DEVELOPMENT OF PERSONNEL MANAGEMENT SYSTEM

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Goal and objectives

The goal of the research is creation of an application to manage employee's information in the organization at the given level of access.

General objectives

1) analysis of management of personnel affairs;
2) development of the use case diagram;
3) development of database structure;
4) choosing tools for software implementation;
5) design and implementation web-site to show information about employees;
6) functional testing of the developed web-site.
The List of Functions

The system features
1. The system can show all information about employees:
   – personal data of employee;
   – salaries of employee;
   – time and sick leave.
2. The system has an exporting-importing module.

The administrator features
1. The administrator can add an account for the employee;
2. The administrator can delete the employee account;
3. The administrator can update data;
4. The administrator can import to or export from CIS.

The employee features
1. The employee can only view his/her own personal data;
2. The employee cannot view data for another employee.
Use Case Model

The first actor is Administrator
1- View employee data,
2- Add employee data,
3- Delete employee data,
4- Update employee data.

The second one is Employee
1- View employee data.
Graphic User Interface
The main page

Welcome to Management of Personnel Affairs
The contacts page

Phone: +7(961)786-14-23
Address: Russia city Chelyabinsk, Prospect Lenina, 76
E-Mail: zaid.almyali@gmail.com
Login page

SIGN IN

LOGIN:
administrator

PASSWORD:
********

Remember me.

SIGN IN

back to the site
Login for employee

The employee can only view his personal information. (add photo and choose month and year and press button OK to see his/her salary).
Control panel for administrator

### Management of Personnel Affairs

<table>
<thead>
<tr>
<th>Employee number</th>
<th>User Name</th>
<th>Password</th>
<th>E-mail</th>
<th>Last Name</th>
<th>First Name</th>
<th>Middle Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>administrator</td>
<td>123654789</td>
<td><a href="mailto:zaid.almyall@gmail.com">zaid.almyall@gmail.com</a></td>
<td>Jaffar</td>
<td>Zaid</td>
<td>Aziz</td>
</tr>
<tr>
<td>2</td>
<td>test</td>
<td>pass</td>
<td><a href="mailto:test@mail.ru">test@mail.ru</a></td>
<td>Freeman</td>
<td>Gordon</td>
<td>Middle</td>
</tr>
<tr>
<td>5</td>
<td>login</td>
<td>pass</td>
<td><a href="mailto:email@test.ru">email@test.ru</a></td>
<td>last_name</td>
<td>first_name</td>
<td>middle_name</td>
</tr>
<tr>
<td>7</td>
<td>zaid</td>
<td>0123456789</td>
<td><a href="mailto:wer@test.ru">wer@test.ru</a></td>
<td>Last</td>
<td>First</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>login_from_xml</td>
<td>pass_from_xml</td>
<td><a href="mailto:email_from_site@gmail.com">email_from_site@gmail.com</a></td>
<td>XML</td>
<td>XML First</td>
<td></td>
</tr>
</tbody>
</table>
The administrator can add and edit user’s data using special form. Input data (e-mail and date of birth) are checked for validity.
Importing and exporting procedures with XML and XSD – 1

Usually data for such a web-site are taken from external database of human resource department. That is why the application should have an importing and exporting procedure. It is common to use XML files as data transfer in corporate database. XSD is used to check validity of XML-files.
Importing and exporting procedures with XML and XSD - 2

```xml
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema" elementFormDefault="qualified"

  <xs:element name="root">
    <xs:complexType>
      <xs:sequence>
        <xs:element name="users">
          <xs:complexType>
            <xs:sequence>
              <xs:element name="user" maxOccurs="unbounded">
                <xs:complexType>
                  <xs:sequence>
                    <xs:element name="id" type="xs:int" nillable="true"/>
                    <xs:element name="login" type="xs:string"/>
                    <xs:element name="pass" type="xs:string"/>
                    <xs:element name="email" type="xs:string"/>
                    <xs:element name="phone" type="xs:string"/>
                    <xs:element name="avatar" type="xs:string"/>
                    <xs:element name="last_name" type="xs:string"/>
                    <xs:element name="first_name" type="xs:string"/>
                    <xs:element name="middle_name" type="xs:string"/>
                    <xs:element name="birthday" type="xs:date"/>
                    <xs:element name="address" type="xs:string"/>
                    <xs:element name="rules" type="xs:string"/>
                    <xs:element name="deport" type="xs:string"/>
                    <xs:element name="position_id" type="xs:int"/>
                    <xs:element name="education_id" type="xs:int"/>
                    <xs:element name="gender" type="xs:string"/>
                    <xs:element name="family" type="xs:string"/>
                    <xs:element name="child" type="xs:string"/>
                    <xs:element name="Diploma_Number"/>
                  </xs:sequence>
                </xs:complexType>
              </xs:element>
            </xs:sequence>
          </xs:complexType>
        </xs:element>
      </xs:sequence>
    </xs:complexType>
  </xs:element>
</xs:schema>
```
Conclusion

Main benefits of implementing the system for an organization

✓ **Standardization** (MP) provides uniformity through templates and predetermined procedures for uploading data and downloading reports. It also means that data retrieved and viewed is in a format

✓ **Knowledge management** is an important element in successful management of personnel affairs. (MP) become a house of important information on the various aspects of an employee’s history within the company.

Outcomes for the developer

✓ Good professional experience

✓ Knowledge gained in the project can be used in the future to manage personnel of information technology department
Thank you