

Assignment Report

INFO1110
SID:500030507

Section1: Testing

1.

- Check the bugs in the program operation and solve them to ensure that the program can run
- Efficiently check whether the program covers all requirements
- Convenient for others to test your program

2.-Advantages of mocking(Getting Started with Mocking In SoapUI, 2020)

- Mocking helps test the on-site environment before implementing actual services
- Team can create and test features at the same time during application development. When developers use the service, your team can make tests to have a full set of tests when the products is ready for testing.
- Disadvantages of mocking
- Mocking leads to exceed test specifications.
- The more mocking you use, the more likely the test will be affected by code changes
- Mock should be used in unit test

3. One day in Tokyo, all JR and subway station ticket gates were closed due to system failure. After investigation, the cause of the failure was that the process of issuing a "warning message" when the maximum number was exceeded in one process was also missed, and this boundary test case was also missed, thus causing the system to be paralyzed and causing major social problems.(Jiyan Yan 2017)

Section 2: Solver

1. BFS is particularly effective for solving the shortest or least problems, and the search depth is small, but the disadvantage is that the memory consumption is large.

2. DFS is effective for solving traversal and seeking all problems, and the processing speed is fast when the problem search depth is small, but the efficiency is not enough when the depth is large.

3. No, DFS is not guaranteed to be faster than BFS. It depends on the location of starting cell and ending cell. If staring cell and ending cell are in the same column, DFS may faster than BFS. If starting cell and ending are in the same row, BFS may faster than DFS.

4. Teleport gate and wait. For example, when player is walking into a teleport gate "1", it will be automatically teleport to another "1", but you want to go back to the previous "1", and you press "e". Actually, the previous "1" has already been visited, which means we need

to consider the visiting in this situation. Also, when player's water bucket is 0, it cannot walk through the fire, so it should go back to pick up the water bucket.

Reference:

Jiyan Yan, 2017, Perfect management of software quality, China Machine Press, Beijing
Soapui.org. 2020. *Getting Started With Mocking In Soapui*. [online] Available at:
<<https://www.soapui.org/getting-started/mocking/>> [Accessed 28 May 2020].