

Appendix A – Glossary of Terms

Active Record – The active record pattern is an approach to accessing data in a database. A database table or view is wrapped into a class. Thus, an object instance is tied to a single row in the table. After creation of an object, a new row is added to the table upon save. Any object loaded gets its information from the database. When an object is updated, the corresponding row in the table is also updated. The wrapper class implements accessor methods or properties for each column in the table or view.

API – APIs are sets of requirements that govern how one application can “talk” to another. On the Web, APIs make it possible for applications to share data and take actions on one another’s behalf without requiring developers to share all of their software’s code. APIs clearly define exactly how a program will interact with the rest of the software world—saving time, saving resources, and preventing legal entanglements.

Agile Software Development – Agile software development targets complex systems and projects with dynamic, non-deterministic, and non-linear, characteristics, where accurate estimates, stable plans, and predictions, are often hard to get in early stages—and big up-front designs and arrangements would probably cause a lot of waste (i.e. they are not economically sound). These basic arguments and previous industry experiences (i.e. years of successes and failures) have led many web development teams, such as Pictoura’s, to favor adaptive, iterative, and evolutionary, development techniques—which, collectively, comprise the agile software development philosophy.

AJAX – Ajax (short for asynchronous JavaScript and XML) is a set of web development techniques using many web technologies on the client-side to create asynchronous Web applications. With Ajax web applications can send data to and retrieve from a server asynchronously (in the background) without interfering with the display and behavior of the existing page. By decoupling the data interchange layer from the presentation layer, Ajax allows for web pages, and by extension web applications, to change content dynamically without the need to reload the entire page. Despite the name, the use of XML is not required (JSON is often used in the AJAX variant), and the requests do not need to be asynchronous.

Amazon S3 – Amazon S3 (Simple Storage Service) is an online file storage web service offered by Amazon Web Services. Amazon S3 provides storage through web services interfaces (e.g. REST, SOAP, and BitTorrent).

Backbone.js – Backbone.js gives structure to Front-end web applications by providing models with key-value binding and custom events, collections with a rich API of enumerable functions, and views with declarative event handling; it connects it all of those components to the Back-end with a RESTful JSON interface.

See “Interactive Itinerary Authoring Tool”

Back-end – The Back-end of a web application is the part that the user does not interact with directly. For Pictoura’s GYDR Project the Back-end may be thought of as the server operating system running on Heroku, its PostgreSQL database, and the storage buckets provided by Amazon S3.

Bitbucket – Bitbucket is a web-based hosting service for projects that use either the Mercurial (since launch) or Git (since October 2011) version control systems.

Blitline – Blitline is a pay-as-you-go image processing service. It allows users to chain together operations on images and, when processing is complete, push them to the user's preferred online photo storage service.

Booking Box – A Tour’s Booking Box is the area of the Tour Page wherein an available Tour time may be selected and a Tour Request may be submitted.

See in Appendix B – Figures:

Figure 5 – Section 4.2 – GYDR Tour Page Benchmarks – Booking Box

Bootstrap (Twitter Bootstrap) – Bootstrap is a free and open-source front-end web framework for designing websites and web applications. It contains HTML and CSS based design templates for typography, forms, buttons, navigation and other interface components, as well as optional JavaScript extensions. Unlike many web frameworks, it concerns itself with front-end development only.

Braintree – Braintree—a subsidiary of PayPal—is a company based in Chicago that specializes in mobile and web payment systems for ecommerce companies. Braintree emphasizes its easy integrations, multiple payment method options (including PayPal and Venmo), simple pricing, security, and support. Braintree provides its customers with a merchant account and a payment gateway, along with various features including recurring billing, credit card storage, support for mobile and international payments, and PCI Compliance solutions.

Bundler – Bundler is a program for managing gem dependencies in a Ruby project. With Bundler you can specify which gems your program needs, and what versions they should be at.

See “gem”

Cancellation Policy – GYDRs specify the Cancellation Policy on a per Tour basis. This setting is accessible within the “availabilities” section of the Tour Builder Environment. There are three Cancellation Policy options: “Flexible,” “Moderate,” and “Strict.”

The following is actual text from the UI:

Flexible: Full refund 1 day prior to tour, except fees. For a full refund, cancellation must be made a full 24 hours prior to tour’s local start time (or 3:00 PM if not specified) on the day of the tour. For example, if

the tour is on Friday, cancel by Thursday of that week before start time. If the traveler cancels less than 24 hours before start time, the tour fee is not refunded.

Moderate: Full refund 5 days prior to tour, except fees. For a full refund, cancellation must be made five full days prior to tour's local start time (or 3:00 PM if not specified) on the day of the tour. For example, if the tour is on Friday, cancel by the previous Sunday before start time. If the traveler cancels less than 5 days in advance, the tour fee is 50% refunded. If the traveler cancels less than 24 hours before the tour start time, the tour fee is not refunded.

Strict: 50% refund up until 1 week prior to tour, except fees. For a 50% refund, cancellation must be made seven full days prior to tour's local start time (or 3:00 PM if not specified) on the day of the tour, otherwise no refund. For example, if the tour starts on Friday, cancel by Friday of the previous week before start time. If the traveler cancels less than 7 days in advance, the tour fee is not refunded.

CarrierWave – CarrierWave is a Ruby gem that provides a simple and extremely flexible way to upload files from Ruby applications. URL: <https://github.com/carrierwaveuploader/carrierwave>

Convention Over Configuration (CoC) – Convention over configuration (also known as coding by convention) is a software design paradigm used by software frameworks that attempt to decrease the number of decisions that a developer using the framework is required to make without necessarily losing flexibility. The phrase essentially means a developer only needs to specify unconventional aspects of the application.

CSS – Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a markup language. Along with HTML and JavaScript, CSS is a cornerstone technology used by most websites to create visually engaging webpages, user interfaces for web applications, and user interfaces for many mobile applications.

Custom Tour – A Tour built by a GYDR to match a special set of criteria provided by the Traveler.

Custom Tour Request – A Custom Tour Request may be initiated via the “Contact Me” button on a GYDR's Profile Page. After specifying the desired Custom Tour details (e.g. Date, Time, Pictoura Location, etc.), on the subsequently revealed Custom Tour Request Submission Environment, the Traveler submits the Custom Tour Request, then waits for the GYDR to send a Tour Proposal in response.

Custom Tour Request Submission Environment – See Tour Request Submission Environment

Datepicker – This is a clean, unobtrusive, plugin for jQuery which provided functionality to easily add date inputs to web pages. Designed from the ground up to be flexible and extensible, the date picker can be used in numerous ways. URL: <https://jqueryui.com/datepicker/>

DOM – The Document Object Model (DOM) is a cross-platform and language-independent *convention* for representing and interacting with objects in HTML, XHTML, and XML documents. The nodes of every document are organized in a tree structure, called

the *DOM tree*. Objects in the DOM tree may be addressed and manipulated by using methods on the objects. The public interface of a DOM is specified in its application programming interface (API).

DRY – In software engineering, don't repeat yourself (DRY) is a principle of software development aimed at reducing repetition of information of all kinds, especially useful in multi-tier architectures. The DRY principle is stated as "Every piece of knowledge must have a single, unambiguous, authoritative representation within a system."

Edit Profile Environment – The UI wherein the information supplied by a GYDR during the GYDR Onboarding process (see “GYDR Onboarding Environment”) may be edited or augmented.

Elasticsearch – Elasticsearch is a search server based on Lucene. It provides a distributed, multitenant-capable full-text search engine with an HTTP web interface and schema-free JSON documents. Elasticsearch is the most popular enterprise search engine.

EvaporateJS – EvaporateJS is a JavaScript library for directly uploading files from a web browser to AWS S3, using S3's multipart upload. URL: <https://github.com/TTLabs/EvaporateJS>

Explore Interactive Map – The Openlayers map page accessible via the “Explore” Main Menu option. By default, the Explore Interactive Map displays all of the images that have been uploaded and applied to the interactive itineraries of published GYDR Tour offerings. All of the image Map Markers appear at the Meeting Location of the Tour even if they have been applied to one of the subsequent Tour Stops which may be at a geographically distinct location. When you open up a Lightbox for one of these images, linked information for the associated GYDR Tour and GYDR appears alongside the image. The special collection of curated images that comprises the World Gallery may be accessed via triggering the World Gallery “toggle” button located underneath the Search button in the thumbnail pane to the right side of the Explore Interactive Map.

See “World Gallery”

See in Appendix B – Figures:

Figure 1 – Section 3.2 – GYDR Project Sub-system: Galleries and The World Gallery — Explorer Interactive Map (née The World Gallery) – Default View

Figure 1b – Section 3.2 – GYDR Project Sub-system: Galleries and The World Gallery — Explorer Interactive Map (née The World Gallery) –World Gallery Toggle Engaged

Figure 2 – Section 3.2 – GYDR Project Sub-system: Galleries and The World Gallery — Default View – Lightbox

Figure 2b – Section 3.2 – GYDR Project Sub-system: Galleries and The World Gallery — World Gallery Toggle – Lightbox

Front-end technologies – A Front-end developer architects and develops websites and applications using markup and programming languages (e.g. HTML, CSS, and JavaScript) that run natively in a web browser. Front-end technologies are frameworks that a Front-end developer may utilize to speed up the development process and improve the product; a framework is a pre-made package of code that is designed to satisfy commonly encountered development requirements.

Galleries – Galleries are collections of Pictoura Images. The Pictoura Images associated with the Tour Stops of a Tour’s Interactive Itinerary will always constitute a Gallery. Additionally, Travelers may manually create Galleries. The World Gallery is a special type of Gallery that belongs to the Pictoura Admin user account, with some user generated content also, occasionally, selected for inclusion.

See “World Gallery”

Geocoder – Geocoder is a complete geocoding solution for Ruby. With Rails it adds geocoding (by street or IP address), reverse geocoding (finding street address based on given coordinates), and distance queries. URL: <https://github.com/alexreisner/geocoder>

Gem – As most programming languages do, Ruby leverages a wide set of third-party libraries. The RubyGems software allows you to easily download, install, and use third-party Ruby libraries on your system that conform to acceptable software package criteria. These software packages are called “gems.”

See “bundler”

Git version control – Git is a version control system that is widely used for software development and other version control tasks. It is a distributed version control system with an emphasis on speed, data integrity, and support for distributed, non-linear workflows. Version control, also known as revision control or source control, is the management of changes to documents, computer programs, large web sites, and other collections of information. The use of version control greatly facilitates collaboration between team members on development projects such as the pictoura.com website.

Google Places API – Google Places API is an API that provides access to information about more than 100 million places around the world. These places are, usually, public places like touristic attractions, hospitals, stores, malls, companies, etc. The Google Places API is available as a web service (HTTP requests), JS library for Google Maps API v3, Android API (in Google Play Services), and iOS library (part of the Google Maps for iOS SDK).

GYDR Onboarding Environment – The UI containing the series of steps a user must take in order to register as a GYDR on the pictoura.com website. In addition to standard information such as a valid email address, display name, address, and DOB, a GYDR will also need to supply at least one Tour listing, Profile video or Profile image, indicate areas of expertise, and at least one credential item.

GYDR Finder – The UI element responsible for submitting GYDR Search queries. GYDR Search functionality is provided by the Lucene based search engine Elasticsearch via the Searchkick gem.

GYDR Project – The term used by this Software Design Document for the first iteration of the GYDR product/service.

Heroku – Heroku is a cloud Platform-as-a-Service (PaaS) supporting several programming languages (e.g. Ruby, Java, Node.js, Scala, Clojure, Python, PHP, and Go). Platform as a Service (PaaS) is a category of cloud computing services that provides a platform allowing customers to develop, run, and manage applications without the complexity of building and maintaining the infrastructure typically associated with developing and launching a web application.

HTML5 – HTML5 is a markup language used for structuring and presenting content on the World Wide Web. It is the fifth and current version of the HTML standard.

Image Selection Environment – See “Interactive Itinerary Authoring Tool”

Inbox Environment – A User Interface analogous to an email account’s Inbox, accessible via the Inbox item in the Man Menu, wherein Tour Request Message Threads are substituted for emails.

See in Appendix B – Figures:

Figure 72 – Section 5.4 – GYDR Communication with Travelers – Sub-Section 5.4.3 – Tour Request Response and RTM Messaging – Inbox

Interactive Itinerary – The Interactive Itinerary of a Tour plots the Meeting Location of a Tour and all of the subsequent Tour Stops on an interactive map provided by OpenLayers. Each Tour Stop will have a variety of location-specific attributes (e.g. city, state, country) and, also, a set of geo-coordinates (i.e. a latitude and a longitude pair). Additionally, each Tour Stop may be accompanied by a written description and an assortment of Pictoura Images. When Interactive Itineraries are created outside the Tour Builder Environment they are called Travelogues, and they are composed of Travelogue Posts (in lieu of Tour Stops). Travelogue Posts, unlike Tour Stops, always have a precise date and time associated with them (rather than merely a sequential order).

See in Appendix B – Figures:

Figure 7 – Section 4.2 – GYDR Tour Page Benchmarks (No Interactive Itinerary option selected, still displays map with the Meeting Location)

Figure 8 – Section 4.2 – GYDR Tour Page Benchmarks – (Interactive Itinerary option selected)

Interactive Itinerary Authoring Tool – The Interactive Itinerary Authoring Tool is the Backbone.js and Marionette application used to construct Interactive Itineraries (see “Interactive Itinerary” for a description). It has two main views that the user may toggle between: The Image Selection Environment and the Tour Stop Authoring Environment. The Tour Stop Environment allows for the creating and editing of Tour Stops. The Image Selection Environment allows for the selection and uploading of Pictoura Images that may be subsequently associated with a Tour Stop inside the Tour Stop Authoring Environment. The

Workbox is a UI component within both of these views that always remains visible and acts as a bridge between the two as one slides into view and the other becomes obscured.

See “Backbone,” “Marionette,” and “SPA”

See in Appendix B – Figures:

Figure 46 – Section 5.2 – Add a Tour in the Tour Builder Environment – Itinerary – Meeting Location Prompt

Figure 52 – Section 5.3 – Add an Interactive Itinerary to a Tour – Add Your First Stop

Figure 53 – Section 5.3 – Add an Interactive Itinerary to a Tour – Tour Stop Authoring Environment – Initial View

Figure 54 – Section 5.3 – Add an Interactive Itinerary to a Tour – Tour Stop Authoring Environment – After Adding 2nd Tour Stop

Figure 55 – Section 5.3 – Add an Interactive Itinerary to a Tour – Tour Stop Authoring Environment – Edit Tour Stop

Figure 56 – Section 5.3 – Add an Interactive Itinerary to a Tour – Image Selection Environment – World Gallery is the Source

Figure 57 – Section 5.3 – Add an Interactive Itinerary to a Tour – Image Selection Environment – Uploads is the Source

Figure 58 – Section 5.3 – Add an Interactive Itinerary to a Tour – Image Selection Environment – Images in the Workbox

Figure 59 – Section 5.3 – Add an Interactive Itinerary to a Tour – Image Selection Environment – Edit Images Dialogue – Date & Location

Figure 60 – Section 5.3 – Add an Interactive Itinerary to a Tour – Image Selection Environment – Edit Images Dialogue – Basic Info

Figure 61 – Section 5.3 – Add an Interactive Itinerary to a Tour – Image Selection Environment – Edit Images Dialogue – Camera

Figure 62 – Section 5.3 – Add an Interactive Itinerary to a Tour – Tour Stop Authoring Environment – Return with Images

JSON – JSON (JavaScript Object Notation) is an open-standard format that uses human-readable text to transmit data objects consisting of attribute–value pairs.

jQuery – jQuery is a cross-platform JavaScript library designed to simplify the client-side scripting of HTML. jQuery is the most popular JavaScript library in use today, with installation on 65% of the top 10 million highest-trafficked sites on the Web. jQuery's syntax is designed to make it easier to navigate a document, select DOM elements, create animations, handle events, and develop Ajax applications. jQuery also provides capabilities for developers to create plug-ins on top of the JavaScript library. This enables developers to create abstractions for low-level interaction and animation, advanced effects and high-level, theme-able widgets. The modular approach to the jQuery library allows the creation of powerful dynamic web pages and Web applications.

Marionette – Marionette simplifies and augments Backbone application code with sophisticated, robust, architecture. It offers numerous components that extend Backbone functionality by enabling developers to write less boilerplate, and implement solutions with little to no hassle, especially when it comes to views.

See “Interactive Itinerary Authoring Tool”

Modulejs – modulejs is a lightweight JavaScript module system. It is not a module loader; it triggers no file system lookups or HTTP requests. It simply helps organizing code in small, maintainable, and easy to use, modules, which respect and resolve dependencies.

Module Pattern (JavaScript) – Modules are an integral piece of any robust application's architecture and typically help in keeping the units of code for a project both cleanly separated and organized. The Module pattern was originally defined as a way to provide both private and public encapsulation for classes in conventional software engineering. In JavaScript, the Module pattern is used to further *emulate* the concept of classes in such a way that we're able to include both public/private methods and variables inside a single object, thus shielding particular parts from the global scope. What this results in is a reduction in the likelihood of our function names conflicting with other functions defined in additional scripts on the page.

MVC – MVC is a software engineering pattern that separates domain/business logic from the the user interface. It does this by segregating the application into three parts: the model, the view, and the controller.

The model manages fundamental behaviors and data of the application. It can respond to requests for information, respond to instructions to change the state of its information, and even to notify observers in event-driven systems when information changes. This could be a database, or any number of data structures or storage systems. In short, it is the data and data-management of the application.

The view effectively provides the user interface element of the application. It'll render data from the model into a form that is suitable for the user interface. Views may communicate directly with models and controllers.

The controller receives user input and makes calls to model objects and the view to perform appropriate actions.

These three components (models, views, and controllers) work together to create the three basic components of MVC.

Ruby on Rails is a proper MVC framework. Backbone.js is often referred to as such to help beginners already familiar with the MVC concept understand it, but it is probably more appropriate to call it an MVP ("P" is for Presenter), or MV*, because Backbone does not have a controller component.

OpenLayers – OpenLayers is an open source (provided under the 2-clause BSD License) JavaScript library for displaying map data in web browsers. It provides an API for building rich web-based geographic applications similar to Google Maps and Bing Maps.

Open Source – Open source software is software whose source code is available for modification or enhancement by anyone.

Pictoura Admin – The user account, used by Pictoura staff, that is the "owner" of World Gallery images.

Pictoura Images – A Pictoura Image is any image uploaded to the pictoura.com website that has latitude and longitude attributes associated with it in the database. Pictoura Images may be plotted on the World Gallery map and organized into Galleries associated with Tour Stops within Interactive Itineraries associated with Tours, or Galleries associated with Posts within Interactive Itineraries unassociated with Tours (i.e. Travelogues).

Pictoura Locations – A Pictoura Location is any area that a GYDR earmarks as a possible venue for a Tour or Custom Tour. A GYDR in the Hudson Valley might select numerous towns: Kingston, New Paltz, Poughkeepsie, etc. GYDRs specify Pictoura Locations during Onboarding but may edit them subsequently via the Edit Profile Environment.

See in Appendix B – Figures:

Figure 26 – Section 5.1 – GYDR Onboarding Benchmarks (doubles as Edit Profile Benchmarks) – Step 3 – Locations

Production Environment - Production environment is a term used mostly by developers to describe the setting where software and other products are actually put into operation for their intended uses by end users. A production environment can be thought of as a real-time setting where programs are run and hardware setups are installed and relied on for organization or commercial daily operations.

PostgreSQL - PostgreSQL, often simply Postgres, is an object-relational database management system (ORDBMS) with an emphasis on extensibility and standards-compliance. As a database server, its primary function is to store data securely, supporting best practices, and to allow for retrieval at the request of other software applications. It can handle workloads ranging from small single-machine applications to large Internet-facing applications with many concurrent users.

Pusher – See “Real Time Messaging System (RTM)”

Rails Controller - The Rails controller is the logical center of your application. It coordinates the interaction between the user, the views, and the model. The controller is also a home to a number of important ancillary services.

Rails Controller Action – An action is defined as a public method on the Rails Controller, which will automatically be made accessible to the web-server through Rails Routes (i.e. URL path and http verb combinations mapped to the controller).

Rails View - A Rails View is an ERb program that shares data with controllers through mutually accessible variables. If you look in the app/views directory of a Rails project, you will usually see one subdirectory for each Rails Controller.

RAMP - RAMP has developed the next generation of search & video experiences to make video more valuable. Using RAMP, clients are able to fully leverage the value of all of their video

content by driving increased discovery across search and social sites, enhancing user engagement through dynamic search and publishing solutions across web, mobile, and connected devices, and maximizing revenue through sophisticated advertising capabilities.

Real Time Messaging System (RTM) – Pictoura uses Pusher for RTM. Pusher is a simple hosted API for quickly, easily, and securely, integrating real-time bi-directional functionality via WebSockets to web and mobile apps, or any other Internet connected device. WebSockets represent a long awaited evolution in client/server web technology. They allow a long-held single TCP socket connection to be established between the client and server which allows for bi-directional, full duplex, messages to be instantly distributed with little overhead resulting in a very low latency connection.

See in Appendix B – Figures:

Figure 71 – Section 5.4 – GYDR Communication with Travelers – Sub-Section 5.4.3 – Tour Request Response and RTM Messaging – Tour Request Message Thread

RTM – See “Real Time Messaging System (RTM)”

Ruby on Rails – Ruby on Rails is a free web application framework. It aims to increase the speed and ease with which database-driven web sites can be created, and offers skeleton code frameworks (scaffolding) from the outset. Often shortened to Rails, or RoR. Ruby on Rails is an open source project written in the Ruby programming language.

Sass - Sass (Syntactically Awesome Stylesheets) is a style sheet language that is interpreted into Cascading Style Sheets (CSS).

SCSS – Version 3.0 of Sass arrived in May 2010, introducing a whole new syntax called SCSS for *Sassy CSS*. This syntax aimed at closing the gap between Sass and CSS by bringing a CSS-friendly syntax.

Searchkick – Searchkick is a Ruby gem that runs on top of Elasticsearch and makes it easy to make searches in a Rails-friendly fashion. In addition, it allows you to add more features including analytics, autocomplete, and personalized results. Searchkick learns what users are looking for. As more people search, it gets smarter and the results get better.

SPA – A single-page application (SPA) is a web application or web site that fits on a single web page with the goal of providing a more fluid user experience similar to a desktop application. In a SPA, either all necessary code—HTML, JavaScript, and CSS—is retrieved with a single page load, or the appropriate resources are dynamically loaded and added to the page as necessary, usually in response to user actions. The page does not reload at any point in the process, nor does control transfer to another page, although the location hash can be used to provide the perception and navigability of separate logical pages in the application, as can the HTML5 `pushState()` API. Interaction with a single page application often involves dynamic communication with the web server behind the scenes.

See “Interactive Itinerary Authoring Tool”

Staging Environment - A stage or Staging Environment is an environment for testing that exactly resembles the Production Environment. In other words, it's a complete but independent copy of the Production Environment, including the database. Staging provides a true basis for Quality Assurance testing because it precisely reproduces what is in production. The URL for Pictoura's Staging Environment is <http://pictoura-staging.herokuapp.com>.

System Architecture – System architecture conveys the informational content of the elements comprising a system, the relationships among those elements, and the rules governing those relationships.

Toaster – Toaster is a jQuery plugin for displaying toast notifications. URL: <https://github.com/scottoffen/jquery.toaster>

Tour Builder Environment – The UI wherein the information for a given Tour may be edited or, alternately, a new Tour may be created; the GYDR specifies the requisite information for a Tour listing on their Profile Page, and within GYDR Finder Search Results. This information falls under the following categories in the UI: Details, Availability, Itinerary, and Media. The Itinerary category option is the gateway to the Interactive Itinerary Authoring Tool.

See in Appendix B – Figures:

Figure 32 – Section 5.2 – Add a Tour in the Tour Builder Environment – Details – Complete Page

Figure 33 – Section 5.2 – Add a Tour in the Tour Builder Environment – Group Tour Type – 1st Screen

Figure 34 – Section 5.2 – Add a Tour in the Tour Builder Environment – Details – Group Tour Type – 2nd Screen

Figure 35 – Section 5.2 – Add a Tour in the Tour Builder Environment – Details – Group Tour Type – 3rd Screen

Figure 36 – Section 5.2 – Add a Tour in the Tour Builder Environment – Details – Private Tour Type – 1st Screen

Figure 37 – Section 5.2 – Add a Tour in the Tour Builder Environment – Details – Private Tour Type – 2nd Screen

Figure 38 – Section 5.2 – Add a Tour in the Tour Builder Environment – Details – Private Tour Type – 3rd Screen

Figure 39 – Section 5.2 – Add a Tour in the Tour Builder Environment – Details – Private Tour Type – 4th Screen

Figure 40 – Section 5.2 – Add a Tour in the Tour Builder Environment – Details – Sample Tour Type – 1st Screen

Figure 41 – Section 5.2 – Add a Tour in the Tour Builder Environment – Details – Sample Tour Type – 2nd Screen

Figure 42 – Section 5.2 – Add a Tour in the Tour Builder Environment – Details – Sample Tour Type – 3rd Screen

Figure 43 – Section 5.2 – Add a Tour in the Tour Builder Environment – Availabilities – Before Any Availabilities Have Been Added

Figure 44 – Section 5.2 – Add a Tour in the Tour Builder Environment – Availabilities – Add/Edit Availability

Figure 45 – Section 5.2 – Add a Tour in the Tour Builder Environment – Availabilities – Availabilities List

Figure 46 – Section 5.2 – Add a Tour in the Tour Builder Environment – Itinerary – Meeting Location Prompt

Figure 47 – Section 5.2 – Add a Tour in the Tour Builder Environment – Itinerary – Complete Page

Figure 48 – Section 5.2 – Add a Tour in the Tour Builder Environment – Itinerary – Skip Itinerary Option

Figure 49 – Section 5.2 – Add a Tour in the Tour Builder Environment – Media – Upload Video or Bypass

Figure 50 – Section 5.2 – Add a Tour in the Tour Builder Environment – Media – Publish Tour Prompt

Figure 51 – Section 5.2 – Add a Tour in the Tour Builder Environment – Publish and Un-publish in Edit Profile Environment

Tour Proposal – When a GYDR receives a Custom Tour Request they may respond by sending a Tour Proposal. See “Tour Proposal Environment” for a description of this workflow. A Tour Proposal may be a Tour made from scratch or, alternately, an existing Tour may be copied exactly and sent “as is,” or, alternately, an existing Tour may be edited and then sent. A Traveler may examine the details of the Tour Proposal on a Custom Tour Page—similar, in most respects, to a regular Tour Page. Custom Tour Pages are not publically accessible.

Tour Proposal Environment – From the GYDRs POV, Custom Tour Request representations appearing on the Tour Request List Page will always have a “Send Tour Proposal” Response Option. Selecting this Response Option will take the GYDR to the New Tour Proposal Environment, wherein they may create a Tour Proposal. See “Tour Proposal” for a description.

See in Appendix B – Figures:

Figure 69 – Section 5.4 – GYDR Communication with Travelers – Sub-Section 5.4.3 – Tour Request Response and RTM Messaging – Tour Proposal Environment

Tour Request – A Tour Request may be initiated via the “Book Now” button on a Tour Page. After specifying the desired availability, and providing payment information, in the subsequently revealed Tour Request Submission Environment, the Traveler submits the Tour Request.

Tour Request Message Thread – Every Tour Request and Custom Tour Request has a Tour Request Message Thread associated with it wherein GYDRs and Travelers may communicate with one another regarding the Tour. Tour Request Message Threads may be accessed via the Inbox main menu item or by clicking within the Messages Area of a Tour Request representation on the Tour Request List Page. See Real Time Messaging System (RTM) for more details regarding the implementation.

See in Appendix B – Figures:

Figure 71 – Section 5.4 – GYDR Communication with Travelers – Sub-Section 5.4.3 – Tour Request Response and RTM Messaging – Tour Request Message Thread

Tour Request Submission Environment – After a Traveler initiates the Tour Request process via selecting an available time from the Tour Page Booking Box, they will be directed to the Tour Request Submission Environment. There they may change their available time selection, review the Tour details, change the number of guests from the default number, view their order total (calculated with taxes and service fee), enter or edit their credit card info, introduce themselves to the GYDR with an introductory message, and complete the Tour Request submission process by clicking the “Send Request” button.

The Custom Tour Request Submission Environment is a variation on the above. Because GYDRs cannot supply the Traveler with a Price for the Tour until after reviewing the details of a Custom Tour Request, credit card and payment information described above is not applicable in this variation. Additionally, some required fields are specific to this variation: duration inputs, Interest Category selections, and Pictoura Location selection.

See in Appendix B – Figures:

Figure 5 – Section 4.2 – GYDR Tour Page Benchmarks – Booking Box

Figure 63 – Section 5.4 -- GYDR Communication with Travelers – Sub-Section 5.4.1 – Tour Requests – Recurring Availability

Figure 64 – Section 5.4 -- GYDR Communication with Travelers – Sub-Section 5.4.1 – Tour Requests – Always Availability

Figure 65 – Section 5.4 – GYDR Communication with Travelers – Sub-Section 5.4.2 – Custom Tour Requests

Tour Requests List – After Tour Requests and Custom Tour Requests are submitted the Traveler will be directed to the Tour Requests List Page. The Tour Requests Lists Page may also be accessed via the dropdown menu beneath the Tours menu item within the Main Menu. Each of the drop down menu items underneath Tours corresponds to a filter type for the Tour Request List: “Requests” will display all pending Tour Requests, “Upcoming/Recent” will display Tour Requests that have been confirmed and are in the future, “Complete” will display Tour Requests that correspond to Tours already taken, and “Cancelled/Expired” will display Tour Requests that were rejected or not acted upon in time.

Tour Stop – An Interactive Itinerary (i.e. Travelogue) is composed of a series of Tour Stops. Every Tour has an Interactive Itinerary with at least one Tour Stop: The Meeting Location. All Tour Stops have a duration and a location. Location information is provided via the Google Places API.

Tour Stop Authoring Environment – See “Interactive Itinerary Authoring Tool”

Travelogues – See “Interactive Itineraries”

Twilio – Twilio is a cloud communications company that enables software developers to programmatically make and receive phone calls and send and receive text messages using its web service APIs. Twilio's services are accessed over HTTP and are billed based on usage.

UI – See “User Interface”

Underscore.js – Underscore.js is a JavaScript library which provides utility functions for common programming tasks. Underscore consists of a little more than 100 functions, which fall under four main categories depending on the datatypes which they manipulate.

User Experience – User Experience (UX) is how a person feels when interfacing with a system. The system could be a website, a web application or desktop software and, in modern contexts, is generally denoted by some form of human-computer interaction (HCI). Those who work on UX (called UX designers) study and evaluate how users feel about a system, looking at such things as ease of use, perception of the value of the system, utility, efficiency in performing tasks and so forth.

User Interface – A user interface, also called a "UI" or simply an "interface," is the means in which a person controls a software application or hardware device. A good user interface provides a "user-friendly" experience, allowing the user to interact with the software or hardware in a natural and intuitive way.

Vzaar – Vzaar was founded to provide an online video hosting service to ecommerce merchant eBay. By 2008, Vzaar was offering its services to a wider range of businesses, but does not host entertainment videos; the service is focused on serving commercial video only. The company

does not do its own encoding and uses a third party to encode videos to H264 MP4. The site supports various video and audio formats and a range of video features.

World Gallery – A special type of Gallery owned by the Pictoura Admin user account—along with user generated content also, that has not already been earmarked. The World Gallery constitutes a vast collection of images, accessible via an interactive map of the globe, drawn from Marc Miller’s personal collection, public domain resources, and user uploads—all of them geo-tagged with precise coordinates, imbued with rich metadata, organized into a searchable taxonomy, and placed into context with information drawn from third party APIs: TripAdvisor, Yelp, Wikipedia, etc. The World Gallery is a unique and compelling way to explore the four corners of the globe (and history)—a natural breeding ground for the kind of dreaming that proceeds travel planning, and booking. The World Gallery may be accessed via the Explore Interactive Map page via the World Galley “toggle” button.

See in Appendix B – Figures:

Figure 3 – Section 3.2 – GYDR Project Sub-system: Galleries and The World Gallery — Explorer Interactive Map (née The World Gallery) – Default View

Figure 1b – Section 3.2 – GYDR Project Sub-system: Galleries and The World Gallery — Explorer Interactive Map (née The World Gallery) –World Gallery Toggle Engaged

Figure 4 – Section 3.2 – GYDR Project Sub-system: Galleries and The World Gallery — Default View – Lightbox

Figure 2b – Section 3.2 – GYDR Project Sub-system: Galleries and The World Gallery — World Gallery Toggle – Lightbox