**INTEGRATION TESTING**

Unit testing focuses in individual components. Integration testing focuses on small groups of components. Two or more components are tested together in this type of testing.

We have selected to conduct **Big Bang Testing** which is a **Horizontal Integration** testing strategy. The reason for selecting this strategy is because the size of our system is small and it is easy to test a small system using this strategy.

We have a total of seven classes in our system along with their primary responsibilities:

1. **Board.java**: The main logic of the game in inside this class. It is responsible for the display output of the game. Other following classes are instantiated in the Board.java
2. **Map.java:** Responsible for the creation and loading of the Map designs.
3. **Maze.java** (init class): Initializes the applet and refers to Board.java
4. **Sound.java**: Responsible for background music of the game.
5. **Heart.java:** Responsible for the management of lives of the Player character.
6. **Player.java**: Responsible for the Player character, its movement and display.
7. **Villain.java**: Responsible for the Villain character, its movement and display.

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| **TEST CASE** | **TEST DESCRIPTION** | **EXPECTED OUTPUT** | **ACTUAL OUTPUT** | **RESULT** |
| INT\_TC\_01 | **Precondition:** The game is in test mode and the tester invokes player position reset function by making mummy AI catch the Player. | The Player position shall get reset. | Player position gets set to initial position. | PASS |
| INT\_TC\_02 | **Precondition:** The game is in test mode and tester invokes Villain Move function by moving the player by one block. The mummy AI mirrors the move made by the Player. | The Villain character shall move. | Villain gets moved according to AI algorithm. | PASS |
| INT\_TC\_03 | **Precondition:** The game is in test mode and the tester & level designer decides to test the functionality of loading of the maps. | The Map shall be successfully created and displayed. | Map gets displayed according to the designs made by the level designer. | PASS |
| INT\_TC\_04 | **Precondition:** The game is in test mode and the tester decides to test the sound integration with the game. | The sound shall be played when Mummy Maze Plus is running. | Sound gets played in the background. | PASS |
| INT\_TC\_05 | **Precondition:** The game is in test mode and the tester decides to run the game as a java applet. | The Mummy Maze Plus shall work as a java applet calling all the other java classes. | All the classes’ gets loaded and the game starts. | PASS |
| INT\_TC\_06 | **Precondition:** The game is in test mode, the tester selects the “Select Level” to check the integration of screens. | The Select Level screen shall be displayed. | Select Level screen gets displayed. | PASS |
| INT\_TC\_07 | **Precondition:** The game is in test mode, the tester presses “P” to pause the game. | The pause screen shall be displayed showing options to go to the main menu/quit. | Game gets paused and A screen gets displayed. | PASS |
| INT\_TC\_08 | **Precondition**: The game is in test mode, the tester presses up, down, left, right arrow keys to move the player. Tester gives a valid command using keyboard. | The Player character shall move up/down/right/left | Player gets moved Up, Down, Right, Left. | PASS |
| INT\_TC\_09 | **Precondition**: The game is in test mode, the tester moves player in the pitfall. | The Player shall lose a life and Player life counter shall be decremented by 1. | The life counter gets decreased by 1 and player loses a life. | PASS |
| INT\_TC\_10 | **Precondition**: The game is in test mode, the tester moves player to the finishing point on a particular level. | The system shall load the next level on completion of the current level. | The go to the next level screen gets displayed. | PASS |
| INT\_TC\_11 | **Precondition**: The game is in test mode, the tester moves player over the firepole. | The Player shall move down the firepole and reach the lower floor. | Player gets moved down to the lower floor. | PASS |
| INT\_TC\_12 | **Precondition**: The game is in test mode, the tester moves player over the ladder. | The Player shall move up the ladder and reach the upper floor. | Player gets moves up to the next floor. | PASS |
| INT\_TC\_13 | **Precondition**: The game is in test mode, the tester makes the player complete all the levels. | A win screen shall be displayed. | A win screen gets displayed. | PASS |
| INT\_TC\_14 | **Precondition**: The game is in test mode, the tester makes the player move to the next level to reset the timer. | The timer shall be successfully updated as the game progresses. | Timer gets reset at new level. | PASS |
| INT\_TC\_15 | **Precondition**: The game is in test mode, the tester selects high score option from the main menu screen. | A table of users & high scores shall be displayed. | High scores gets displayed in a tabulated format. | PASS |