Recruitment Application

NOTE!! It's **not** necessary that all the following functionality is implemented. On the contrary, it's important to choose what functionality to code. The requirement is to code just as much as is needed to solve the tasks in the document *tasks-affecting-grade.pdf*.

1 Background

An amusement park is recruiting staff for the coming season. To facilitate the recruitment process, they benefit from a web based recruitment tool. They hope to attract 15,000 applications during a two week period. The company has an existing recruitment application, but it's shaky and some bugs have still not been fixed. As the company that built the original version no longer exists, consultants have been hired to fix bugs which have resulted in significant maintenance costs. Over the years, many new requirements have emerged, which would bring major time savings for the company. Introducing new functionality into an already buggy system does however not attract the IT manager.

You've been asked to build a new, robust, scalable and well-documented system that can easily be expanded with new functionality. Since time is short (it always is) before this year's recruitment, the company is however satisfied if the new system provides the same functionality as the existing system, although an upgraded version is the goal.

2 The Recruitment System

The system distinguishes between two types of users, applicants and recruiters. An applicant applies for a position within the company while a recruiter manages applications. The system is divided into two parts: The registration of job applications and the administration of applications.

2.1 Registration of Applications

An applicant is anyone who is interested in a job provided by the company. A web browser is used to register an application.

2.1.1 Current Functionality

It's impossible to submit an application without first registering at the web site. A registered and logged in user can submit a job application, which consists of the following components:

- Personal information - first name, last name, person number and email address. This information is entered already at registration.
- Competence Profile - experience in different areas of expertise.
- Availability - periods of time the applicant can work.

Note that an application is not for a specific position (like running a roller coaster). Instead, applicants just applies for *a* (any) position, and the recruiters decide where each hired person will work.

2.1.2 Future Functionality

The following functionality is desired in a coming version of the system:

- The online application form is available in several languages.

2.2 Administration of job applications

Recruiters administering job applications are employees of the company. For now, it's sufficient to administer applications using a web browser, but the plan is to also provide a mobile app for the recruiters. A user name and a password are required to access the recruiter's user interface.

2.2.1 Current Functionality

The following functionality is implemented in the current version of the system:

- Applications can be sorted according to different attributes.
- An application can be accepted or rejected. It can also be unhandled, which means it's neither accepted nor rejected.

2.2.2 Future Functionality

The following functionality is desired in a coming version of the system:

- A mobile app that can be used by recruiters to handle applications.
- The system itself is able to select the job applications that are of interest. The decision making component is changeable by configuration, and different components can be combined.

3 Existing Database Model

The current system has a database, but unfortunately no documentation of that database. **It's important that the data in the current database isn't lost, but instead transferred to the new system.** This means you must move existing data to your new database. There is a SQL script on the *Project* page in Canvas that generates the existing database.

4 Other Requirements

In addition to the above requirements, the company has the following general requirements for any system they are using.

4.1 Logging

All the system's main events are logged.

4.2 Browsers

Anything the company publishes on the Internet must work well in the following browsers, you're free to choose any version:

- Edge
- Firefox
- Chrome
- Safari

4.3 Handover

Handover consists of two different parts.

Live system The system shall be live, ready to handle applications. It shall be a cloud application, the company wants to avoid managing servers.

Source code The source code shall be handed over. The developers at the company's IT department shall be able to easily modify the system, with the help of its documentation.

4.4 Prototype of the Mobile Application

It must be easy to later develop a mobile application, which can manage the recruiter's use cases. Note that this mobile app will be used in parallel with the browser client.

5 Use Cases

Below follows a set of use cases, describing the desired functionality in detail.

5.1 Create Account

Describes how an applicant can register at the recruitment application.

5.1.1 Actors:

Applicant

5.1.2 Requirements:

None

5.1.3 Scenario:

1. The applicant enters first name, last name, email address, person number, username and password.
   (a) If a field is missing, the system returns the same form with an appropriate error message.
2. The system registers the newly created account.
3. The system displays a confirmation message.

5.2 Login

Describes how authentication shall be handled.

5.2.1 Actors:

Recruiter, Applicant

5.2.2 Requirements:

The actor has requested a page requiring authentication without having logged in previously.

5.2.3 Scenario:

1. The actor enters user name and password.
   (a) If a field is missing, the system returns the same form with an appropriate error message.
   (b) If the system can not authenticate the actor, it tells that the login failed.
2. The system shows the originally requested page.

5.3 Apply for a Position

Describes how an applicant can apply for a position. *Note that applicants don't apply for a particular position*, but instead just applies to work at the amusement park during the coming season.

5.3.1 Actors:

Applicant

5.3.2 Requirements:

The applicant has logged in.

5.3.3 Scenario:

1. The applicant chooses an area of expertise from a list, specifying years of experience in the area.
2. The system records the data and presents the specified areas of expertise.
3. Steps 1-2 are repeated until the applicant is satisfied.

4. The applicant specifies the availability periods.
5. The system records the data and presents the specified periods.
6. Steps 4-5 are repeated until the applicant is satisfied.
7. The system presents all the information the applicant has entered in steps 1-6.
8. The applicant chooses to hand in the job application or to cancel.
9. The system registers the job application and displays a confirmation message.

5.4 List All Applications

Describes how a requiter can list applications.

5.4.1 Actors:

Recruiter

5.4.2 Requirements:

The recruiter has logged in.

5.4.3 Scenario:

1. The recruiter chooses to list all existing applications.
2. The system returns a view showing all applications. For each application, the system shows the full name of the applicant and the application's status. The status is either accepted, rejected or unhandled.

5.5 Manage an Application

Describes how a particular application is displayed and updated.

5.5.1 Actors:

Recruiter

5.5.2 Requirements:

The recruiter has logged in and has listed applications by executing use case 5.4.

5.5.3 Scenario:

1. The recruiter chooses an application from the applications listed in use case 5.4.
2. The system displays a full view of the job application and its status. The status is either accepted, rejected or unhandled.
   (a) The recruiter may choose to change the application's status.
      i. If the current application is being modified by another user concurrently, the system aborts the update and informs the recruiter why the action was aborted.
   (b) The recruiter may choose to go back to view the listing of all applications.