|  |  |
| --- | --- |
| Requirements Specification | |
| Functional requirements | **RF1.** Algorithms: The game must implement at least 2 of the following algorithms: Traversal over Graphs (BFS, DFS), Minimum Weight Paths (Dijkstra, Floyd-Warshall), Minimum Covering Tree -MST- (Prim, Kruskal).  **RF1.1** Each level must have a verification method using one of the two algorithms.  **RF2.** Maps structures: The game's maps must be created from graphs.  **RF2.1** Each graph must be fifty vertices and 50 edges in size.  **RF2.2** Two types of graphs must be implemented in the game, and the game must be able to work with either of them. |
| Nonfunctional requirements | **RNF3.** Game interface: The game must contain a graphical interface through which all the entities and actions of the game can be visualized in a way that is more intuitive and graphical for the user. |
| Context of the problem | We have been asked to play a game with open creativity, in which we must implement graph theory, including two types of graphs, and the algorithms used to calculate paths within the graphs themselves. In addition, we must implement a graphical interface which makes the game more entertaining and intuitive for the user. |