Model 层 User Role Own **Permission** + user_id: String + role_id: Number + role_id: Number + permission_id: String + appellation: String + permission_id: String + password: String + right: Number __init__(role_id,appellation) + borrower_available: Number - init (permission id,right) + save() + check_right(right):bool + role_id: Number + save() - __init__(user_id,password,borrower_available=15,role_id) + save() + validate_password(password): bool + validate_role(role): bool + save() **Borrow Book** Has_tag + user_id: Number + ISBN: String + tag_id: Number + tag_id: Number + author: String + ISBN: String + ISBN: String + tag_name:String + publisher: String + has_tag(tag_id,ISBN): bool + borrow_date: String - __init__(tag_id,tag_name) + return_date: String + total_number: Number + save() + save() + number: Number + left number: Number + intro: String + renew_number: Number =1 + title: String + save() + surface: String - __init__(ISBN,author,publisher,total_num,left_num,intro,title,surface) + check_type(): bool + save() Service 层 services.User services.Book_manage services.Borrow services.operator query_books_by_user_id() create() query() borrow() get_all() query_account_by_id() return() update() delete() get() services.User services.Query create() query() services.Renew update() services.Inner_operator delete() renew() create() query_user_all() update() query() delete() get_all() Controller 层 controllers.Login controllers.Borrow borrow_book() controller.Renew verfy_account() query_book_status() return_book() renew() controllers.Query_book controller.Borrow_status controllers.Inner_operator query_book() create_operator() get_borrow_status() get_operator() update_operator() delete_operator() controllers.User get all operation() controllers.Book_manage create_user() create_book() update_user() update_book() delete_user() delete_book() query_user_all() get_book_all() query_user() get_book()

View 层

views.Login deal_login()

views.Reception deal_query_borrow_status() click_borrow_btn() click return btn()

views.Borrow deal_borrow() show_borrow_view() views.Book_manage

deal_create_book() deal_delete_book() deal_update_book() deal_get_book_all() deal_get_book()

views.Borrow status deal_borrow_status_query()

views.Query_book deal_query_book() views.User

deal_create_user() deal_update_user() deal_delete_user() deal_query_user_all()

> views.Renew deal renew()

Tag

views.Inner_operator deal_create_operator() deal_update_operator() deal_delete_operator() deal_get_all_operator()