C019-320302
Databases & Web Services
Assignment 7

1 Search Component

Implement the queries defined in your earlier assignment. For each query, establish the following pages:

- search form (input attributes taken from your query design done earlier)
- search result list displaying elements found (or an error message if necessary).

Each item in the result list must have a link to the detail result page displaying a single item of the result list. Therefore, you need to implement a third type of result pages, namely: presentation of a single result record.

2. XML Schema

For the following XML file, design a suitable XML Schema file that validates it and incorporates as many constraints as possible.

```xml
<?xml version="1.0" encoding="UTF-8"?>
<tourism>
  <hotel id="ic" name="Interconti">
    <address>
      <streetno>Main Street 5-11</streetno>
      <zip>12345</zip>
      <town>London</town>
    </address>
    <room id="ic101" nr="101" petsAllowed="yes" price="150">
    <room id="ic102" nr="102" petsAllowed="yes" price="150">
    <room id="ic103" nr="103" petsAllowed="yes" price="150">
    <room id="ic201" nr="201" petsAllowed="no" price="250">
    <room id="ic202" nr="202" petsAllowed="no" price="250">
    <room id="ic203" nr="203" petsAllowed="no" price="250">
    <room id="icsuite" nr="300" petsAllowed="no" price="500">
  </hotel>
  <hotel id="ti" name="Tourist Inn">
    <address>
      <streetno>Back Alley 42</streetno>
      <zip>12340</zip>
      <town>London</town>
    </address>
    <room id="ti11" nr="11" petsAllowed="yes" price="50">
    <room id="ti12" nr="12" petsAllowed="yes" price="50">
    <room id="ti21" nr="21" petsAllowed="yes" price="50">
    <room id="ti22" nr="22" petsAllowed="yes" price="50">
  </hotel>
  <hotel id="garni" name="Garni">
```

```xml
      <address>
        <streetno>Paddington Lane 145</streetno>
        <zip>123431</zip>
        <town>London</town>
      </address>
      <room id="garni11" nr="11" petsAllowed="yes" price="30">
      <room id="garni12" nr="12" petsAllowed="yes" price="30">
      <room id="garni21" nr="21" petsAllowed="yes" price="30">
      <room id="garni22" nr="22" petsAllowed="yes" price="30">
    </hotel>
    <guest id="gul" hasPets="yes" name="Udo Lindenberg">
      <occupies from="2004-03-21" to="2004-05-05" room="icsuite"/>
      <occupies from="2004-05-06" room="ti12"/>
      <reserves from="2005-03-21" to="2005-05-05" room="icsuite"/>
      <customer hotel="ic" discount="75%"/>
      <customer hotel="ti" discount="75%"/>
    </guest>
    <guest id="grs" hasPets="no" name="Ravi Shankar">
      <occupies from="2003-08-15" to="2003-08-21" room="icsuite"/>
      <reserves from="2005-03-21" to="2005-05-05" room="icsuite"/>
      <customer hotel="ic" discount="70%"/>
    </guest>
    <guest id="grs" hasPets="yes" name="Bruno Visconti">
      <occupies from="2003-08-07" to="2003-08-09" room="garni31"/>
      <reserves from="2004-10-21" room="ti07"/>
      <customer hotel="garni"/>
      <customer hotel="ti"/>
    </guest>
  </tourism>
```