Romanian Seaside. Website on Summer Offers

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Abstract: - In this paper we propose a model of website for presentation of the summer offers in Romanian Black Sea resorts. On the presented hotels, we have the following information: hotel description, hotel facilities, hotel room types and their amenities, facilities for children, image and video files and the stay rate according with the stay date of start, number of nights and meals (breakfast, lunch or dinner). On the site, the tourist can find out if the travel agency has offers according to his preferences. These preferences refer to the features presented above.

Key-Words: - Website, travel agency, summer offers, Java, database.

1 Introduction

Starting with the catalogues and websites of some of the most famous travel agencies in Romania (e.g. *Mareea, Eximtur, Captorus, Cardinal, Christian tour, Robinsosn Crusoe*, etc.), of summer offers at Romanian Black Sea resorts, we have built the database presented in *Figure 1*.

In the *Resorts* table we have data on the resorts from Romania, which appear in the travel agency offer. All resorts from Romania are presented in *Figure 2*, in the following order (from the *North* to *South* of seaside): *Mamaia, Eforie Nord, Eforie Sud, Costinești, Olimp, Neptun, Jupiter, Cap Aurora, Venus, Saturn, 2 Mai, Vama Veche,* plus, *Constanța* and *Mangalia* towns.

In the Hotels table we have information about the hotels. In the Hotel facility types table we store all possible facilities (from all hotels). In this way, we find the following facilities: restaurant, bar, parking, conference room, outdoor swimming pool, elevator, garden, children playground, park, terrace, fax, internet, massage, Jacuzzi, sauna, beauty salon, room, confectionary, shop, disco. luggage pharmacy, laundry, drying room, billiards, track bowling, fitness, table tennis, basketball court, football, tennis court, volleyball, medical center, treatments and church.

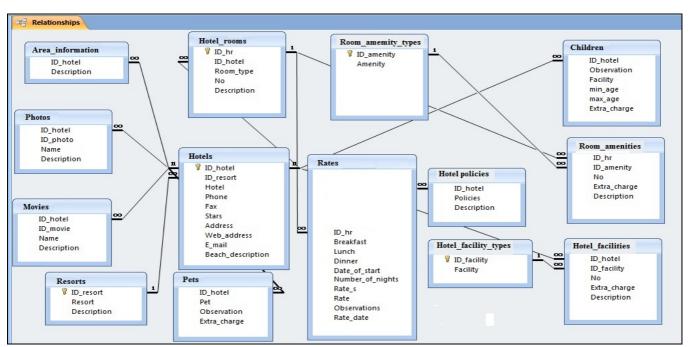


Figure 1: The database

In the *Hotel_facilities* table, for each hotel from the database, we find specified all corresponding facilities. For each facility we can specify its number. For example, this number will be two in case of a hotel with two restaurants. For each facility, we will have information if there exists an extra charge and in the *Hotel_facilities* table we will save its corresponding value. The *Description* field will be used in order to provide information on each facility.

In the *Hotel_rooms* table, we will specify all room types in the case of each hotel. Generally, we will find the following room types: double, superior double, matrimonial, triple, studio, apartment, double attic.



Figure 2: Romanian seaside (http://www.revistariviera.ro/?page_id=351)

In the *Room_amenity_types* table, we save values like: air conditioning, balcony, shower, refrigerator,

mini bar, TV, phone, safe, hair dryer, Jacuzzi, room service, long chair and kitchen.

In the *Room_amenities* table, for each type of room, in each case of table, we will specify the room amenities.

In the *Hotel_policies* table, we will have the hotel policies and in the *Area_information* table we have information about the area around the hotel.

We use the *Photos* (*Movies*) table in order to save image (video) files of hotel and hotel area (see *Figures* 11 and 12).

From the *Pets* table, we will know if the pets are allowed and in the affirmative case, we will view the amount of money which will be paid, additionally, per pet.

In the *Children* table, we have information on the facilities for children. The *Facility* field refers to values as: extra bed or meals. The *Observation* field tells us if the *Extra_charge* is a percent value or it is a rate.

2 Site presentation

In the first page we will see all the resorts from the database. For each of them we have a *checkbox* control. Here we will select the resorts for which we want to view the hotels.

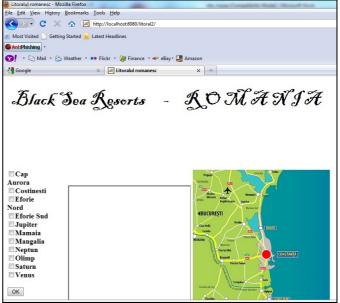


Figure 3: Offers on Romanian resorts

In *Figure 4*, for each selected resort, we can view all the corresponding hotels from the database. The hotels are displayed decreasing by star.

If we want to have more information for a hotel, we will use the corresponding "..." button (see *Figure 4*).

In the webpage from *Figure 5*, we can view all the information corresponding to the selected hotel. This information refers to: hotel description, facilities (see

Figure 6), room types and their amenities, children, pets, photos (see Figure 7), movies and rates (see Figure 8).



Figure 4: Resorts and hotels from the Romanian seaside

We can add Google maps or maps from the website http://www.revistariviera.ro/?page_id=351, where we have presented all resorts and hotels. This is the site of Riviera Magazine – the most popular magazine from Romania, with information about Romanian seaside.

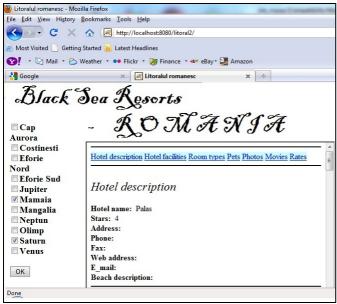


Figure 5: Data on a hotel

In *Figure 5* – for hotel description, we can view data like: hotel name, stars, address, phone number, fax, web address, e-mail and beach description (the nearest beach to the hotel).



Figure 6: Information representation - facilities

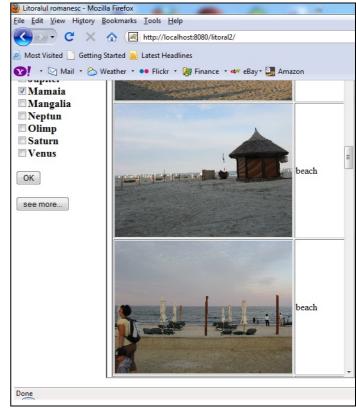


Figure 7: Information representation – images

In *Figure 6*, for each hotel facility we can view its numbers (e.g. 2 outdoor swimming pools), a short description and an extra charge (if it exists).

Like in *Figure 6*, we have tables for representing data about room types and their amenities, children and pets.

In *Figure 7* we can view some images corresponding to the hotel (also, including images with the area around it or a near beach). In the same way we can view the hotel video files.

At the step from the *Figure 8*, we have information on the rates for all summer period. For each hotel room type, we can view the start date of each period, the corresponding number of nights, the type of meals and the corresponding rates. *Rate_s* represent the rate for a stay and *Rate* represents the rate per night. The both rates refer to a single person.

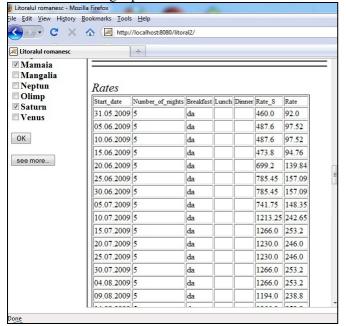


Figure 8: Information representation – rates

Here, our website model is focused on type of information which must be displayed. However, these things do not imply a certain design, which is independent of our goals.

For all tables we have represented the information in the same way and in the same order. In this manner, the potential tourist can observe more easily the difference between the hotel offers.

Moreover, for all hotels we use the same terms. As an example, in catalogs or websites of agencies we find frequently different terms for the same facility: children game place, children game area, etc. This observation is more important for the study that will be presented in the *Section 3*.

3 Detecting offers according with some preferences

In the webpage presented in *Figure 9*, the user can select: an interval of dates when he wants to start his stay; the number of stars of the hotel; the number of nights that he wants to stay; an interval of rates; the

resorts; the type of meals; hotel facilities; room facilities; children facilities and if the pets are allowed.

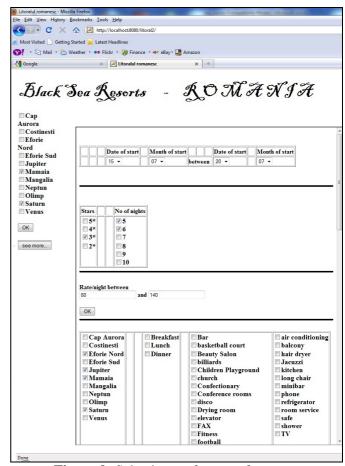


Figure 9: Selecting preferences for a stay

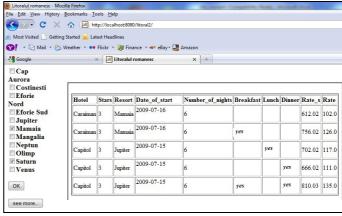


Figure 10: Rate results according with some preferences

In *Figure 10*, we have the results corresponding to the selection from *Figure 9* (the start date of the stay between 15 and 20 July, 3 star hotels, 5-6 nights for a stay, the rates between 80 and 140 lei, and the resort is *Eforie Nord, Jupiter, Mamaia* or *Saturn*).

In *Figure 10*, we present (using the data from our database) the hotels which satisfied the conditions from *Figure 9*. The hotel information displayed in *Figure 10*

refers to: the hotel name, the stars number, the resort, the start date of the stay, the number of nights of stay, the type of meals, the stay rate and the stay per night for a person. If the user needs more information about the hotels he can view all these, like in *Figures 5-8*.

In this way, the potential tourist can find quickly if the travel agency has offers corresponding to his preference and he can choose easily what it is in his advantage.

In *Figure 10*, if necessary, the user can view the results, ordered by keys (one or more).

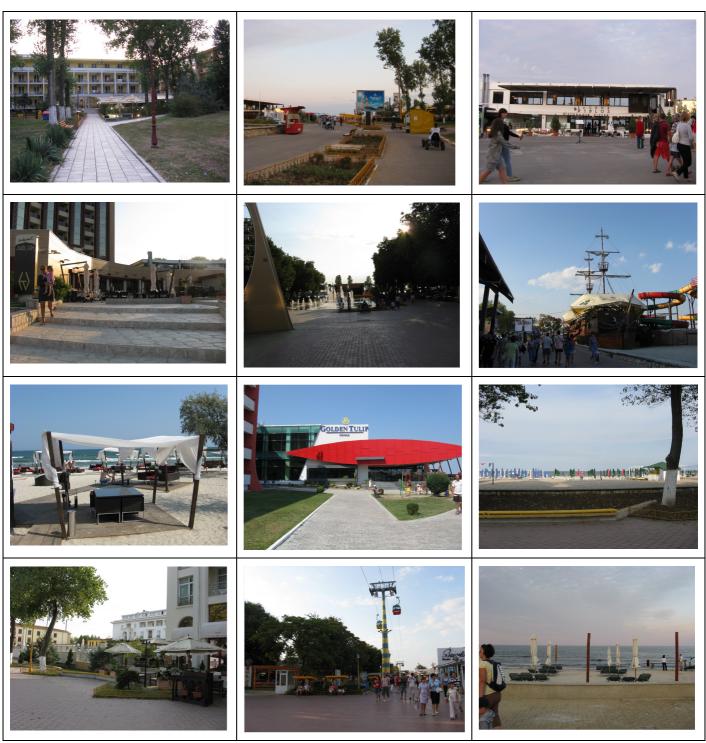


Figure 11: Images from Mamaia-I (photos made by authors in the summer 2009)

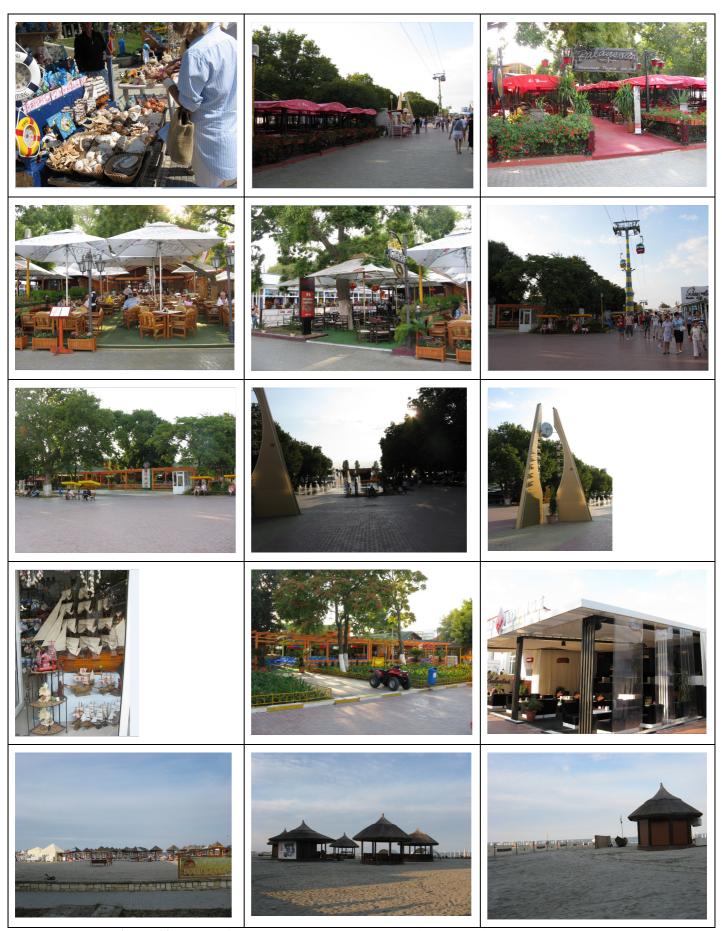


Figure 12: Images from *Mamaia* – II (photos made by authors in the summer 2009)

4 Programming code presentation

For the first page of the website (presented in *Figure 3*), we use the following *JSP* file:

```
<%@ page import="java.sql.*" %>
<%@ page import="java.io.*" %>
<html>
<head>
<meta http-equiv="Content-Type"
content="text/html: charset=UTF-8">
<title>Litoralul romanesc</title>
</head>
// The JavaScript functions used at the submit buttons.
<script language="JavaScript">
function afisare1(){
document.form1.target="cadrul1";
document.form1.action="http://localhost:8080/litoral2/
afisare4"; }
function calcul1(){
document.form1.target="cadrul1"
document.form1.action="http://localhost:8080/litoral2/
calcul1"; }
</script>
<body>
<form name="form1" action="" method=post >
// The page title
<b><font color=black size="12"</pre>
face="Blackadder ITC"><b>
Black Sea Resorts     -
   ROMANIA
     </font>
<br><br><br><br><font color=black size="24"</pre>
face="Blackadder ITC">    
</font></b></center></font></b>
      &nb
sp;   
// We select all resorts from database
<%
String sql_statement="", statiune="";
sql_statement="select Resort from Resorts";
int i=0;
/* The database connection and the SQL statement
execution*/
try {
```

```
String user = "";
String password = "";
String dbURL = "jdbc:odbc:Driver={Microsoft Access
Driver (*.mdb)};DBO=D:\\
\\site\\db1.mdb;DriverID=22;READONLY=false";
Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");
Connection c = DriverManager.getConnection(dbURL,
user, password);
Statement s = c.createStatement();
ResultSet r = s.executeQuery(sql_statement);
while (r.next()) {
statiune=r.getString(1);
i++;
%>
/*For each resort we will have a corresponding
check box component */
<input type="checkbox"
value="<%=statiune%>" name=r<%=i%>
><font size=4
color=black><b><%=statiune%></b></font><b
r>
<%
 r.close();
 s.close();
catch (ClassNotFoundException a) {
catch (SQLException a) {
%>
// The submit buttons
<Br><input type="submit" value="OK"</pre>
onclick="afisare1()">
<BR>
<Br><input type="submit" value="see more..."</pre>
onclick="calcul1()">
<br><br><br>>
     
;  
<iframe src ="p1.jsp" width="700"
height="600" name=cadrul1>
</iframe>
>
<img src="riviera.jpg" width=90%>

</form>
</body>
```

</html>

hotels, ordered

will provide the corresponding

In *Figure 3* we select the resorts for which we want to view the offers. The corresponding hotels are presented in *Figure 4*, where we use the following function:

```
protected void processRequest(HttpServletRequest
request, HttpServletResponse response)
throws ServletException, IOException {
response.setContentType("text/html;charset=UTF-8");
PrintWriter out = response.getWriter();
try {
out.println("<html>");
out.println("<head>");
out.println("<title>Servlet afisare1</title>");
out.println("</head>");
out.println(" <script language=\"javascript\">");
out.println("function
ok()document.form2.action=\"http://localhost:8
080/litoral2/afisare2\"; } ");
out.println("</script>");
out.println("<body>");
out.println("<form name=\"form2\" action=\"\"
method=post>");
String sql statement="";
int no_statiuni=0;
/* We count the number of resorts used in database (the
records of the Resorts table, which is presented in
Figure 1) */
sql_statement="select count(*) from resorts";
try {
String user = "";
String password = "";
String dbURL = "jdbc:odbc:Driver={Microsoft Access
Driver (*.mdb)};DBQ=D:\\
\\site\\db1.mdb;DriverID=22;READONLY=false";
Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");
Connection c = DriverManager.getConnection(dbURL,
user, password);
Statement s = c.createStatement();
ResultSet r = s.executeQuery(sql\_statement);
while (r.next()) {
no_statiuni=r.getInt(1);
r.close();
s.close();
catch (ClassNotFoundException a) {}
catch (SQLException a) {}
String t=""; String g="";
int i=0;
int ID button=0;
/* In the case of each selected resort (see Figure 4), we
```

```
decreasing by the star number */
for(i=0;i<=no_statiuni;i++){
t= request.getParameter("r"+String.valueOf(i));
// We test if a certain resort was selected
if(t!=null){
int id statiune=0;
// For a selected resort, we detect its ID
sql_statement="select ID_resort from resorts where
resort=""+t.trim()+""";
try {
String user = "";
String password = "";
String dbURL = "jdbc:odbc:Driver={Microsoft Access
Driver (*.mdb)};DBQ=D:\\
site\\db1.mdb;DriverID=22;READONLY=false";
Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");
Connection c = DriverManager.getConnection(dbURL,
user, password);
Statement s = c.createStatement();
ResultSet r = s.executeQuery(sql_statement);
while (r.next()) {
id_statiune=r.getInt(1);
r.close();
s.close();
catch (ClassNotFoundException a) { }
catch (SQLException a) {}
out.println("<hr border=4 color=black>");
out.println("<br>");
out.println("<font color=black size=4><b>
"+t+"</b></font>");
/* For a selected resort, we create a table with the
corresponding hotels*/
out.println("");
out.println("<font
color=black>Hotel</font><font
color=black>Stars</font>&nbsp;&nbsp;&nbs
p; ");
sql_statement="SELECT id_hotel, Hotel, Stars FROM
Hotels where
id_resort="+String.valueOf(id_statiune)+" order by
stars desc";
String ID_field="", no_stele;
String name="";
int j=0;
try {
String user = "";
String password = "":
String dbURL = "jdbc:odbc:Driver={Microsoft Access
Driver (*.mdb)};DBQ=D:\\
```

```
site\\db1.mdb;DriverID=22;READONLY=false";
                                                         protected void processRequest(HttpServletRequest
Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");
                                                         request, HttpServletResponse response)
Connection c = DriverManager.getConnection(dbURL,
                                                         throws ServletException, IOException {
user, password);
                                                         response.setContentType("text/html;charset=UTF-8");
Statement s = c.createStatement();
                                                         PrintWriter out = response.getWriter();
ResultSet r = s.executeQuery(sql_statement);
                                                         try {
                                                         out.println("<html>");
// The table rows with information on hotels
                                                         out.println("<head>");
                                                         out.println("<title>Servlet afisare2</title>");
while (r.next()) {
                                                         out.println("</head>");
j++;
                                                         out.println("<body>");
ID_button++;
out.println("");
                                                         int ID_button=0;
ID field=r.getString(1);
name=r.getString(2);
                                                         // We detect the selected hotel
no_stele=r.getString(3);
                                                         ID_button=Integer.parseInt(request.getParameter("h"));
out.println("<input type=\"hidden\"
                                                         int i=0; String sql statement="", t="", ID f="";
value="+ID_field+" name=it_"+ID_button+" >");
                                                         for(i=0;i \le ID_button;i++)
                                                         if(request.getParameter("b\_"+i)! = null) \{
// The hotel names
                                                         t=request.getParameter("it_"+i);
out.println("<font
                                                         out.println("<hr border=3 color=\"black\">");
color=black>"+name+"</font><input type=\"hidden\"
                                                         // We create the header presented in Figure 5
value="+name+" name=if_"+ID_button+">");
                                                         out.println(" <FONT style=\"BACKGROUND-
                                                         COLOR: #CCFFFF\" color=red><a
// The hotel star number
                                                         href=\"#date\">Hotel description</a> </FONT>");
out.println("<font
                                                         out.println(" <FONT style=\"BACKGROUND-
color=black>"+no_stele+"</font>");
                                                         COLOR: #CCFFFF\" color=red><a
                                                         href=\"#facilitati\">Hotel facilities</a> </FONT>");
/* In the case of each hotel, in order to display the
                                                         out.println(" <FONT style=\"BACKGROUND-
information presented in Figures 5-8, we use a submit
                                                         COLOR: #CCFFFF\" color=black><a
button*/
                                                         href=\" room\" > Room\ types </a> </FONT>");
out.println("<input type=\"submit\"
name=b_"+ID_button+" value=\"...\"
                                                         out.println(" <FONT style=\"BACKGROUND-
                                                         COLOR: #CCFFFF\" color=black><a
onclick=\"ok()\">");
                                                         href=\"#child\">Child facilities</a> </FONT>");
                                                         out.println(" <FONT style=\"BACKGROUND-
r.close();
                                                         COLOR: #CCFFFF\" color=red><a
s.close();
                                                         href=\"#Pet\">Pets</a> </FONT>");
                                                         out.println(" <FONT style=\"BACKGROUND-
catch (ClassNotFoundException a) {}
                                                         COLOR: #CCFFFF\" color=red><a
catch (SQLException a) {}
out.println("");
                                                         href=\"Photo">Photos</a> </FONT>");
                                                         out.println(" <FONT style=\"BACKGROUND-
                                                         COLOR: #CCFFFF\" color=red><a
out.println("<br><");
                                                         href=\"#Movie\">Movies</a> </FONT>");
                                                         out.println(" <FONT style=\"BACKGROUND-
out.println("<input type=\"hidden\"
                                                         COLOR: #CCFFFF\" color=red><a
value="+ID button+" name=\"h\">");
                                                         href=\''Rate''>Rates</a></FONT>'');
out.println("</form>");
out.println("</body>");
out.println("</html>");
} finally {out.close();}
}
                                                         Hotels where id hotel="+t;
```

In order to display the information corresponding to a certain hotels (see *Figures 5-8*), we use the following function:

```
// We select the information used for hotel description sql_statement="SELECT Hotel, Stars, Address, Phone, Fax, Web_address, e_mail, Beach_description FROM Hotels where id_hotel="+t;

/* Variables used for representation of each selected field */
String f1="",f2="",f3="",f4="", f5="", f6="", f7="",
```

```
f8="";
out.println("<hr border=3 color=\"black\">");
out.println("<br/>);
out.println("<font color=black size=5><a
name=\"date\"><i>Hotel description</i></a></font>");
out.println("<br/>);
try {
String user = "";
String password = "";
String dbURL = "jdbc:odbc:Driver={Microsoft Access
Driver (*.mdb)};DBQ=D:\\
site\\db1.mdb;DriverID=22;READONLY=false";
Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");
Connection c = DriverManager.getConnection(dbURL,
user, password);
Statement s = c.createStatement();
ResultSet r = s.executeQuery(sql_statement);
while (r.next()) {
//Reading values of the selected fields
f1=r.getString(1); f2=r.getString(2); f3=r.getString(3);
f4=r.getString(4); f5=r.getString(5); f6=r.getString(6);
f7=r.getString(7); f8=r.getString(8);
// Displaying values of the selected fields
if(f1!=null){}else {f1="";}
out.println("<BR><b><font color=black>Hotel
name:  </b>"+f1+"</font>");
if(f2!=null){}else{f2="";}
out.println("<BR><b><font
color=black>Stars:  </b>"+f2+"</font>");
if(f3!=null){}else{f3="";}
out.println("<BR><b><font
color=black>Address:  </b>"+f3+"</font>
if(f4!=null){} else{f4=""; }
out.println("<BR><b><font
color=black>Phone:  </b>"+f4+"</font>")
if(f5!=null){} else {f5=""; }
out.println("<\!BR\!><\!b><\!font
color=black>Fax:  </b>"+f5+"</font>");
if(f6!=null){} else{f6="";}
out.println("<BR><b><font color=black>Web
address:  </b>"+f6+"</font>");
if(f7!=null){} else{f7=""; }
out.println("<BR><b><font
color=black>E_mail:  </b>"+f7+"</font>"
if(f8!=null)\{\} else\{f8=""; \}
out.println("<BR><b><font color=black>Beach
description:  </b>"+f8+"</font>");
```

```
r.close();
s.close();
}
catch (ClassNotFoundException a) { }
catch (SQLException a) { }
out.println("<br>");
out.println("<hr border=3 color=\"black\">");
```

/* In order to display information on hotel facilities, room types, room amenities, child facilities, pets, photos, movies, rates, etc., we use the same type of programming code (like one presented above in the case of hotel description) */

```
out.println("</body>");
out.println("</html>");
} finally {out.close();}
```

The programming code presented above can provide a good idea on whole implementation. For this reason, now, we stop function presentations. We use similarly functions for the operations presented in *Section 3*, where we use *Java* servlets. For website implementation we have used *Java* servlets and *JSP* files. Our data have been stored in *Access* database, but for implementation, we can use any type of relational database (*Oracle, SQL Server, MySQL*, etc.) where we use the same programming code.

5 Conclusion

Using the data presented on the travel agency websites or catalogues, we have built a website model for the presentation of the summer offer at the Romanian seaside.

Our model is not focused on the design; it is focused on the information which must be provided and the way in which it must be displayed. This information includes: text, image and video files.

The information provided concerns: hotel description, hotel facilities, hotel room types and their amenities, hotel children facilities, pet facilities, photos, movies and rates. We suggest using the same presentation way for all hotels and the same terms. In *Figures 9* and *10*, we provide tools that help the tourist to find if it exist offers according with his preference. In the affirmative case, if the tourist finds more than one offer, he can choose one that seems to be the best for him.

Generally, a travel agency has offer only for some hotels from the Romanian seaside, not for all. The idea of this paper can be extended to a website including all the hotels from the Romanian seaside.

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