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Title: Tardis-box

Project Summary:

Tardis-box is a no-charge media distribution system. It will allow a potential customer view and sort the available media and, if desired, create a user account using a valid email address. The user may, delete this account, if all borrowed media has been checked in.

A registered user may view and sort the available media with the option to check-out an item. If the requested media is unavailable, the request will be waitlisted to be checked out to the user as soon as it is available.

An administrator may view and sort the media. Only an admin can add and delete media. An administrator can delete a user account, if necessary and can handle overdue items.

Project Requirements:

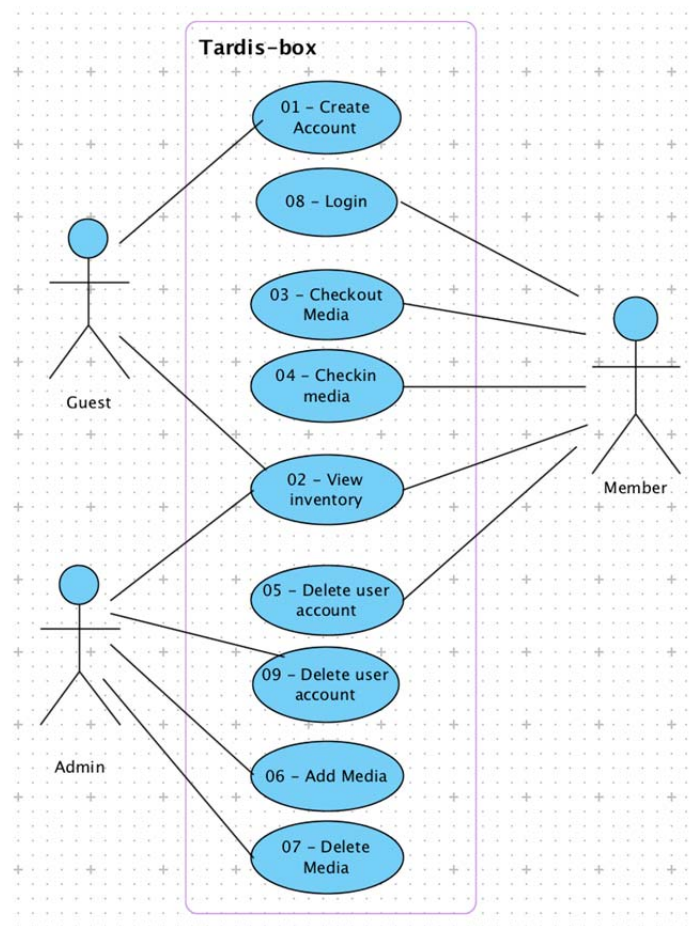
Business Requirements				
ID	Requirement	Topic Area	User	Priority
BR-01	User account usernames must be a valid e-mail address.	Accounts	Registered User	Medium
BR-02	Only admin can add/delete media items.	Database	Admin	Medium
BR-03	Potential customers can view available media without having to create an account or login.	Database	Unregistered User	Critical

User Requirements				
ID	Requirement	Topic Area	User	Priority
UR-01	Unregistered user can request and create their own account	Accounts	Unregistered User	Critical
UR-02	Any user can view a help/contact page	User Interface	All	Low
UR-03	Any user can view media list	Database	All	Critical
UR-04	A user can remove their account if certain conditions are met (e.g. no overdue items).	Accounts	Registered User	Medium
UR-05	A user can make a request to checkout media.	Database	Registered User	Critical
UR-06	A user can check-in media.	Database	Registered User	Critical
UR-07	An admin can delete an account	Accounts	Admin	Medium
UR-08	An admin can handle overdue items	Accounts	Admin	Medium

Functional Requirements				
ID	Requirement	Topic Area	User	Priority
FR-01	There must be a display of the media that shows the title and an associated picture.	Database	All	Critical
FR-02	There must be a way to view details of a particular media item (besides just a picture and title) that shows a short description and possibly other details e.g. IMDB data).	Database	All	Medium
FR-03	There must be a way to sort the media for display to the user.	Database	All	Medium
FR-04	There must be a way to put media on a waitlist, if necessary.	Accounts	Admin	Medium
FR-05	There must be a way to remove item from waitlist (and check it out to a requestor)		Admin	Medium

Non-Functional Requirements				
ID	Requirement	Topic Area	User	Priority
NR-01	Time to cycle from one page media titles to the next must be reasonable.	User Interface	All	Medium
NR-02	User credentials must be encrypted.	Accounts	Registered user	Low
NR-03	Web pages need to be clearly worded and easy to navigate.	User Interface	All	Medium

Users and Tasks:



Use Case ID:	UC-01		
Use Case Name:	Create Account		
Description:	Allow a guest to create a user account, which will allow member access to the database of items to check out.		
Actor:	Guest		
Pre-conditions:	Member database must exist		
Post-conditions:	Guest becomes a Member		
Frequency of Use:	Unknown, potentially 100% of guests		
Flow of Events:		Actor Action	System Response
	1.	Guest visits homepage and clicks on “create account” button	Accesses the create account page
	2.	Guest enters first and last names, a valid email-id, enters a password, then presses “ok”	System verifies that the email is valid, creates entry in the member database containing this information. System issues an “account created” message
Variations:	Guest enters an invalid email-id. System issues error message then clears the create account page.		
Notes & Issues:			
Developer Notes:			

Use Case ID:	UC-02		
Use Case Name:	View Media		
Description:	Allow a guest or member to access the item database. This will allow them to scroll through and sort (by item number, name, or description)		
Actor:	Guest, Member		
Pre-conditions:	Database exists with ability to sort and scroll, Guest/Member has accessed the View Media page		
Post-conditions:	Database is scrolled and/or sorted		
Frequency of Use:	Arbitrary, depends on guest/member needs		
Flow of Events:		Actor Action	System Response
	1.	Uses scroll bar	Moves list up or down, depending on the direction user is moving scroll bar
	2.	Sort by clicking one of the column headers (once for ascending order, twice for descending order)	Sorts the list using the selected column, either in ascending or descending order

			as indicated by the number of clicks.
	3.		
	4.		
	5.		
Variations:			
Notes & Issues:			
Developer Notes:			

Use Case ID:	UC-03		
Use Case Name:	Check-out Media		
Description:	Member may borrow an item if it is available (not already checked-out).		
Actor:	Member		
Pre-conditions:	Member is signed in and has accessed the View Media page		
Post-conditions:	Item is either checked-out to the member or has been placed on a waitlist for the member.		
Frequency of Use:	Arbitrary, estimated at least once per member login.		
Flow of Events:		Actor Action	System Response
	1.	Enters an item number into the check-out field, Clicks OK button	Checks to see if the item is available. If it is, the item is checked-out to the user. If not available, system issues message asking user if he wishes to add the item to the waitlist.
	2.	User selects yes	Item is added to waitlist and system issues confirmation message.
	3.	User selects no	System removes message
	4.		
	5.		
Variations:	Issue error message if the item number is invalid.		
Notes & Issues:			
Developer Notes:			

Use Case ID:	UC-04		
Use Case Name:	Check-in Media		
Description:	Member returns an item which had been borrowed		

Actor:	Member		
Pre-conditions:	The item must already be checked-out to the member, member is logged in and has accessed the view items page		
Post-conditions:	The item is available for check-out		
Frequency of Use:	Done, at some point, for every item borrowed.		
Flow of Events:		Actor Action	System Response
	1.	Enters item number in the check-in field	System makes item available for check-out and removes it from the member’s account. Issues a “check-in successful” message
	2.		
	3.		
	4.		
	5.		
Variations:	Members enters an invalid item number (either already available in the database or the item does not exist. An appropriate error message is displayed and the check-in field is cleared.		
Notes & Issues:			
Developer Notes:			

Use Case ID:	UC-05		
Use Case Name:	Delete User		
Description:	Member may delete account as long as all items have been checked-in		
Actor:	Member		
Pre-conditions:	Must be on login page		
Post-conditions:	Account no longer exists		
Frequency of Use:			
Flow of Events:		Actor Action	System Response
	1.	Enters email-id and password	Verifies information
	2.	Clicks on Delete button	Verifies that no items are checked-out, removes account and issues confirmation email
	3.		
	4.		
	5.		

Variations:	Email-id and/or Password invalid – system issues error message and clears screen Items checked out – system issues message instructing Member to return items before account can be deleted
Notes & Issues:	
Developer Notes:	

Use Case ID:	UC-06		
Use Case Name:	Add media		
Description:	A new media item can be added to the system.		
Actor:	Admin		
Pre-conditions:	An admin must be logged in and the media item must not already exist.		
Post-conditions:	The new media item was added and is available for checkout.		
Frequency of Use:	Arbitrary, anytime an admin needs to add media. Est: weekly		
Flow of Events:		Actor Action	System Response
	1.	Log in to Tardis-box	User credentials are verified
	2.	Click on administrator panel	Administrative options are displayed
	3.	Click on media sub-panel	A list of media actions is displayed
	4.	Click on add media	The media entry form is displayed
	5.	Enter media details; click submit	The new media item is added
Variations:			
Notes & Issues:			
Developer Notes:			

Use Case ID:	UC-07
Use Case Name:	Delete media
Description:	A media item needs to be removed from the system.
Actor:	Admin
Pre-conditions:	An admin must be logged in, and the media item must exist.
Post-conditions:	The media item deleted no longer exists in the system.
Frequency of Use:	Arbitrary, anytime an admin needs to delete media. Est: weekly

Flow of Events:		Actor Action	System Response
	1.	Log into Tardis-box	User credentials are verified
	2.	Click on administrator panel	Administrative options are displayed
	3.	Click on media sub-panel	A list of media actions is displayed
	4.	Click on delete media	A list of available media items is displayed
	5.	Select the media item; click delete	The media item is deleted
Variations:			
Notes & Issues:			
Developer Notes:			

Use Case ID:	UC-08		
Use Case Name:	Member Login		
Description:	A member may login to account		
Actor:	Member		
Pre-conditions:	Member is on login page		
Post-conditions:	Member is logged in		
Frequency of Use:			
Flow of Events:		Actor Action	System Response
	1.	Enter email-id and password, clicks on Login button	Verifies information, logs user in, and goes to view items page
	2.		
	3.		
	4.		
	5.		
Variations:	Email-id and/or Password invalid – system issues error message and clears screen		
Notes & Issues:			
Developer Notes:			

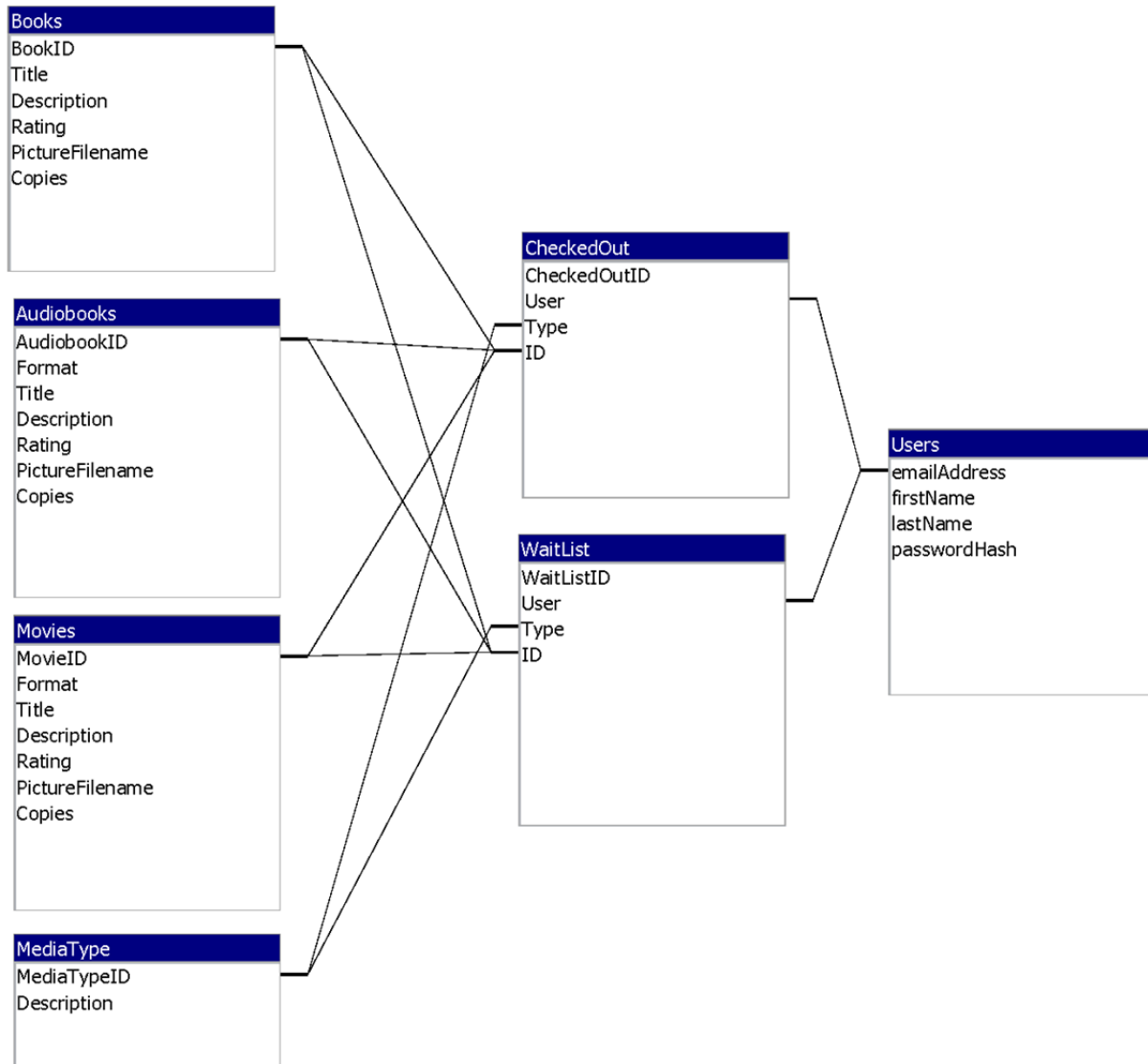
Use Case ID:	UC-09		
Use Case Name:	Delete user account		
Description:	Administrators can remove user accounts		

Actor:	Admin		
Pre-conditions:	The admin must be logged in and the user must exist.		
Post-conditions:	The deleted user no longer exists.		
Frequency of Use:	Arbitrary, anytime a user needs to be removed by an administrator. Est: monthly.		
Flow of Events:		Actor Action	System Response
	1.	Log in to Tardis-box	User credentials are verified
	2.	Click on administrator panel	Administrative options are displayed
	3.	Click on user sub-panel	A list of users is displayed
	4.	Select a user	The user is highlighted
	5.	Click the remove icon	The user is removed
Variations:			
Notes & Issues:			
Developer Notes:			

Activity Diagram:

TODO

Data Storage:



UI Mockups:

TODO

User Interactions:

TODO

Class Diagram:

TODO