**Test Plan:**

All the features present in the program should be tested. There are three types of testing that should be conducted:

* Unit Testing - It focuses on the smallest unit of software design. In this we test an individual unit or group of interrelated units.It is often done by programmers by using sample input and observing its corresponding outputs.
* Integration Testing - The objective is to take unit tested components and build a program structure that has been dictated by design.Integration testing is testing in which a group of components are combined to produce output.
* System Testing - In this software is tested such that it works fine for different operating system.It is covered under the black box testing technique. In this we just focus on required input and output without focusing on internal working.

Suspension Criterion - If there is 40% of the test cases are failed then the testing is suspended until the programmer fixes the mistakes

Exit Criterion - Specifies a criteria that denotes a successful completion of the test phase

The user should make sure to select the right option for the movement, it is quite easy for the user to move their components using the keyboard.

The test plan for this program is to check whether the right movement of the components are done so as to play a clean game.

**Test Cases:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **SI.No** | **Test Description** | **Test Steps** | **Test Data** | **Test Output** |
| **1.** | Whether the user wants to explore. | User decides to execute the program. | Execute the program and clickenter. | Go tothegame. |
| **2.** | Whether white pieces are moved first. | Player’shaving thewhite pieceshould make the first movement. | Usingkeys in the keyboard moves the componentneeded by whiteplayer. | White player starts the game without any error. |
| **3.** | Whether the correct sequence of player’s are playing. | First white components are moved, then black components are moved and so on. | The players should play simultaneously, at first white should play then black and so on. The movement of the components are made using arrow keys. | The game is played properly. |
| **4.** | Whetherthe pieces are moved properly | All the pieces have a set of movements applicable to them and can only be moved in that direction. | Therules are explained above and all movements should be made according. The movement is made using arrow keys. | The pieces are moved properly. |
| **5.** | Whether the game reaches a point of checkmate. | If one player checks the other, the game is necessarily over. | If check happens, see if there are any other possible moves left, if not declare the player as winner. | Player is the winner. |
| **6.** | Whether any variations occur during play that are out of ordinary or the game abruptly stops. | The game should be played according to the rules and no rules should be broken. | The players are supposed to check each other's movements, the game will also check them. | Proper playing of games. |