Acme Rookies

Acme Hacker Rank, Inc. is requesting maintenance of their recent project. This document provides an informal requirement specification. Ask your lecturers for clarifications and details, if necessary.

Preliminaries

Acme Hacker Rank, Inc. has become successful in Spain, where 90% of their hackers are recently-graduated students (20-24 year old). They have managed to move to the USA, but they have found that they cannot settle there because their name's already taken. Therefore, they are undertaking a rebranding process in which they are changing their commercial name to Acme Rookies, Inc., which reflects better their target audience and avoids the legal name conflict. They have requested maintenance of their project, which must be rebranded accordingly. Note that the name of the company has changed, so the copyright notice must refer to Acme Rookies, Inc. as the holder, not Acme Hacker Rank, Inc. like in the previous version. They have also requested us to design a new banner that clearly reflects the rebranding that their business is undergoing. **Every reference to "hackers" must be changed into references to "rookies" in the new version of the project.**

C-level requirements

Information requirements

1. There's a new kind of actor in the system: auditors.
2. Auditors write audits on the positions published by the companies. For every audit, the system must store the moment when it's written, a piece of text, and a score in range 0..10 points.

Functional requirements

3. An actor who is authenticated as an auditor must be able to:
   1. Self-assign a position to audit it.
   2. Manage his or her audits, which includes listing them, showing them, creating them, updating, and deleting them. An audit can be updated or deleted as long as it's saved in draft mode.
4. An actor who is authenticated as an administrator must be able to:
   1. Run a procedure to notify the existing users of the rebranding. The system must guarantee that the process is run only once.
   2. Create user accounts for new auditors.
   3. Launch a process to compute an audit score for every company. The audit score is computed as the average of the audit scores that the positions offered by a company has got, but normalised to range 0.00 up to +1.00 using a linear homothetic transformation. Note that the audit score of a company that hasn't got any audits is not 0.00, but nil.
   4. Display a dashboard with the following information:
      - The average, the minimum, the maximum, and the standard deviation of the audit score of the positions stored in the system.
      - The average, the minimum, the maximum, and the standard deviation of the audit score of the companies that are registered in the system.

- The companies with the highest audit score.
- The average salary offered by the positions that have the highest average audit score.

Non-functional requirements

5. Everywhere a position is shown, the corresponding actor must be able to browse its audits, if any.
6. Everywhere the profile of a company is shown, the corresponding actor must be able to see their audit score.

B-level requirements

Information requirements

7. There's a new kind of actors in the system: providers. Providers have a make that must be stored by the system.
8. Providers provide items, for which the system must store the following data: their names, their descriptions, links to learn more about them, and optional pictures.

Functional requirements

9. An actor who is not authenticated must be able to:
    1. Browse the list of providers and navigate to their items.
    2. Browse the list of items and navigate to their providers.
    3. Register to the system as a provider.
10. An actor who is authenticated as a provider must be able to:
    1. Manage his or her catalogue of items, which includes listing, showing, creating, updating, and deleting them.
11. An actor who is authenticated as an administrator must be able to:
    1. Display a dashboard with the following information:
        - The minimum, the maximum, the average, and the standard deviation of the number of items per provider.
        - The top-5 providers in terms of total number of items provided.

Non-functional requirements

Intentionally blank.

A-level requirements

Information requirements

12. Providers may sponsor positions. For every sponsorship, the system must store a valid credit card, a banner, and a target page.

Functional requirements

13. An actor who is authenticated as a provider must be able to:
    1. Manage his or her sponsorships, which includes listing, showing, creating, updating, and deleting them.
14. An actor who is authenticated as an administrator must be able to:

1. Display a dashboard with the following information:
   - The average, the minimum, the maximum, and the standard deviation of the number of sponsorships per provider.
   - The average, the minimum, the maximum, and the standard deviation of the number of sponsorships per position.
   - The providers who have a number of sponsorships that is at least 10% above the average number of sponsorships per provider.

Non-functional requirements

15. Every time a position is shown, one of its sponsorships must be selected and the corresponding banner must be shown as little intrusively as possible. Every time a sponsorship is selected, it must be charged a flat rate that must be easily configurable by the administrator. The default VAT tax is 21%, but the administrator must be able to customise it easily.