

WORKSHOP #1 TECHNICAL REPORT

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User stories:

- As a customer, I want to be able to choose the material of the arcade machine, so what it adapts to my needs.
- As a customer, I want to have a list of available games, so what i can choose the one I want to play.
- As a customer I want to be able to add the games that I buy to the arcade machine, so what I can then play them later.
- As a customer, I want to finalize the purchase of the arcade machine, so what i can have access to it.
- As a customer, I want to be able to register my data, so what the machine is my property.

- As a customer, I want that the store have a merchandising section for the store, so what i can buy items that I like.
- As a customer, I want to know the price, name, year of manufacture of each machine, so what i can know if it meets my needs.

Objected oriented principles analysis:

Through the arcade machine, store, user and games classes, the implementation of encapsulation within the arcade store program can be seen, since the internal attributes of each class are stored within each class, showing the user those attributes that are desired.

Likewise, the use of abstraction is evident in each of the classes because the attributes and methods necessary for the implementation in the program were modeled, discarding those attributes that are not necessary for the implementation.

Polymorphism is evident in the purchase method of the store class, in which different types of products (arcade machines, games, merchandising) are handled in the same place, varying the way in which it is handled depending on the product.

Finally, in the main file of the program, objects like the user, the arcade machine and the games are instantiated, varying only in the content of their attributes, implementing in this way the object-oriented programming.

CRC Cards:

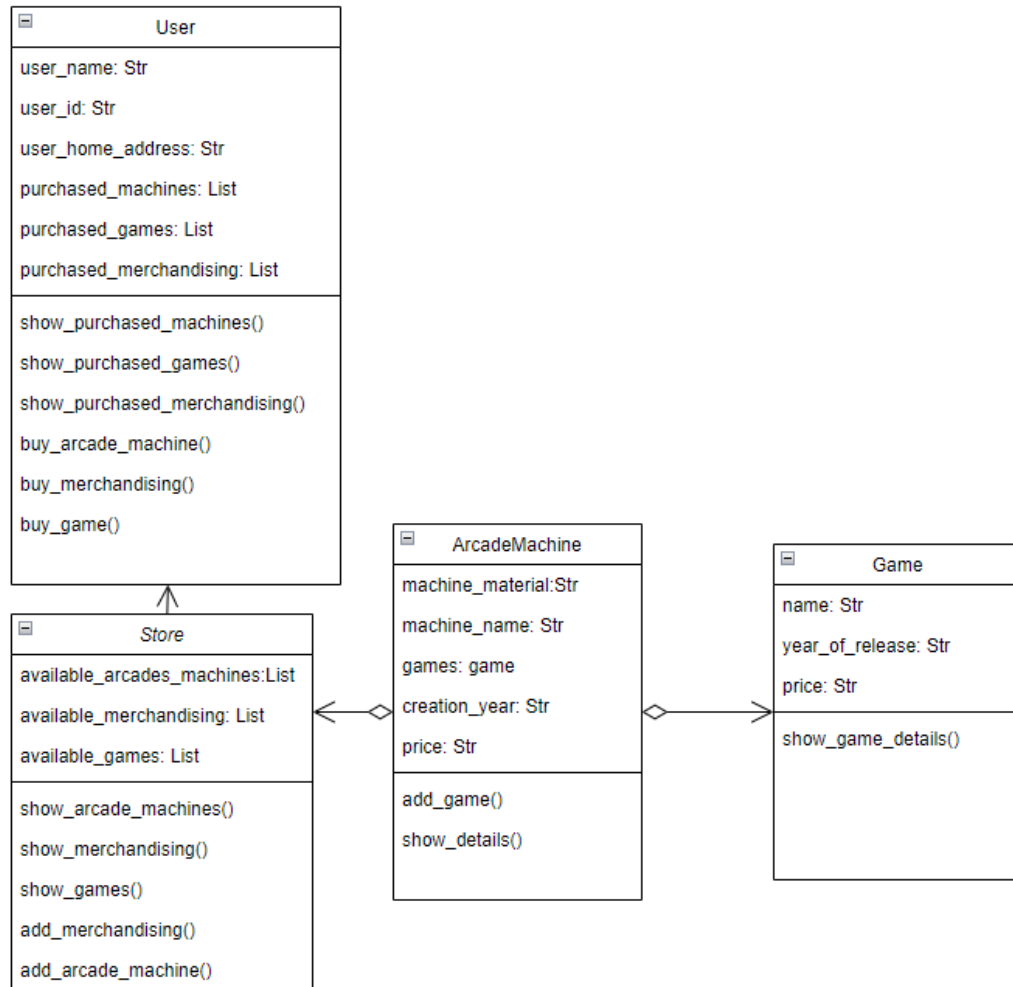
Store	
Responsability	Collaboration
Have all the products sold in the store, like arcade machines, games, and merchandising. Show all the products sold in the store. Add products to the store.	Arcade machine User

Arcade machine	
Responsability	Collaboration
<p>Have the arcade machine attributes like, material, games, price, name and year of creation.</p> <p>Allow the addition of games.</p> <p>Show the attributes of the arcade machine.</p>	<p>Store Game</p>

User	
Responsability	Collaboration
<p>Have user information such as username, ID, home address, purchased machines, purchased games, and purchased merchandising.</p> <p>In the same way, buys arcade machines, games or merchandising, and also shows the products he has purchased.</p>	<p>Store</p>

Game	
Responsability	Collaboration
<p>Have the game information like name, year of release, and Price.</p> <p>In the same way, show the details from the game.</p>	<p>Arcade machine</p>

Class diagram:



This class diagram shows the User class, which contains the user's identification attributes as well as the methods for purchasing products from the store and displaying the products that have been purchased.

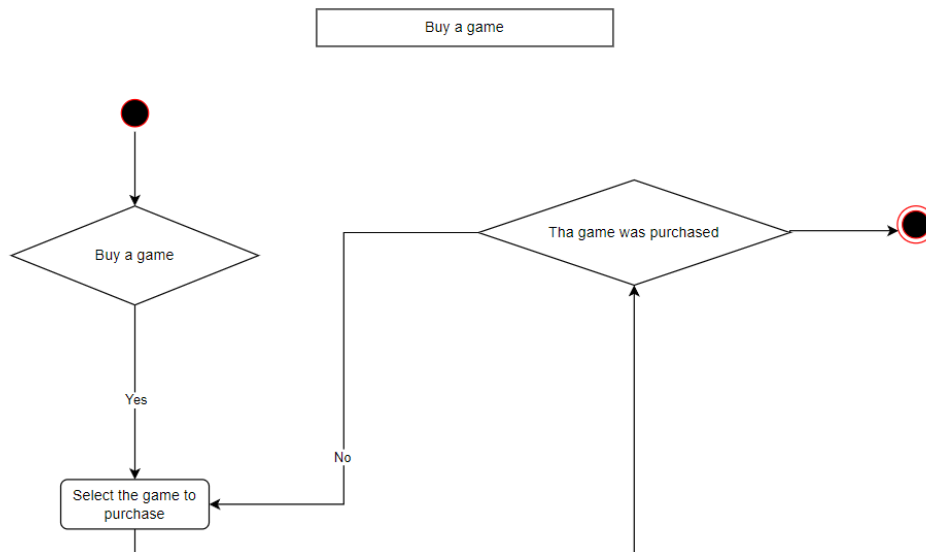
The Store class is also shown, which has the lists of available products and the methods for displaying the products from the store and adding products to the lists of available products.

It also shows the Arcade Machine class, which includes all of its identification attributes, as well as the methods for adding games and displaying details of the machine.

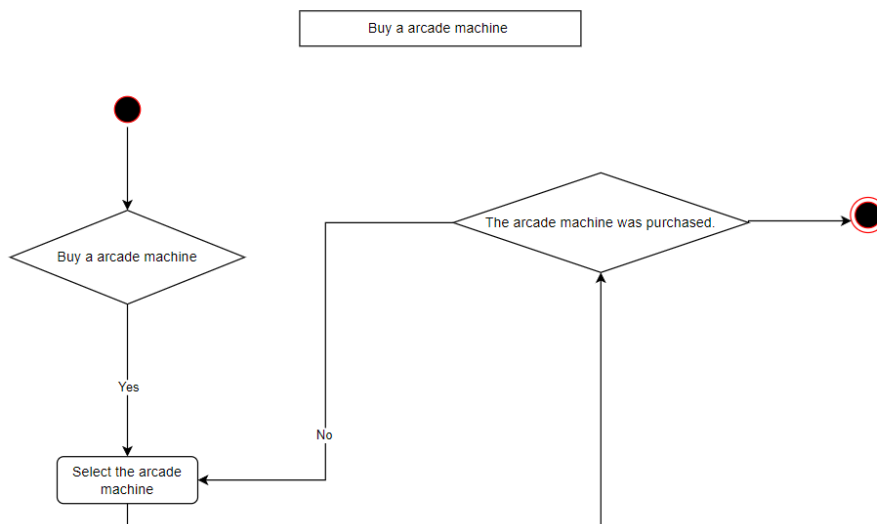
Finally, the Game class is shown, which includes the attributes name, year of release, and price, as well as the method for displaying the details of the game.

Activity diagrams

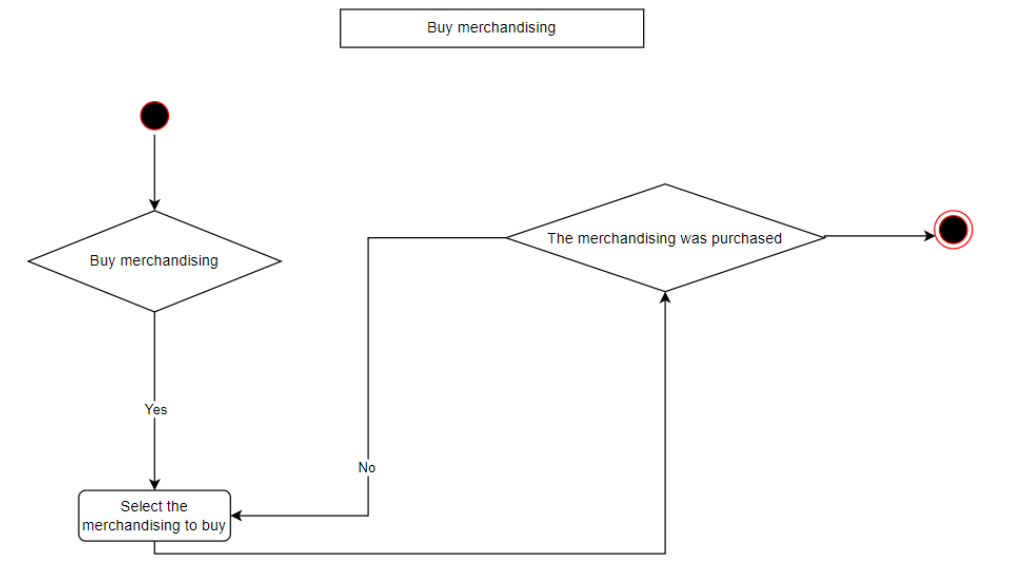
This diagram shows the process for purchasing a game, where the game to be purchased is selected, and after selecting it a "game purchased" message is displayed.



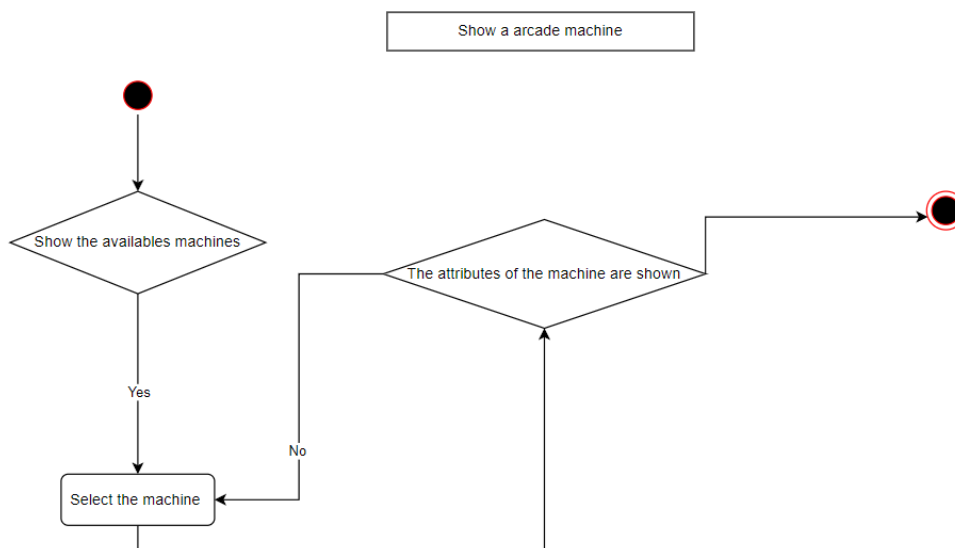
This diagram shows the process for purchasing a game, where the game to be purchased is selected, and after selecting it a "game purchased" message is displayed.



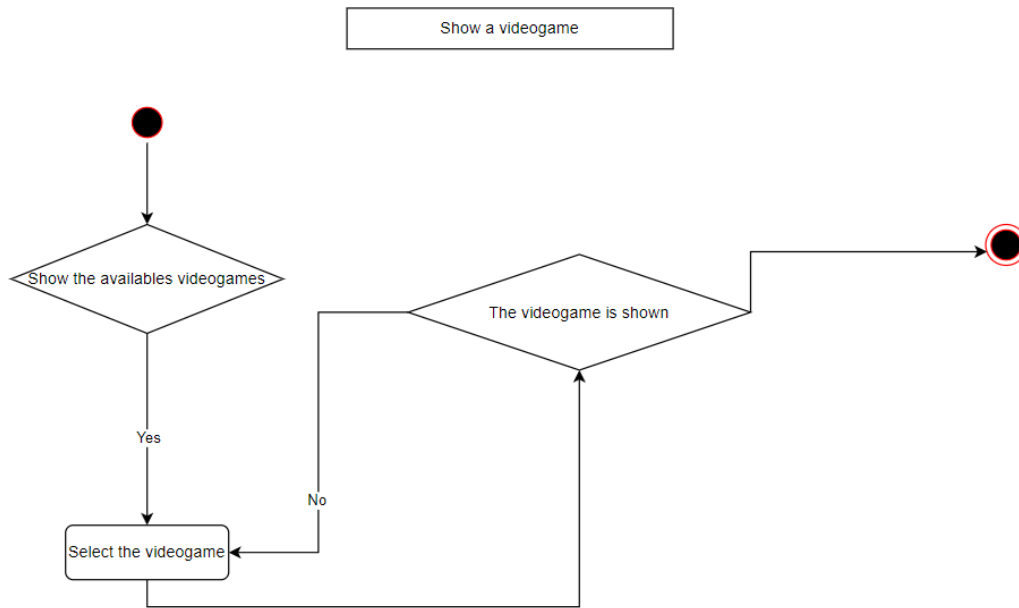
This diagram shows the process for purchasing merchandising, where the product to be purchased is selected and after selection a purchased product message is displayed.



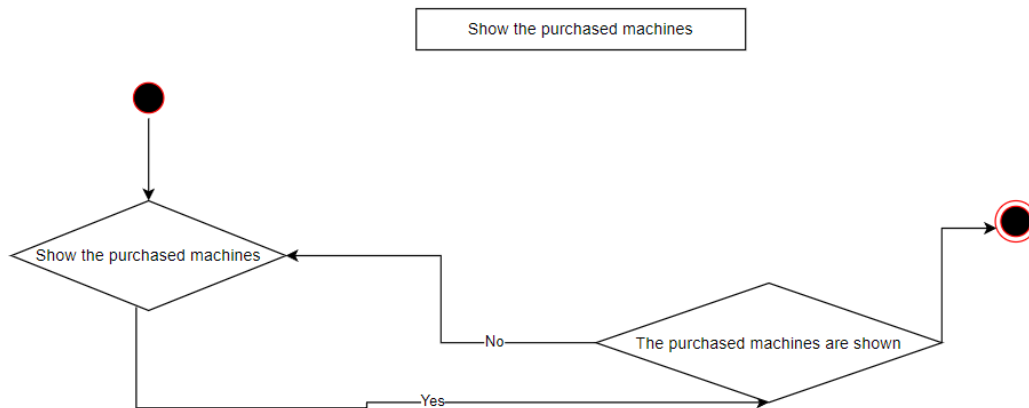
This diagram shows the process for displaying an arcade machine, where after selecting the option “Show the arcade machines”, its attributes are displayed.



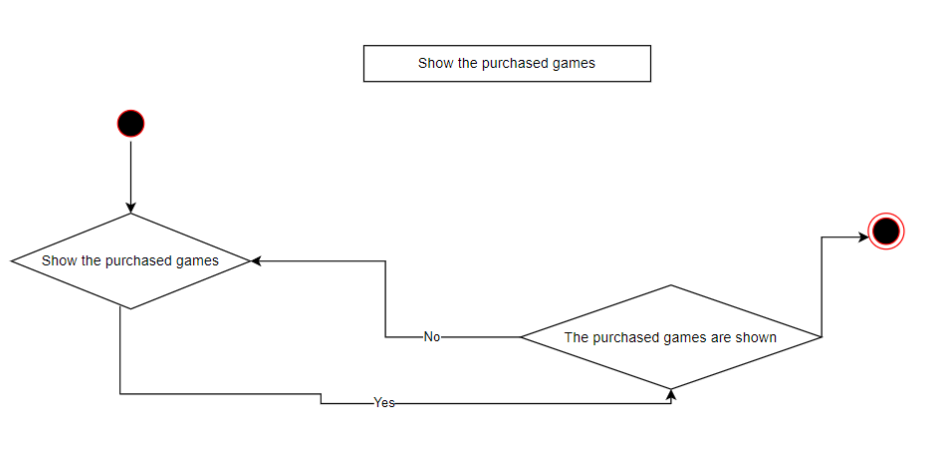
This diagram shows the process for displaying a video game, where after selecting the option “Show the available games”, its attributes are displayed.



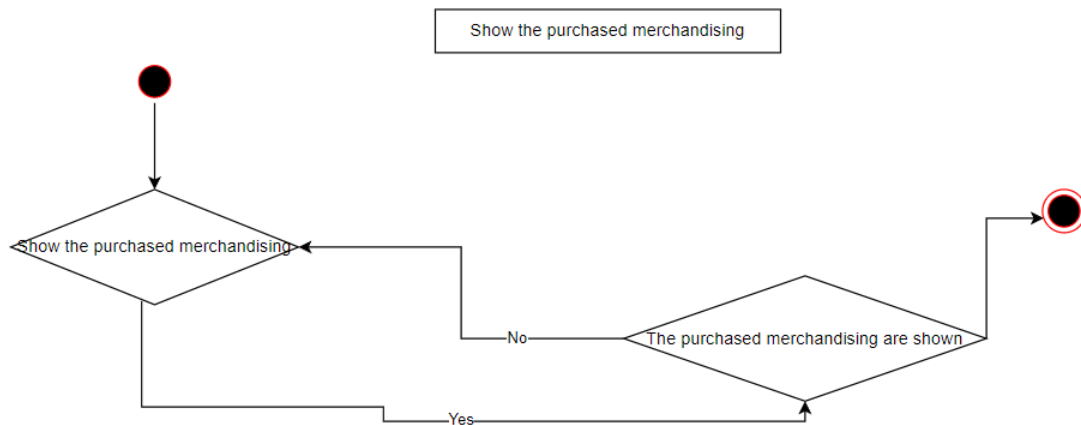
This diagram shows the process for displaying purchased arcade machines, where selecting the "Show the purchased machines" option displays the purchased machines.



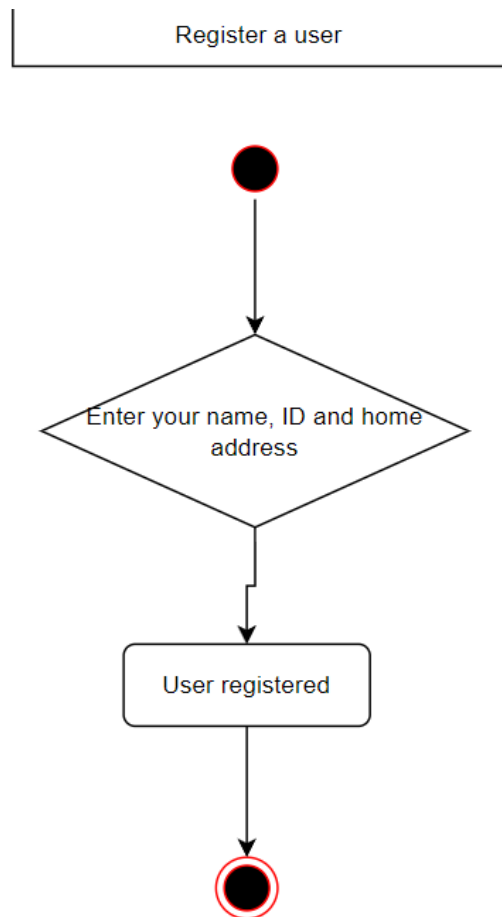
This diagram shows the process for displaying purchased games, where selecting the "Show the purchased games" option displays the purchased games.



This diagram shows the process for displaying purchased merchandising, where selecting the "Show the purchased merchandising" option displays the purchased products.

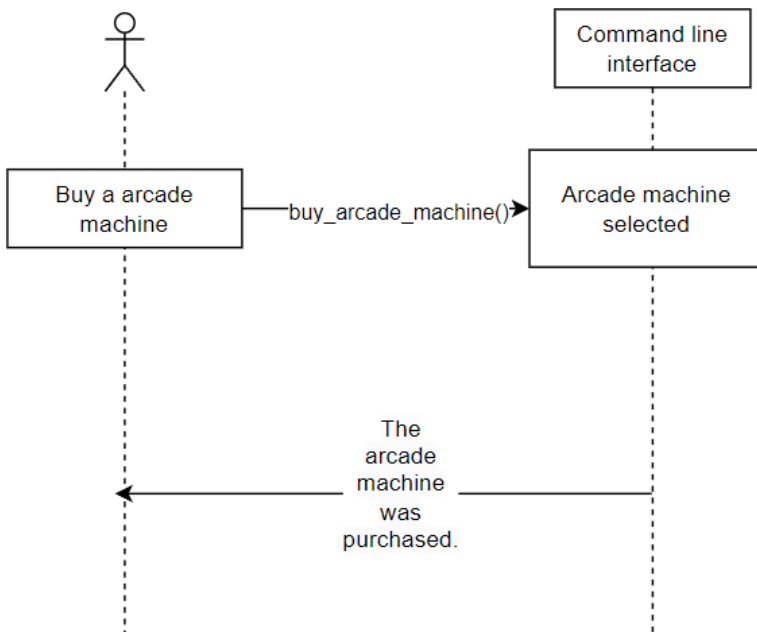
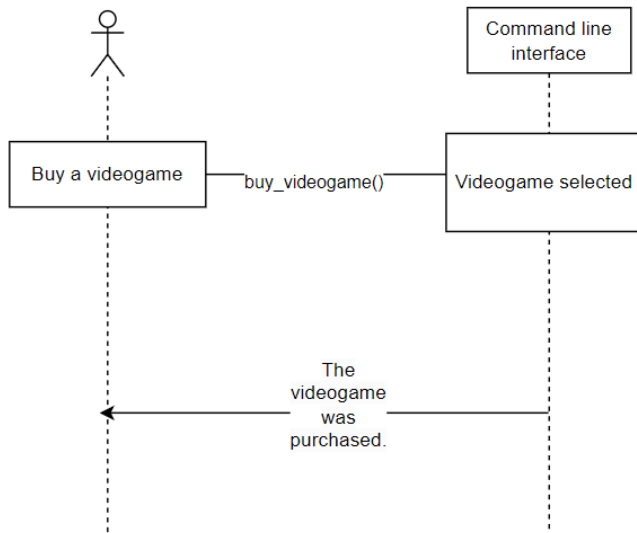


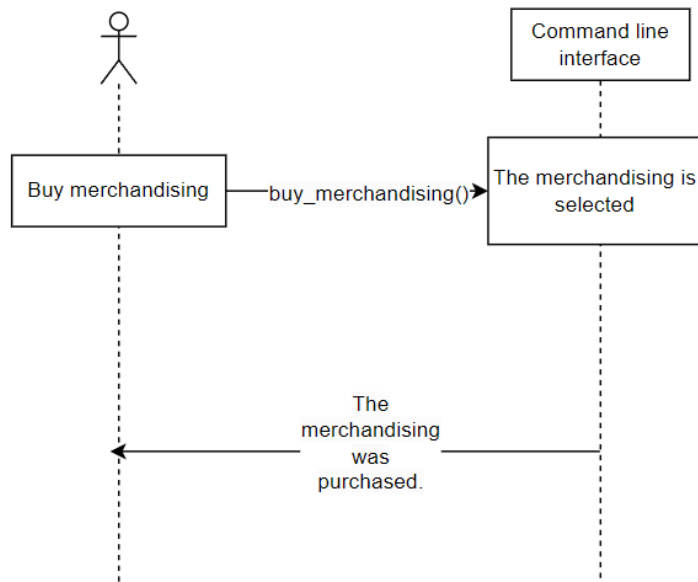
This diagram shows the process to register a user where after saving the name, id and home address, the user is registered.



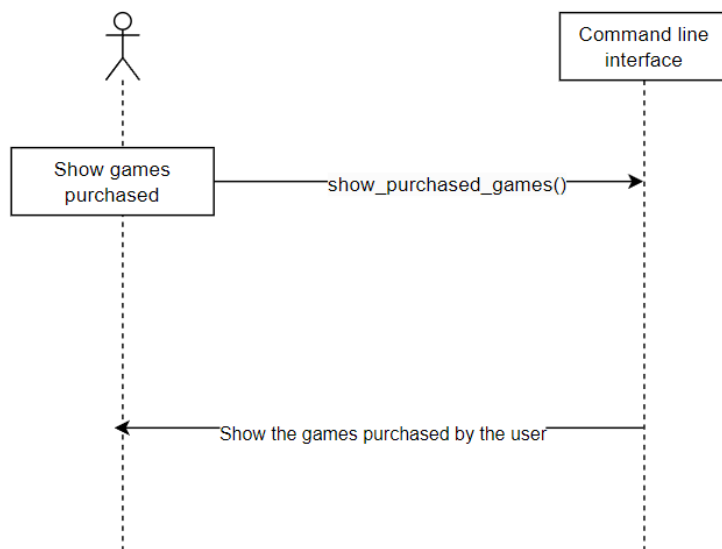
Sequence diagrams

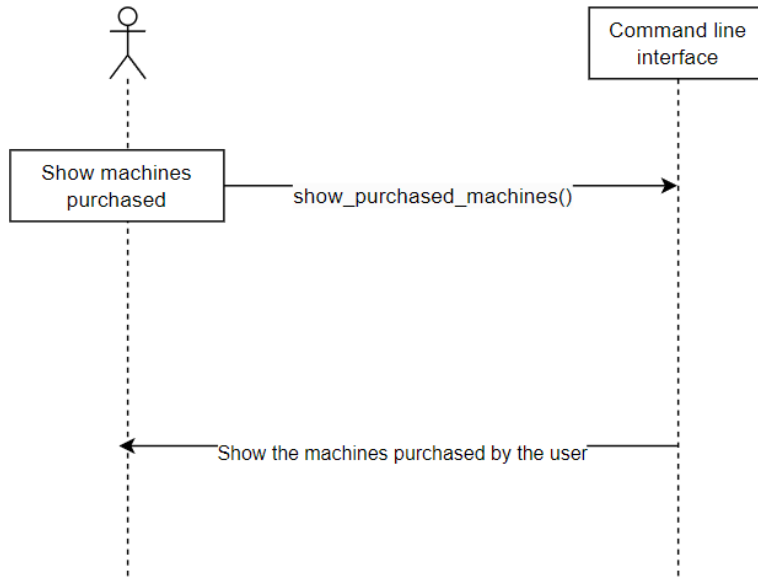
These diagrams show how when trying to buy a certain product (video game, arcade machine or merchandising) this information is received in the application and the acceptance of the purchase is returned.





These diagrams show that when selecting the option to show purchased products (games and arcade machines) the application returns the products purchased by the user.





These diagrams show that when selecting the option to display the store's products (games, merchandising and arcade machines), the application returns the products available in the store.

