

Assignment 1

Advanced Software Engineering



Presented to: Dr. Islam El-Maddah

Made by:

* Abdullah Aml (2101398)
* Khaled Bahaa El-Din ()

**# Assignment 1 statement**

A factory produces kids toys. The process of production depending on **getting a proposal** and **developing a prototype** and **finally produce the toys** and **getting feedback** from the client. A **top designer do the proposed prototype**. that usually **reviewed** by a product manager.

The business of the factory needs to be automated and also the amount of sales and feedback related to toys needs **analysis** and Business analytics.

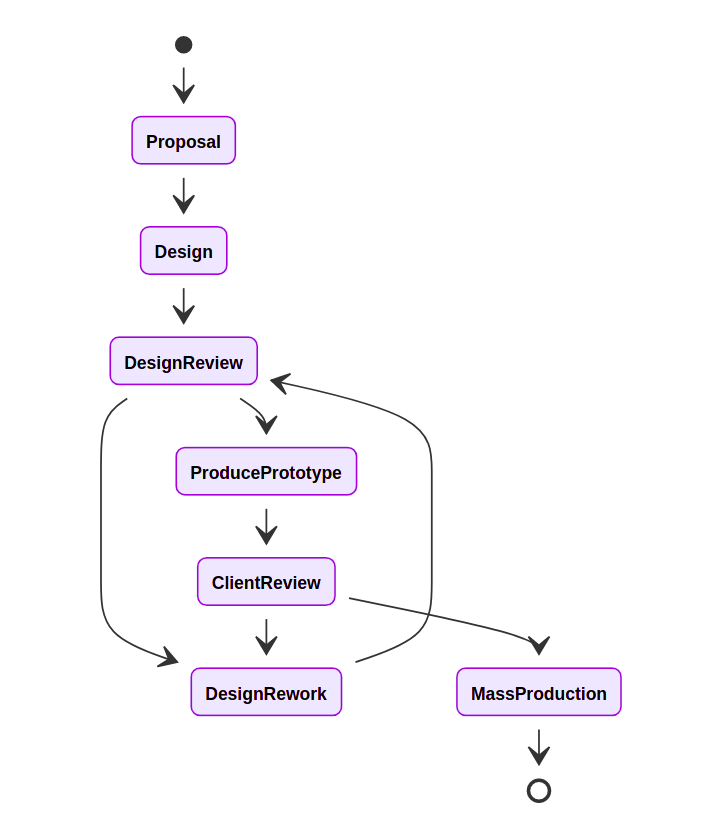
the toy factory has:

1. Number of toy designers.
2. Product managers.
3. Customer service who interacts with client to **propose toys** and **get feedback.**

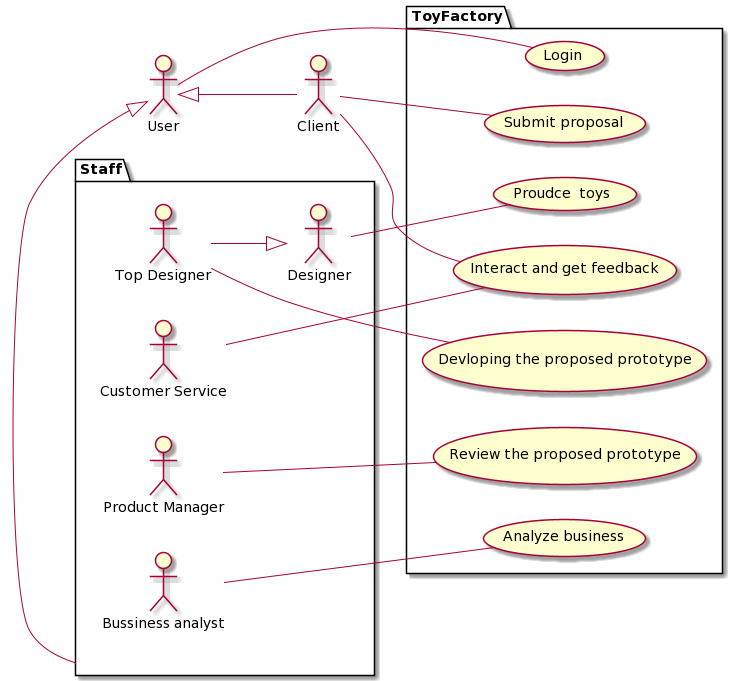
**# Assumptions**

1. The client submits a proposal design to the desired game.
2. The top designer proposes a prototype and submit it to the product manager for review. Once approved by the product manager, it is sent to the client for approval. After the client approves it, it is sent to the factory designers to implement it and track mass production degree of compliance to the main prototype.
3. Business analyst perform all business analytics needed for the mass production of the toys.

**# The Project State Diagram (Project Status)**

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**# Use case diagram**



**# Written script**

**# Use case description**

For the use case: **Interact and get feedback:**

|  |  |
| --- | --- |
| **Use case** | **Interact and get feedback** |
| **Actor** | **Customer service** |
| **Trigger** | **A toy prototype is manufactured and waiting for client’s feedback** |
| **Pre-condition** | **A meeting is held between customer service and the client** |
| **Main success scenario** | 1. The client receives the manufactured toy prototype. 2. Customer service schedules a meeting with the client. 3. The client analyses the prototype and compares it to the proposed one. 4. Customer service provide a sheet(edits/complaints) to the client to fill. 5. The client totally accepts the proposed prototype. 6. The client writes nothing in the (edits/complaints) sheet 7. The client signs for mass production. 8. The product manager informs the top designer that the prototype is accepted. 9. The top designer meets with normal designers to organize mass production plan. 10. The product manager informs business analysts to start their analytics for mass production. |
| **Post-conditions** | **The prototype is approved and mass production process is going on.** |
| **Extensions** | 3a. The client demand edits to be made to such prototype.  3b. The client totally refuses the proposed prototype.  3b1. Redesign negotiations are setup between the client and product manager.  4a. The client fills edits section in the sheet provided by customer service.  4a1. The edits are delivered to the product manager.  4a2. The product manager discusses the needed time of such edits with the top designer.  4a3. The client is informed with the time needed for such edit.  4a3a1. The client accepts.  4a3a1a1. Edits are made.  4a3a1a2. Customer service discuss the new prototype with the client.  4a3a2. The client refuses the proposed time.  3aa2a1. Prototype is refused. |

For the use case: **Review the proposed Prototype** **:**

|  |  |
| --- | --- |
| **Use case** | **Review the Proposed Prototype** |
| **Actor** | **Product Manager** |
| **Trigger** | **The top designer finished the prototype design and submit it to the dashboard** |
| **Precondition** | **The product manager is logged in** |
| **Main success scenario** | 1. The product manager (PM) opens the pending projects (waiting for review state) page 2. The system lists all pending design to be reviewed (waiting for review state) 3. The PM selects a project form the list of projects. 4. The system displays the project page that contains:    1. The list of designs and the designer comments.    2. The client description of the toy    3. The design info (contacts, history)    4. The project time line. 5. The PM reads the project description and submit an acceptance design review that contains:    1. Rating out of 5.    2. Comments of the design. 6. The System saves the review. 7. The system updates status of the of the project to (waiting for prototype production). 8. The system appends the accepted design to last of (waiting for prototype production) list. |
| **Post-conditions** | **The design is accepted** |
| **Extensions** | 5a. The PM does not accept the design  5a.1. The system saves the review.  5a.2. The system updates the projects state to (design rework).  5a.3. The system adds the project to the (design rework) list. |

**# User stories**

|  |  |  |  |
| --- | --- | --- | --- |
| **Story ID** | **As a/an** | **I want to** | **So that** |
| 1 | Client | Get a prototype of a certain toy by telling the toy factory my thoughts about the toy design | Obtain mass production of identical toys. |
| 2 | Customer service | Get feedback from the client about the proposed prototype. | make sure that the client is always satisfied |
| 3 | Customer service | Ensure that no issues with the delivered prototype | Make the client sign for mass production |
| 4 |  |  |  |
| 5 |  |  |  |
| 6 |  |  |  |
| 7 |  |  |  |
| 8 |  |  |  |
| 9 |  |  |  |
| 10 |  |  |  |

**# Value/Difficulty diagram**

Shape

Description automatically generated with medium confidence

**# Final notes**

* We used <https://plantuml.com/use-case-diagram> to draw our use case diagram.
* UML diagram is made with a scripting language on [plantuml](https://plantuml.com/use-case-diagram).
* We used <https://app.mural.co/> to plot the value vs difficulty diagram.
* We used [(Markdown mermaid)](https://mermaid-js.github.io/mermaid/" \l "/) to generate state diagram