

User Requirements

The application shall be opened by the client. They will find a menu consisting of a number of buttons, each with an individual purpose.

When opening the application, the product will offer the logged in user recommendations based on recent searches and some possible promoted offers (promoted by the agencies or having a high rating given by other users).

The client will find a button in the menu which leads to a list containing all the offers our application has. While on this page, the product shall sort the offers available based on relevant criteria like the starting date, the duration of their trip, the price, agency and destination preferred, or by a specific word that the client finds relevant. Every offer will have a subpage in which the user can find more information about it and a path to the travel agency where he can make a reservation for it.

The client can also create a personalized vacation package, one of the menu buttons leads to this service. Users can choose the destination and the application will display a list of links to available hotels and airports/car rentals.

Another page of the menu will contain all the tourist attractions (parks, museums, art galleries, malls, stadiums, etc) in the desired location searched by the user with a quick history about the place, its exact location and a possible way or means to get there.

System Requirements

Performance: A request for a standard format XML file containing the data necessary for the product will be made. If the request is not fulfilled then the XML file shall be manually created by the developer team.

The product shall use the XML files gathered from different websites of travel agencies as following:

- The file shall be parsed with the XPath, taking into account important tags (hotels, airports, etc);
- The data selected shall be categorized and posted on their specific pages;

Maintainability: The product will require a database administrator and a network specialist that will be responsible for the continuous functioning of the microservice.

Scalability: The product shall allow for the integration of new microservices without interfering with the existing structure of the application.

Data Integrity: The product shall allow only for the modification of the data only during the processing of it.

Reliability: The product must keep to the appointed format standard.

Recoverability: All current data must be stored in a manner that prevents information loss due to network issues and defective hardware.

Functional requirements (both for user and system requirements)

1.Interface Requirements

This section provides a detailed description of all inputs into and outputs from the system. It also gives a description of the hardware, software and communication interfaces and provides basic prototypes of the user interface.

1.1 Hardware Interfaces

Since neither the mobile application nor the web portal have any designated hardware, it does not have any direct hardware interfaces.

1.2 Software Interfaces

The product shall interface with each individual travelling agency's website.

The application must be able to convey to the user a list of fully functional options (buttons with specific purpose)

- The user must be able to see a list of offers, order it after some criteria, search some specific keyword and get the offers with the most relevance.
- When the user finds the desired offer he must be redirected to the travel agency which has more information and a way of applying to that specific offer.
- There shall be a pre-established list of criteria through which the offers can be ordered like price, destination, tour type, tour length.
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1.3 Communications Interfaces

The product shall make use of geolocational information in order to provide the user with location specific offers based on location alone or on the choices other users located in the same region have previously made. The user information will be obtained from the module responsible with user profiling.

1.4 Data Conversion Requirements

The product shall convert data collected from travelling agencies into an XML format file unto which all further processing operations shall be performed.

Non-functional requirements (both for user and system requirements)

The offers must be ordered in pages with a pre-specified number of maximum offers per page

- The product shall only take into consideration travelling packages that are recently made or that are still in use ; consequently, the information provided must be valid and up-to-date and it must be interpreted correctly by the product
- The product shall be able to read any kind of XML file (any kind of structure given by the agencies)
- The product must be compatible with most existing devices; it should be dynamically convert to different resolutions, specifications etc;
- The product must respond in a short period of time to the commands given by the user.