Specification of software requirements for Tempo Artist

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Software Construction and Decision Making

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User Stories User

stories are found in the following Miro board (press the button).

Product and Sprint Backlog:

To view the board with the product backlog and sprint backlog, please press the following button.

Use case diagrams

Process: Main system operation.
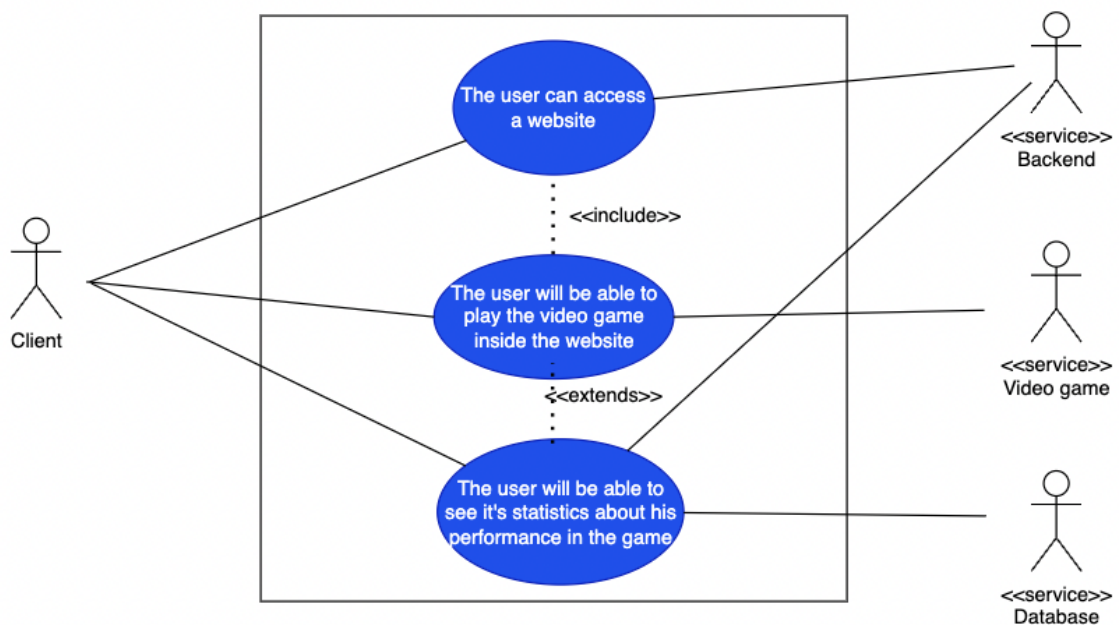
Process: Authentication and account

The user will be able to create an account

<<include>>

The user will be able to login with its account

<<extends>>

The user will be able to consult and/or modify its account information

Client

<<service>>
Backend
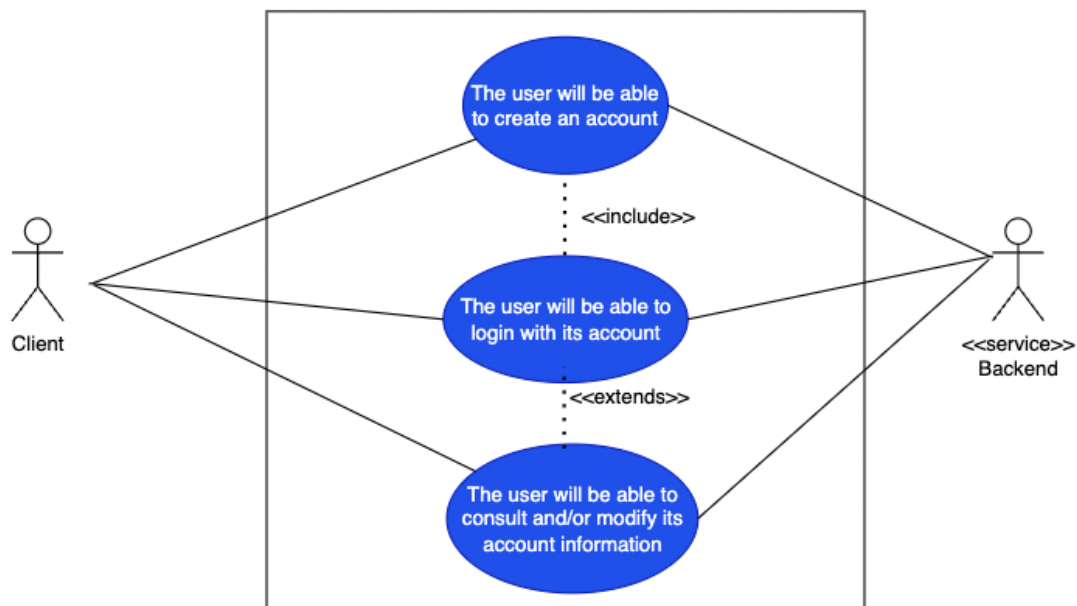
Process: User-Videogame interaction

The user will be able to choose what level he wants to play

<<include>>

The User will be able to pause and/or start the game

The results will be saved inside the database at the end of the game

The user will be able to visualize the current score during the game

Client

<<service>>
Video game
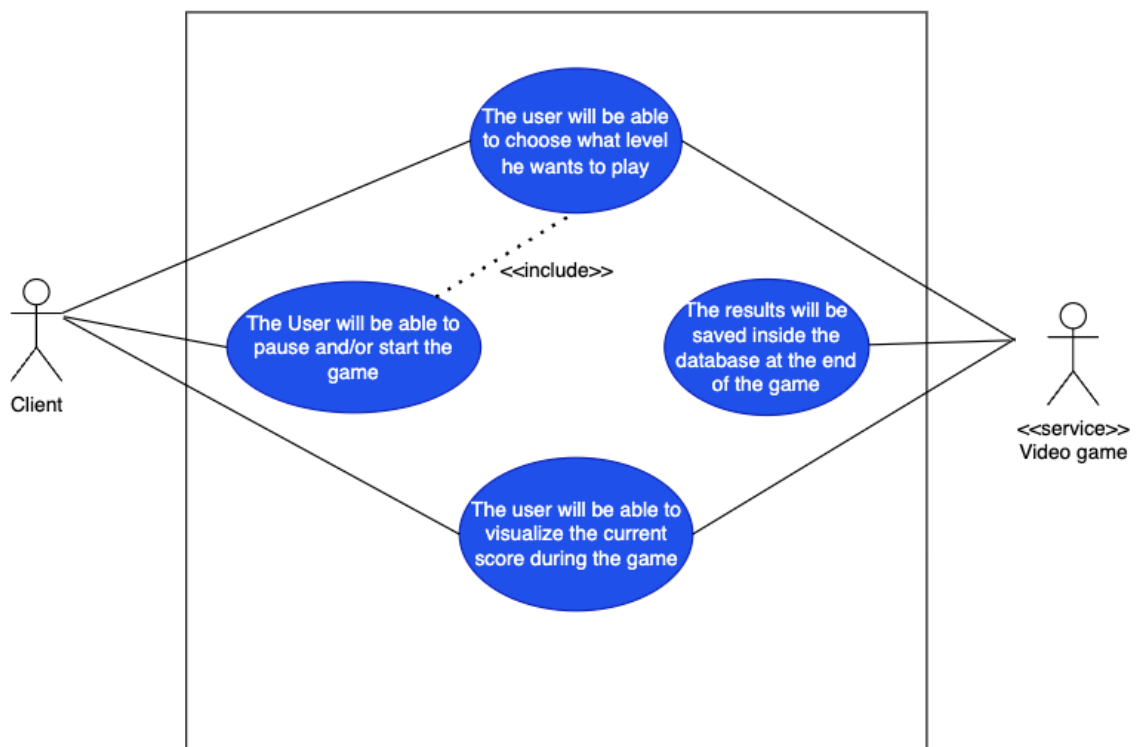
Process: Video Game operation
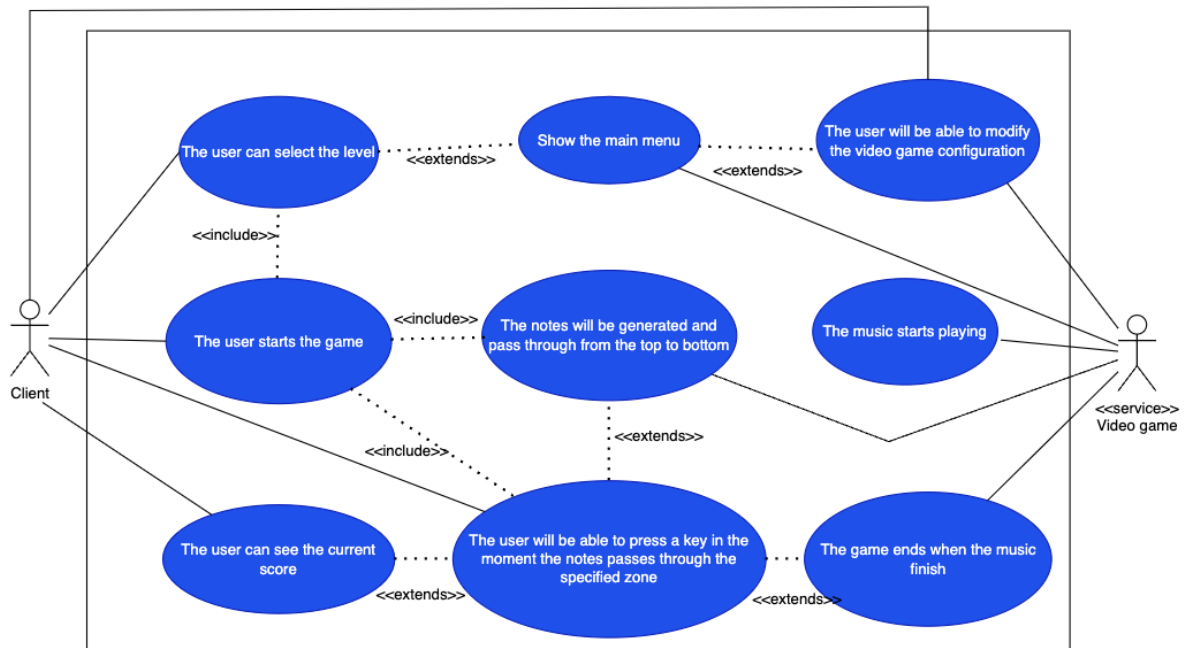
Process: Statistics visualization

Descriptive Tables of Requirements

Main system operation:

The user can access a website

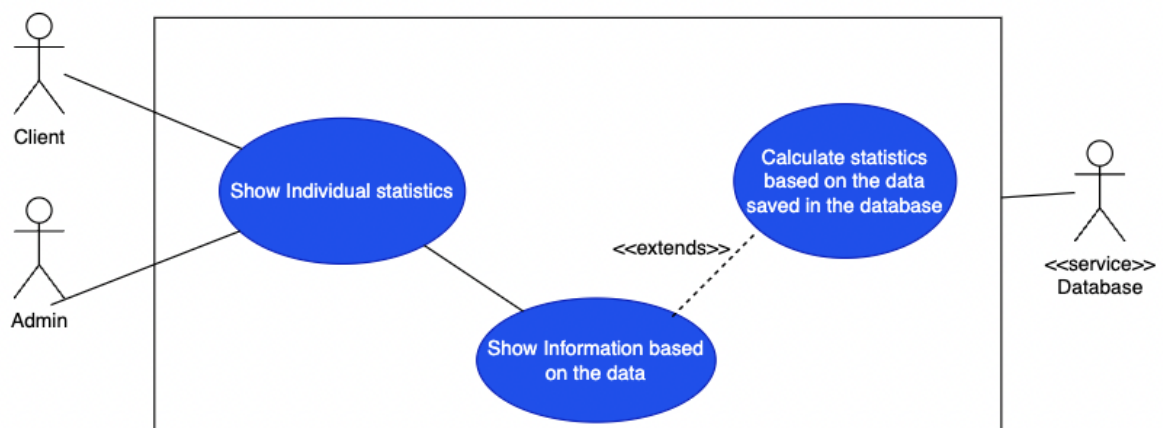| Related requirements	play the video game on the website, check statistics, log in
Description	The user will be able to enter the website, in order to choose between starting the video game, or viewing its statistics.
Requirement goal	Enter the project website.
Main actors	client, backend
Acceptance case	If the user enters correctly, it will redirect him to the main page of the application.

The user will be able to play the video game within the website

Related requirements	access the website, log in
Description	The user will be able to enter and play the video game through the website.
Requirement goal	Play the video game.
Main actors	client, videogame, backend
Case of acceptance	If the user enters correctly, he will be able to view the videogame through the website.

The user will be able to consult statistics about their performance in the game

Related requirements	enter the website, log in
Description	The user will be able to obtain certain data stored in the database, displayed in the form of graphs and statistics

Requirement goal	Consult the statistics related to your account
Main actors	client, backend, database
Acceptance case	If the user enters correctly, he will obtain specific graphs and statistics.

Authentication and account:

The user can create a new account

Related requirements	Login, data query and statistics
Description	The user must enter personal information such as name, email and password in order to register their account and save it in the database.
Requirement goal	Obtain information from the user in order to identify the user
him Main actors	client, database, backend
Case of acceptance	The data is correctly saved in the database and the user navigates to the main page.

The user will be able to log in

Related requirements	Account creation, access to the main page
Description	The user will be able to log in through the website, in order to see the statistics and play the video game.
Requirement goal	Identify yourself through the website.
Main actors	client, backend
Case of acceptance	If the user enters the data correctly, he will be redirected to the main page of the website.

The user will be able to consult the information of his account.

Related requirements	Login, consultation of data and statistics, authentication.
Description	The user can view, edit and confirm the data related to his account, such as email, name, password, among others.
Requirement goal	Visualize the user's data in order to be modified and/or confirmed
Main actors	client, database, backend, videogame
Acceptance case	The modified data is correct, the user will return to the main page

User-videogame interaction:

The user will be able to stop and start the game

Related requirements	choose level, view current score
Description	The user can pause or resume the current game, to have flexibility during the game.
Requirement goal	Pause or resume the current game.
Main actors	client, videogame
Case of acceptance	If the game is paused, all the processes of the game will be "frozen", and a menu will appear to be able to resume the game. If the game is resumed, it will continue with its process and continue the game.

The user will be able to visualize the score of the level

Related requirements	choose level, pause or resume the game, choose difficulty
Description	The user will be able to visualize the current score of his game, which is related to the mechanism of the video game

Requirement goal	Visualize the score of the current game.
Main actors	client, videogame
Acceptance case	The client visualizes the score, so the game will continue in progress

Video game operation

The user can modify the configuration

Related requirements	pause game, start level
Description	The user will be able to modify the default/current configuration, such as the volume, brightness, etc.
Requirement goal	Modify the current configuration of the game.
Main actors	client, videogame
Acceptance case	Values within configuration

Musical notes are generated in a top-down direction.

Related requirements	choose level, choose difficulty, start game
Description	Notes will scroll vertically, simulating some kind of gravity.
Requirement goal	Have a default traversal method at all levels.
Main actors	videogame
Acceptance case	The client sees the notes of the current game falling from the top of the screen.

The user can click when the notes pass through the appropriate area

Related requirements	pause or resume the game, show current score, scroll notes vertically
Description	The user can click on any of the valid keys when he thinks it's time suitable. With this you can determine the trajectory of the game.
Requirement goal	Record client signals and verify input.
Main actors	client, videogame
Acceptance case	The client will receive a positive or negative score, depending on the methods applied to the videogame.

View statistics

See individual statistics

Related requirements	select global statistics, display data information.
Description	The user will be able to view the data and statistics on his account, which are registered in the database.
Requirement goal	View customer statistics and data.
Main actors	client, server
Acceptance case	The client will be able to visualize the data through some type of graph.

Show Data Information

Related requirements	select individual statistics, select global statistics.
Description	The user will be able to view the data and statistics selected by the user through a graph. The graph will depend on the data entered, in order to make an appropriate selection of what type of graph to use.
Requirement goal	Visualize the entered data through graphs.
Main actors	client, server
Acceptance case	The client will be able to visualize the entered data through some type of graphic selected specifically for that data.