

# M2 Project Design

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## Identifying the Actors and Stakeholders

### A Helpful Persona

Name : Philip

Occupation: Student



Phillip is 23 years old. He is a full time Engineering student at Concordia University .He is very busy in his studies. He is a huge fan of computer games. So whenever he gets any free time he loves to play games. Sports, war and board games are his favorites. Philip loves to play game with his friends so he is looking for game that enables multiple players to play together and against each other. Moreover, he wants a game that can be saved so that whenever it is started again, it starts form where it was left previously. As an engineering student Philip uses his computer for various other purposes like Coding etc. so he wants a light game that does not affect his computer much.

## Stakeholders

- **Developers:** They are responsible for the successful implementation of the project. Moreover they are also concerned that the project should be completed according to user specification within the schedule and resources provided.
- **User:** User is the one who plays the game. So he is interested in various aspects of game like save, modify, create new maps etc. Game is designed according to his needs and he is the one likes or dislike it.

## Actors:

- **Admin/User:** The User is a human actor. User creates, save, modify and displays the map for the players to play the game, the User chooses which map is to be created and modifies it according to his instance. It displays the map using which resources are used by which countries which varies according to the strength of the countries. User also manages the change in resources and has the control of pausing the game and make the required changes or quit the game.
- **Computer System/Players:** The Player is a non-human actor. The game is played between the computers. Player updates log which keeps the track of the resources used by the User and generates resources according to strength. Player also controls the Attacking and Defending action of the game on the availability of strength and resources. It loads the map on the user's choice.

# Use Cases

## User's Usecases:

The following are some possible use cases for a user.

<b>Reference Number</b>	[UC1]	<b>Title</b>	Create Map
<b>Primary Actor</b>	User		
<b>Description</b>	This usecase deals with creating of Map. User creates the map by adding the continents, country and states. The user chooses the category and enters his choice in order to create the map.		

<b>Reference Number</b>	[UC2]	<b>Title</b>	Save Map
<b>Primary Actor</b>	User		
<b>Description</b>	This usecase deals with the Saving the map created by the user		

<b>Reference Number</b>	[UC3]	<b>Title</b>	Modify Map
<b>Primary Actor</b>	User		
<b>Description</b>	This usecase deals with the modifying or editing the map created by the user. In this usecase user can update, edit and delete the various choices (County, continent, states).		

<b>Reference Number</b>	[UC4]	<b>Title</b>	Display Map
<b>Primary Actor</b>	User		
<b>Description</b>	This usecase deals where the user can display the map of the running game with its resources being used and the current strength of both the players.		

<b>Reference Number</b>	[UC5]	<b>Title</b>	Changing resources
<b>Primary Actor</b>	User		
<b>Description</b>	This usecase deals with changing the resources like army which user can use to attack his opponents.		

<b>Reference Number</b>	[UC6]	<b>Title</b>	Pause Game
<b>Primary Actor</b>	User		
<b>Description</b>	This usecase deals where the user can pause game whenever he wants to quit or hold abruptly.		

### System's Usecases:

The following are some possible use cases for the system.

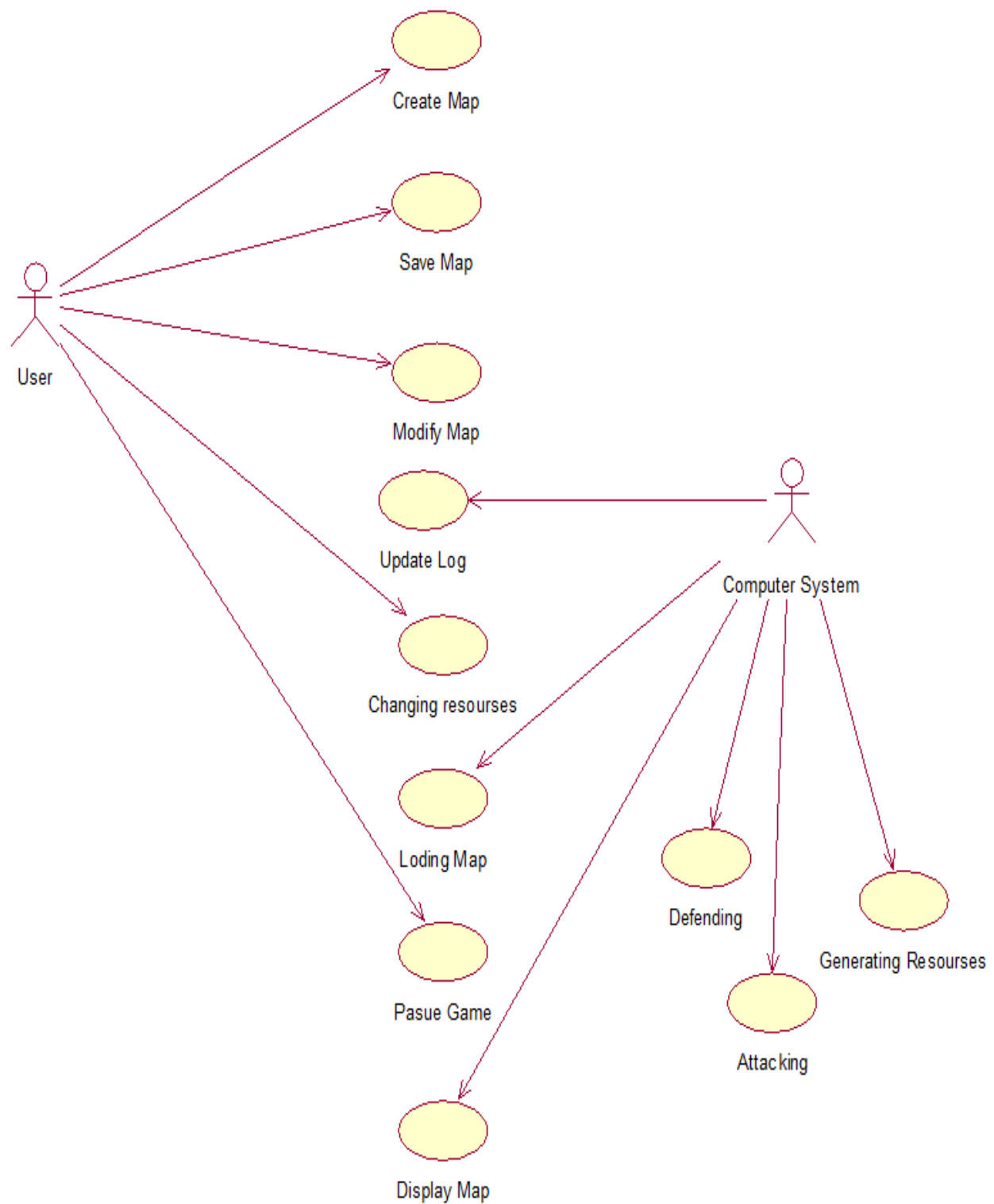
<b>Reference Number</b>	[UC7]	<b>Title</b>	Update Log
<b>Primary Actor</b>	System		
<b>Description</b>	This usecase deals with the game log where the system keeps the track of the status of the resources being used by the user.		

<b>Reference Number</b>	[UC8]	<b>Title</b>	Attacking
<b>Primary Actor</b>	System		
<b>Description</b>	This usecase deals where player (system) can attack the territories that are adjacent or connected by map to his own territory. The attacking player attacks with one or two armies.		

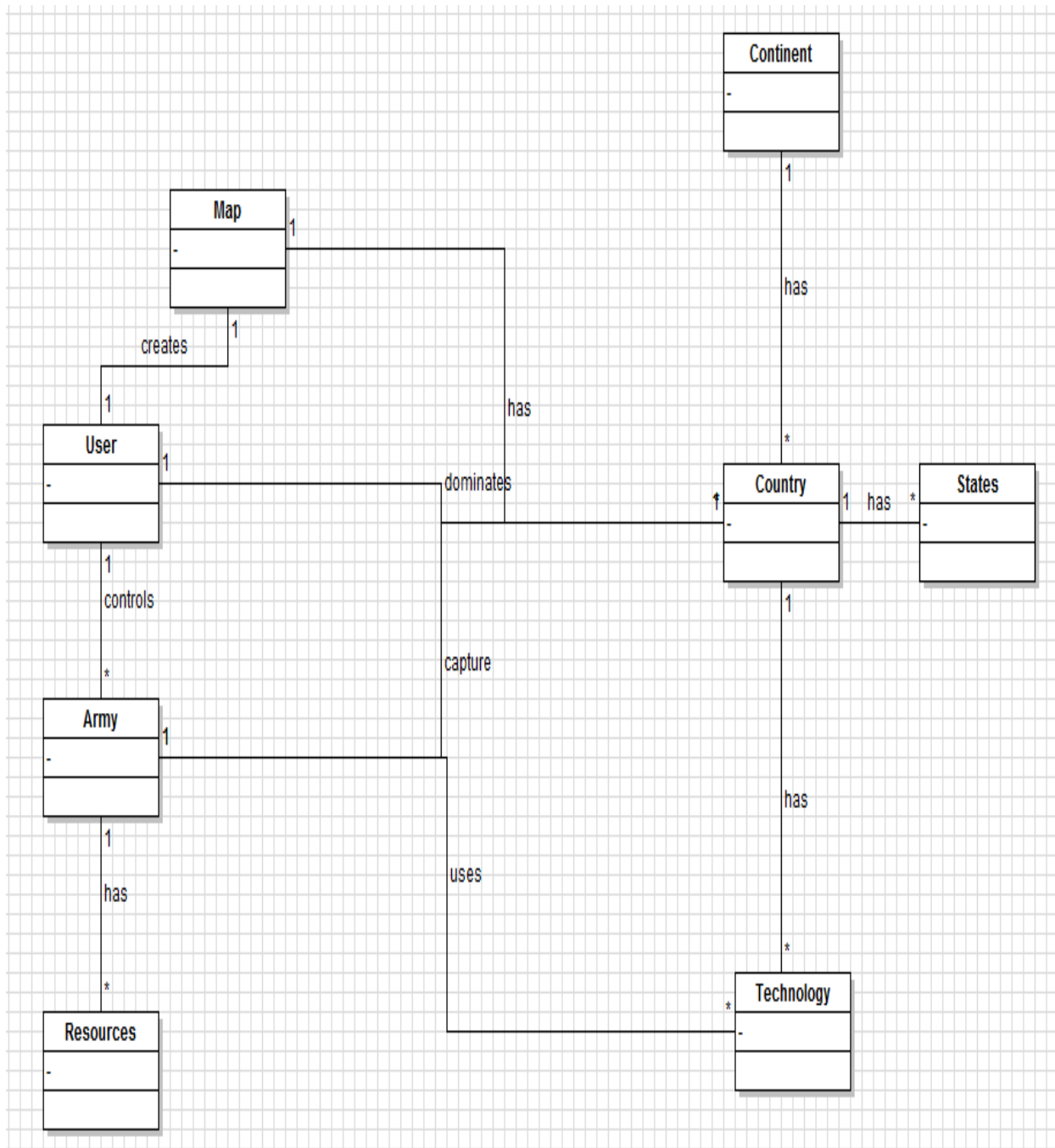
<b>Reference Number</b>	[UC9]	<b>Title</b>	Generating resources
<b>Primary Actor</b>	System		
<b>Description</b>	This usecase deals where player (system) can generate its resources that includes getting and placing new army and other game strengths.		

<b>Reference Number</b>	[UC10]	<b>Title</b>	Defending
<b>Primary Actor</b>	System		
<b>Description</b>	This usecase deals where player (system) can defend its own territory from the attacking or the opponent territories.		

<b>Reference Number</b>	[UC11]	<b>Title</b>	Loading Map
<b>Primary Actor</b>	System		
<b>Description</b>	This usecase deals where player (system) loads the map according to the user choice or continuing with the existing map.		



UML Usecase Diagram



UML Domain Diagram

## Description:

The UML Domain Diagram describes about that,

1. user has following relationship with other classes:
  - User can create a map, relationship one to one.
  - User can control many armies, relationship one to many
  - User dominates country, relationship one to many
2. Country has following relationship with other classes
  - Country has a map, relationship one to one
  - Country has a technologies, relationship one to many
  - Country has a states, relationship one to many
3. Continent has a countries, relationship one to many
4. Army has following relationship with other classes
  - Army has a resources, relationship one to many
  - Army uses technologies, relationship one to many
  - Army captures country, relationship one to many