**Use Case:** Upgrade Tower

**Successful Outcomes:** The Player upgrades a Tower to prepare the next Wave.

**Use Case Properties:**

|  |  |
| --- | --- |
| **Use Case Package** | Tower Management |
| **ID** | UC-TM-2 |
| **Use Case Goal** | Primary actor upgrades an existing tower. |
| **Actor(s)** | Primary Actor: Player |
| **Level** | User-level goal |
| **Precondition** | The Player is preparing for a Wave and selects to upgrade a Tower. |
| **Domain Entities** | Tower, Game Map, Tower Upgrade Option |

**Main Success Scenario:**

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| --- | --- | --- |
| **Step** | **Action** | **Notes** |
| **1** | Player selects to upgrade a Tower. |  |
| **2** | System prompts Player to select a Tower, from the Game Map. |  |
| **3** | Player selects one Tower from the Game Map. |  |
| **4** | System displays available Tower Upgrade Options and the corresponding costs for the selected Tower. | According to GL-Tower |
| **5** | Player chooses one of the Tower Upgrade Options. |  |
| **6** | System validates Resources. | According to GL-Player |
| **7** | System upgrades Tower attributes and modifies Resources. | According to GL-Tower |
| **8** | System returns user to the Game Screen. |  |
| **9** | Use case ends successfully. |  |

**Alternative Flows**

**4a No upgrades are available for the selected tower**

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| --- | --- | --- |
| **Step** | **Action** | **Notes** |
| **4a.1** | System displays a message that no Tower Upgrade Options are available for the selected Tower. |  |
| **4a.2** | Player dismisses the message. |  |
| **4a.2** | System returns Player to the Game Screen. |  |
| **4a.3** | Use case ends unsuccessfully. |  |

**6a Not enough Resources to apply upgrade to the selected tower**

|  |  |  |
| --- | --- | --- |
| **Step** | **Action** | **Notes** |
| **6a.1** | System displays a message that not enough Resources are available to apply the selected Tower Upgrade Option. | According to GL-Tower |
| **6a.2** | Player dismisses the message. |  |
| **6a.3** | Return to Main Success Scenario Step 4. |  |