Lab 0: Introduction to Sample Case: Fair Game 3002

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Learning Objectives

Having completed this lab, participants are able to:

- Review business modeling artifacts w.r.t. software requirements.
- Explain how existing requirements are reviewed and challenged.
- Review software design and user documentation w.r.t. extension plans.

Steps Overview

This lab exercise has the following steps:

1. Learn about the business context and product vision in a sample case.
2. Identify software requirements in the case.
3. Review design decisions already made in the case.

Business Scenario: Fair Game 3002 - A Sharing Platform for Computer Games

Let's start with a fictitious but realistic business scenario and application example.

An online platform for sharing, selling and playing computer games is the focus of the CoMo Learning Lab. This scenario addresses both business goals and ethical concerns in the gaming industry.

The business goals for this scenario are:

"An online platform provider wants to target computer gamers and independent game developers. They should be able to find each other (i.e., gamers should find games and developers can learn about the gamers playing their games). Pricing should be fair for both sides and the platform wants to be profitable too. The provider envisions a sharing portal/platform for digital products that specialize on computer games that is fair and transparent about payments as well as easy to join, to use and to leave. The market leader and its runner-up have recently been confronted with complaints regarding gamer age and in-game purchases. The platform providers want to develop an innovative, novel and dynamic pricing algorithm that leverages multiple sources, free of dark UI/design patterns that force players to stay online for irresponsibly long times or to spend more money than budgeted to be competitive."

The following example domain story summarizes the main use cases or user stories:

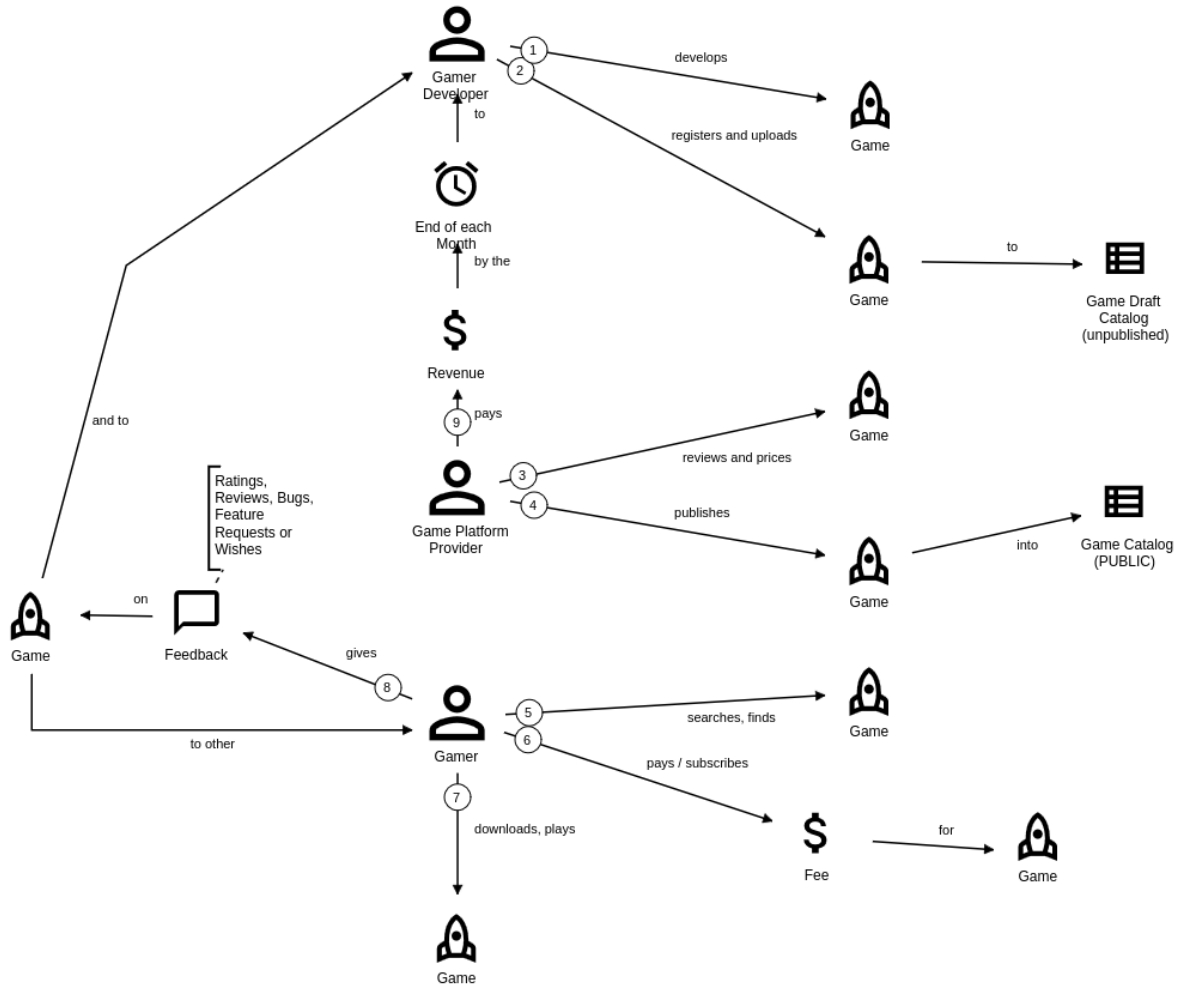

Figure 1: Sample domain story (Fair Game 3002 scenario)

Step 1: Learn about the business context and product vision in a case (30 mins)

Task: Review the description of the sample scenario and then discuss your questions within the group. Optionally start preparing a product vision from it (will be task in Lab 1). Format it according to the seven-part Moore template taught in Lab 1.

> *Hint:* Lab 1 provides the Moore product vision template and asks you to apply it. You might also want to review the "Crossing the Chasm" by Geoffrey A. Moore or Paolo Caroli's "Write the Product Vision" article.

Step 2: Identify software requirements in the case (30 mins)

Task: Derive at least one epic and two to three non-functional requirements for the Fair Game 3002 platform. Consider the needs of gamers, developers, and platform operators.

> *Hint:* Think about functional requirements (what the system should do) and non-functional requirements (qualities like performance, security, usability). You might want to create personas for each target audience to help with this task.

Step 3: Think about design decision that already seem likely (30 mins)

Task: Can you come up with Architectural Decision Records (ADRs), for instance about the interfaces consumed and provided by the system, its overall architecture and implementation technologies as well as requirements analysis, process modeling and software engineering tools?

Tools

No special tools are required here. Word processors, spreadsheets, and text templates such as Moore's product vision template are commonly used to present sample cases on the business level. Canvases, which can be seen as graphical or semi-graphical templates, are popular too; a prominent example is the business model canvas.

Requirements are typically specified in plain text too; templates exist. ADRs are often formatted as Markdown files. "ADG (Architectural Decision Guidance)" is a new command-line tool to create and maintain such ADRs.

Summary and Conclusions

This Lab 0 introduced us/you to a sample scenario and case that can be used to go through the CoMo content (lecture slides and labs).

Concepts Revisited

- Business model and context
- Early software requirements
- Business design decisions, technical design decisions.

Reflection and Call to Action

n/a in this Lab 0.

Repetition Questions

n/a in this Lab 0.

More Information

Product Vision and Innovation Techniques

Chapter 15 “Using Discovery for Validated Learning” in Patton (2014) discusses how innovation techniques such as design thinking and learn startup relate to user stories and story mapping.

Product vision and the Moore template are covered well online. “Product Vision” reports that Jim Highsmith uses the Moore template in his “Design the box” approach and republished his article. “Write the Product Vision” by Paolo Caroli also features the Moore template.

Examples of Design Thinking in Action

Design thinking at Airbnb is featured in the following online articles and blog posts:

- https://review.firstround.com/how-design-thinking-transformed-airbnb-from-failing-startup-to-billion-dollar-business/
- https://strate.in/airbnbs-successful-design-thinking-story/
- https://thisisdesignthinking.net/2015/05/airbnb-design-thinking-example/
- https://medium.com/@elliebroadribb/how-airbnb-used-design-thinking-to-beat-the-odds-58d6ddc8741a

The following online resources cover design thinking at UberEats:

- https://www.design-thinking-association.org/explore-design-thinking-topics/external-links/how-ubereats-team-uses-design-thinking
- https://medium.com/uber-design/how-we-design-on-the-ubereats-team-ff7c41fffb76
- https://www.slideshare.net/slideshow/uber-eats-design-thinking-presentation-pdf/277777642
- https://ivypanda.com/essays/ubereats-and-design-thinking-case-study/

Finally, design thinking at Braun/OralB and elsewhere are featured here:

- https://easyretro.io/blog/how-innovative-companies-use-design-thinking/
- https://careerfoundry.com/en/blog/ux-design/design-thinking-examples/ (has more)
- https://www.ideou.com/pages/design-thinking and https://www.ideou.com/blogs/inspiration/11-products-made-using-design-thinking

Frequently Asked Questions (FAQ)

- *Do I have to run through all labs, Lab 0 to Lab 7, to learn something?*
  Answer: No. Each lab is designed to be self-contained, starting with the sample solution to the previous one.
- *Is this stuff actually done in practice?*
  Answer: Indeed. Session on CoMo practices, DDD courses, etc. sell out at practitioner conferences such as DDD Europe; there is an active community (multiple ones, actually). Much of what you will see and learn has been done (under different names) in professional services for 20+ years, often under different names (from previous generations of method schools of thought). Read "Object-Oriented Development, Revisited", an article by Grady Booch (Booch 2025),"Object design and analysis methods before and after UML", a blog post by Rebecca Wirfs-Brock, or the background information page of the DPR project for detailed background information.
- *Can I work on my own case?*
  Answer: Yes, and lecturers might actually also change the cases to be worked on.

References

Booch, G. 2025. "Object-Oriented Development, Revisited." *IEEE Trans. Softw. Eng.* 51 (3): 725–27. https://doi.org/10.1109/TSE.2025.3536328.

Patton, Jeff. 2014. *User Story Mapping: Discover the Whole Story, Build the Right Product*. O'Reilly Media.