Innopolis Library Media Keeper

Delivery 3

04.04.2018
Introduction to programming II

Delivery tasks

D1

- ☒ Implement **Users** and **Documents** cards;

- ☒ Implement **Booking** system.

D2
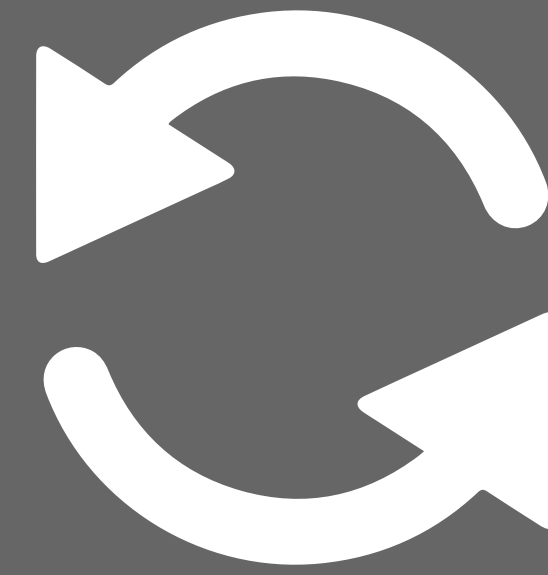
- ☒ Implement actions with cards (modify, delete, add);

- ☒ Implement **Return** system;

- ☒ Implement Storage System;

D3

- ☐ Implement **Fine** and **Renew** subsystems;

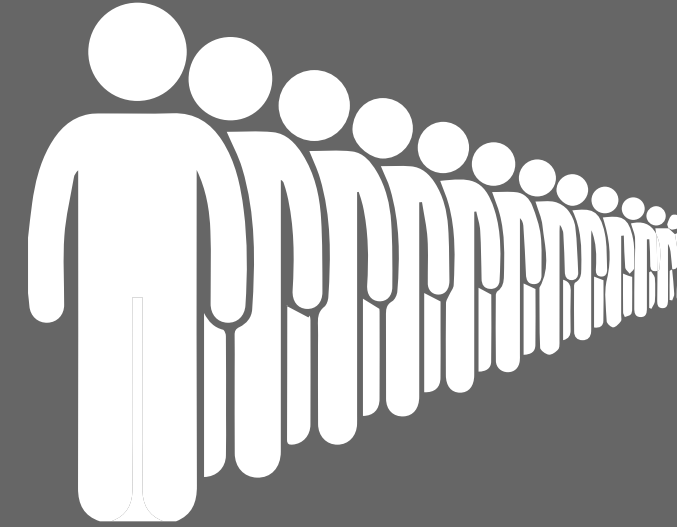- ☐ Implement **Queues**.

D4

- ☐ Implement **Search engine**;

- ☐ Everything just works :-)

Goals for this delivery:

☐ Implement **Fine** and **Renew** subsystems;

☐ Implement **Queues**.

Fine system

Now Users get fines if they don't return medias on time. Librarian can't accept return if media is overdue. Every day at 8:00 AM Library system all overdued medias and increases the amount of fine.

Media ID # 1

Type: Book
Title: «War and Peace»
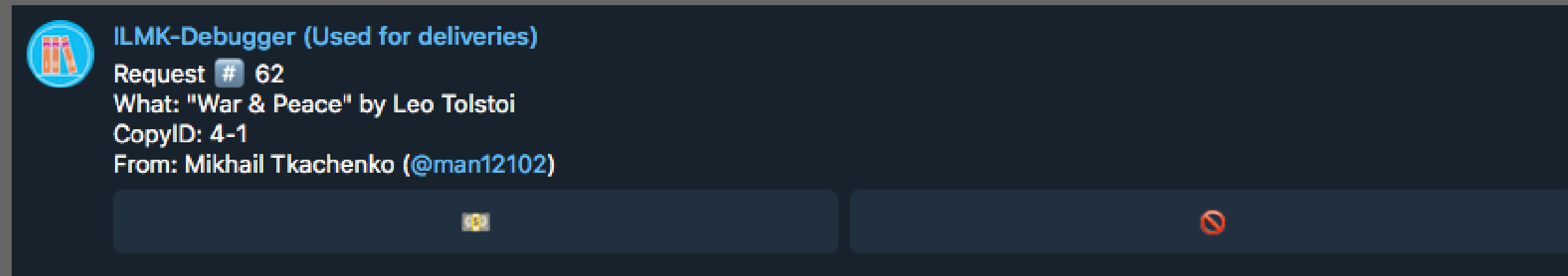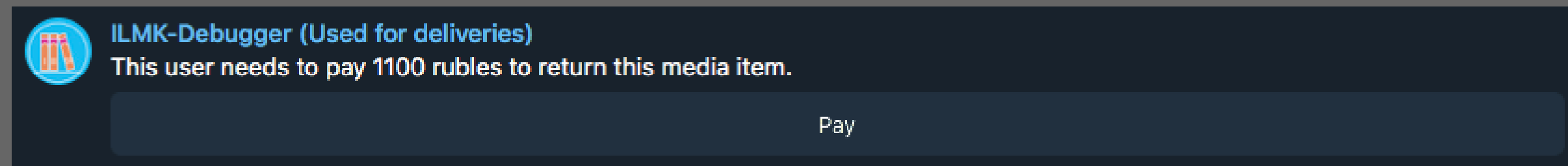**Author(s)**: Leo Tolstoi
Return: 25 Mar 2018 11:01
Overdue: 11 days
Balance: 1100 rubles

Pay

Librarian tries to accept Return request.

Librarian gets the notification that User needs to pay a fine because of overdue.

Librarian presses «Pay» button, which means that Librarian got the money and fine is returned. Now Librarian can accept Return request.

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Renew system

If user wants to keep the book for more weeks, this can be done by «Renew» button. Return date becomes shifted by the delta between issue date and current date.

Media ID # 1

Type: Book
Title: «War and Peace»
Author(s): Leo Tolstoi
Return: 25 Apr 2018 11:01

Return

ILMK-Debugger (Used for deliveries)
Your media # 4-1 :

What: "War & Peace" by Leo Tolstoi
Issue date: 04 Apr 2018, 09:56
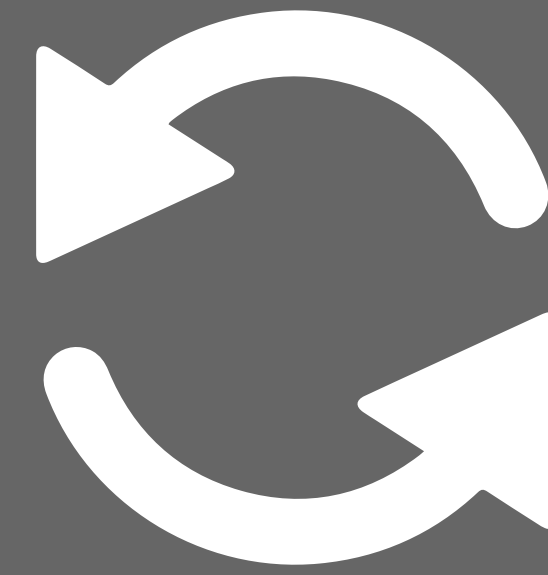Expiry date: 25 Apr 2018, 12:56

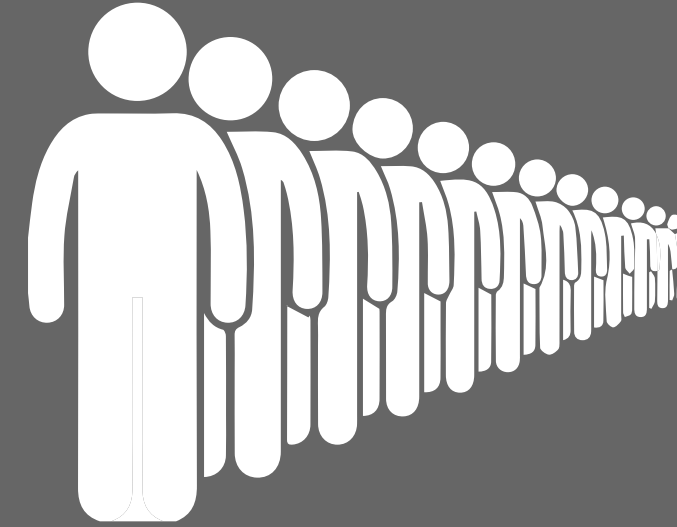| Return | Renew |

User may renew their Medias

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Goals for this delivery:

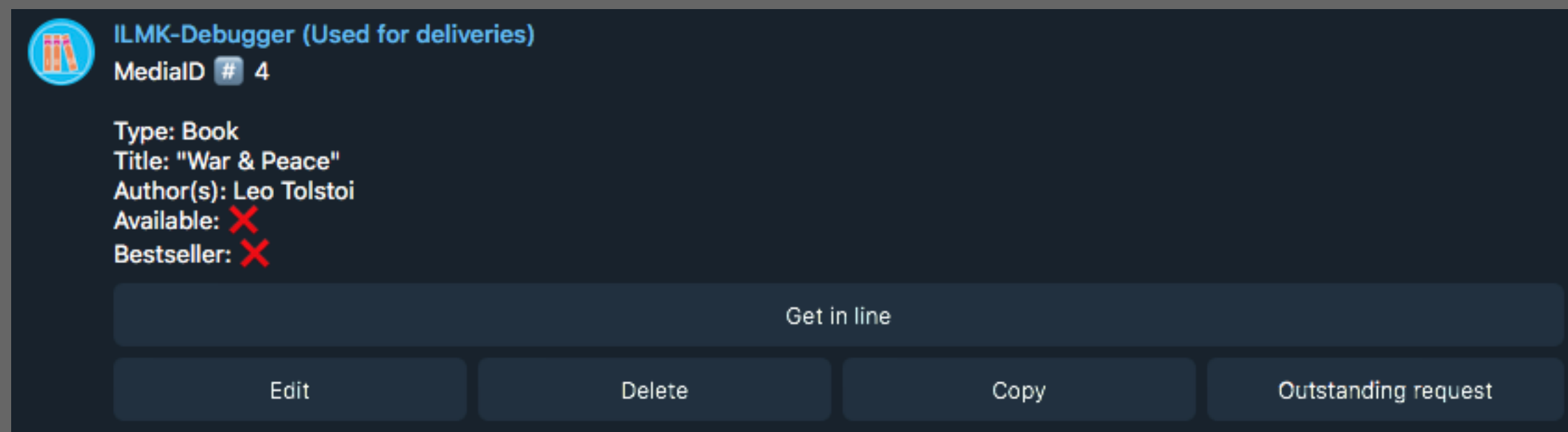☒ Implement **Fine** and **Renew** subsystems;
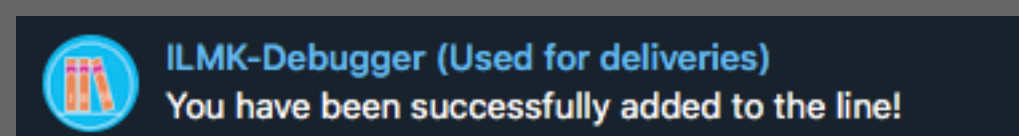
☐ Implement **Queues**.

Queues

If Media is not available, User can get in a line for this media. It gets sorted by the priority of Users. If Media becomes available, first user in a queue gets a notification that it becomes available now.
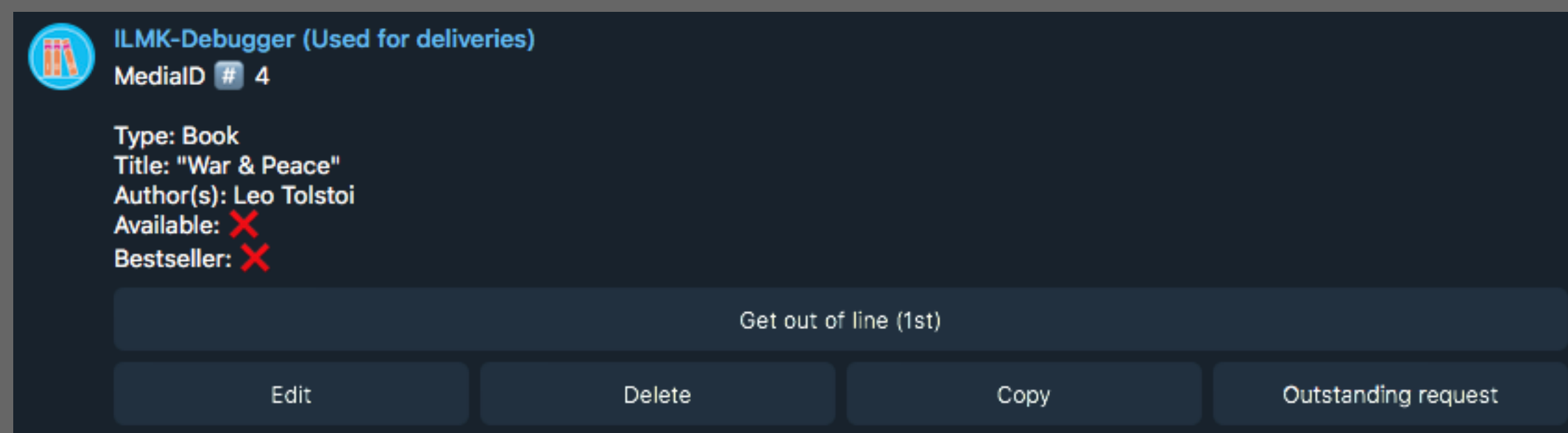
ILMK-Debugger (Used for deliveries)
MedialD # 4

Type: Book
Title: "War & Peace"
Author(s): Leo Tolstoi
Available: ✗
Bestseller: ✗

Get in line

| Edit | Delete | Copy | Outstanding request |

User can't book Media. User may get in line.

ILMK-Debugger (Used for deliveries)
You have been successfully added to the line!

User gets notification that they are in line now.

ILMK-Debugger (Used for deliveries)
MedialD # 4

Type: Book
Title: "War & Peace"
Author(s): Leo Tolstoi
Available: ✗
Bestseller: ✗

Get out of line (1st)

| Edit | Delete | Copy | Outstanding request |

User can get out of line. User also can see their number in line.

Librarian can make an Outstanding request.

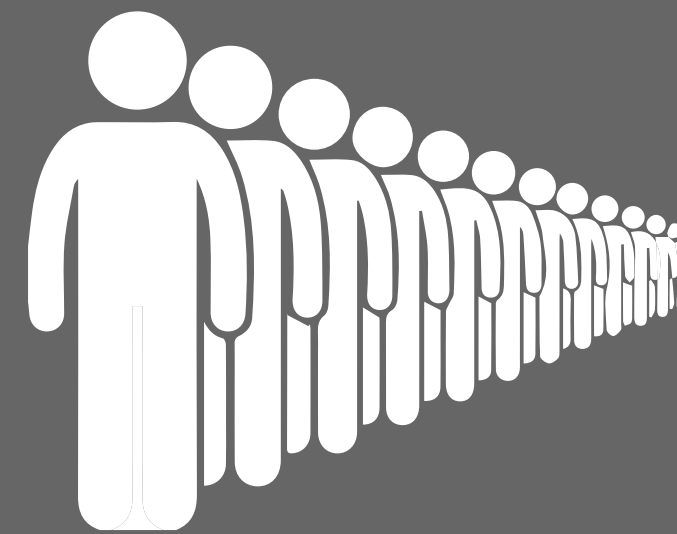**ILMK-Debugger (Used for deliveries)**
You got out of the line!
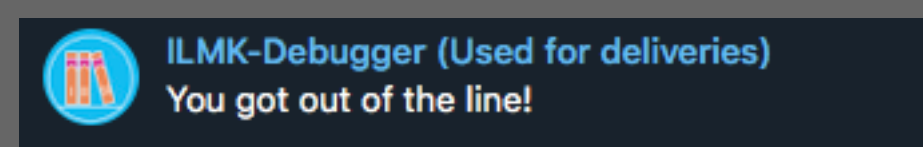
User gets notification that they are out of line now.

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Goals for this delivery:

☒ Implement **Fine** and **Renew** subsystems;
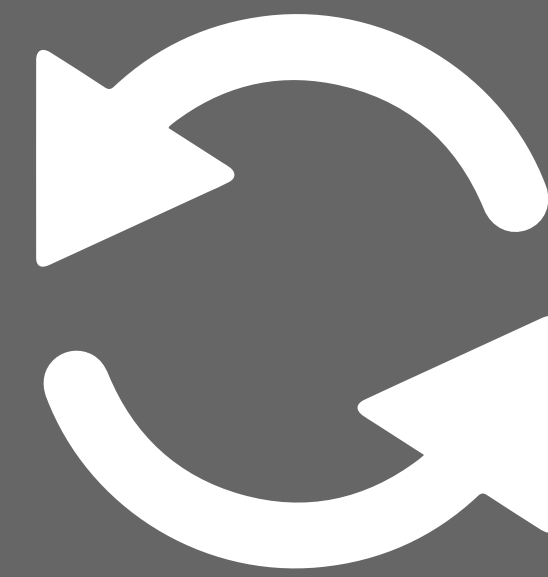
☒ Implement **Queues**.

Tests

All tests are successfully passed. Now they are easier to execute because of code optimization.

Passed tests:
All

Thank you for attention!
See you next delivery :-)