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| **Back-end Java Developer Exam** |  | **Duration: 4h** |

**General Requirements:**

Create a CRUD (Create, Read, Update, and Delete) web application in a maven web application archetype. The application allows a user to manage employees and their personal information, contact details, and addresses. It should have a login/logout mechanism that supports two types of users, **admin** and **standard user**. Admin users can add, edit and delete employees. Standard users can only search and view employee records. The data models should be modeled using Hibernate ORM framework and map them to MySQL tables.

**Sample Screens for Guidance** (can be modified as long as the all the data are captured)**:**

**1. Employees Page**

|  |
| --- |
| **[Add]** |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **Name** | **Primary Address** | **Primary Contact Info** | **Age** | **# of Years in the Company** |  | | John Doa | 123 St., Address 1 | 123-4507 | 31 | 2y 5m | **[Edit] [Delete]** | | John Doe | 124 St., Address 1 | 123-4508 | 30 | 3y 8m | **[Edit] [Delete]** | | John Doi | 125 St., Address 1 | 123-4509 | 24 | 4y | **[Edit] [Delete]** | | John Doo | 126 St., Address 1 | 123-4510 | 26 | 5y 1m | **[Edit] [Delete]** | | John Dou | 127 St., Address 1 | 123-4511 | 35 | 6y | **[Edit] [Delete]** | |
| **[First][Prev][Next][Last]** |

**2. Employee Info Page**

|  |
| --- |
| **[Save] [Delete]** |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | First Name: |  | Contact Info: **[Add]** |  |  | | Last Name: |  | Value | Primary? |  | | Middle Name: |  |  | [√] [x] |  | | Birth Date: |  |  | [ ] [x] |  | | Gender: |  |  | [ ] [x] |  | | Marital Status: |  | Address Info: **[Add]** |  |  | | Position: |  | Address 1 | Address 2 | Primary? | | Date Hired: |  |  |  | [√] [x]  [ ] [x] | |

**Notes:**

* For contact info and address info, only one row can be selected as primary.
* For view only users, this view can be re-used and have the textbox non-editable.

**Technologies to use:**

1. Maven (v3.x)
2. MySQL (v5.7 or higher)
3. Hibernate (v3.x or higher)
4. Struts Framework (Spring or any other JavaEE frameworks/technologies if no experience with Struts)
5. Velocity template engine
6. Resin (optional – *maven embedded web servers can be used as alternative*)
7. REST API (optional)
8. JS libraries/frameworks (optional – *font-end skillset is a plus*)

**Submission:**

Send to us the Git project repository URL. The submitted project must include the following:

1. Developer’s README file describing the following:
   1. Database connection configuration file to modify
   2. Which application/web server that the application can be deployed
2. Migration SQL script for the initial DB structure and data (optional – it would be a plus if integrated in the build or deployment process)
3. Default user accounts:
   1. **admin** – username and password for the default admin user account
   2. **user** – username and password for the default standard user account