Backlog Management

Prepared by Gemini Solutions for FMI Bucharest

Typical backlog contains…

- Epics
- User stories
- Non-functional requirements
- Chores
- Defects

Example of a backlog

unibuc > mds > SafeFromContagion > **Issues**

Open 6 Closed 0 All 6

Recent searches | Search or filter results...

Vote F.A.Q. question and answer.
#6 · opened 17 hours ago by Nicolae Murgu F.A.Q

Submit Question for F.A.Q. list
#5 · opened 17 hours ago by Nicolae Murgu F.A.Q

F.A.Q. information
#4 · opened 17 hours ago by Nicolae Murgu F.A.Q

Display list of advices for prevention
#3 · opened 17 hours ago by Nicolae Murgu Doing Prevention

As a user with suspicion I want to select symptoms from a list to have an estimation of the risk to cary Covid-19 so that I know how to act
#2 · opened 23 hours ago by Nicolae Murgu Symptoms

As a user I want to see differences between regular Flu and Covid-19 so that I don't freak-out for nothing
#1 · opened 23 hours ago by Nicolae Murgu May 29, 2020 Symptoms To Do

Description of a user story

unibuc > mds > SafeFromContagion > Issues > #2

Open Opened 23 hours ago by Nicolae Murgu

Close issue New issue

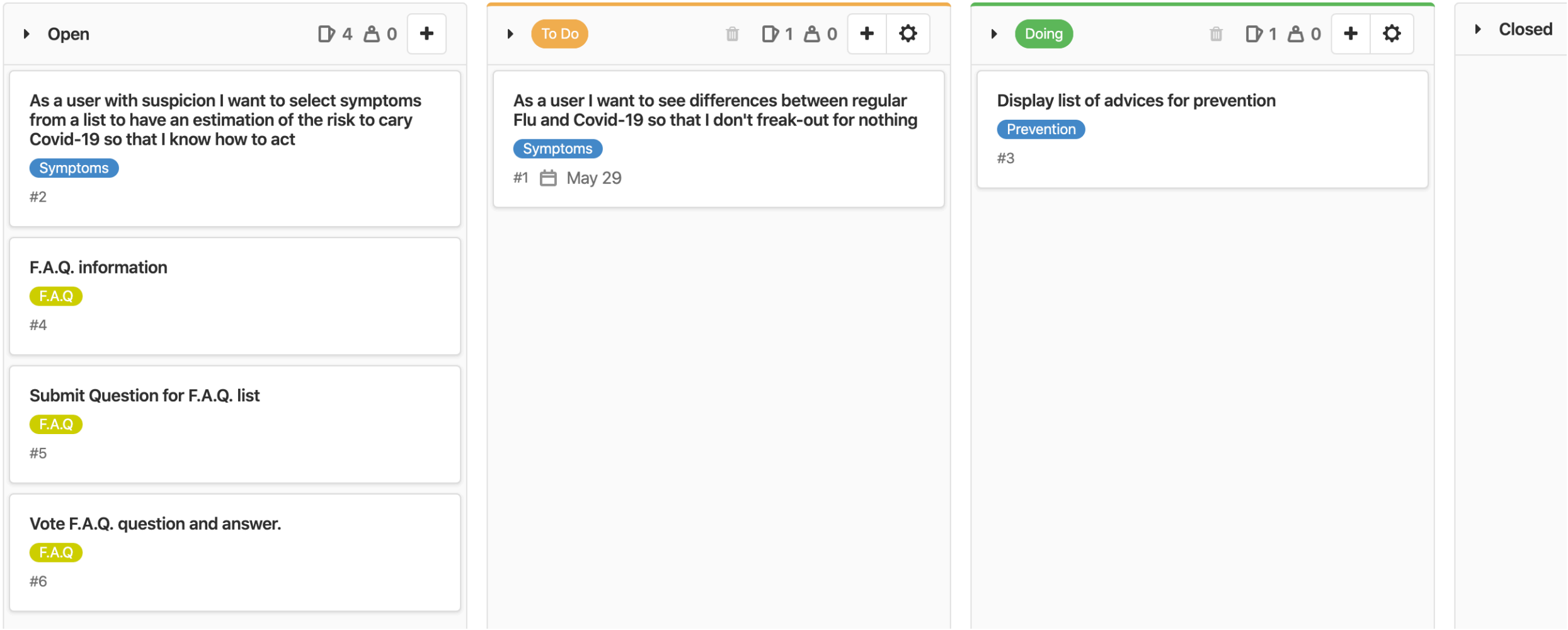
As a user with suspicion I want to select symptoms from a list to have an estimation of the risk to cary Covid-19 so that I know how to act

Acceptance criteria:

- list of checkboxes is presented to user with suspicion after clicking on a button
- user can select multiple options
- user can click an a button called "Evaluate risk" after checking boxes
- when user clicks on "Evaluate risk" the application must recommend to him a next action from this list:

- No risk of Covid
- Call your medic
- Call InfoLine for Covid-19
- Call emergency service

A (Kanban) Board for project progress



Personas (user roles)

Personas

Last edited by **Alin Stefanescu** just now

References

About User Centered Design

- https://uxplanet.org/user-centered-design-process-and-benefits-fd9e431eb5a9
- https://usabilitygeek.com/user-centered-design-introduction/

More about Personas:

- https://www.interaction-design.org/literature/article/personas-why-and-how-you-should-use-them

Personas for this application

Gigi

Characteristics:

- Age: 65
- Occupation: Commercial agent in "Piata Obor"

Health situation:

- Has stage 1 diabetes
- Has cardiovascular diseases
- Has respiratory disease

Hobbies:

- Supporter of Rapid football team; goes to games

Other:

- lives close to children
- tech-savy: low

Ion

Characteristics:

- Age: 73
- Occupation: Commercial agent in "Piata Obor"

Health situation:

- Hypertension
- Has respiratory disease

Hobbies:

- Traveling a lot

Other:

- lives alone
- not very preoccupied with hygiene
- tech-savvy: low -> average

Maria

Characteristics:

- Age: 21
- Occupation: Student at Mate-Info

Health situation:

- no important notes

Hobbies:

- Traveling
- Intense social live

Other:

- shares apartment with another student
- tech-savvy: high

Other examples of backlogs from last years:

- Beer Finder: https://www.pivotaltracker.com/projects/2315099
- Next course finder: https://www.pivotaltracker.com/n/projects/2315461
- Parking Finder: https://www.pivotaltracker.com/n/projects/1978201
- STB Finder: https://www.pivotaltracker.com/n/projects/1978171

User story definition

- What is a user story ?

A user story describes functionality that will be valuable to either a user or purchaser of a system or software.

- Aspects: Ron Jeffries Three Cs

Card	***A written description of the story used for planning and as a reminder.***
Conversation	***Conversations about the story that serve to flesh out the details of the story.***
Confirmation	***Acceptance Tests to confirm that the story was coded correctly***

Source: XP Magazine 8/30/01, Ron Jeffries.

Examples

Generic users stories

As a user, I want to reserve a hotel room

As a user, I want to cancel a reservation

Specific users stories

As a vacation planner, I want to see photos of the room

As a frequent flyer, I want to rebook a past trip, so that I save time booking

- Identify clearly the different users and their expectations …
- … especially for primary users (work on the right priorities)

Personas

- Marie e studenta la Mate-Info la Bucuresti. Locuieste in Otopeni si ia in fiecare zi autobuzul 449 pana la Piata Presei, unde conecteaza cu una din liniile 305, 331 sau 131 pana la Charles de Gaulles, de unde ia linia 2 de metrou pana la Universitate. Nu-i place sa stea la inevitabila coada pentru abonamente studentesti si e stresata ca in statia ei din Otopeni nu poate sa cumpere bilete. Nu-i place sa stea iarna in frig in statie, dandu-se ca autobuzul respecta arareori programul.

Personas

- Pavel este avocat, locuieste in Bucuresti in Drumul Taberei si merge cu masina frecvent la client. Este dependent de masina. I se pare ca traficul in Bucuresti este ingrozitor, iar parcarea este foarte stresanta. S-a saturat de amenzi de parcare si i-a fost ridicata masina de trei ori pana acum.

Where are the details ?

- An example from a job posting and search website

  A user can post her resume to the website.

  - What values can users search on? Country? City? Job title?
  - Does the user have to be a member of the site?
  - Can search parameters be saved?

- Many of these details can be expressed as additional stories

- A too large user story is called an *epic* and can be split into stories of smaller size

So a user story…

- Basic unit of work in an agile project
- Describes a desired piece of business functionality
- Small enough to be implemented in an iteration
- A good user story is the simplest statement about the system that:
  - The customer cares about
  - Test cases can be written to verify
  - Can be reasonably estimated
  - Can be reasonably prioritized

INVEST in good stories

INVEST in good stories

- Independent
  - Avoid introducing dependencies (leads to difficulty prioritizing and planning)
- Negotiable
  - Stories are not written contracts
  - Do not need to include all details
- Valuable
  - Valuable to users and customers
- Estimable
  - Because stories are used in planning
- Small
  - Large stories are hard to estimate
- Testable
  - Tests demonstrate that a story meets the customer’s expectations
  - Automate if possible

Why user stories

Emphasize verbal communication

Can be understood equally by developers and customers

Can be used for planning iterations

Support and encourage iterative development

Support participatory design

David Hussman on Helping Organizations Adopt Agile – User Stories
http://www.infoq.com/interviews/interview-david-hussman-agile

Definition of estimate

Estimate

- To form an **opinion** about
- A **tentative** evaluation or **rough** calculation
- A statement of the **approximate** cost of work to be done

Accurate

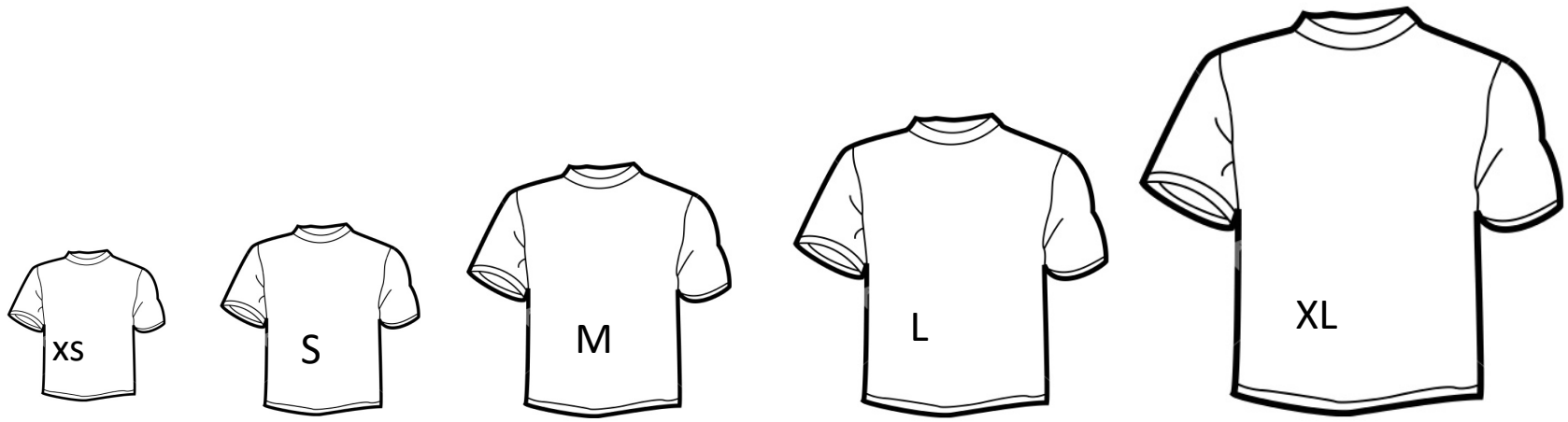
- Conformity to **fact**
- **Precision**
- **Exactness**
- Representation of the **truth**

Estimate != Accurate

What to consider when estimating

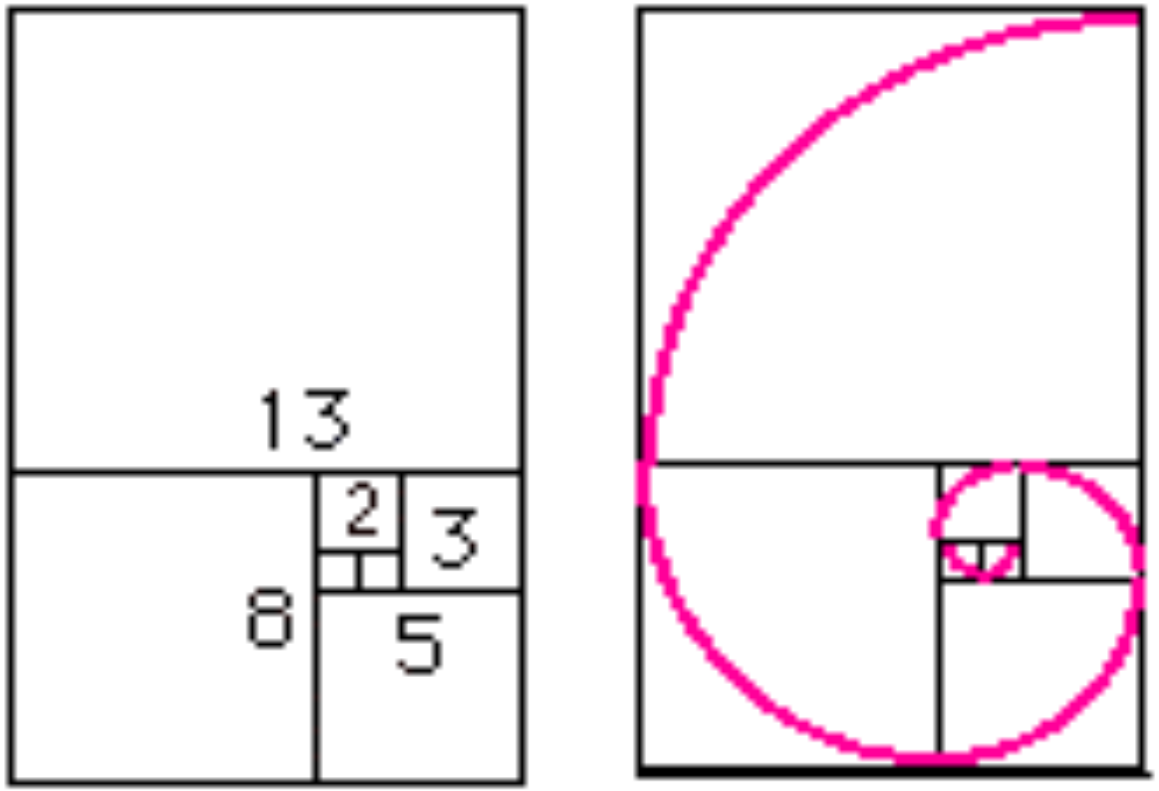
- Tests
  - Unit test for each line, acceptance test for each story
- Refactoring
  - The first time duplication or inefficiency is a concern
- Infrastructure
  - Considered for the first implementation of each layer
- Complexity
  - Some tasks are tough, and need more time (unknowns?)
- Tedium
  - Some tasks just take long because they do
- Everything…
  - Roll up all considerations into a single unit of measure

T-shirt sizes



XS – Trivial, almost no effort and is very well known
S – Low complexity and effort, known and well understood
M – More complexity and/or more effort than a Small
L – High complexity and/or effort. These stories may be broken down closer to the time they are played
XL - Too Big. An epic story with lots of unknown. These stories need more attention

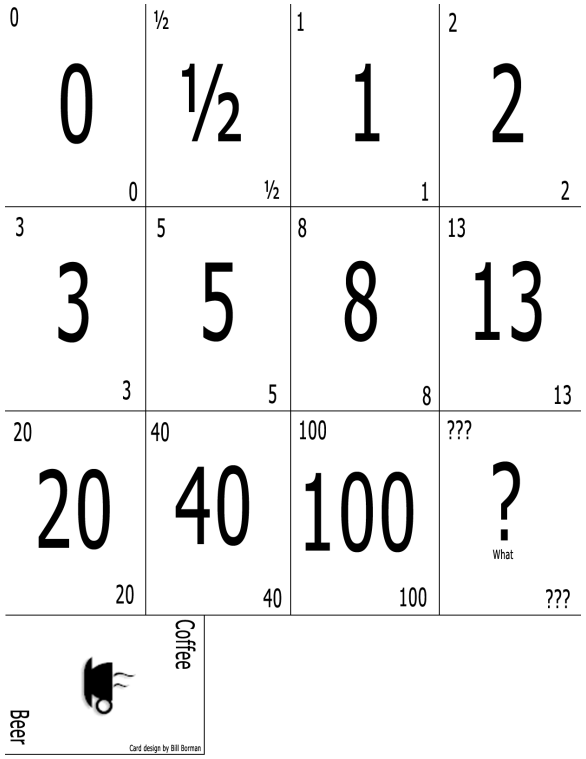
Fibonacci



Who estimates ?

One way to estimate: Planning Poker

Planning Poker = Fibonacci + Playing Cards



Planning poker rules

- Product Owner / Manager / RA explains story
- Team discusses work involved
- Everyone estimates individually
- Everyone reveals estimates simultaneously
- Lowest and highest estimates are justified
- Repeat until estimates converge

Overconfidence in estimation

- 90-90 rule
  - The first 90 percent of the code accounts for the first 90 percent of the development time. The remaining 10 percent of the code accounts for the other 90 percent of the development time.

– Tom Cargill, Bell Labs

- Hofstadter's Law: It always takes longer than you expect, even when you take into account Hofstadter's Law.

- Douglas Hofstadter: Gödel, Escher, Bach: An eternal golden braid

Prioritizing the backlog: MoSCoW

- Must – a feature without which you don’t have a product
- Should – a critical requirement that should be released
- Could – desirable but not necessary
- Won’t – may be considered for the future

Other agile approach: Kanban

- Visualize the workflow
- Limit WIP (stop starting & start finishing)
- Measure & optimize flow