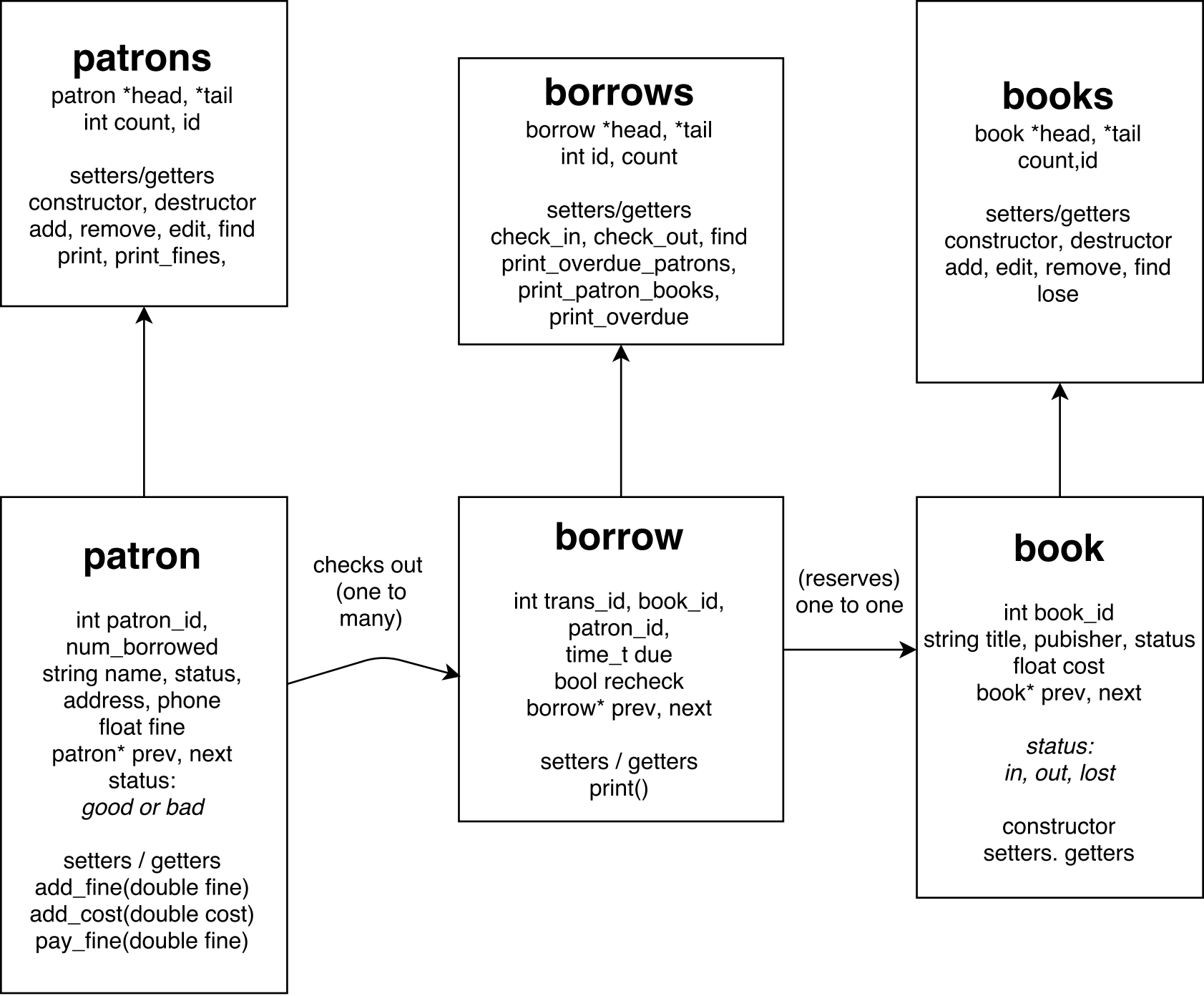
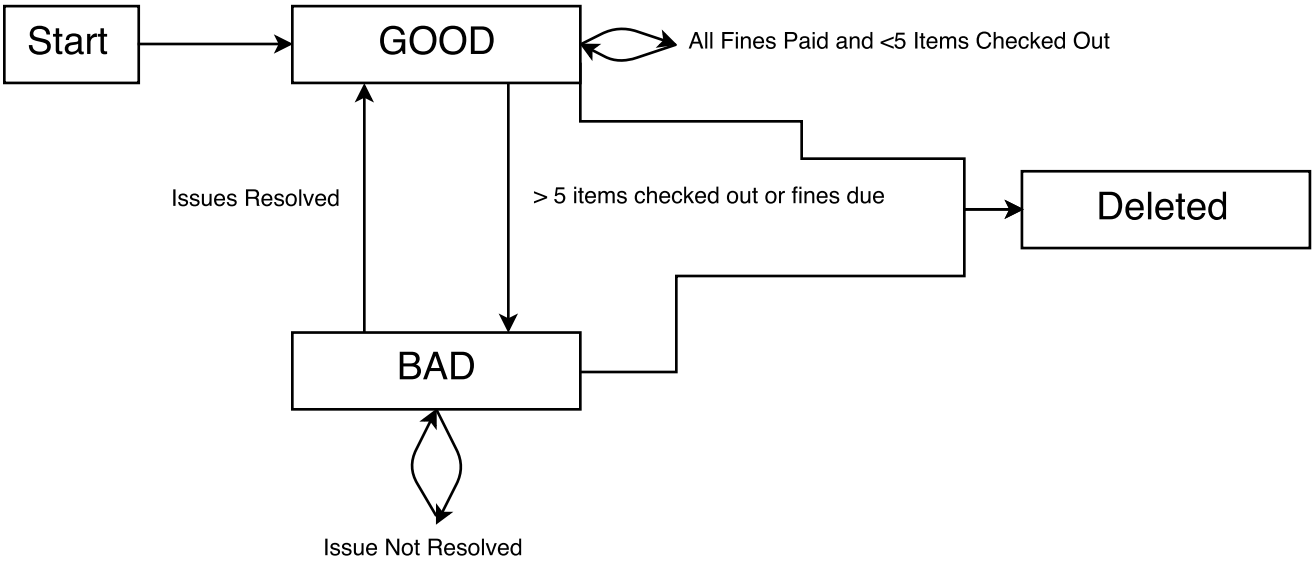
	Justin Wei	CSCE 1040		JustinWei@my.unt.edu
	Name	Type	Used By	Desc
	head	patron*	patrons	head of patrons linked list
	tail	patron*	patrons	tail of patrons linked list
	count	int	patrons	amount of patrons in linked list
	Name	Type	Used By	Desc
	id	int	patron	id number for a patron
	num_borrowed	int	patron	amount of books borrowed by patron
	name	string	patron	patron name
	address	string	patron	patron address
	phone	string	patron	patron phone
	fine	float	patron	patron balance
	status	string	patron	patron status: GOOD or BAD
	prev	patron*	patron	pointer to previous object in the linked list
	next	patron*	patron	pointer to next object in the linked list
	Name	Type	Used By	Desc
	head	borrow*	borrows	head of borrows linked list
	tail	borrow*	borrows	tail of borrows linked list
	count	int	borrows	amount of borrows in linked list
	Name	Type	Used By	Desc
	id	int	borrow	id num for borrows
	book_id	int	borrow	id for checked out book
	patron_id	int	borrow	id for patron who is checking out the book
	due_date	time_t	borrow	date the patron is due
	prev	borrow*	borrow	pointer to previous object in the linked list
	next	borrow*	borrow	pointer to next object in the linked list
	recheck	bool	borrow	true if book has already been renewed, false otherwise
	Name	Type	Used By	Desc
	head	book*	books	head of books linked list
	tail	book*	books	tail of books linked list
	count	int	books	amount of books in linked list
	Name	Type	Used By	Desc
	id	int	book	id num for book
	title	string	book	title of book
	publisher	string	book	publisher of book
	cost	float	book	cost of book
	status	string	book	book status: IN, OUT, or LOST
	prev	book*	book	pointer to previous object in the linked list
	next	book*	book	pointer to next object in the linked list


patrons
patron *head, *tail
int count, id
setters/getters
constructor, destructor
add, remove, edit, find
print, print_fines,
borrows
borrow *head, *tail
int id, count
setters/getters
check_in, check_out, find
print_overdue_patrons,
print_patron_books,
print_overdue
books
book *head, *tail
count,id
setters/getters
constructor, destructor
add, edit, remove, find
lose
patron
int patron_id,
num_borrowed
string name, status,
address, phone
float fine
patron* prev, next
status:
good or bad
setters / getters
add_fine(double fine)
add_cost(double cost)
pay_fine(double fine)
checks out
(one to
many)
borrow
int trans_id, book_id,
patron_id,
time_t due
bool recheck
borrow* prev, next
setters / getters
print()
(reserves)
one to one
book
int book_id
string title, pubisher, status
float cost
book* prev, next
status:
in, out, lost
constructor
setters. getters

Patron Status State Diagram



Book Status State Diagram