Repos & Services
(Problems)

Lecture notes

Welcome to this problem lecture. The volunteers are going to present their solutions to the problems, and the class is expected to discuss and produce feedback.

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Your goal is to produce the repositories and services that are requested in the following slides.

Regarding your presentation, please, note that you have 15 minutes. Allocate 1 minute to plug your laptop, 10 minutes to present your solution, and 10 minutes for class discussion.

Please, check the connections of our computer beforehand. Make sure that you can plug your computer to the overhead projector. Overhead projectors typically require a VGA connection; if your computer doesn't have a VGA socket, please, make sure that you have the appropriate adapter.

Come on! First volunteers, please!

Problem #1: actors and messages

- R8.1: [Public] Register to the system as a customer or a handy worker
- R9.2: [Actors] Edit his or her personal data
- R9.3: [Actors] Exchange messages with other actors and manage them
- R11.3: [Handy workers] Manage his or her applications

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6

The first problem's regarding the repositories and services required to manage actors and messages. These are the requirements that you have to model, but don't forget to review the others:

R8: An actor who is not authenticated must be able to:
　　　R81: Register to the system as a customer or a handy worker.

R9: An actor who is authenticated must be able to:
　　　R9.2: Edit his or her personal data.
　　　R9.3: Exchange messages with other actors and manage them.

Problem #2: fix-up tasks

- R10.1: [Customers] Manage an arbitrary number of fix-up tasks
- R11.1: [Handy workers] Browse the catalogue of fix-up tasks
- R12.2: [Administrators] Manage the catalogue of warranties

The second problem's regarding the repositories and services required to manage fix-up tasks. These are the requirements that you have to model, but don't forget to review the others:

R10: An actor who is authenticated as a customer must be able to:
R10.1: Manage an arbitrary number of fix-up tasks, which includes listing, showing, creating, updating, and deleting them.

R11: An actor who is authenticated as a handy worker must be able to:
R11.1: Browse the catalogue of fix-up tasks and navigate to the profile of the correspond-ing customer, which includes his or her personal data plus his or her list of fix-up tasks.

R12: An actor who is authenticated as an administrator must be able to:
R12.2: Manage the catalogue of warranties, which includes listing, showing, creating, updating, and deleting them. A warranty can be updated or deleted as long as it is saved in draft mode. Once it's saved in final mode, it cannot be edited or deleted. Only warranties that are saved in final mode can be referenced by fix-up tasks.

Problem #3: applications
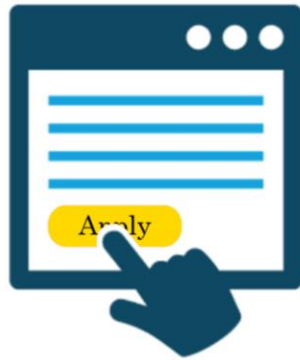
- R10.2: [Customers] Manage the applications for his or her fix-up tasks
- R11.3: [Handy workers] Manage his or her applications
- R12.5: [Administrators] Display statistics about applications

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The third problem's regarding the repositories and services required to manage applications. These are the requirements that you have to model, but don't forget to review the others:

R10: An actor who is authenticated as a customer must be able to:
R10.2: Manage the applications for his or her fix-up tasks, which includes listing and updating them. A customer may update an application to change its status from pending to either accepted or rejected; if the status is changed to accepted, then a valid credit card must be provided; in either case, he or she can add a comment to the application.

R11: An actor who is authenticated as a handy worker must be able to:
R11.3: Manage his or her applications, which includes listing them, showing them, and creating them. When a handy worker applies for a fix-up task, he or she can set an offered price, and add some comments.

R12: An actor who is authenticated as an administrator must be able to:
R12.5: Display a dashboard with a) the average, the minimum, the maximum, and the standard deviation of the number of applications per fix-up task, b) the average, the minimum, the maximum, and the standard deviation of the price offered in the applications, and c) the ratio of pending applications that cannot change its status because their time period's elapsed.

Problem #4: finders

- R37.1: [Handy workers] Change the filters of his or her finder
- R37.2: [Handy workers] Display the fix-up tasks in his or her finder
- R40: [Administrators] The results of a finder are cached for one hour by default

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The fourth problem's regarding the repositories and services required to manage finders. These are the requirements that you have to model, but don't forget to review the others:

R37: An actor who is authenticated as a handy worker must be able to:
    R37.1: Change the filters of his or her finder.
    R37.2: Display the fix-up tasks in his or her finder.

R40: The results of a finder are cached for one hour by default. The administrator should be able to configure that period at will in order to adjust the performance of the system. The minimum time's one hour and the maximum time's 24 hours.

Thanks for attending this lecture! See you soon.