

HYPERMEDIA APPLICATIONS WEB and MULTIMEDIA

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insideBO

DESIGN REPORT

Delivery date: 05/07/2022

Link to the prototype: <https://insidebo.herokuapp.com>

GitHub repository:
[github.com/davidecarini/HYPE PROJECT21-22](https://github.com/davidecarini/HYPE_PROJECT21-22)

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Abstract

InsideBO is the web site for the tourist office of the cultural tourism of Bologna. It offers to the users visiting the web site the possibility to know about events, points of interest, itineraries and services that the chief town of Emilia Romagna proposes. The target of this report is to provide a functional and visual description of the website to be implemented. In the document is described the design of the Database from both point of view: conceptual and logical. There are also present the C-IDM in the large and the content design in the small and commented wireframes using real screenshots of the final application. In the document are also reported some scenario describing a specific flow of user interactions across InsideBO website.

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UX Design

User Experience Design is a design process whose only objective is to design a system that offers a great experience to its users. Thus, UXD embraces the theories of a number of disciplines such as user interface design, usability, accessibility, information architecture, and Human Computer Interaction. In this chapter there is the detailed UX design of the website. In particular, there are the descriptions of the content design and the navigation design.

Content Design

The content design describes how multimedia information (texts, images, videos, animations, audio, diagrams, data, ...) are organized and which user operations are associated to the different contents to enable various tasks. In this section there is the C-IDM (Content Interaction Dialogue Model) which is a model that represents the website in terms of a dialogue between the human and the system. In particular, it explains what the dialogue is about and how the subjects of conversation are classified, mutually related and grouped. It also provides information on what can be said about each of these categories.

C-IDM Diagram

There are 4 main kind of topic: service type, event, point of Interest and itinerary. Points of interest are correlated with both events and itineraries. The service type represents a primary service that can be helpful for a visitor that is in the city (e.g., pharmacies, banks, .etc.). There are at least 10 service types stored in the DB. The itineraries are tours across the main points of interest in Bologna. Events represent the most important thing happens in Bologna organized by citizens or municipalities. The points of interest are the most famous monuments and locations in the city. Finally, the schema contains other three single topics: one deals with how to reach or contact the tourist office of the city, another is a small introduction on the history of the city and the last is a general description of the tourist office.

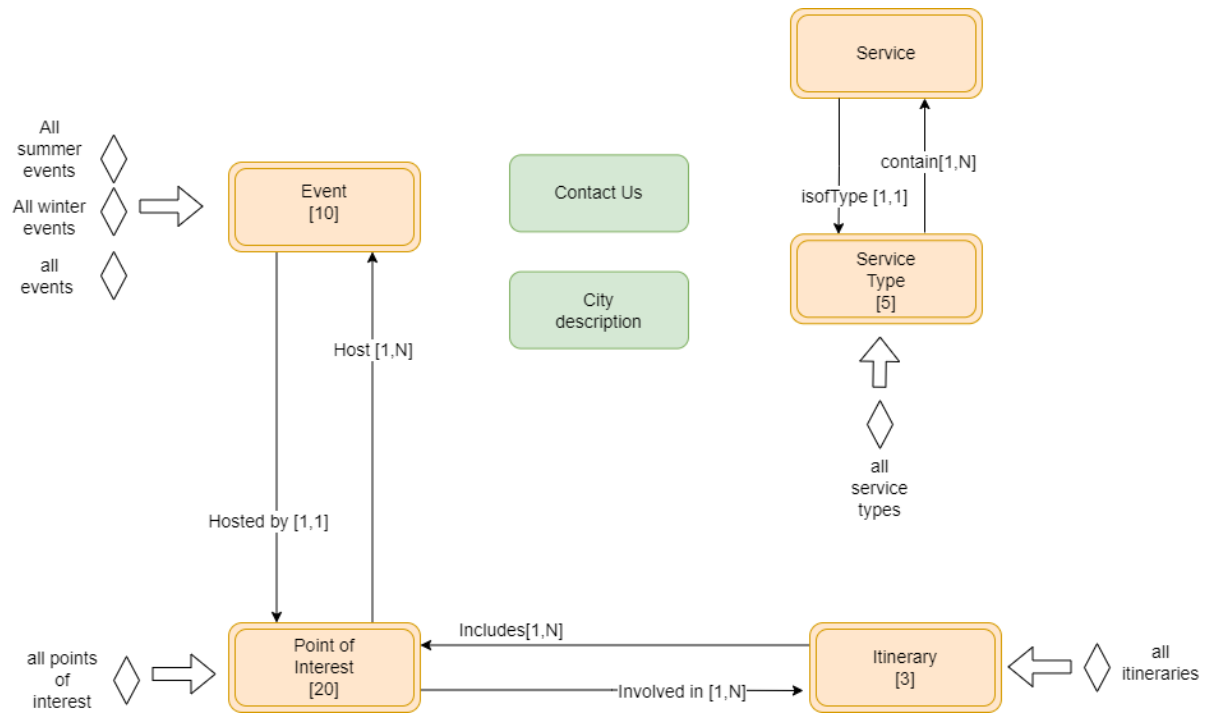


Figure 1: C-IDM schema in the large

Content-in-the-small Tables

In the following tables are defined the contents of the conversation between the human and the application for each category of subject:

TOPIC Home

Title: “Scopri Bologna”

BOLOGNA’s picture: Image

Items Preview Highlights POI: LIST (Point of interest Name)

Items Preview Highlights Events: LIST (Event Name)

TOPIC City Description

Title: “BOLOGNA IN BREVE”

BOLOGNA’s picture: Image

Short - introduction: Text (max 100 words)

Overview: Text (max 100 words)

History: Text (max 100 words)

Food: Text (max 100 words)

Fun: Text (max 100 words)

More Details: Text (max 100 words)

TOPIC Contact Us

Tourist Office Information: Text (address, phone, fax, email, work schedule)

Mission: Text (max 100 words)

KIND OF TOPIC Service

Service Title: Text (max 30 char)

Service Description: Text (max 100 char)

Service List: Text (name, address, work schedule, website, phone)

KIND OF TOPIC Event

Event Title: Text (max 30 char)

Event Short Description: Text (max 100 char)

Event Gallery: related images

Event Practical Information: where (POI card)

Event Practical Information: Text (ticket, address, date, website)

KIND OF TOPIC Itinerary

Itinerary Title: Text (max 30 char)

Itinerary Overview: images (one for each place included)

Itinerary Short Description: Text (max 100 word)

Itinerary Duration: Text (max 20 word)

Itinerary Map: image

KIND OF TOPIC Point of Interest (POI)

POI Title: Text (max 30 char)

POI Short Description: Text (max 100 word)

POI Gallery: related images

POI Practical Information: How to get there (interactive map)

POI Practical Information: Related Events (event card)

POI Practical Information: Related Itinerary (itinerary card)

POI Practical Information: Text (max 100 word)

GROUP “ALL WINTER EVENTS”

Group Title: “Inverno”

Items Preview: LIST (Event Name)

Item Preview: Image (Active Event)

Item Preview Short Description: Text (max 20 words)

GROUP “ALL SUMMER EVENTS”

Group Title: “Estate”

Items Preview: LIST (Event Name)

Item Preview: Image (Active Event)

Item Preview Short Description: Text (max 20 words)

GROUP “ALL EVENTS”

Group Title: “Tutti”

Items Preview: LIST (Event Name)

Item Preview: Image (Active Event)

Item Preview Short Description: Text (max 20 words)

GROUP “ALL POINTS OF INTEREST”

Group Title: “Punti di Interesse”

Items Preview: LIST (POI Name)

Item Preview: Image (Active POI)

Item Preview Short Description: Text (max 20 words)

GROUP “ALL SERVICES”

Group Title: “Servizi”

Items Preview: LIST (Service Name)

Item Preview: Image (Active Service)

Item Preview Short Description: Text (max 20 words)

GROUP “ALL ITINERARIES”

Group Title: “Itinerari”

Items Preview: LIST (Itinerary Name)

Item Preview: Image (Active Itinerary)

Item Preview Short Description: Text (max 20 words)

Navigation Design

In the navigation design we map the C-IDM schemas in-the-large and in-the-small into “abstract” pages and page types with the specifications of contents and links.

Mappings Content tables – pages

The mapping is represented only in the case a content table for a topic, or a kind of topic is translated into more than one page.

PAGE for TOPIC Home	
CONTENTS in the small	Home
LANDMARKS	Link To: PAGE for TOPIC Home
	Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL POINT OF INTEREST”
	Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL EVENTS”
	Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL ITINERARIES”
	Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL SERVICES”
	Link To: PAGE for TOPIC Contact Us
TRANSITION LINKS	Link To: PAGE for TOPIC City Description
	Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL POINT OF INTEREST”
	Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL EVENTS”
	Link to: PAGE for KIND OF TOPIC Event

	Link to: PAGE for KIND OF TOPIC Point of Interest

PAGE for TOPIC City Description	
CONTENTS in the small	City Description
LANDMARKS	Link To: PAGE for TOPIC Home
	Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL POINT OF INTEREST”
	Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL EVENTS”
	Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL ITINERARIES”
	Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL SERVICES”
	Link To: PAGE for TOPIC Contact Us
	Link To: PAGE for TOPIC City Description
STRUCTURAL LINKS	None

PAGE for TOPIC Contact Us	
CONTENTS in the small	Contact Us
LANDMARKS	Link To: PAGE for TOPIC Home
	Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL POINT OF INTEREST”
	Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL EVENTS”

	<p>Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL ITINERARIES”</p> <p>Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL SERVICES”</p> <p>Link To: PAGE for TOPIC Contact Us</p> <p>Link To: PAGE for TOPIC City Description</p>
STRUCTURAL LINKS	None

PAGE for KIND OF TOPIC Services	
CONTENTS in the small	Services
	<p>Link To: PAGE for TOPIC Home</p> <p>Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL POINT OF INTEREST”</p> <p>Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL EVENTS”</p>
LANDMARKS	<p>Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL ITINERARIES”</p> <p>Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL SERVICES”</p> <p>Link To: PAGE for TOPIC Contact Us</p> <p>Link To: PAGE for TOPIC City Description</p>
STRUCTURAL LINKS	None
GROUP LINKS	Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL SERVICES”
TRANSITION LINKS	None

PAGE for KIND OF TOPIC Event	
CONTENTS in the small	Events
LANDMARKS	Link To: PAGE for TOPIC Home
	Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL POINT OF INTEREST”
	Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL EVENTS”
	Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL ITINERARIES”
	Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL SERVICES”
	Link To: PAGE for TOPIC Contact Us
	Link To: PAGE for TOPIC City Description
STRUCTURAL LINKS	Link To: Image
GROUP LINKS	Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL EVENTS”
TRANSITION LINKS	Link to: “Page for KIND OF TOPIC Punti di Interesse”

PAGE for KIND OF TOPIC Itinerary	
CONTENTS in the small	Itinerary
LANDMARKS	Link To: PAGE for TOPIC Home
	Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL POINT OF INTEREST”
	Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL EVENTS”

	<p>Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL ITINERARIES”</p> <p>Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL SERVICES”</p> <p>Link To: PAGE for TOPIC Contact Us</p> <p>Link To: PAGE for TOPIC City Description</p>
STRUCTURAL LINKS	Link to: map
GROUP LINKS	Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL ITINERARIES”
TRANSITION LINKS	Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL POINT OF INTEREST”

PAGE for KIND OF TOPIC Point of Interest	
CONTENTS in the small	<p>Point of interest</p> <p>Link To: PAGE for TOPIC Home</p>
LANDMARKS	<p>Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL POINT OF INTEREST”</p> <p>Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL EVENTS”</p> <p>Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL ITINERARIES”</p> <p>Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL SERVICES”</p> <p>Link To: PAGE for TOPIC Contact Us</p>

	Link To: PAGE for TOPIC City Description
STRUCTURAL LINKS	Link To: image
GROUP LINKS	Link to: Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP "ALL POINT OF INTEREST"
TRANSITION LINKS	Link to: PAGE for KIND OF TOPIC Event Link to: Map

PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP "ALL ITINERARIES"	
CONTENTS in the small	"ALL ITINERARIES"
LANDMARKS	<p>Link To: PAGE for TOPIC Home</p> <p>Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP "ALL POINT OF INTEREST"</p> <p>Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP "ALL EVENTS"</p> <p>Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP "ALL ITINERARIES"</p> <p>Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP "ALL SERVICES"</p> <p>Link To: PAGE for TOPIC Contact Us</p> <p>Link To: PAGE for TOPIC City Description</p>
GROUP LINKS	Link To: KIND OF TOPIC Itinerary Page

PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP "ALL SERVICES"	
CONTENTS in the small	"ALL SERVICES"
LANDMARKS	<p>Link To: PAGE for TOPIC Home</p> <p>Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP "ALL POINT OF INTEREST"</p>

	<p>Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL EVENTS”</p> <p>Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL ITINERARIES”</p> <p>Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL SERVICES”</p> <p>Link To: PAGE for TOPIC Contact Us</p> <p>Link To: PAGE for TOPIC City Description</p>
GROUP LINKS	Link To: KIND OF TOPIC Service Page

PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL POINTS OF INTEREST”	
CONTENTS in the small LANDMARKS	<p>“ALL POINTS OF INTEREST”</p> <p>Link To: PAGE for TOPIC Home</p> <p>Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL POINT OF INTEREST”</p> <p>Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL EVENTS”</p> <p>Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL ITINERARIES”</p> <p>Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL SERVICES”</p> <p>Link To: PAGE for TOPIC Contact Us</p> <p>Link To: PAGE for TOPIC City Description</p>

GROUP LINKS	Link To: KIND OF TOPIC Point of Interest (POI) Page

PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL EVENTS”	
CONTENTS in the small LANDMARKS	“ALL EVENTS” Link To: PAGE for TOPIC Home Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL POINT OF INTEREST” Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL EVENTS” Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL ITINERARIES” Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL SERVICES” Link To: PAGE for TOPIC Contact Us Link To: PAGE for TOPIC City Description
GROUP LINKS	Link To: KIND OF TOPIC Event Page

PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL SUMMER EVENTS”	
CONTENTS in the small LANDMARKS	“ALL SUMMER EVENTS” Link To: PAGE for TOPIC Home Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL POINT OF INTEREST” Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL EVENTS”

	<p>Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL ITINERARIES”</p> <p>Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL SERVICES”</p> <p>Link To: PAGE for TOPIC Contact Us</p> <p>Link To: PAGE for TOPIC City Description</p>
GROUP LINKS	Link To: KIND OF TOPIC Event Page

PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL WINTER EVENTS”	
CONTENTS in the small	“ALL WINTER EVENTS”
LANDMARKS	<p>Link To: PAGE for TOPIC Home</p> <p>Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL POINT OF INTEREST”</p> <p>Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL EVENTS”</p> <p>Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL ITINERARIES”</p> <p>Link To: PAGE for INTRODUCTORY PAGE OF(MULTIPLE) GROUP “ALL SERVICES”</p> <p>Link To: PAGE for TOPIC Contact Us</p> <p>Link To: PAGE for TOPIC City Description</p>
GROUP LINKS	Link To: KIND OF TOPIC Event Page

Visual Design

In this chapter we will analyze the visual structure of the website and its implementation. We will use a low fidelity prototype made in Figma (<https://www.figma.com>) which we intended as a guide during the implementation process later on.

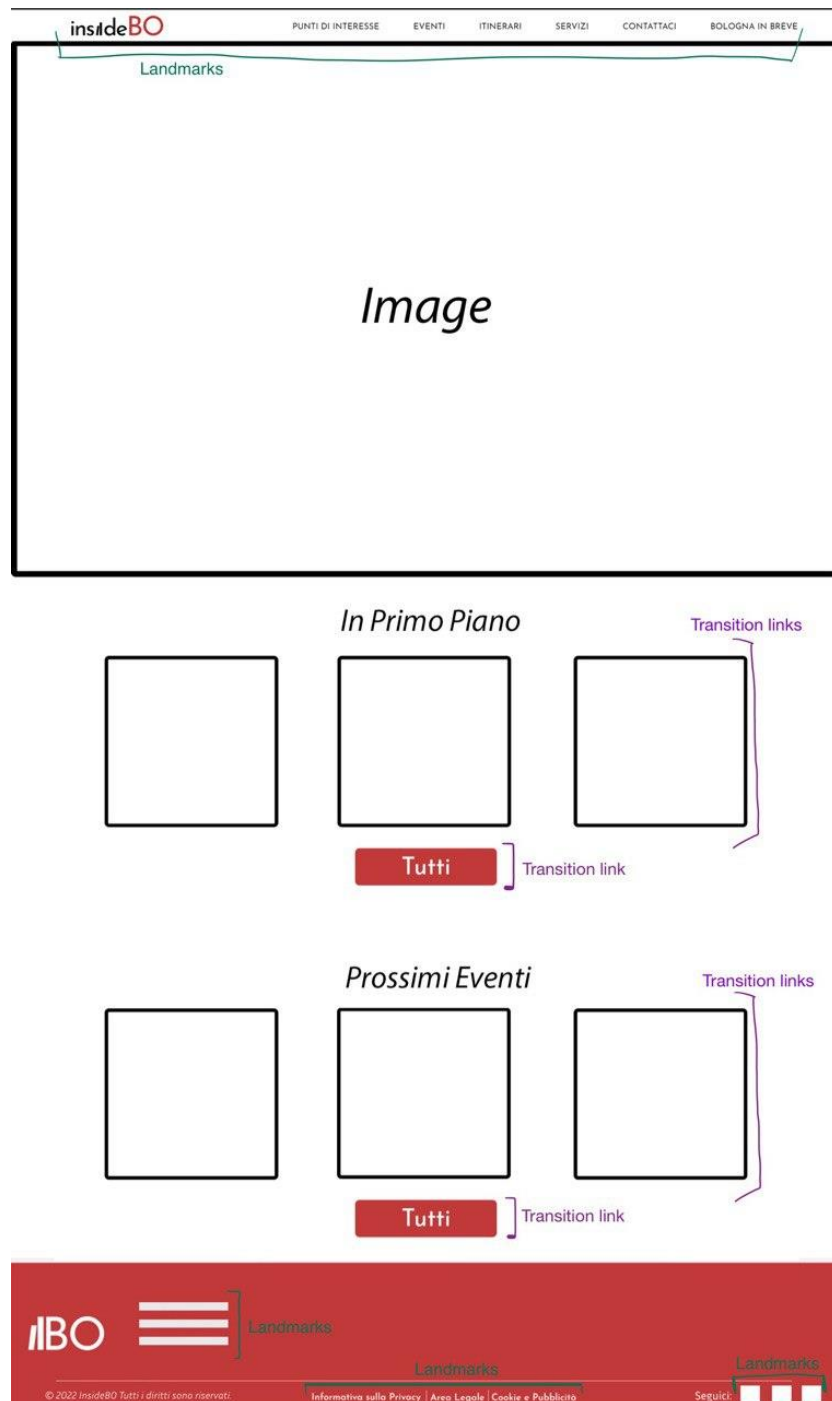
The mockup will have all the basic core elements of the final product.

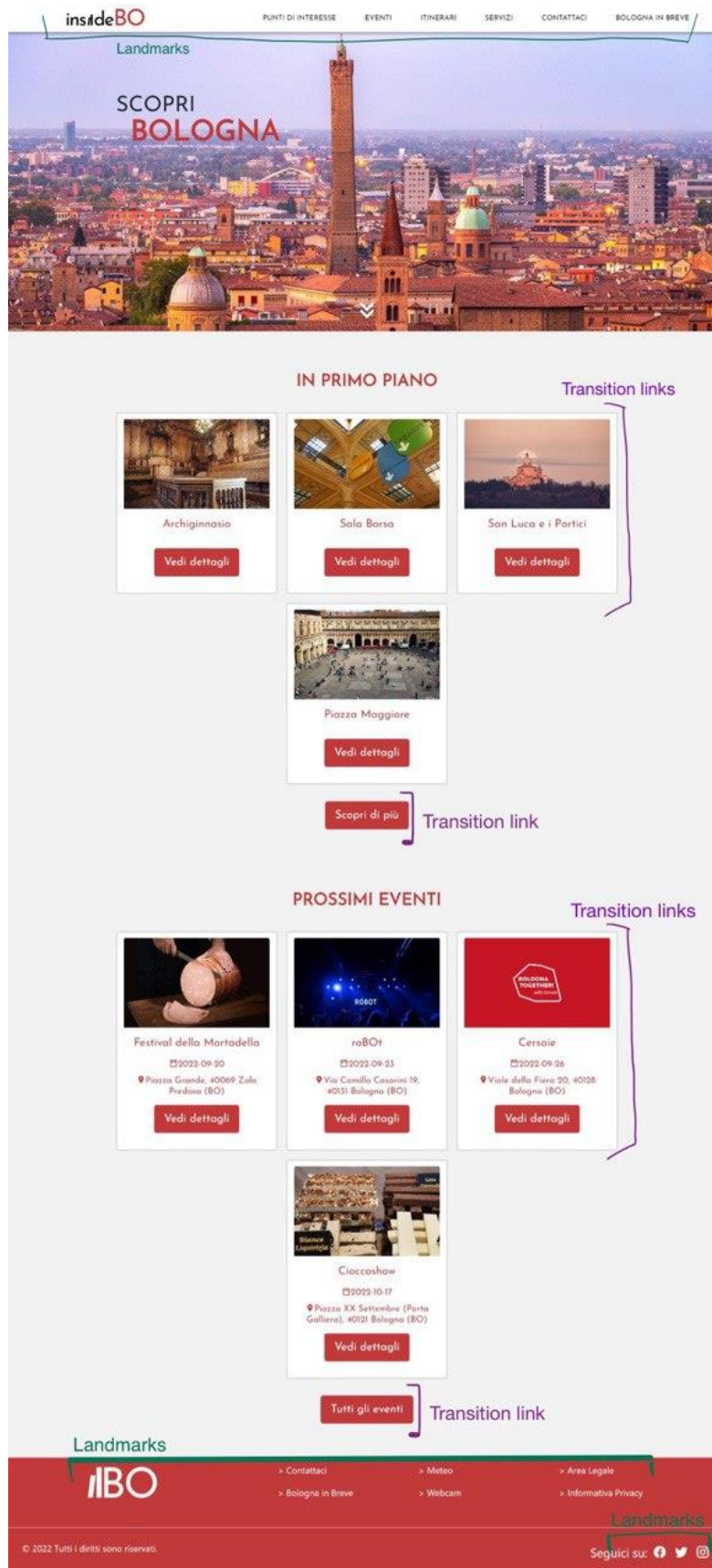
We will highlight all the common elements and links on each page by comparing the wireframes with high-fidelity screenshots of the final product.

Home Page

Starting point for the user experience on the website. It is composed, at the top, of an image that displays a skyline of bologna. Scrolling down user can find some suggestions on most relevant POI or about incoming events.

Landmarks both on the top and bottom give the possibility to discover all different sections of the website.





Punti di Interesse Index Page

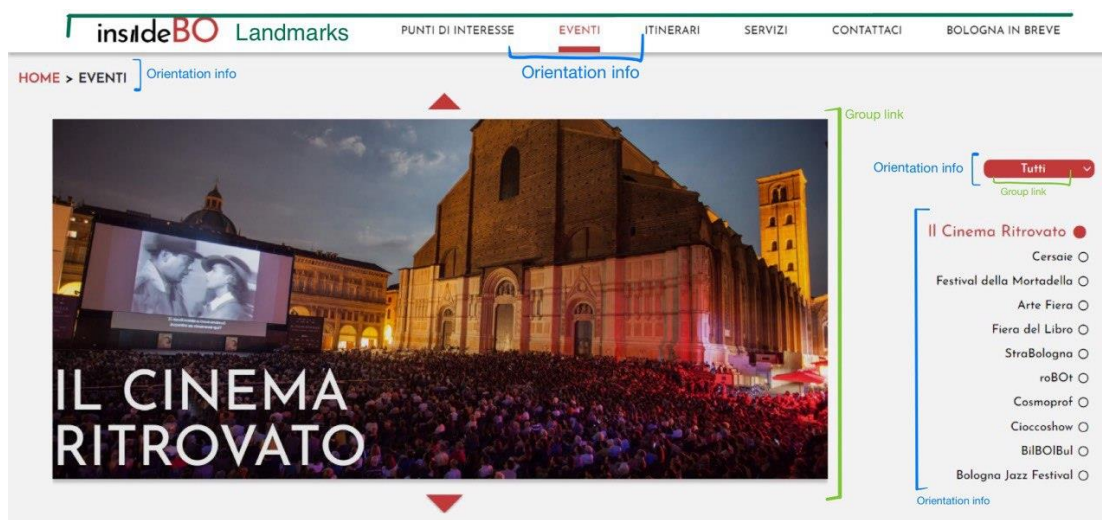
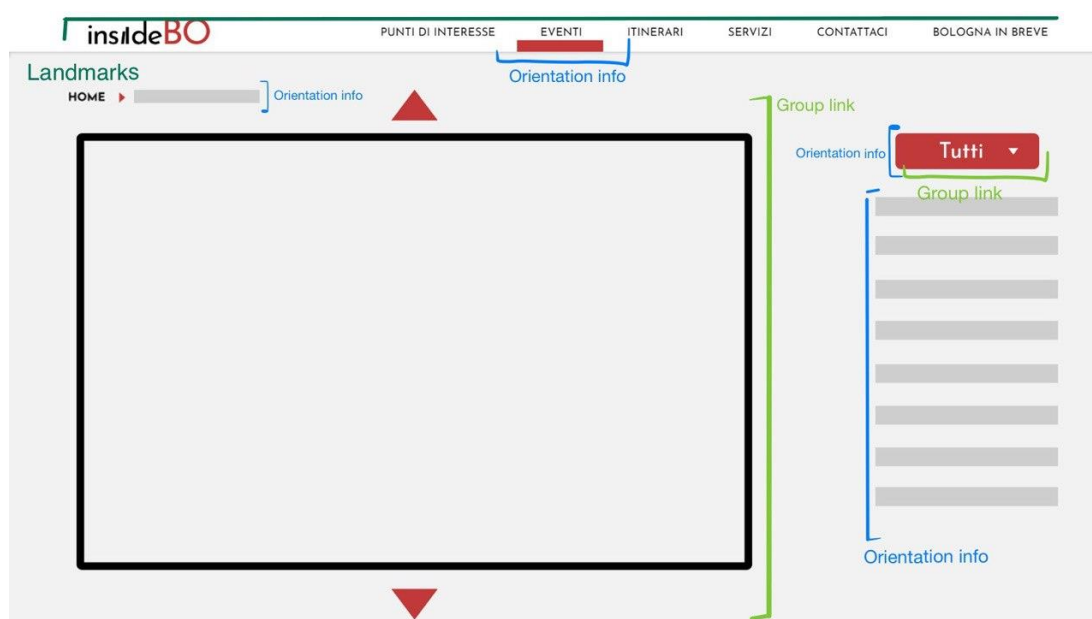
This section is composed of two main components. On the left an image of the POI selected at the moment, while on the right a list that includes all available POIs. You can scroll (up or down), click on the arrows, or select the correspondent label in the index on the right to change the active POI.

Finally, using the landmarks on the the user is free to change section of the web site.



Eventi Index Page

This section has in charge of present the list of available events in bologna. It's very similar to the previous POI id section, the only difference is presence of the filter that give to the user the possibility of search an event for season (winter or summer).

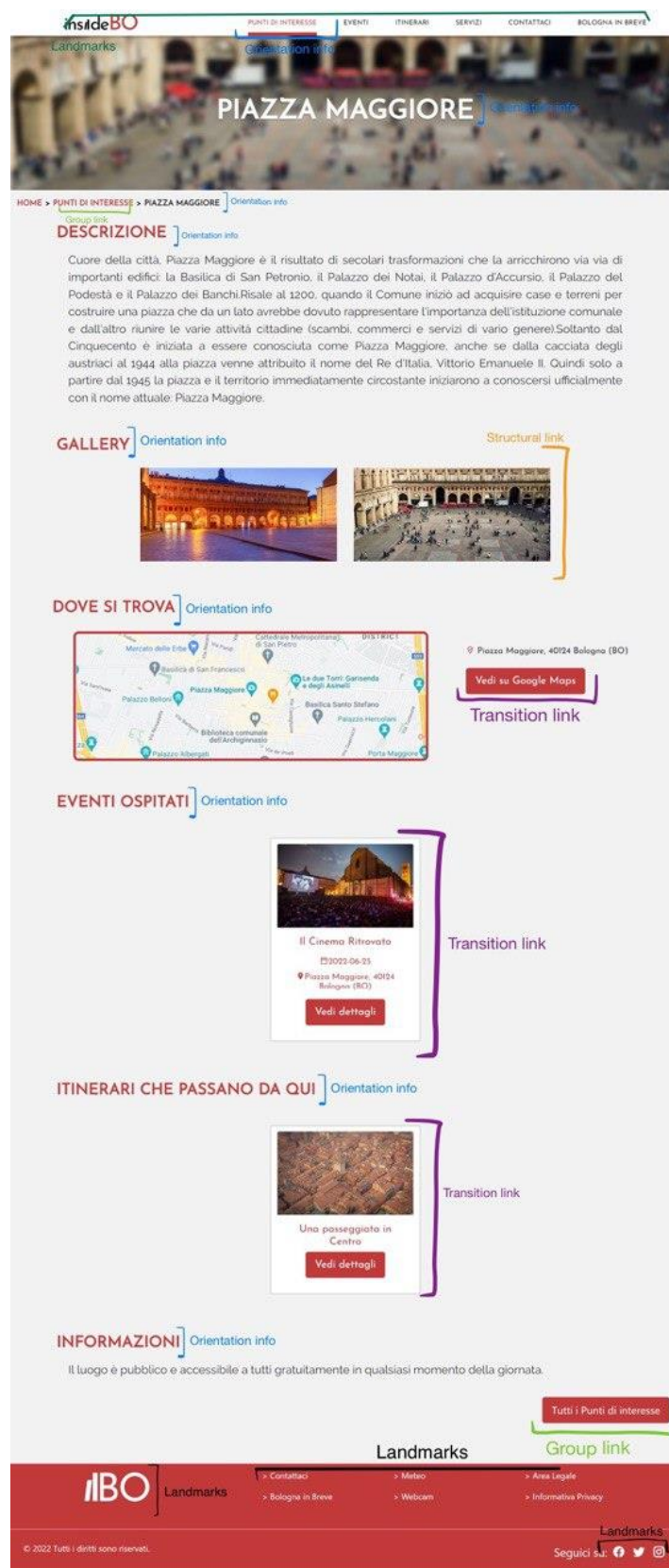


Punti di Interesse ID Page

In the POI pages, the user is presented with an overview of the POI chosen in the previous section.

On top of the page we have a blurred image and a title, indicating the POI, followed by the breadcrumbs. Scrolling down, there is a description of the POI in which the user can find some details about the place. The “gallery” section as previously presents few related images. Following down is possible to find a map view of the place, to give more accurate information about the position of the attraction and how is possible to reach it. Finally, an information box that collect some important notes on the POI such as possible prices, opening hours and so on. The user can navigate to other section of the website by clicking the landmarks on the header or on the footer of the page, or they can navigate among the POI group by utilizing the dedicated voice on the breadcrumb or the button at the bottom of the page.





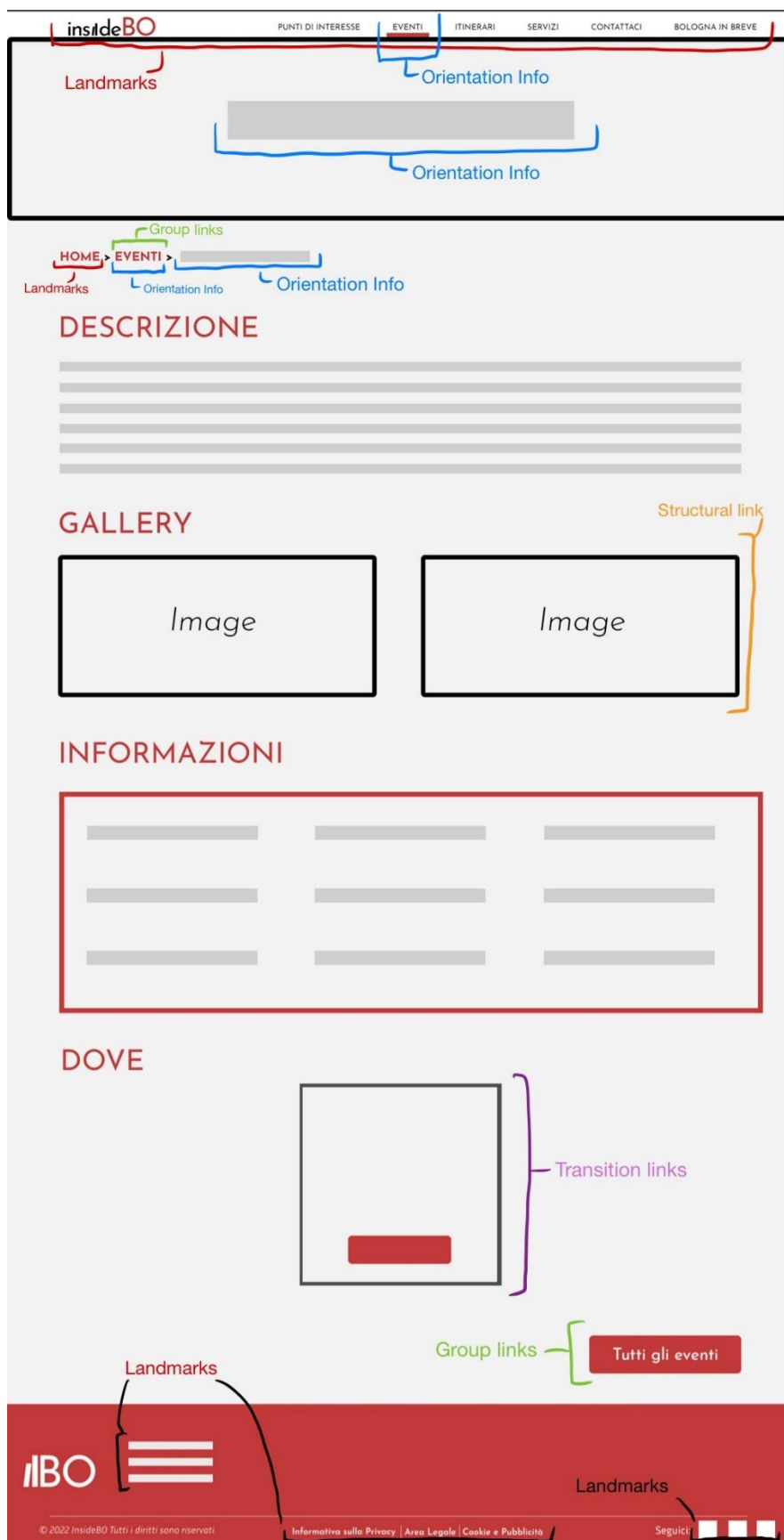
Eventi ID Page

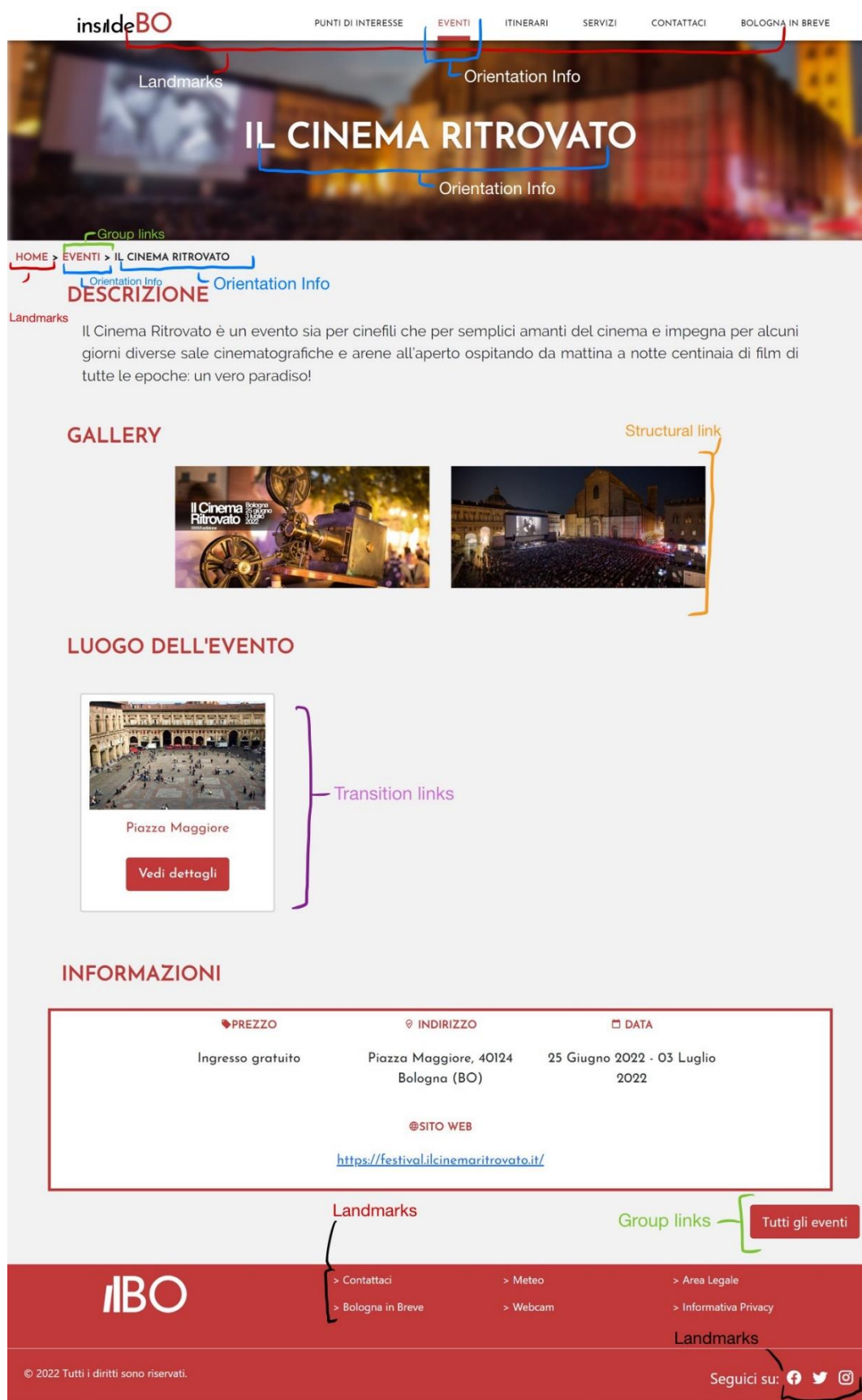
In the Events page, the user is presented with an overview of the event selected in the previous section.

At the top of the page we have a blurred image and a title, indicating the event, followed by the breadcrumb. Scrolling down, there is a description of the event in which the user can better understand the significance of the event, its history and the details. The “gallery” section as previously indicated, presents a few images. The purpose of this section is to attract the tourist to participate to the event.

The most important part of the page is surely the information box, which is clear and concise. All the information the user might need is shown there: date, address, website and many more.

The user can navigate to other section of the website by clicking the landmarks on the header or on the footer of the page, or they can navigate among the event group by utilizing the dedicated voice on the breadcrumb or the button at the bottom of the page.





Itinerari ID Page

In this page the user can see the selected itinerary. The itinerary consists of five stages, every one of which is a different point of interest.

In the first part of the page, as in the previous pages, we have the heading composed of image, title and breadcrumb just below the first two elements.

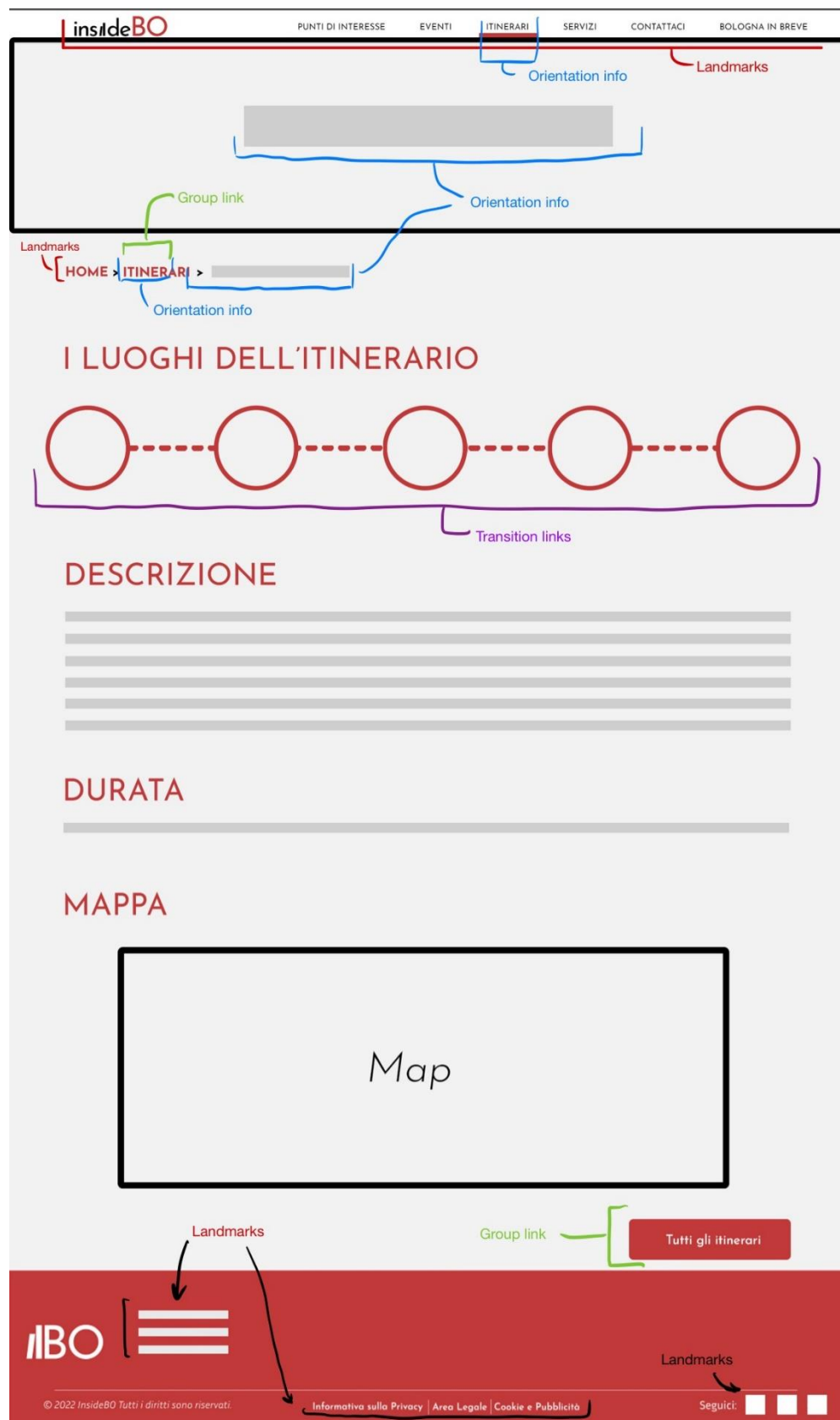
The next section is a recreation of the itinerary, which was made by a dashed line that connects the five points of interest, which are all transition links to the corresponding page. The locations, which are made using a circle shaped container, become bigger while hovering them with the mouse cursor, which is a feature to improve the user experience.

After that, we have a brief description of the itinerary, where we explain what the path consists of, and another section where information about distance and time are given.

The last part contains a map of the itinerary which is a clickable link leading to course in Google Maps.

At the bottom we have a button that the user can utilize to go back to all the previous services.

When the user clicks on a point of interest, the dedicated page opens but they can always go back to the itineraries list by clicking on the updated breadcrumb or on the button at the end of the page which links now to the itinerary index.





Servizi ID Page

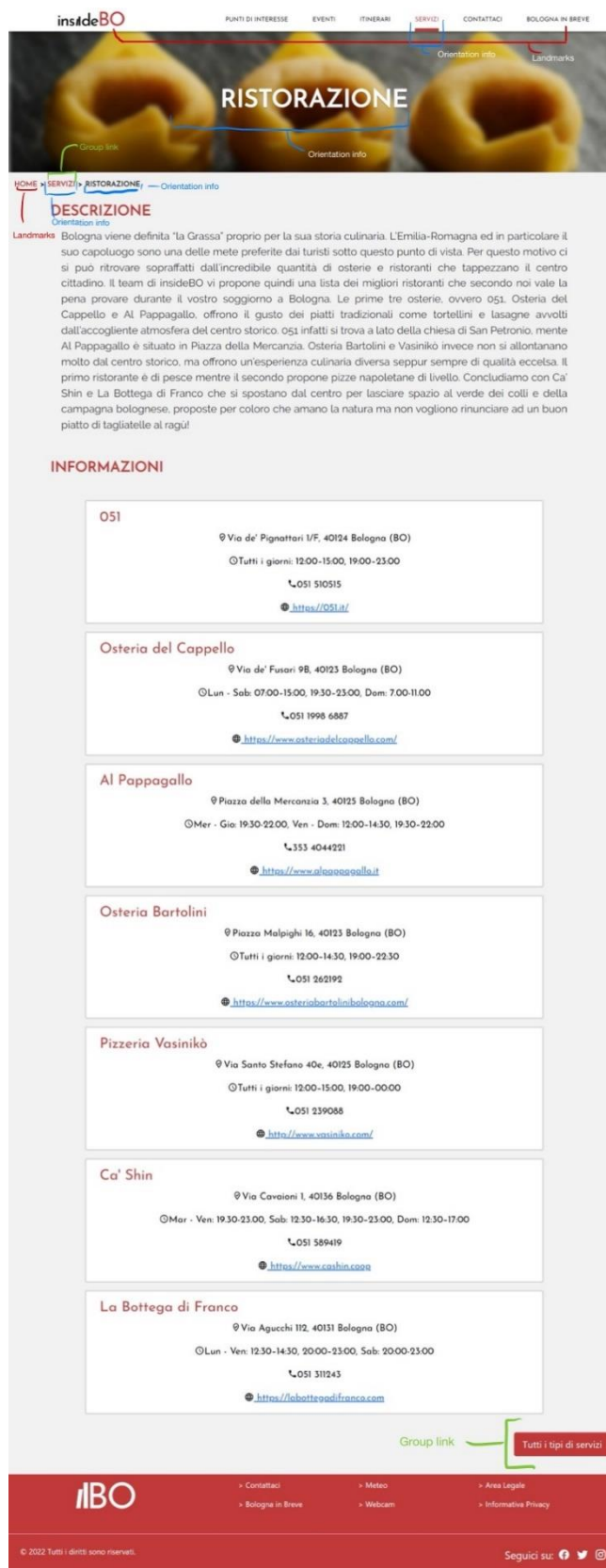
In the service page, the user is presented with a selected list of useful services divided in categories.

The page is structured in a similar and coherent way to the previous pages.

There is an image and a title at the top followed by the breadcrumb. A brief description of the service and the list is placed afterwards.

The list is composed of a series of five selected services, and it's presented with a series of info-boxes that contain all the information needed for each element. The list was made in this way to have a clear view of all the services and all the information without too many clicks for the user.





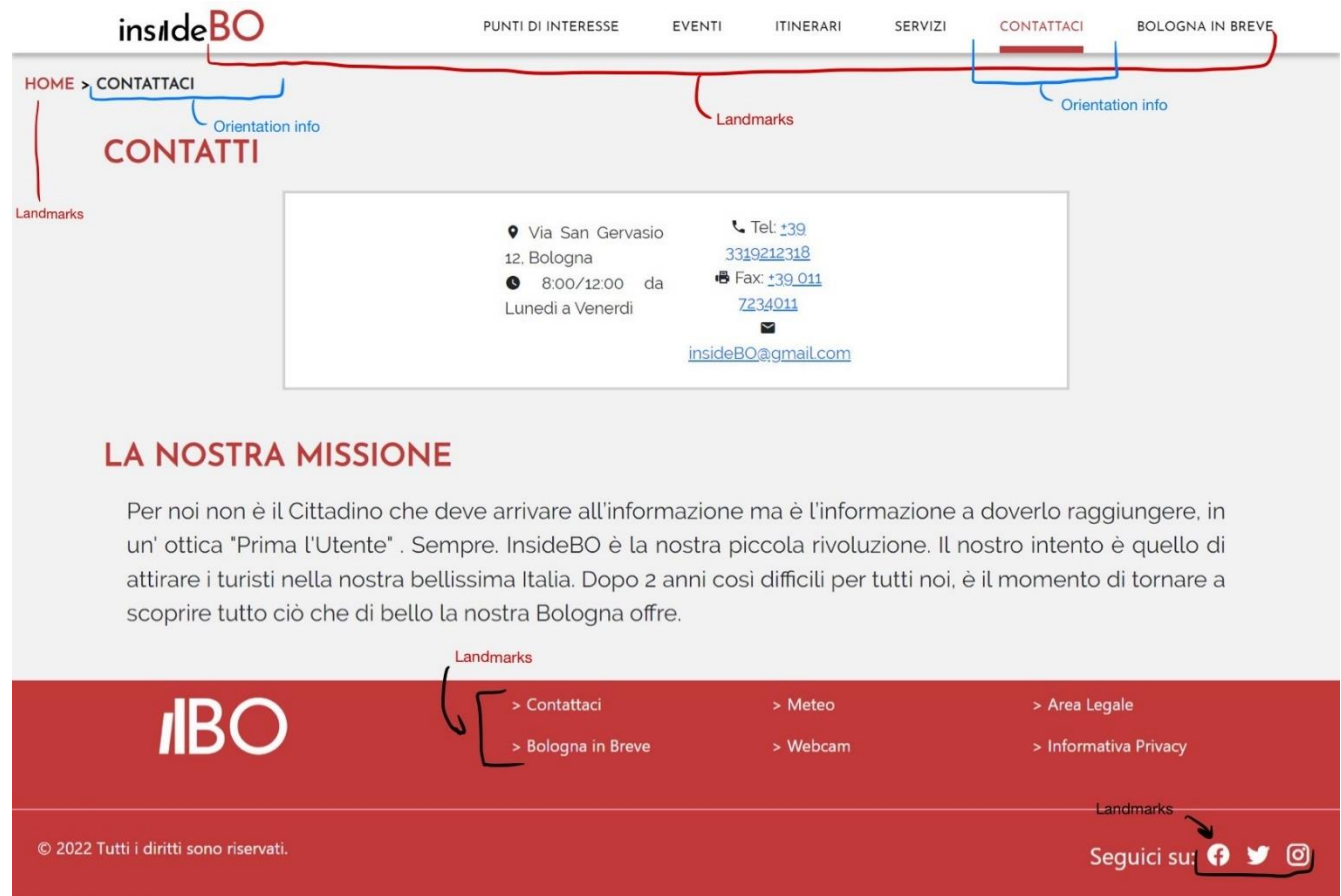
Contattaci Page

The Contact Us page is made in a clear and straightforward way. The user is presented with useful and clear information if they want to contact us.

After the breadcrumb on the top left of the page, we have a box with all the contact information: phone, fax number, physical and email address.

Moreover, there's a brief description of the team's goal regarding the website and the idea behind the project.



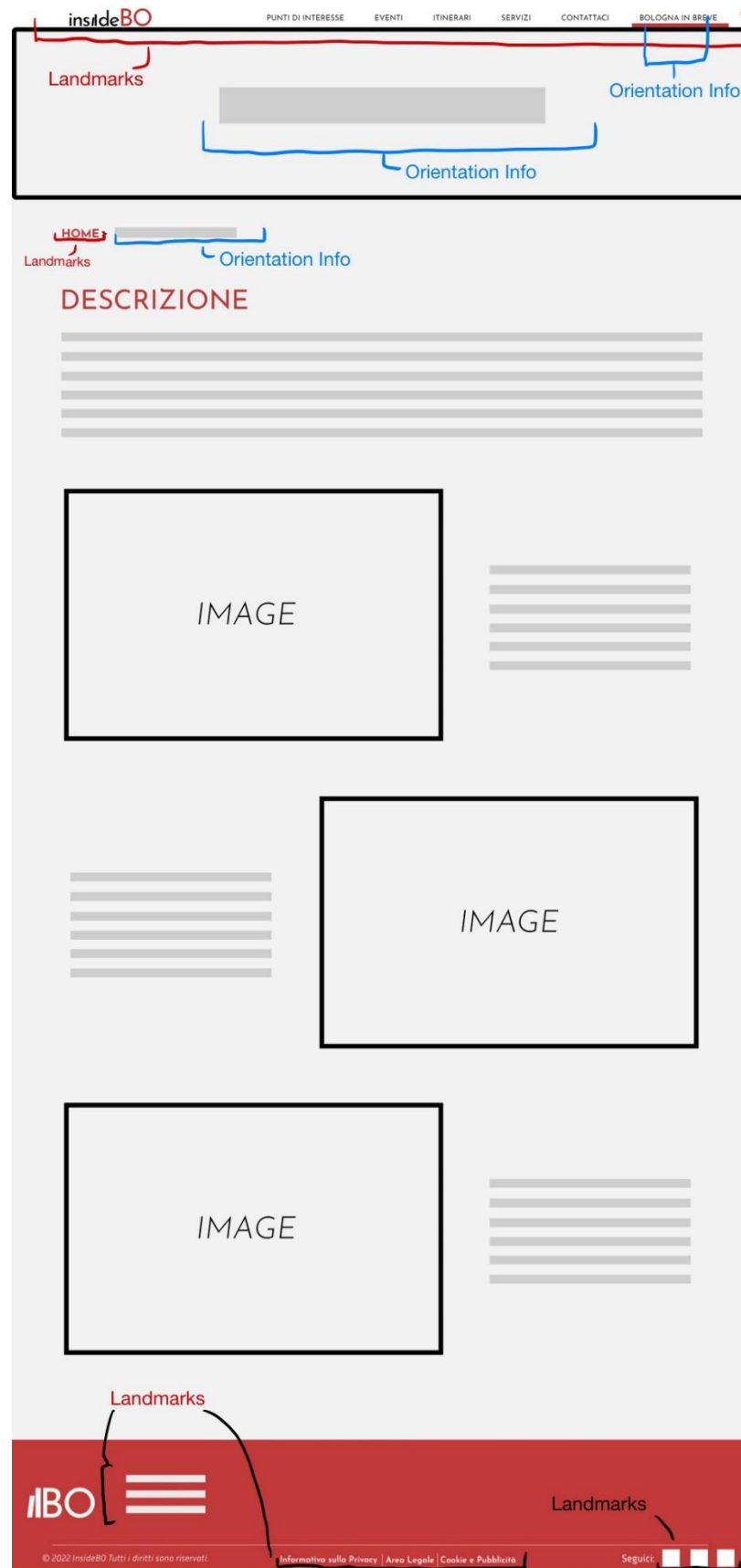


Bologna in Breve Page

This is a purely informative page, however we felt it was needed to give an overview of the city. The structure is very simple, yet it clearly conveys the message.

The upper part shares the core features of the previous pages.

After the breadcrumb, there is a series of paragraphs explaining different aspects of Bologna. For each paragraph there is a picture related to the text.





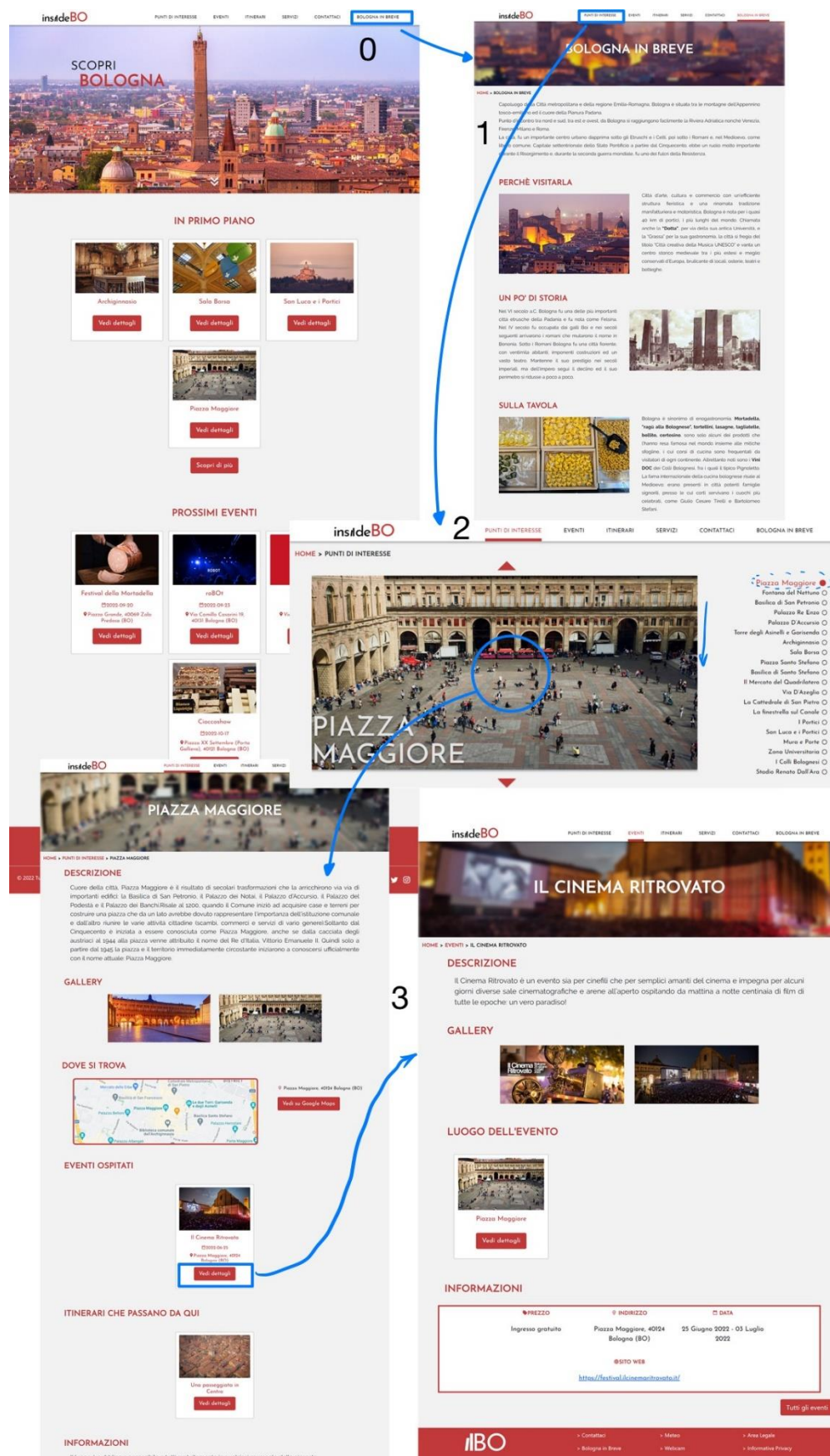
Interaction Scenarios

Use case scenarios demonstrate how a typical user is going to use the application. The interaction is a “story of use” of a flow of steps made by the user in the website. The use cases take place in the real world and describe real life scenarios. Every user is indicated by a name and a profile. The user must accomplish a goal by completing a series of tasks.

Each Use case will have a written explanation and one made with insideBO website screenshots. In the latter, each clicked link will be highlighted as well as the flow of instructions.

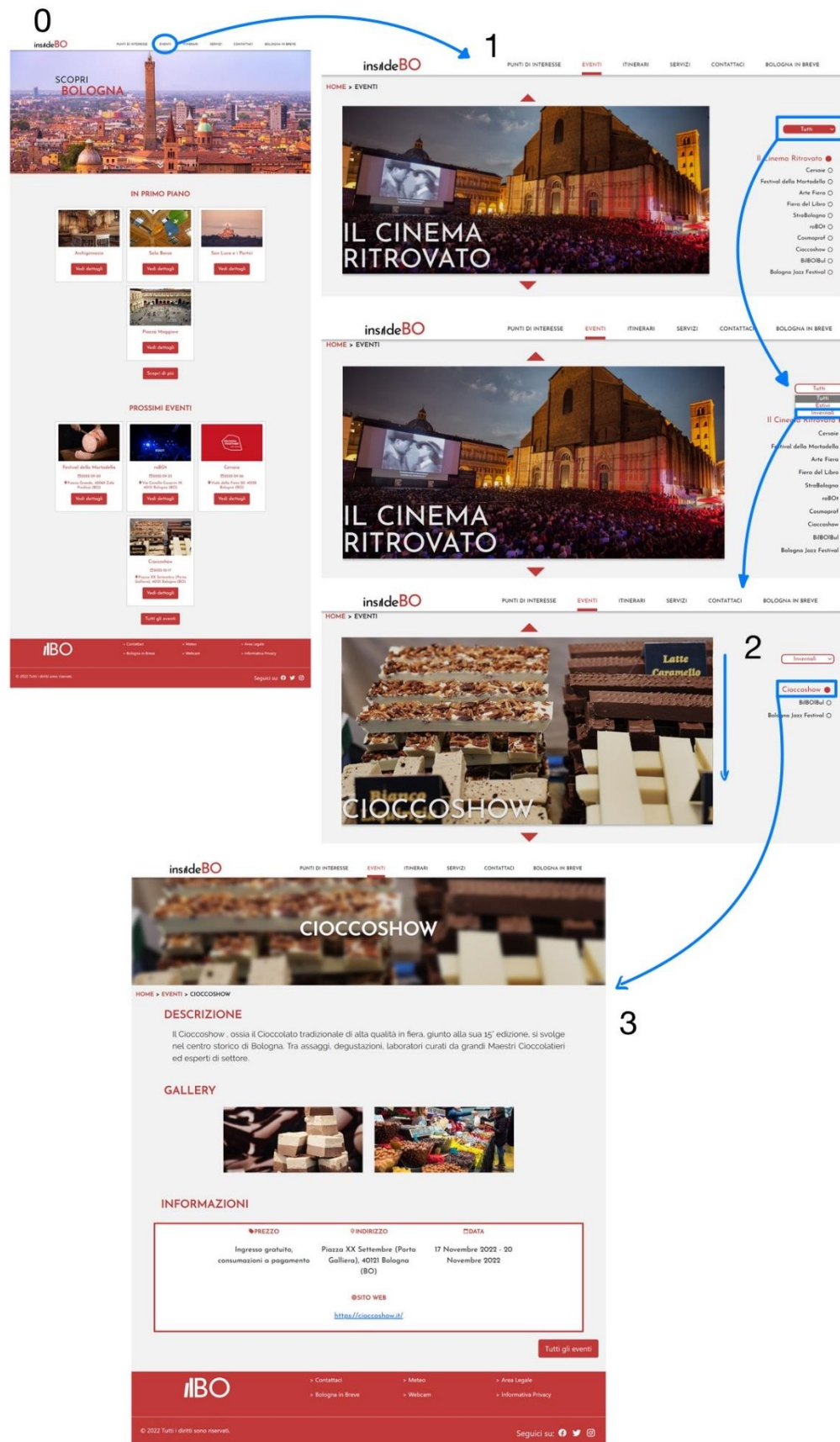
Use Case 1

Name	<i>A trip to Bologna</i>
Profile	<i>Two friends from Rome want to plan a trip to Bologna.</i>
Goal	They want to know more about the history of the city and what are the best places to go to.
Context	The two friends are navigating the site from one laptop both sitting on a couch.
Tasks	<ol style="list-style-type: none"> 0. The <i>two friends</i> access the <i>Home Page</i> of the website. 1. They look through all the voices in the header and <i>Bologna in Breve</i> catches their attention: here they have an overview of the history of Bologna and its main features. 2. Wanting to know more, they head on and click on the <i>Punti di Interesse</i> menu, where a list of all the points of interest of the city is presented. 3. They scroll through all the monuments, squares and main roads of Bologna, gathering information by clicking to their respective pages. They stumble upon the event “Il Cinema Ritrovato” which is exactly at the same time of their holiday.



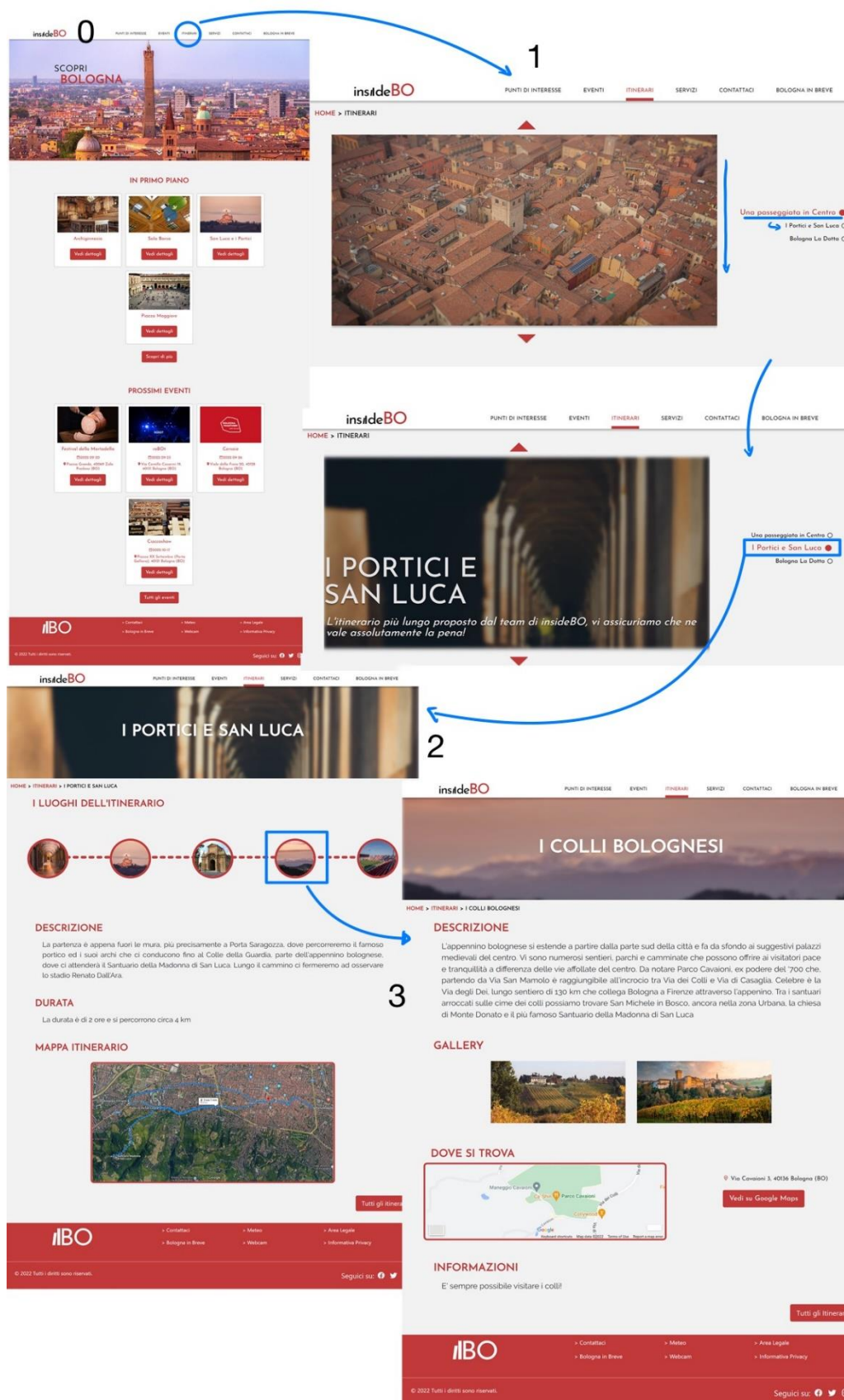
Use Case 2

Name	<i>Bologna by Winter</i>
Profile	A <i>journalist</i> from a local newspaper.
Goal	She wants to write an article about the winter events in Bologna.
Context	The <i>journalist</i> is using her desktop computer at the office.
Tasks	<ol style="list-style-type: none">0. The <i>journalist</i> accesses the <i>Home Page</i> of the website.1. She looks at the header and finds the <i>Eventi</i> section. She clicks it.2. The <i>journalist</i> then sees a page with all the events in the city. Then, her attention is captured by a red menu filter. That's a selector of <i>summer</i> and <i>winter</i> events, that's exactly what she needed.3. She selects the winter events and then scrolls through all of them gathering the information she needs for her article by looking at their respective pages.



Use Case 3

Name	<i>An adventure in Bologna</i>
Profile	<i>A hicker</i> from Turin
Goal	He would love to visit the city. However, his favourite type of trips are the ones that are in contact with nature, so he wants to know if there's an itinerary far from downtown and with a touch of countryside.
Context	The man is looking at his computer at the kitchen's table
Tasks	<ol style="list-style-type: none"> 0. The <i>hicker</i> accesses the <i>Home Page</i> of the website. 1. They look through all the voices in the header and he sees <i>Itinerari</i> written there: he clicks on it. 2. He scroll through all the choices and finds the one better suited for him: "I Portici e San Luca". 3. While reading about this itinerary, he also wants to know more about the beautiful <i>Colli Bolognesi</i> since he maybe wants to plan a further trip in the future, so he clicks the related page on the <i>I Luoghi dell'Itinerario</i> section.



DB Design

In this chapter is described the structure of the DB queried by the website InsideBO.

ER Diagram

An Entity–relationship model (ER model) describes the structure of a database with the help of a diagram, which is known as Entity Relationship Diagram (ER Diagram). An ER model is a design or blueprint of a database that can later be implemented as a database. The main components of ER model are entity set and relationship set.

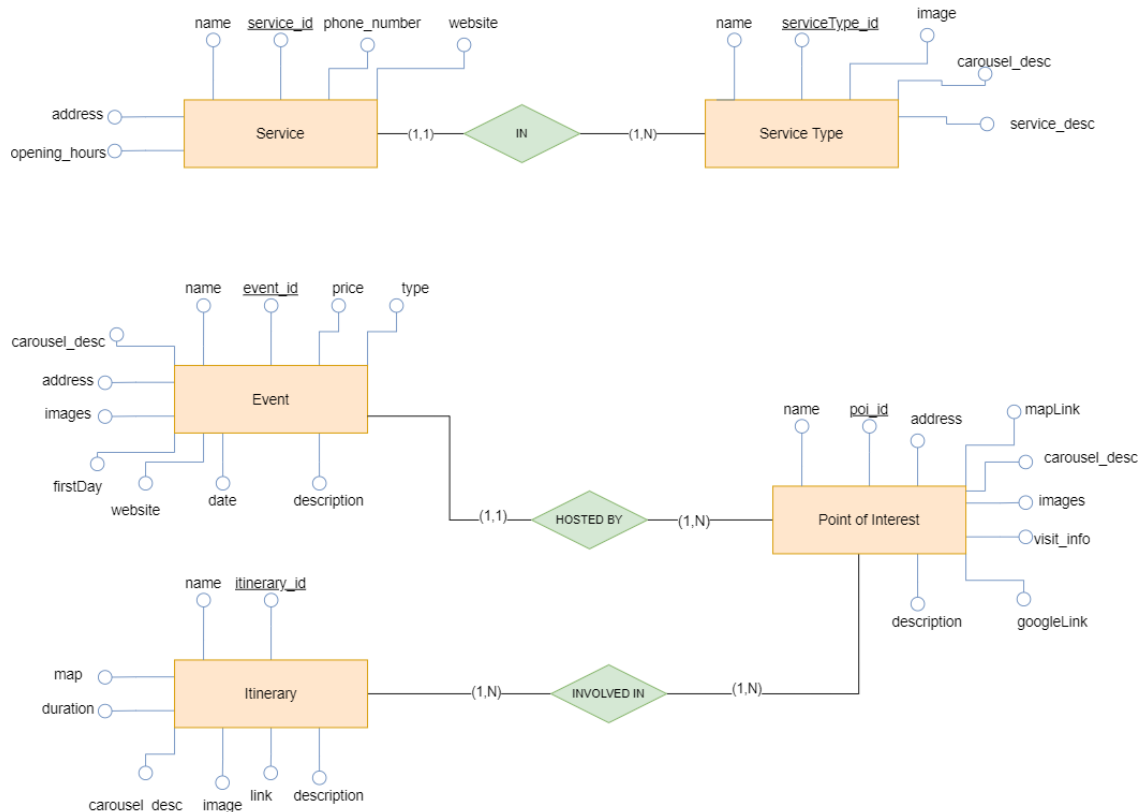


Figure 2: ER Diagram

Relational Schema

A Relational Schema is a set of tables describing entities and relationships, their attributes, and the domain of such attributes. Below are represented the tables:

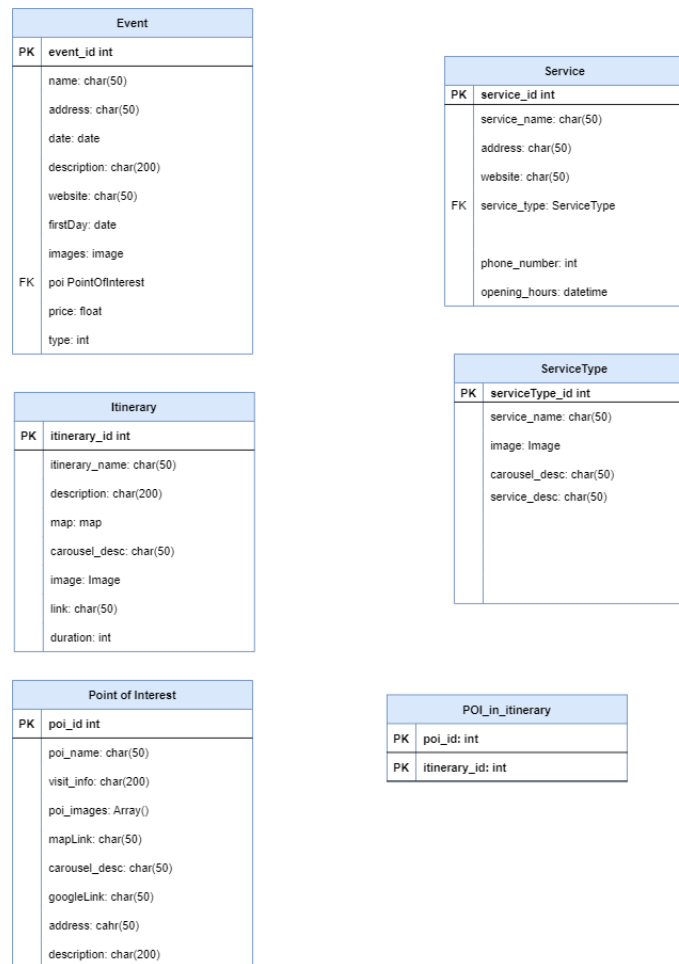


Figure 3: Logical Schema