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# **MyTravel: Electronic Platform for Optimal Tourist Reservations via Personalized User Reservation Price Estimations and Preferences**

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## **MyTravel: Electronic Platform for Optimal Tourist Reservations via Personalized User Reservation Price Estimations and Preferences**

MyTravel is a novel system for the best matching between tourist service providers (e.g., hoteliers) and their clients as well as the design of personalized tourist guides suited best with the tourist profile of an area's visitors.

Recently, web-based reservation systems have experienced tremendous growth due to the ease with which they allow the user to search for offers for many popular tourist destinations, thus substituting the traditional "travel office" or "tourist agent". However, most of these web-based systems they just list the various offerings without trying to propose something (for example the best offering, not only based on cost criteria) or relate the staying offerings with activities or visits best-suited according to the personal tourist preferences of the users.

The project has two main purposes:

- a. First, it aims to develop the next generation of web-based reservation systems in tourism related services, through the added value of specialized Artificial Intelligence algorithms that will be capable of estimating with high accuracy the matching of a client submitting a request and each offer made in response to this request.
- b. Second, based on the above results, adapt these algorithms to design and propose tourist guides with content (points of interest, historical places, cultural activities, fun places etc.) best suited to the personal tourist interests of the users visiting an area.

The innovation of this project is twofold and lies in the fact that MyTravel is not just a platform for reverse auctions, but in addition will be capable of accurately estimating the degree of matching of each offer for the particular client on multiple, multi-dimensional criteria (such as offer price, extra provisions, coverage of the requested interval of stay, the ratings that each hotel/room to let has received, ratings of other users etc.), and in addition it will propose personalized tourist guides for the visiting areas based on the users preferences.

In particular, regarding the price criterion that usually is a very significant factor in the final decision of acceptance of an offer or not, the consortium research partner will develop specialized algorithms for the estimation of the “reservation price” of a user for each offer, so that the service providers will have a good idea about the probability with which a particular user will accept a particular offer at a particular price, but in addition, every service provider will be able to see the distribution of offers made by their competitors

If they also choose to let their offer be included in the distribution seen by their competitors. The matching algorithms will automatically sort the offers presented to the user by default by their matching rank (but if requested by the user, the sorting may be by offer price, or any other criterion).