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Faculty of Engineering.

Subject: Software Modeling

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Workshop 1 Arcade Video Games Machine

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Indice

Introduction:	2
Business Rules:	2
Stakeholders:	2
Tols	2
User Stories	3
CRC Cards	4
Diagram class	5

Introduction:

In this technical report, we present comprehensive documentation for the development and application of a software solution tailored to meet the needs of an arcade video game machine company. The software has been designed to streamline the processes of managing a catalog of arcade machines, handling customer interactions, and supporting the sales, customization, and financing of arcade systems. This report includes an in-depth analysis of the system's architecture, the rationale behind key design decisions, detailed business rules, and the methodologies used to ensure the robustness and scalability of the solution

Business Rules:

- Choose the type of materials of a machine to buy: wood, aluminum or carbon fiber.
- Displays the list of available games.
- Add games based on a code to the machine to be purchased.
- Finalize the purchase of the machine and add customer information for delivery.

Stakeholders:

- Users: people can purchase the arcade video game machine
- Sellers: people can publicated and update the catalog

Tols

Programming Language: Python

User Stories

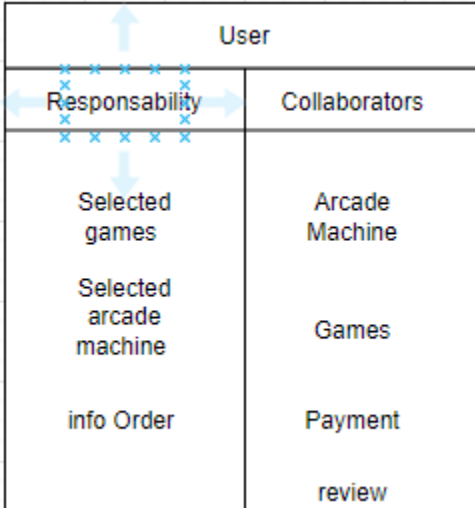
1. **As a user**, I want to **choose the type of materials (wood, aluminum, or carbon fiber) for the arcade machine** so that I can customize the machine to my preferences.
 - **Acceptance Criteria:** The user can select from a list of material options before adding the machine to the cart.
2. **As a user**, I want to **see a list of available games** for the arcade machine so that I can select the games I want to add to the machine.

- **Acceptance Criteria:** A list of games will be displayed when customizing the machine, with details such as name, genre, and classification.
- 3. **As a user**, I want to **add specific games to the machine using a game code** so that I can customize the machine with the games I prefer.
 - **Acceptance Criteria:** The user can input game codes, and the system will validate and add the game to the machine if the code is correct.
- 4. **As a user**, I want to **finalize the purchase of the arcade machine and input my personal information for delivery** so that I can ensure the machine will be delivered to my desired location.
 - **Acceptance Criteria:** After completing customization, the user will be prompted to enter delivery information, and the system will confirm the purchase.
- 5. **As a user**, I want to **customize the arcade machine with a variety of games** so that I can personalize the entertainment experience.
 - **Acceptance Criteria:** The user can select multiple games from the list of available games and add them to the machine.
- 6. **As a user**, I want to **review the customization options of the arcade machine (materials and games added)** before finalizing the purchase so that I can confirm my choices.
 - **Acceptance Criteria:** The user is able to review selected materials and games before proceeding to checkout.
- 7. **As a customer**, I want to **receive an estimated delivery date after providing my shipping details** so that I know when to expect my arcade machine.
 - **Acceptance Criteria:** After submitting delivery information, the system displays an estimated delivery date based on the shipping method chosen.
- 8. **As a customer**, I want to **choose between payment options, including financing plans**, so that I can select the most convenient way to pay for the machine.
 - **Acceptance Criteria:** Multiple payment options, including installments, will be available before finalizing the purchase.
- 9. **As a user**, I want to **track my order status after completing the purchase** so that I can stay informed about when the machine will be delivered.
 - **Acceptance Criteria:** The system provides an order tracking feature after purchase confirmation.

CRC Cards

Arcade Machine	
Responsability	Collaborators
contained games	Games
add games	User

Game	
Responsability	Collaborators
info game	Arcade Machine User

User	
Responsability	Collaborators
 Selected games Selected arcade machine info Order	Arcade Machine Games Payment review

Review	
Responsability	Collaborators
show comentarios whir user	user arcade machine

Diagram class