CLAIMS

1. A method in a reservation system for generating priced travel solutions according to non-binding travel queries, the reservation system having access to a plurality of travel databases containing information on travel availability and fares according to a plurality of parameters, each travel query including a set of preferences each preference being related to a parameter selected among the plurality of parameters, the method including:

- receiving a plurality of travel queries, each travel query being associated to a user;

- pre-processing the plurality of travel queries, the pre-processing including:

  - extracting from each query at least one simple request element;

  - sorting the plurality of request elements according to at least one parameter;

  - in case of more than one request element containing the same preference for the same at least one parameter, deleting duplicated request elements;

  - dividing the plurality of request elements into subsets according to predetermined criteria;

- forwarding each subset of request elements to a process module which executes the request element interrogating the plurality of databases;

- collecting the results from the process modules and issuing a response to users for each travel query.

2. The method of claim 1 wherein the results collected from process modules are aggregated before the response is issued to users.

3. The method of any preceding claim wherein the step of executing the request element of each subset of request elements is performed in parallel by a plurality of process modules.

4. The method of claim 3 wherein the step of dividing the plurality of request elements includes assigning each subset to one of the plurality of process modules according to the predetermined criteria.

5. The method of any preceding claim wherein the step of pre-processing the plurality of travel queries is performed in parallel by a plurality of pre-process modules.

6. The method of claim 5 further comprising:

- for the result of each request element, the process modules selecting one of the plurality of pre-process modules to which forward the result for aggregation and issuing the response to the user.

7. The method of any preceding claim wherein the plurality of parameters include date and geographic location.

8. A computer program comprising instructions for carrying out the steps of the method according to any preceding claim, when said computer program is executed on a computer.

9. A computer program product including computer readable means embodying the computer program of claim 8.

10. A software tool dedicated to feed a pre-shopping system including the method of any claim 1 to 7.

11. A software tool dedicated to feed a revenue management system including the method of any claim 1 to 7.

12. A software tool dedicated to feed a fare analysis system including the method of any claim 1 to 7.

13. A data processing system for managing pre-shopping travel queries, the data-processing system having access to a plurality of travel databases containing information on travel availability and fares according to a plurality of parameters, each travel query including a set of preferences each preference being related to a parameter selected among the plurality of parameters, wherein the system comprises one or more components adapted to perform the method of any claim 1 to 7.

14. A service deployed in a data processing system for implementing the method of any claim 1 to 7.

CLAIMS

1. A method in a reservation system for pre-computing priced travel solutions according to non-binding travel queries, the reservation system comprising a computation subsystem being organised to a batch model and including process modules, the reservation system having access to a plurality of travel databases containing information on travel availability and fares according to a plurality of parameters, each travel query including a set of preferences each preference being related to a parameter selected among the plurality of parameters, the method including:

- the computation system receiving a plurality of travel queries, each travel query being associated to a user;
- the computation system pre-processing the plurality of travel queries, the pre-processing including:
  - extracting from each query at least one simple request element;
  - sorting the plurality of request elements according to at least one parameter;
  - in case of more than one request element containing the same preference for the same at least one parameter, deleting duplicated request elements;
  - statistically identifying request elements which are likely to generate same results as in a previous computation and not further processing these requests elements;
  - dividing the plurality of remaining request elements into subsets according to predetermined criteria;
- the computation system forwarding each subset of request elements to a process module which executes the request element interrogating the plurality of databases;
- the computation system collecting the results from the process modules and issuing a response to users for each travel query.

2. A method according to claim 1, wherein the results collected from process modules are aggregated before the response is issued to users.

3. A method according to claim 1 or 2, wherein the step of executing the request element of each subset of request elements is performed in parallel by a plurality of process modules.

4. A method according to claim 3, wherein the step of dividing the plurality of request elements includes assigning each subset to one of the plurality of process modules according to the predetermined criteria.

5. A method according to any one of claims 1 to 4, wherein the step of pre-processing the plurality of travel queries is performed in parallel by a plurality of pre-process modules.

6. A method according to claim 5, further comprising:

- for the result of each request element, the process modules selecting one of the plurality of pre-process modules to which forward the result for aggregation and issuing the response to the user.

7. A method according to any one of claims 1 to 6, wherein the results collected from the process modules are split into several bundles if the data volume of the results exceeds a given threshold.

8. A method according to any one of claims 1 to 6, wherein the results collected from the process modules are buffered and only processed further if a given minimum data volume is reached.

9. A method according to any one of claims 1 to 8, wherein the computation subsystem further includes a difference module and the method further comprising:

- the difference module selecting those results collected from the process modules which have changed from a previous computation; and
- only returning the changed results to the users.

10. A computer program comprising instructions for performing the steps of the method according to any one of claims 1 to 9, when said computer program is executed on a computer.

11. A computer program product including computer readable means embodying the computer program of claim 10.

12. A data processing system for managing pre-shopping travel queries, the data-processing system having access to a plurality of travel databases containing information on travel availability and fares according to a plurality of parameters, each travel query including a set of preferences each preference being related to a parameter selected among the plurality of parameters, wherein the system comprises one or more components adapted to perform the method of any one of claims 1 to 9.

13. A service deployed in a data processing system for implementing the method of any one of claims 1 to 9.