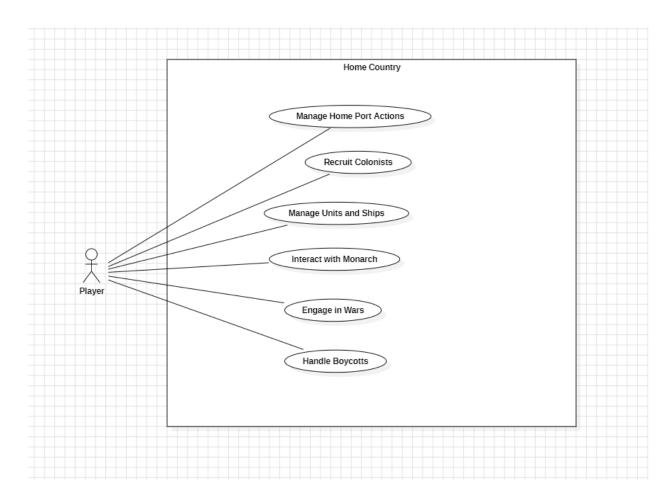
Use Case Diagram

The use case diagrams that I will be covering are the ones associated with the Home Country functionality of the game and the Unit functionality.

Home Country Use Case Diagram

To give context, the Home Country that is associated with the player when playing the game is a European colonial and monarchy power. The player is associated with one out of eight of the nations in the game: Spain, France, Netherlands, England, Portugal, Sweden, Denmark and Russia. Each of these nations have different abilities and different starting units depending on the respective nation that is associated with the player.



In the use case diagram above, we have the various interactions the player has with the Home Country that is associated when initially starting the FreeCol adventure. Here are the various Use Cases and their respective description:

Use Case: Manage Home Port Actions

Description: Allows the player to trade goods, train, recruit and buy units in the Home Port. Also involves repairing damaged ships at the Home Port if no <u>Drydock</u> is built in colonies.

Primary Actor: Player

Use Case: Recruit Colonists

Description: Involves recruiting colonists from the recruitment list by offering gold incentives. Players can also train colonists at the Royal Academy for emigration to the New World.

Primary Actor: Player

Use Case: Manage Units and Ships

Description: Allows players to purchase, build and manage ships and artillery in the

Home Port. Includes conditions for building units in colonies

Primary Actor: Player

Use Case: Interact with Monarch

Description: Represents interactions with the Monarch, including decisions on taxes, responses to boycotts, declarations of war and the addition of units to the Royal Expeditionary Force.

Primary Actor: Player

Use Case: Handle Boycotts

Description: Covers the actions related to handling boycotts, such as refusing taxes,

staging protests, paying tax arrears, and the availability of Custom Houses.

Primary Actor: Player

Use Case: Engage in Wars

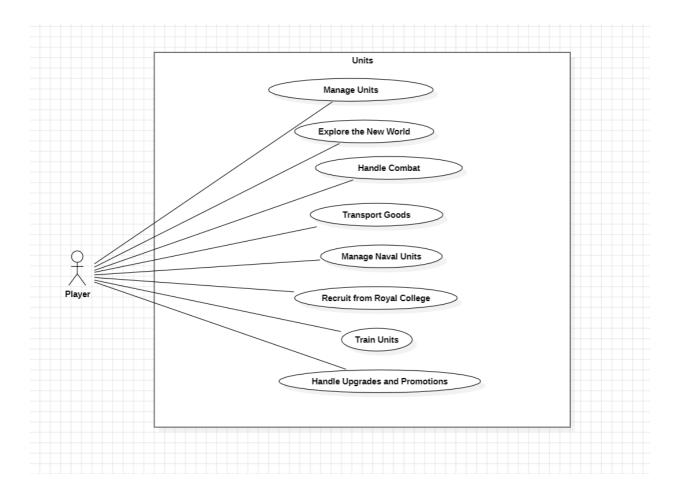
Description: Involves declaring war on other nations and dealing with the consequences, including changes in relations, possible Mercenary offers and the impact on taxes.

Primary Actor: Player

Drydock: An upgraded dock used for repairing damaged ships.

Units Use Case Diagram

The Units in the game FreeCol are used as non-playable characters that have certain skills dependent on where they originate from and can be beneficiary to the player and their colony. There are multiple types of units available to the player depending on which continent the player chooses to start at.



In the use case diagram above, we have the various interactions the player has with the Units. Here are the various Use Cases and their respective description:

Use Case: Manage Units

Description: Allows the player to recruit, train and upgrade units. The player can also

equip units with tools, horses, muskets or a bible to enhance their abilities.

Primary Actor: Player

Use Case: Explore the New World

Description: Involves sending units, such as Scouts, to explore the New World. The

player can also encounter and handle the dangers of the New World.

Primary Actor: Player

Use Case: Handle Combat

Description: The player has access to the combat system, including battles between different units and the outcomes. They also can engage in combat with units from other

players or with native units.

Primary Actor: Player

Use Case: Transport Goods

Description: Involves using various modes of transport, to transport goods, treasures and units between colonies and trade with native settlements. The player must consider the limitations on transport capacity and potential dangers.

Primary Actor: Player

Use Case: Manage Naval Units

Description: The player can deploy and manage naval units. The player can also engage

in naval battles, capture enemy goods and explore coastal colonies.

Primary Actor: Player

Use Case: Recruit Units from Royal College

Description: The process of recruiting units directly from the Royal College in Europe by

spending gold.

Primary Actor: Player

Use Case: Train Units

Description: Involves training units in various skills and professions by placing them in the Schoolhouse, College or University. Units can learn new skills, and the training duration is affected by the colony's production bonus or penalty.

Primary Actor: Player

Use Case: Handle Upgrade and Promotions

Description: Covers the process of upgrading units based on experience or promotions

gained through battles.

Primary Actor: Player