Paweł Wujczyk

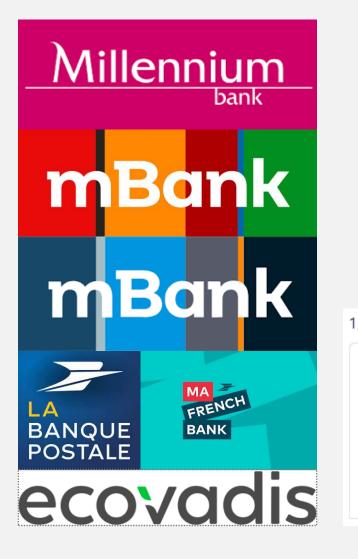
2021.04.14

Estimations - those possible and impossible

Engineering Managers Warsaw



My Background with estimations



- » Currently team leader of 11 people team consists of backend, frontend, testers and PO, working on internal EcoVadis product
- » Previously working on couple projects in banks as a developer and leader
- » Passionate developer writing code as a daily hobby and sharing tools with community



1,406 contributions in the last year



Agenda

» Importance of estimations

- » Story points
- » Hours/MD estimations
- » Estimating big projects with estimator

Importance of estimations

- » Senior developer needs to know how much his work cost
- » Business needs to know how much code costs
 - » Business usually don't know what means cheap and expensive
 - » Usually, business care more about the date which we committed than to the time which we need
- » No-Estimation doesn't exist even when your organization doesn't require to estimate, someday someone comes and ask about time to completion
 - » Because they would like to plan roadmap
 - » Because they need to put something into agreement with client
 - » Because business just would like to know if in half year, they will still need this button
- » Waterfall projects needs to be estimated



Hours/Man-days or Story Points





Kto czeka na nowy odcinek podcastu? Do daty premiery, tj. w przyszłą środę - 23. września, zostało jeszcze kilka dni. Mamy dla Ciebie niespodziankę: krótkie making of z nagrania 46. odcinka.see mora

See translation

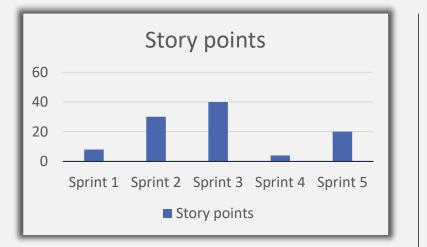


- » mBank Corporate fully scrum way of doing project
- » All ceremonies as in the book
- » Story points as an estimation currency
- » Two days of ordering of all US in backlog
- » Poker planning
- » Scrum pushed from top management
- » Help from well known agile coaches on each step of the delivery
- » We just cannot fail ;-)

ecovadis

- » Second approach to story points
- » Try with different team, different company

Story Points





- » Story points in the sprint hadn't normalize, one sprint was 30, the other just 8.
- » During the time we also seen deflation and inflation of the story points which made prediction more difficult

- » It measures complexity not time time also tells about it
- » But senior developer writes code faster than junior or regular one! – not true
- » Task estimated contain a lot more than code
 - » Reading the documentation
 - » Details with PO
 - » Writing code
 - » Manual test on the UI
 - » PR

Story Points







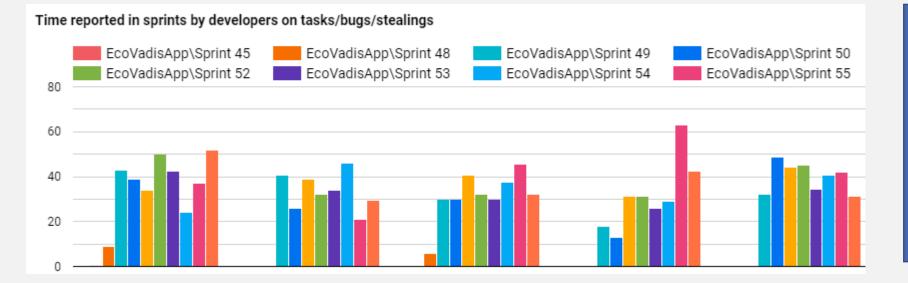
 I really appreciate that you are doing trending estimation in your team, but I need to make roadmap for next 3 years, so how much?

- Reverse estimation
 - Take story points delivered during last sprints
 - Add to the equation all absences and special events
 - Make story point/hours conversion
- Doesn't protect against inflation deflation
- Complicated
 - It is very difficult to explain business that we are using story points

Small tasks (inside the sprint) hours estimation



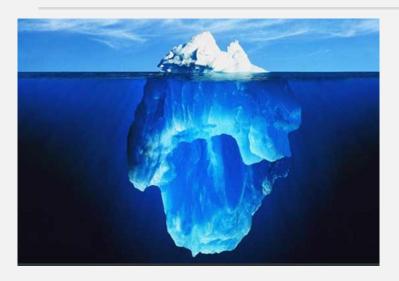
- » Detailed estimation (if general one is not enough)
- » 4 hours development day
- » Time registration for each task
- » Every standup validation if time was registered
- » During weekly meeting analysis difference between registered and estimated



- Environment setup 0,5h
- Coding 1h
- Pull request 0,5
- Unit tests 1 h
- Integration tests 2 h
- Manual tests 2 h
 One-line code change costs 6h

Ten-line code change costs 6 h

Medium tasks





Without consequences

- » Just guess and add contingency
- » If you really would like to make guess more proper. Guess with the team ^(C)

With consequences

- » Detailed estimation
- » Estimator

Not possible projects to be estimated



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- » Around 2 years project
- » Over one hundred technical people
- » Setup new entity bank

» Carbon module, we hadn't know anything about the requirements but one sentence

Estimator

- » Reflect all solution elements in table
- » For each element establish what simple, medium and complex change mean
- » Add additional areas which are not development, but they are needed (QA, Analysis, Deployment)
- » Make calculation of the cost

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Web Application

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Application Server



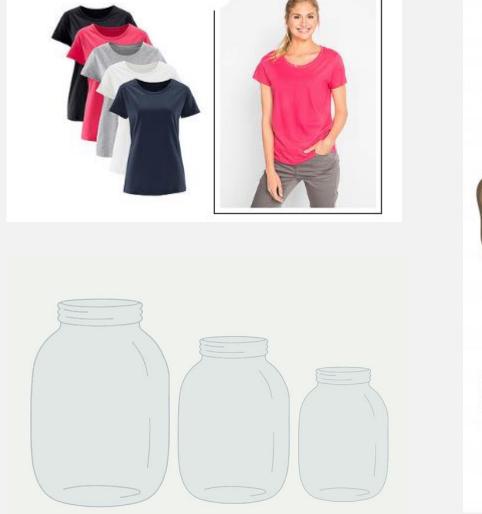
- » Here Simple change in Database (maybe adding a column) costs 1 hour.
- » QA effort for each change is calculated as 20% of development time
- » Full cost is cumulative value from Analysis, QA and Development

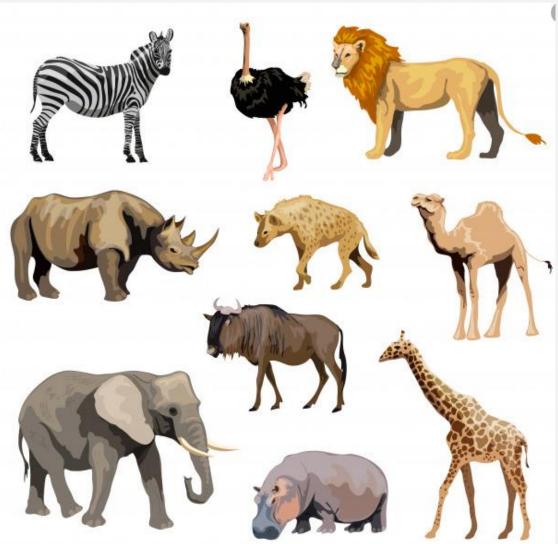
Estimator

- » Contains many systems DB, Application Servers, Queues, External interfaces, Desktop application, DWH...
- » Contains a lot of different phases of project: Development, UAT, QA, Deployment, Product Management, Functional design, technical design
- » Contains description of the changes, for the traceability purposes
- » Contains contingency for the estimation

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Other estimations – funny ones





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