Design Document

1 - Cover

Hypermedia Web and Application 2018/2019 - Design Document

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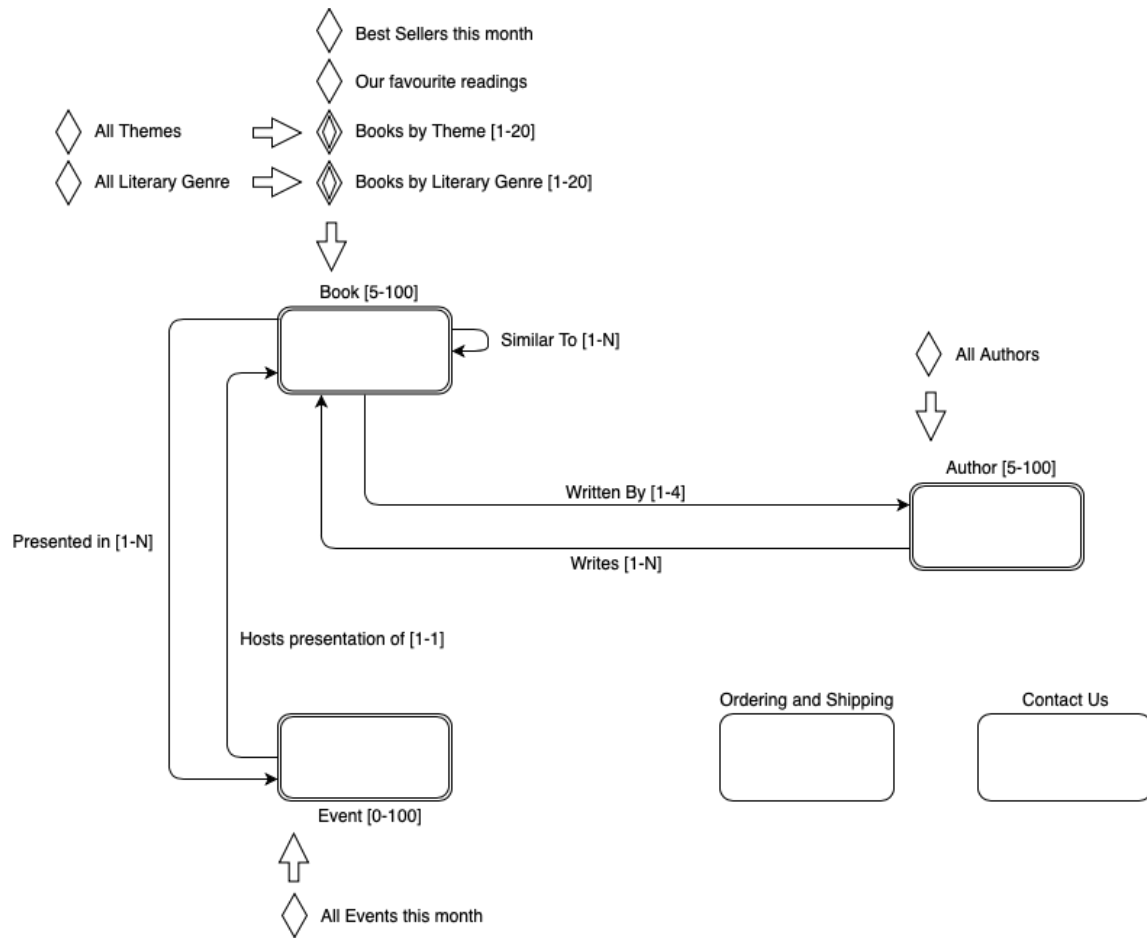Delivery date: 20/06/2019

2 - Abstract

The purpose of this document is to guide the reader in understanding the process leading to the formalisation of the website design, decreasing the level of abstraction at each step.
At first, the IDM notation will be used to present the dialogue and the relation between the subjects. Then, three usage scenarios will be described, followed by the structure of the pages and the design of the database itself.
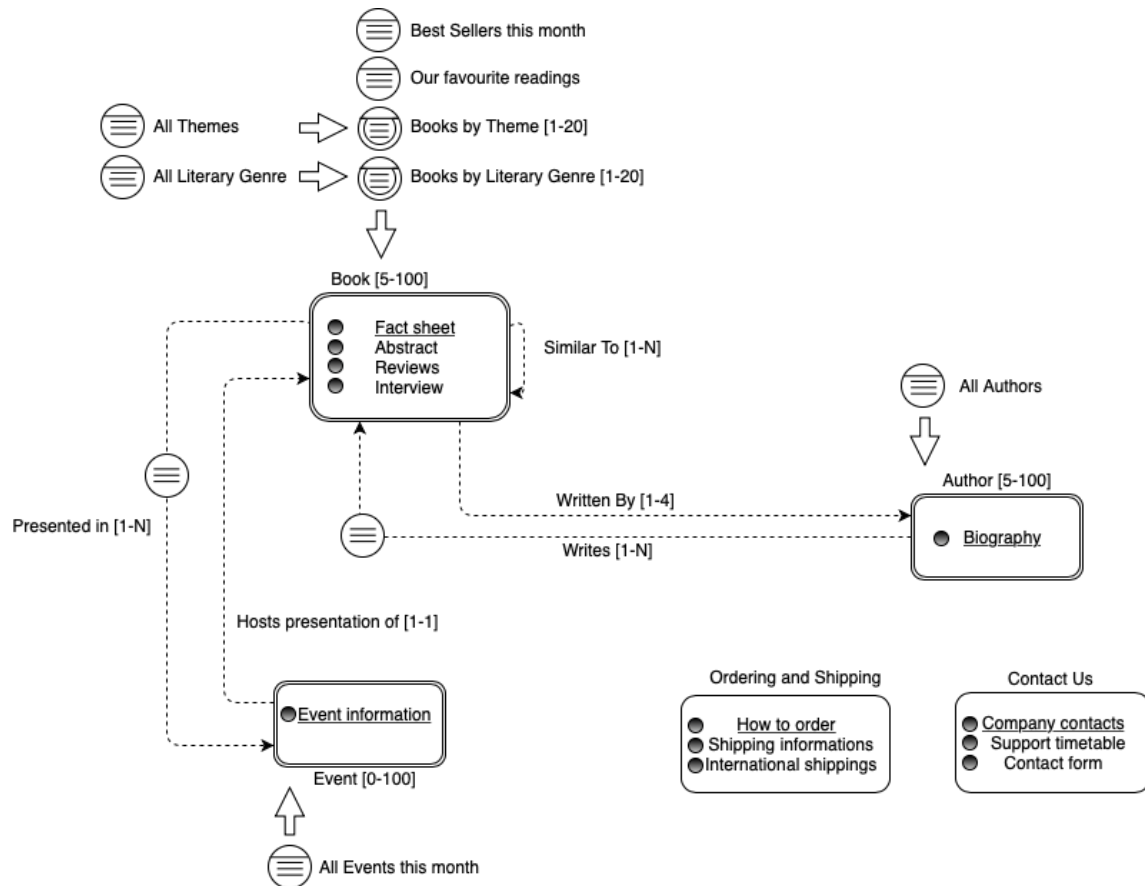
3 - Graphical representations

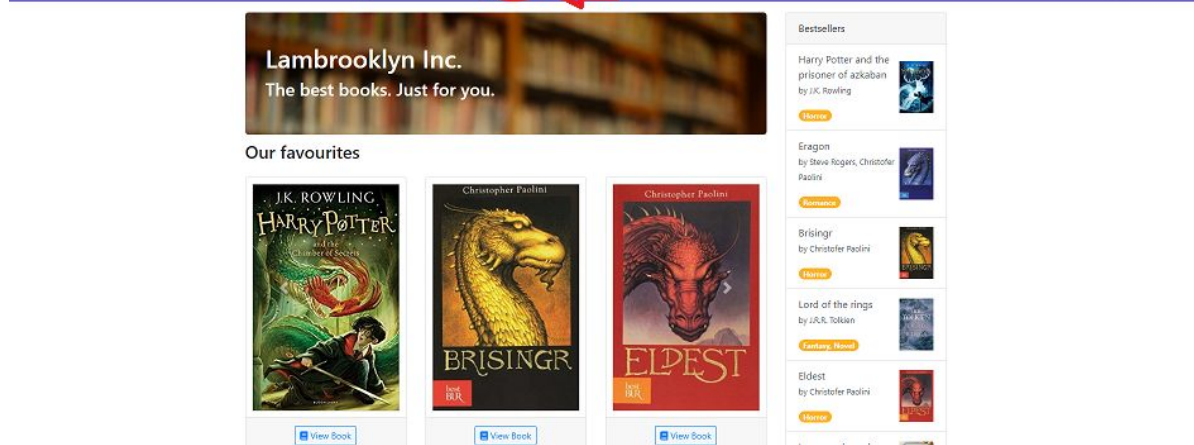The followings are the C-IDM and L-IDM schematizations of our website.

Molteni Luca, Lorenzo Francesco, Piccinini Federico

C-IDM

Best Sellers this month

Our favourite readings

All Themes ⇒ Books by Theme [1-20]

All Literary Genre ⇒ Books by Literary Genre [1-20]

Book [5-100]

Similar To [1-N]

All Authors

Author [5-100]

Written By [1-4]

Writes [1-N]

Presented in [1-N]

Hosts presentation of [1-1]

Event [0-100]

All Events this month

Ordering and Shipping

Contact Us

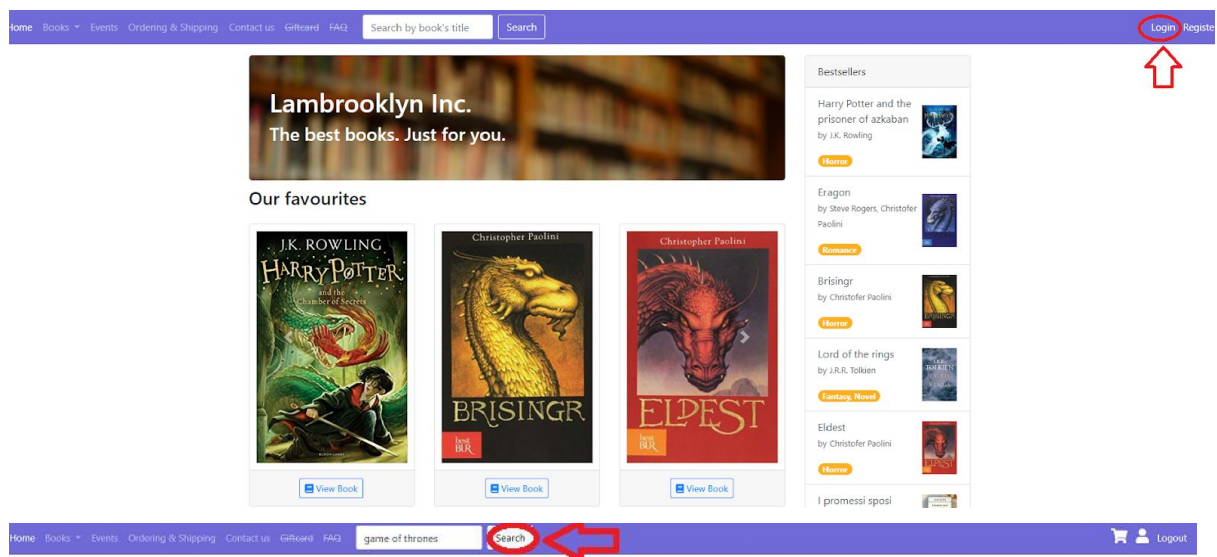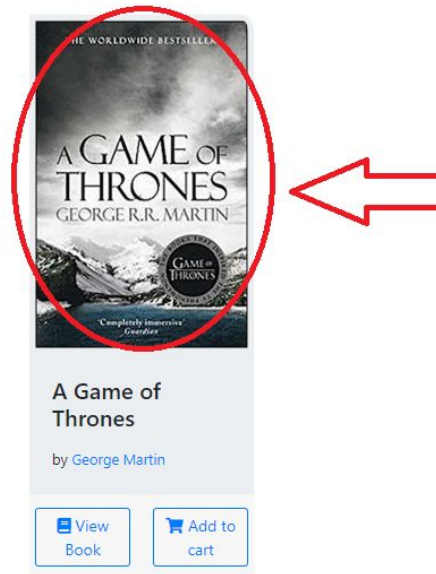Molteni Luca, Lorenzo Francesco, Piccinini Federico

L-IDM

4 - Scenarios

Please note that for readability purposes some events are condensed into one single screenshot in the case that they are on the same page.

Scenario 1

Steve is a customer who is acquainted with our website but never made a purchase before. He opens the homepage, and as first thing he logs in with the account he already created in the past. After a successful login, he's brought back to the homepage, where he uses the search bar to look if the newest book by George Martin, Game of Thrones, is in catalogue already. Luckily, he finds the book in the page showing the results of his query, and opens it by clicking on the displayed image to find out more informations before buying it.

First of all Steve notices the moderate price in the pop-up on the right, then he opens the Reviews tab but doesn't find anything yet, since the book has just been released. He doesn't want to buy it blindly, so he opens the Events tab, where he discovers that the book will be presented the following week in Milan. He quickly visits the event page by clicking on the View More button, and decides that he's going to attend the event before deciding whether or not he'll buy the book. Finally, he leaves the website.

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Scenario 2

Anna is a returning customer of the website therefore she is already logged in. She is looking for some books to make a christmas gift to her nephew. Show knows that her nephew is really keen on fantasy books, thereby she proceeds by clicking on the Book dropdown on the navigation bar of the homepage and selecting Books by Genre. On the new page she reckons that genres are listed on the left side of the screen and that the books corresponding to the selected genre are displayed in the remaining space. Anna accesses the desired book type by clicking on the Fantasy label from the list and the related books appear. There are 2 fantasy books available: "The lord of the rings" and "Harry Potter and the sorcerer's stone"; Anna sequentially visits the page related to both of them by clicking on their he cover image and navigating back to the Fantasy book page using the orientation info on the top left side of the screen. In the book page she selects the review tab to get an idea of the public response and acknowledges that "The lord of the ring" got a better score. She clicks on the add to cart button on the book page and an alert pops up to tell that the book have been correctly added to the cart.
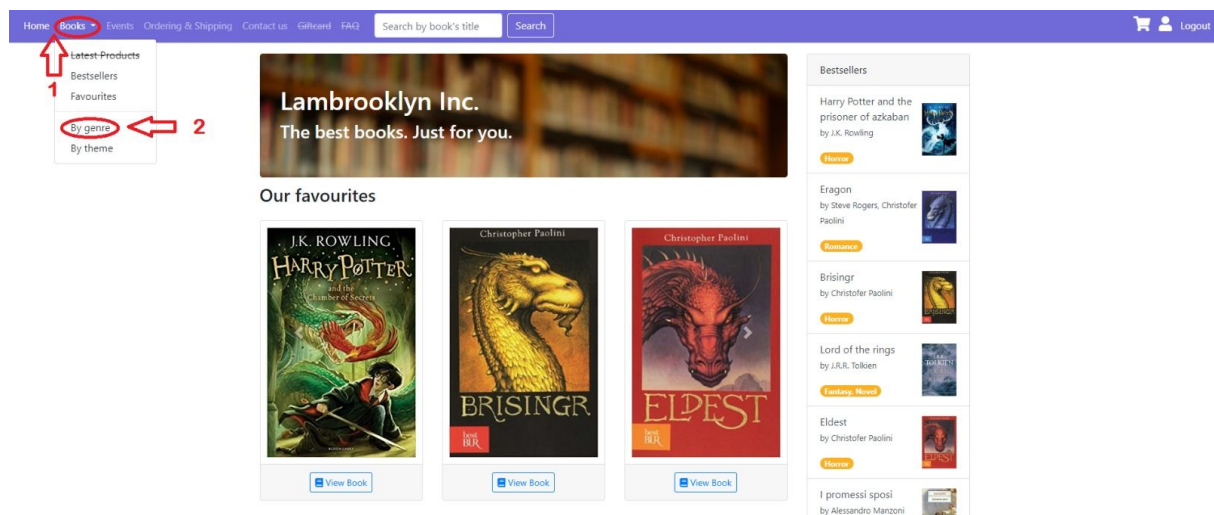
Note that in the following image the path after clicking on Harry Potter (3) is not shown, as it would just contain the reviews and then a click on the orientation info to get back.
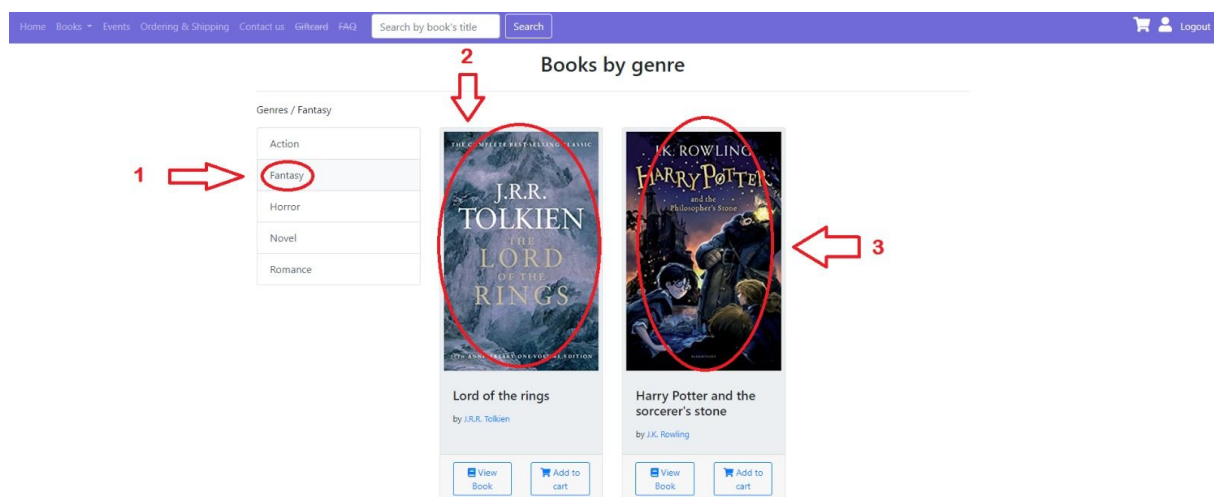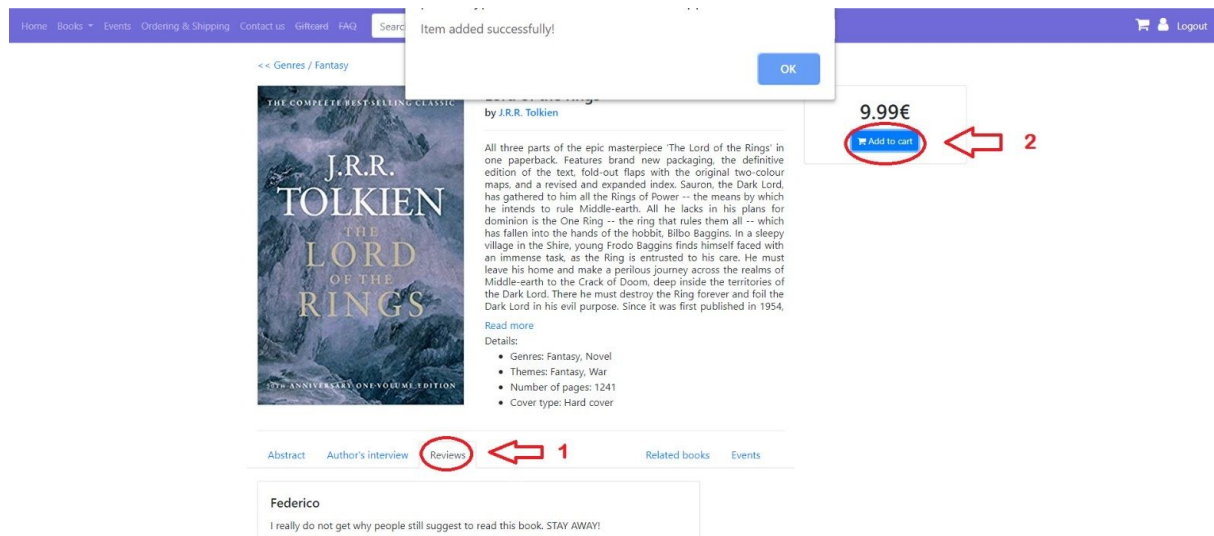
Scenario 3:

Mario is a returning customer of our website who wants to get started with the reading of some classic italian novels (notice that the login part of the scenario is not treated here since it is identical to the one in scenario 1).

First, he is interested in the shipping and ordering policy in order to understand if the website still meets his criteria. To do that, he clicks on the "Ordering and Shipping" tab in the navbar and reads the content of that page.

Then, he uses the navbar at the top of the page and selects "Book by theme".

In the new page, he chooses "Italy" as filtering criteria and the list of available books suddenly pops up at the center of the page.

He is satisfied by the result of the filtering and chooses to add to cart the book "Promessi Sposi". Since he is done shopping, he clicks on the cart icon in the navbar and finally complete the purchase.
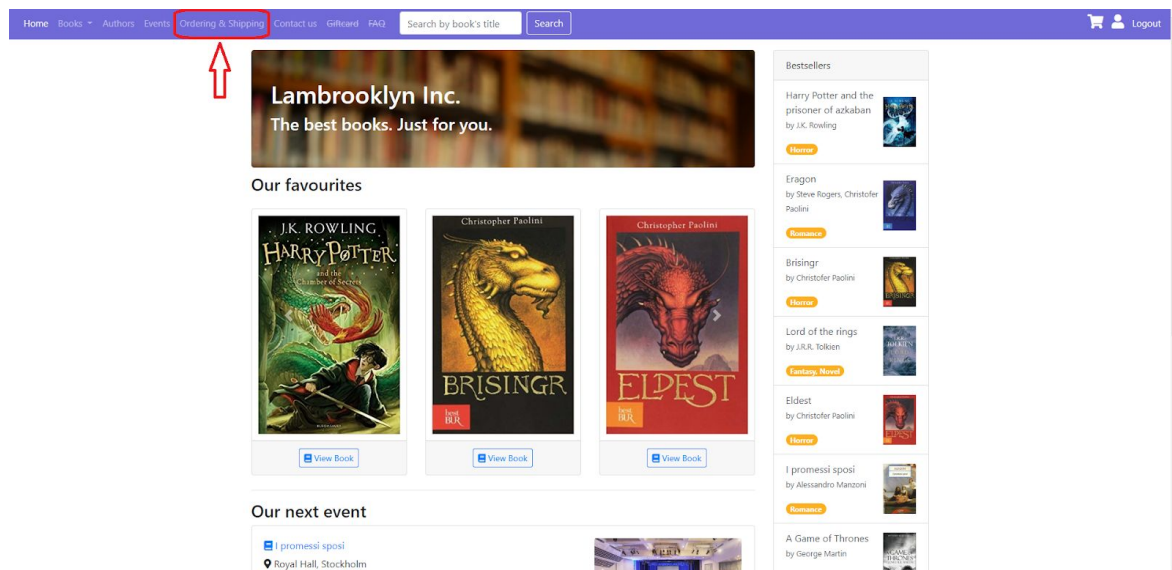
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Latest Products
Bestsellers
Favourites

By genre
By theme

Ordering and Shipping

How to order

Purchase a book on our website is very simple and you just need to follow few steps. First, browse to find the books you want to buy, then add them to the cart by clicking on the specific button. Finally, check if the books in the cart are correct and then click on the checkout button.

Shipping information

We offer guaranteed delivery on certain fast delivery speeds and select products. When guaranteed delivery is available on an order, it will be clearly marked on the checkout page with an associated delivery date and fee (if applicable). If we provide a guaranteed delivery date and a delivery attempt is not made by this date, we will provide a refund of any shipping fees associated with that order.

International shipping

We can't provide a guaranteed delivery date on international shipping; however, you can easily track the status of the shipping by checking the specific page of our website.

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3

Books by theme

Themes / Italy

Fantasy
Italy   1
Magic
War

MANZONI
I promessi sposi

I promessi sposi
by Alessandro Manzoni

📖 View Book   🛒 Add to cart   2

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🛒 👤 Logout

🛒 Shopping Cart

I promessi sposi
by Alessandro Manzoni

1 x 11€

🗑

🛒 Back to shop

🗑 Empty cart   11.00€   💳 Checkout

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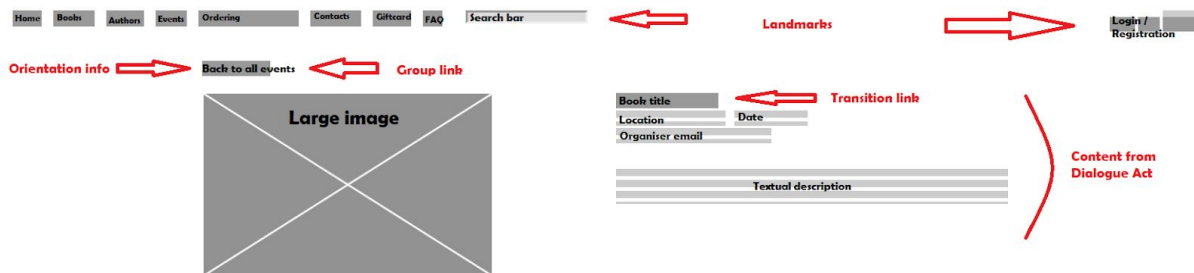
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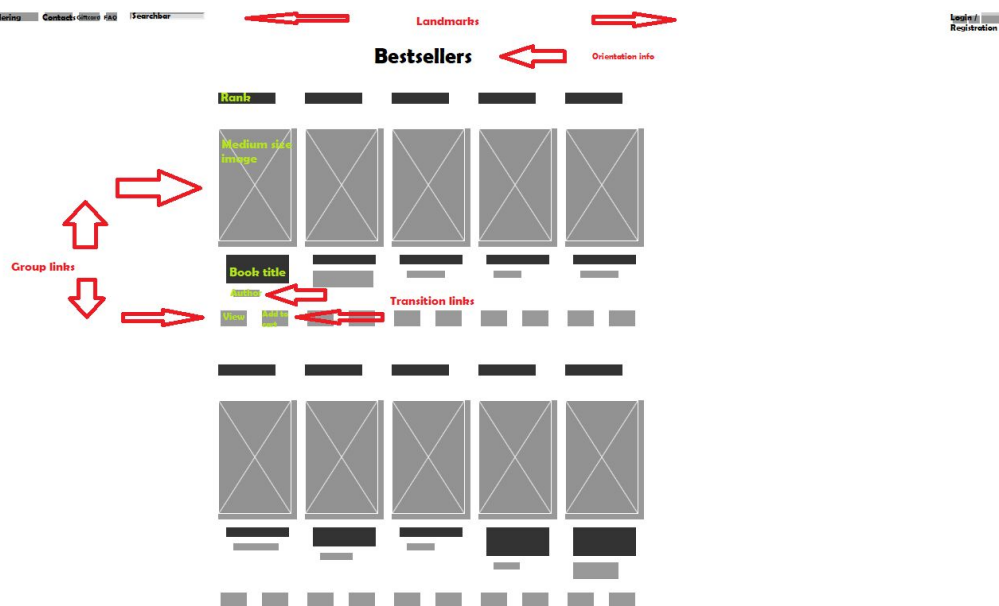
Lambrooklyn Inc.:
Ice Road 46
Sisimiut, Groenlandia
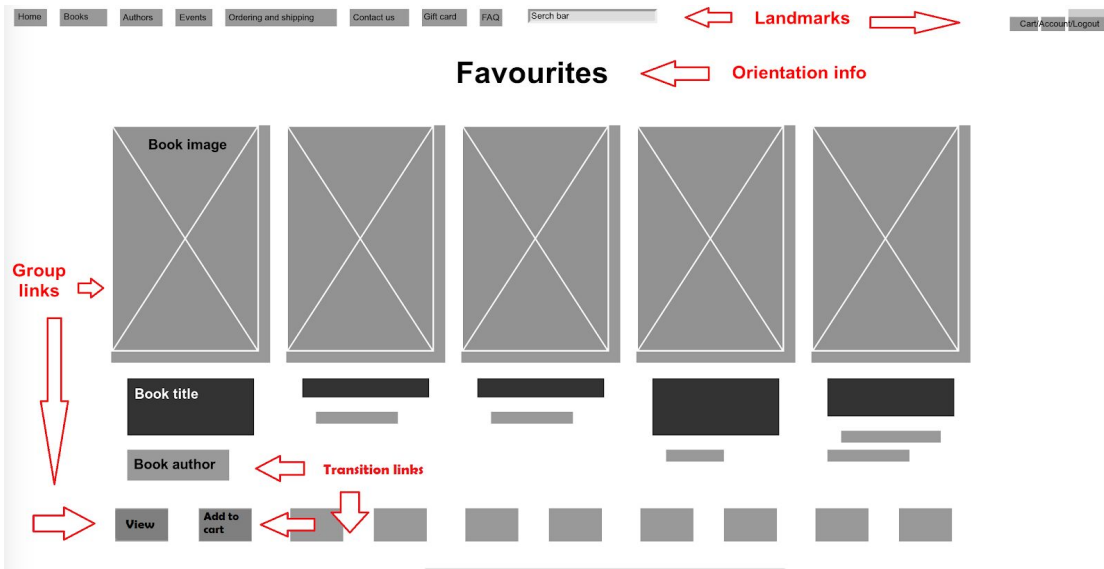
5 - Design in the small

5.1 - Wireframes

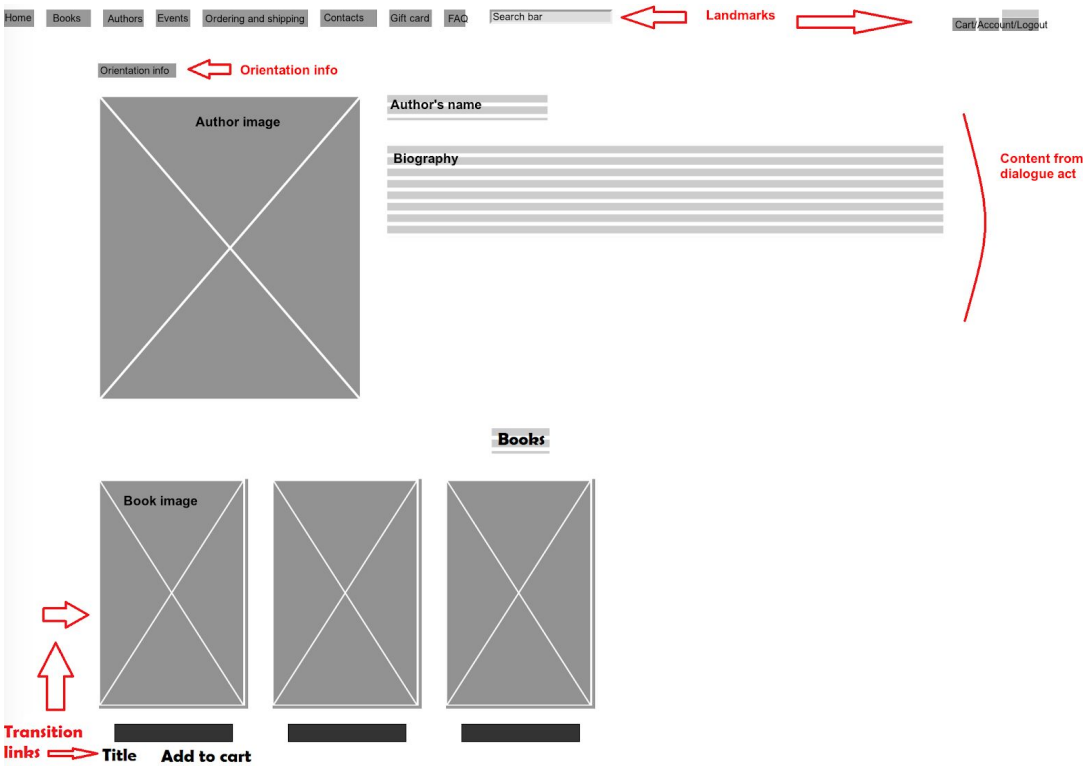**Topic Page (with Transition): Single event**

Introductory Page: Bestsellers

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Introductory Page: Favourites

Topic Page (with Transition): Single author

Molteni Luca, Lorenzo Francesco, Piccinini Federico

Topic Page (with Transition): Single book

Home Books Authors Events Ordering & Shipping Contacts Giftcard FAQ Search bar ← **Landmarks** → Cart / Account / Logout

Orientation info placeholder ← **Orientation info**

Large image

Title

Authors ← **Transition links**

Price

Cart **Transition links**

Abstract and details

↤ **Content from Dialogue Act**

Read more ← **Structual link**

Structural links

Abstract Author's interview Reviews

Related Events ← **Transition links**

Abstract content / Author's interview / Reviews ← **Content from Dialogue Act**

Introductory Page: Books by genre

Home Books Authors Events Ordering & Shipping Contact us Giftcard FAQ Search bar **Landmarks** Cart / Account / Logout

Books by genre

Orientation info

Genre #1

Large image

Group links

Title & Author

← **Transition links**

Group link → View Book Add to Cart

5.2 Screenshots

Topic Page (with Transition): Single event

Introductory Page: Bestsellers

Molteni Luca, Lorenzo Francesco, Piccinini Federico

Introductory Page: Favourites

Topic Page (with Transition): Single author

Molteni Luca, Lorenzo Francesco, Piccinini Federico

Topic Page (with Transition): Single book

Giochiamo ancora
by **Alessandro Del Piero, Maurizio Crosetti**

Forse è cominciato tutto con quel tema alle elementari. Cosa farò da grande? Io volevo scrivere 'il calciatore', però mi sembrava troppo. Cosa avrebbe pensato la maestra? Così scrissi che mi sarebbe piaciuto diventare elettricista come papà. E dissi che avrei anche voluto fare il cuoco, oppure il camionista." Non ha avuto il coraggio di scrivere il suo sogno in quel tema, Alessandro Del Piero. Ma ha poi trovato il coraggio di viverlo davvero, e lo vive ancora. Tutta la sua straordinaria carriera, in fondo, "è" quel tema. La storia del ragazzino più piccolo e timido del paese, San Vendemiano, Treviso, che diventa uno dei più grandi giocatori al mondo. Adesso, dopo vent'anni di Juventus, Del Piero non esce dal campo, ma è pronto a giocare un'altra partita: il suo mondo interiore è intatto, i suoi valori non sono cambiati. Del Piero capace di colpi da artista ispirato. Del Piero che risponde con stile

Read more
Details:
- Genres: Horror
- Themes: War
- Number of pages: 10
- Cover type: Soft cover

10€
Add to cart

Abstract   Author's interview   Reviews   Related books   Events

Forse è cominciato tutto con quel tema alle elementari. Cosa farò da grande? Io volevo scrivere 'il calciatore', però mi sembrava troppo. Cosa avrebbe pensato la maestra? Così scrissi che mi sarebbe piaciuto diventare elettricista come papà. E dissi che avrei anche voluto fare il cuoco, oppure il camionista." Non ha avuto il coraggio di scrivere il suo sogno in quel tema, Alessandro Del Piero. Ma ha poi trovato il coraggio di viverlo davvero, e lo vive ancora. Tutta la sua straordinaria carriera, in fondo, "è" quel tema. La storia del ragazzino più piccolo e timido del paese, San Vendemiano, Treviso, che diventa uno dei più grandi giocatori al mondo. Adesso, dopo vent'anni di Juventus, Del Piero non esce dal campo, ma è pronto a giocare un'altra partita: il suo mondo interiore è intatto, i suoi valori non sono cambiati. Del Piero capace di colpi da artista ispirato. Del Piero che risponde con stile ai colpi della vita. Del

Introductory Page: Books by genre

Books by genre

Genres / Action

Action
Fantasy
Horror
Novel
Romance
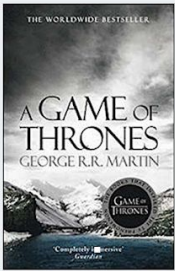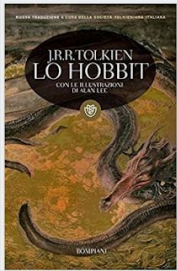
A Game of Thrones
by George Martin

View Book   Add to cart

The Hobbit
by J.R.R. Tolkien

View Book   Add to cart

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6 - Database design

Here follows a graphical representation of the design of the relational database supporting the data layer of the system. **Please notice that to guarantee better clarity the scheme already implements the final table structure of the database;** as a consequence all the relations, where needed, are projected in additional tables.

Legend:

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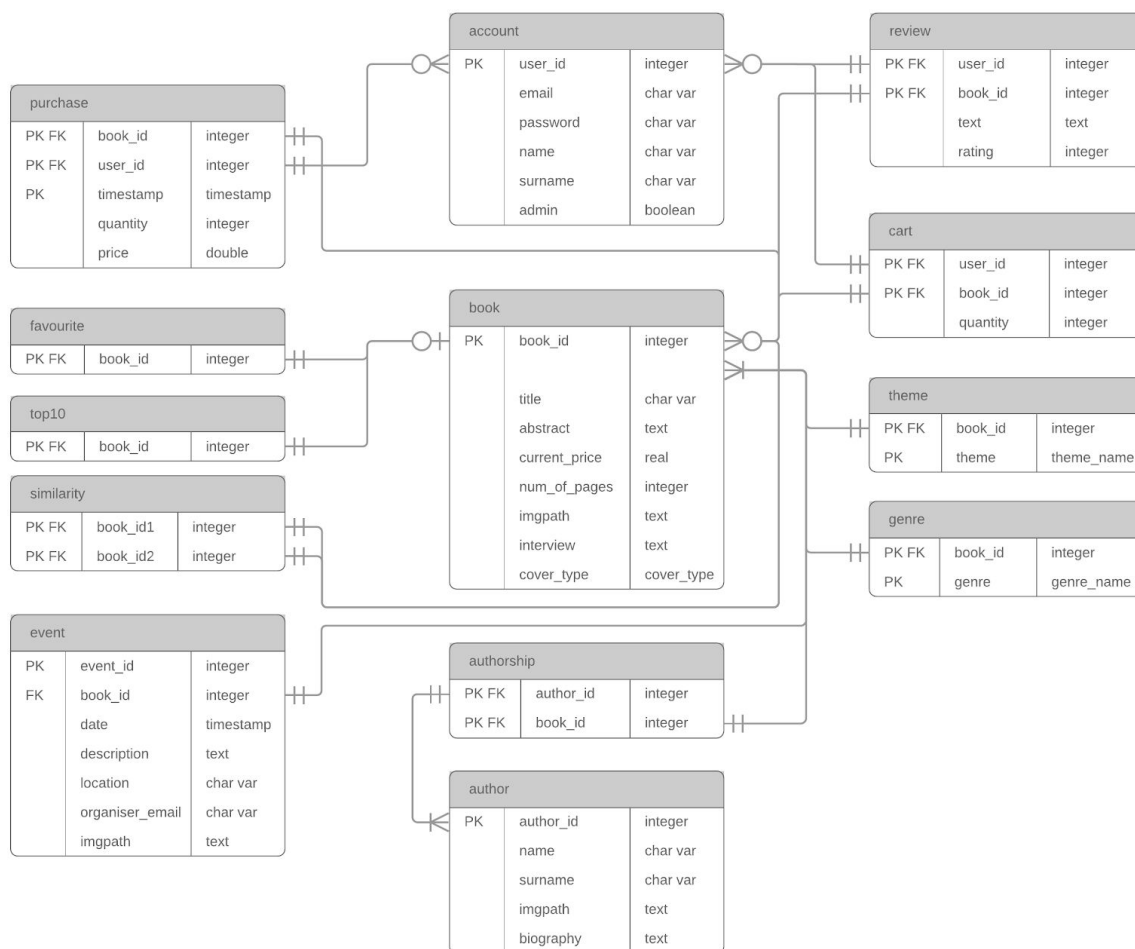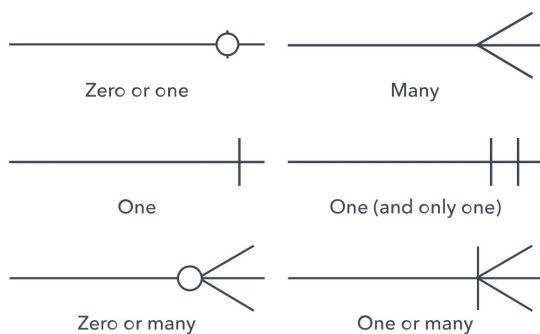
Tables description

For what concerns the book contents, the "book" table contains the main informations about single books, including their unique identifier, various info and the path to the corresponding image.

To retrieve the content of the corresponding pages, the tables "top10" (bestsellers) and "favourites" keep track of the ids of the pertaining books. Table similarity, containing the couples of ids of related books, is needed to suggest additional items. Since each book may be related to more than one genre and more than one theme the corresponding tables have been created containing a tuple book id - genre or book id - theme. The same applies with table authorship. since the relationship between authors and books is not necessarily one-to-many, but a single book may have been written by multiple authors, this additional table, matching book id and author id, has been introduced.

The table "author" contains all the information relative to a single author starting from their unique id and including name, bio and the path to its corresponding image.

On a similar note "event" contains info about an event, such as date and location, that is related to a single book. For this reason no additional tables connecting books and events are needed.

Finally, the table "account" contains informations about the registered users of the website such as their id, email, name and password. For obvious security reasons all password are not saved in clear text but are hashed with the bcrypt function.

The table "cart" is used to keep track of the content of the cart of a certain user. After a successful purchase all the references to the books present in the user cart, alongside with their quantities, are moved into the table "purchase" that also keeps track of the time and final price of acquisition.

Additionally registered users may leave reviews about books; This kind of content is supported by the table "review" linking the textual comment and rating to the id of the user who made it and to the book which belongs to.