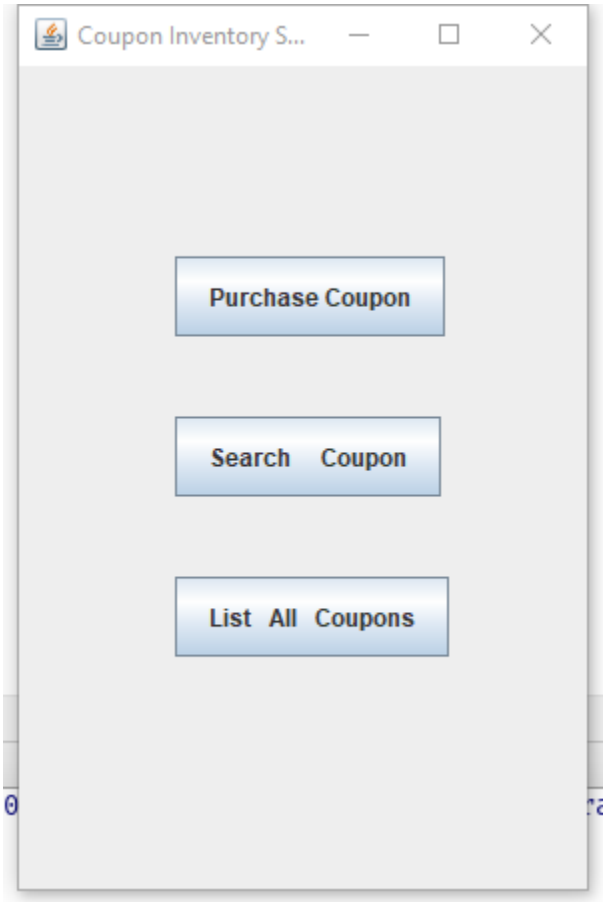
Testing Document

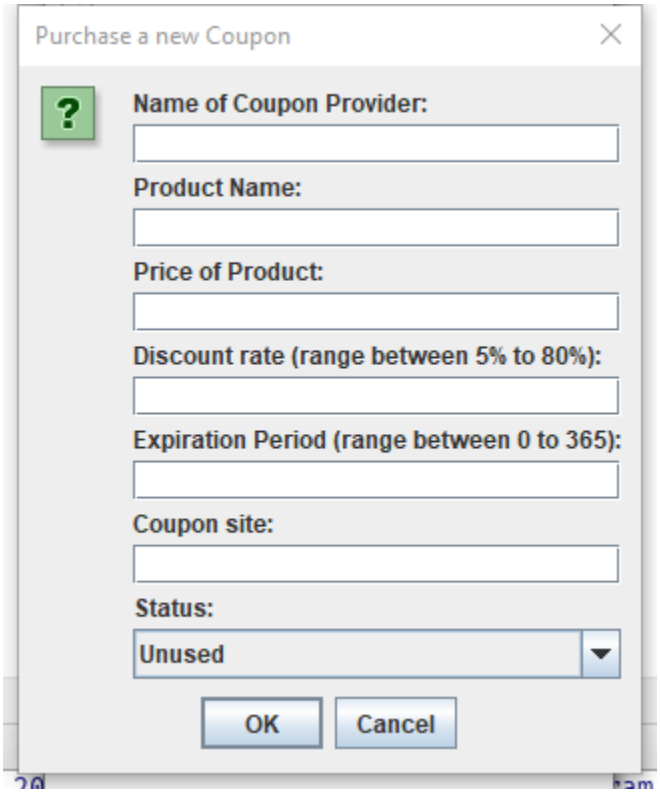
Test 1: Fault Tolerance

Test Description: This test let the coupon inventory system to deal with fault input. In the event of an invalid input, the system will return a reminder about right data type.

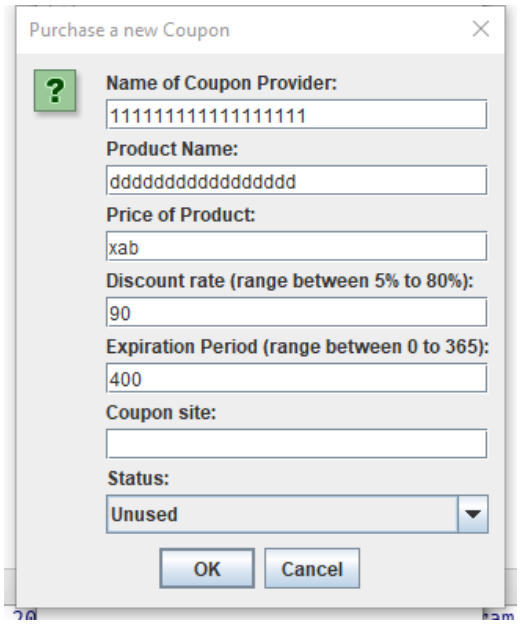
Test Procedure:

1. Open the coupon inventory system and click in input function. Select input manually.

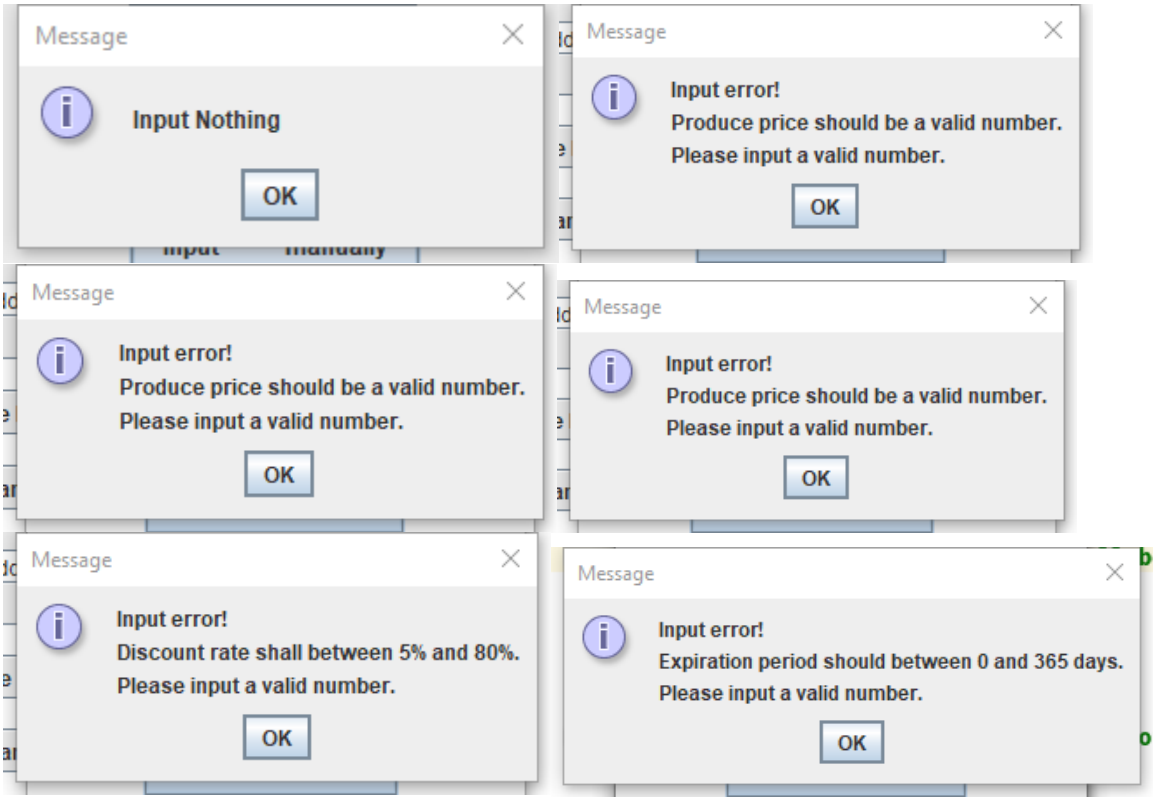




2. Input different error value in the different areas.



3. The system error reminder.



Test 2: Capacity – Large number of data input

Test Description: The system shall handle the case that the input number is large.

Test Procedure:

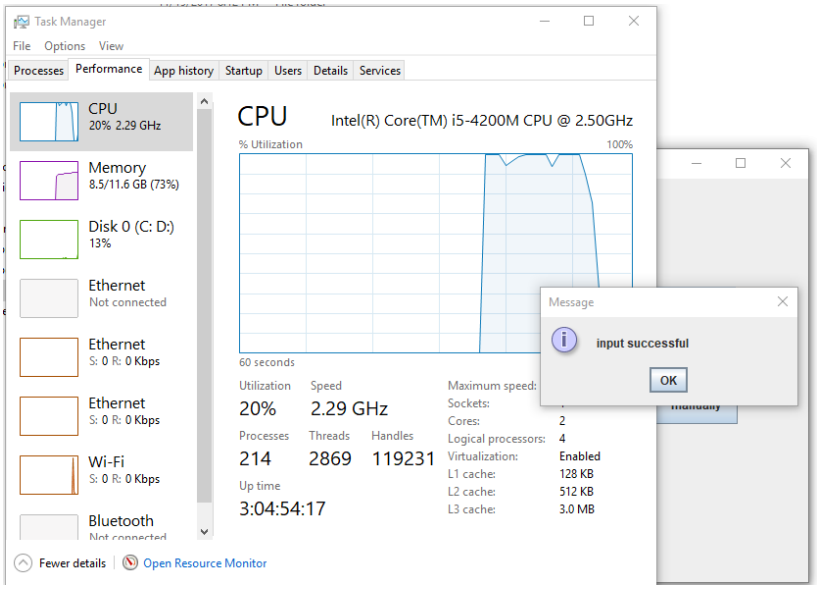
1. Write a script to create large number of coupon data named "CouponCreation.java".

2. Use "CouponCreation.java" create 3,000,000 coupons data.

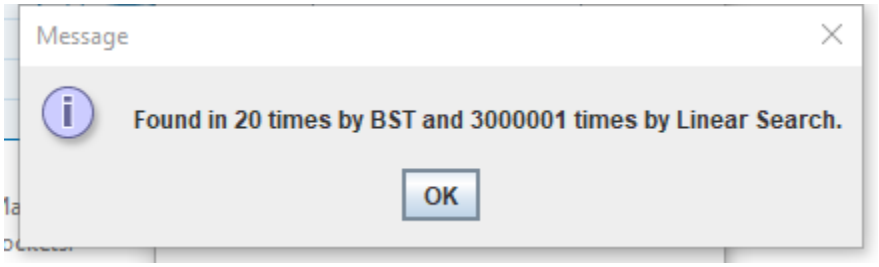
```java
public class CouponCreation {

    public static void main(String[] args) {
        CouponCreation cc = new CouponCreation();
        ArrayList<Coupon> couponList = new ArrayList<~>();
        for (int i = 0; i < 3000000; i++) {
            couponList.add(cc.newCoupon());
        }
        String fileName = "list.txt";
        try {
            cc.writeFile(fileName, couponList);
        }
        catch (IOException e) {
            System.out.println("Wrong Insertion!");
        }
    }
```

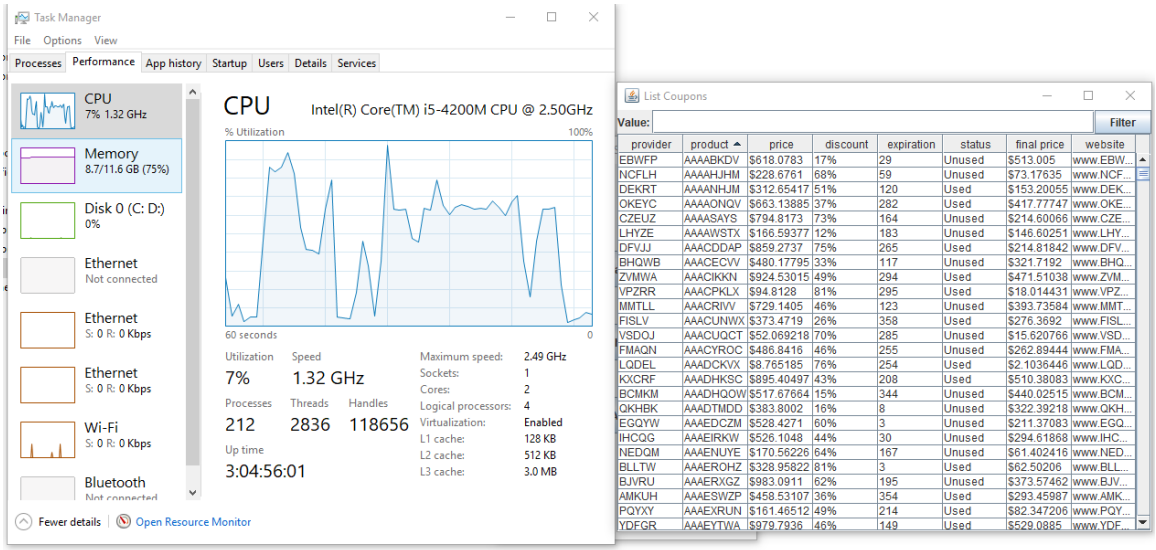
3. Input data in coupon inventory system. There are high level cpu utilization.



4. Search a coupon in the system.



5. List all the coupons and sort by custom label. Still have a high level cpu utilization.



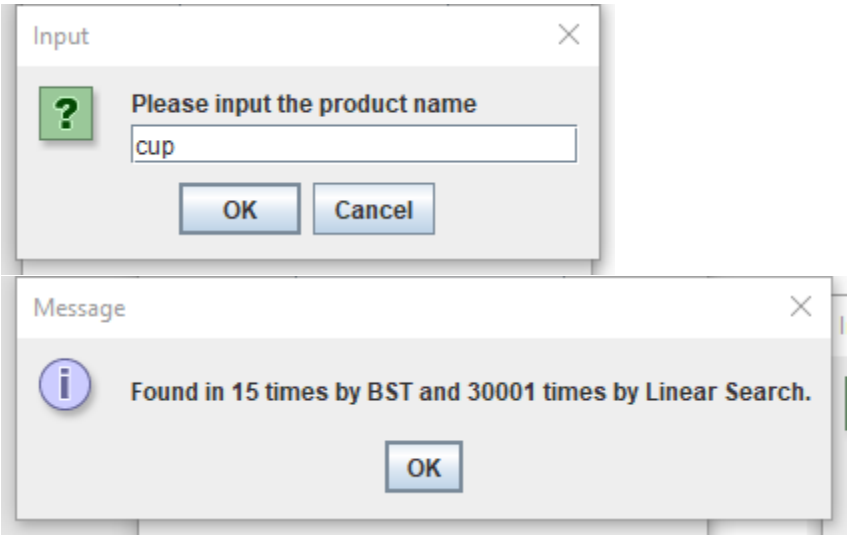
Test 3: Accuracy

Test Description: Search a specific value in coupon inventory system.

Test Procedure:

1. Open the coupon inventory system, switch to the search function.

2. Input a valid product name to search



3. Check the search result