





Declaro por minha honra que este diagrama foi realizado apenas pelos elementos o grupo do projeto  
 Alexandre Aires

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 grupo do projeto  
 Aires Chicharron

## << BorrowingAuth >>

+ validate(user: User, work: Work): boolean

## << even Strategy >>

+ matches(term: String): boolean

## << USISearch >>

+ canBorrow(): boolean

## LoanPeriodCalculator

+ calculateLoanPeriod(work: Work, behavior: UserBehaviour):

## Creator

- name: String  
- works: List<Work>

+ addWork(work: Work): void

+ removeWork(work: Work): void

+ hasWorks(): boolean

## UserBehaviour

+ getMaxWorkSize(): int

+ getLoanPeriodMultiplier(): double

## Request

- id: int  
- user: User  
- work: Work  
- request: int  
- int dueDate

+ returnWork(returnDate: int): void

+ isOverdue(currentDate): boolean

## DVD

- director: Creator  
- genre: String

## BOOK

- authors: HashSet<Author>  
- isbn: String

## WORK

- id: int  
- title: String  
- category: Category  
- totalCopies: int  
- AvailableCopies: int

+ addCreator(creator: Creator)

+ updateInventory(amount: int): boolean

+ isAvailable(): boolean

+ matchesSearchTerm(term: String): boolean

bcl - Core - detailed class implementation

## Book

- authors: List<Author>  
- isbn: String

## User

- id : int
- email : string
- name : string
- behavior : userBehavior
- status : UserStatus
- fine : int
- activateRequests : List<Request>

- + suspended(int fine) : void
- + activate() : void
- + addRequests(Requests2Request) : void
- + removeRequest(Request) : void
- + updateBehavior() : void
- + canRequest : boolean

## Library Manager

- nextUserId : int
- currentDate : int
- users : Map<integer, user>
- work : Map<integer, work>
- creators : Map<string, creator>
- + registerUser(name: string, email: string) : int
- + registerWork(workType: string, title: string, price: int, category: category, creators: List<creators>, isbn: string, igacNumber: string, copies: int) : int
- + requestWork(userID: int, workID: int) : void
- + returnWork(userID: int, workID: int) : void
- + advanceDate(days: int) : void
- + save(name: string) : void
- + load(name: string) : void
- + searchWork(term: string) : List<works>

BCI - Core ( User & LibraryManager ) implementation details