












# Sprint retrospective

Team 4

PROCESS

# OVERVIEW - our stories and tasks

 As a customer I want to get a ticket so that I can request a service	<del>SG-7</del> ↑ 5
 As a manager I want to define request types for customers	<del>SG-2</del> ↑ 5
 define system architecture, server APIs	<del>SG-13</del> ↑
 front-end create "customer ticket request page"	<del>SG-14</del> ↑
 front-end create "manager system configuration page"	<del>SG-17</del> ↑
 db create DAO interface (ticket, parameters_configuration)	<del>SG-15</del> ↑
 back-end ticket generation logic	<del>SG-18</del> ↑
 back-end "change request types configuration" logic	<del>SG-21</del> ↑
 testing ticket generation	<del>SG-19</del> ↑
 testing "define request types configuration" from the manager board	<del>SG-20</del> ↑
 learning automated testing tools	<del>SG-22</del> ↑

# MACRO STATISTICS

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Stories committed: 2

Stories done: 2

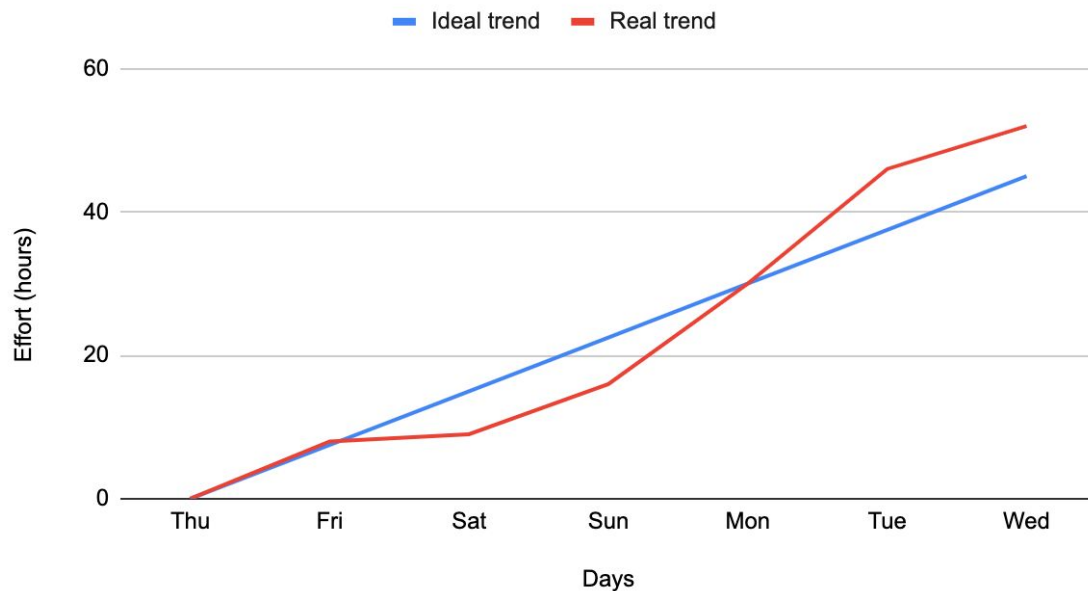
Total points committed: 10

Total points done: 10

Hours planned: 45

Hours spent: 52

Burn-up chart



# DETAILED STATISTICS

ID story	Points	Task ID	Total hours estimated	Total hours spent
SG-2	5	-	13.5	19.25
		SG-15 *	3	3.75
		SG-17	3	8
		SG-20	6	5.5
		SG-21	1.5	2.5
SG-7	5	-	13.5	14.75
		SG-14	3	3.5
		SG-15 *	3	3.75
		SG-18	1.5	3.5
		SG-19	6	4.5
none	-	-	18	17
		SG-13	12	8
		SG-22	6	9
total	10	-	45	52

Average:  
5.78 hours/task

Standard deviation:  
2.40 hours/task

Total task estimation  
error ratio:  
0.86

\* horizontal task

# ESTIMATION ERRORS

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SG-15:

- \* underestimated the work/time needed to lay down the database system;

SG-17:

- \* a lot of more time was needed to review on "how to do things" in React;
- \* the workload related to this task was bigger than expected;

SG-18:

- \* more time was needed to review the inner workings of express;

# ESTIMATION ERRORS

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SG-19:

- \* estimation took in account all the group members while in practice only a few of them were tasked to do the job;

SG-22:

- \* lack of technical knowledge about testing frameworks caused the team members to spend a lot of time in the learning phase;

**QUALITY**



# UNIT TESTING

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DAO MODULE:

Total hours estimated: 12

Total hours spent: 13

Number of automated tests: 14

Coverage:

File	% Stmts	% Branch	% Funcs	% Lines
All files	68.98	44.44	79.31	69.95
counter.js	100	0	100	100
dao.js	76.85	55.56	89.74	77.57
prepare_db.js	43.1	37.5	42.86	43.64
service.js	100	0	100	100
ticket.js	100	0	100	100

information from  
nyc and mocha

# SYSTEM TESTING

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API testing (with postman):

Total hours estimated: 6

Total hours spent: 6

Number of tests: 10

# CODE REVIEW

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Total hours estimated: *not estimated*

Total hours spent: 3

The code review has been necessary to understand more in deep other teammates' code and integrate tasks.

# ASSESSMENT

# LESSONS LEARNED

## POSITIVE

- \* Dedicate part of the allocated time to system design it proved to be good choice
- \* Dividing the team in smaller groups per task lead to a higher productivity

## NEGATIVE

- \* It is better to overestimate than underestimate the amount of work
- \* Once an interface has been defined, it must not be changed it prior a discussion with the other team members (or at least the people affected by it)

# IMPROVEMENTS

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- \* Discuss before making any breaking changes with your teammates (or at least the people affected by it)
- \* Reflect more in depth about the workload needed by a task. It is better to divide a task in subtasks if the estimation it is not clear or well defined.
- \* Define a coherent and a systematic approach for managing the project folder structure

# FINAL THOUGHTS

As a team, we are proud on how well we adapted to unforeseen challenges as we progressively developed our system.

Finally, we are happy that we managed to complete all the stories that we have selected.

*Practice is harder than theory*