

GameManager	
Responsibilities	Collaborators
<ul style="list-style-type: none"> <li>• Create a frame</li> <li>• Create a loop to constantly update the game (game loop)</li> <li>• Switch menu screens</li> <li>• Create a map</li> <li>• Create resources</li> <li>• Switch between states (game, menu, win/lose)</li> <li>• Start game (single player or multiplayer)</li> <li>• Play background music</li> <li>• Display info</li> </ul>	<ul style="list-style-type: none"> <li>• GameObjects (package)</li> <li>• Network (package)</li> <li>• GameUtility (package)</li> <li>• Menu</li> </ul>

Map	
Responsibilities	Collaborators
<ul style="list-style-type: none"> <li>• Create walls</li> <li>• Create players</li> <li>• Create monsters</li> <li>• Encode itself to send to network</li> <li>• Assign power-ups to walls</li> <li>• Add objects</li> <li>• Remove objects</li> <li>• Retrieve objects</li> </ul>	<ul style="list-style-type: none"> <li>• GameObjects (package)</li> <li>• Network (package)</li> <li>• GameUtility (package)</li> <li>• GameManager</li> </ul>

GameObject	
Responsibilities	Collaborators
<ul style="list-style-type: none"> <li>• Have a collision group</li> <li>• Have a location</li> <li>• Have a type</li> <li>• Update</li> <li>• Vanish</li> </ul>	<ul style="list-style-type: none"> <li>• Map</li> <li>• GameManager</li> </ul>

Player	
Responsibilities	Collaborators
<ul style="list-style-type: none"> <li>• Move around</li> <li>• Plant bomb</li> <li>• Pick up power-ups</li> <li>• Store power attributes and an ID for multiplayer</li> </ul>	<ul style="list-style-type: none"> <li>• Map</li> <li>• Resources</li> <li>• Bomb</li> <li>• PowerUp</li> </ul>

Bomb	
Responsibilities	Collaborators
<ul style="list-style-type: none"> <li>Create explosion</li> <li>Vanish after exploding</li> </ul>	<ul style="list-style-type: none"> <li>Player</li> <li>Explosion</li> <li>Resources</li> </ul>

Explosion	
Responsibilities	Collaborators
<ul style="list-style-type: none"> <li>Destroy everything that is destroyable</li> <li>Vanish</li> </ul>	<ul style="list-style-type: none"> <li>Map</li> <li>Resources</li> <li>Bomb</li> </ul>

Network	
Responsibilities	Collaborators
<ul style="list-style-type: none"> <li>Store updated info from other games in the network</li> </ul>	<ul style="list-style-type: none"> <li>MPCClient</li> <li>MPServer</li> <li>GameManger</li> </ul>

Menu	
Responsibilities	Collaborators
<ul style="list-style-type: none"> <li>Let users choose between multiplayer and single player</li> <li>Display winning/losing screen</li> </ul>	<ul style="list-style-type: none"> <li>GameManager</li> <li>GameKeyboardListener</li> <li>Resources</li> </ul>

Monster	
Responsibilities	Collaborators
<ul style="list-style-type: none"> <li>Walk randomly</li> <li>Destroy player</li> <li>Spawn randomly</li> <li>Die from explosion</li> </ul>	<ul style="list-style-type: none"> <li>GameMap</li> <li>Player</li> <li>Explosion</li> </ul>

Wall	
Responsibilities	Collaborators
<ul style="list-style-type: none"> <li>Block movements</li> <li>Have 2 types: destroyable and non-destroyable</li> <li>Destroyable walls contain power-ups</li> </ul>	<ul style="list-style-type: none"> <li>GameMap</li> <li>Player</li> <li>Explosion</li> <li>PowerUp</li> <li>Monster</li> </ul>

PowerUp	
Responsibilities	Collaborators
<ul style="list-style-type: none"> <li>Randomly hidden in walls</li> <li>Change players' attributes</li> </ul>	<ul style="list-style-type: none"> <li>GameMap</li> <li>Player</li> <li>Wall</li> </ul>

Resources	
Responsibilities	Collaborators
<ul style="list-style-type: none"> <li>Load images and sounds</li> </ul>	<ul style="list-style-type: none"> <li>GameManager</li> <li>GameObject</li> <li>Menu</li> </ul>

GameUtility	
Responsibilities	Collaborators
<ul style="list-style-type: none"> <li>Detect collision</li> <li>Calculate distance between two points</li> <li>Convert between frame-based coordinates and grid-base coordinates</li> </ul>	<ul style="list-style-type: none"> <li>GameMap</li> <li>GameManager</li> <li>GameObject</li> </ul>

AudioPlayer	
Responsibilities	Collaborators
<ul style="list-style-type: none"> <li>Play sound</li> <li>Stop sound</li> <li>Loop sound</li> </ul>	<ul style="list-style-type: none"> <li>GameManager</li> <li>Player</li> <li>Bomb</li> </ul>

GameKeyboardListener	
Responsibilities	Collaborators
<ul style="list-style-type: none"> <li>Take user inputs from keyboard</li> </ul>	<ul style="list-style-type: none"> <li>Player</li> <li>Menu</li> </ul>