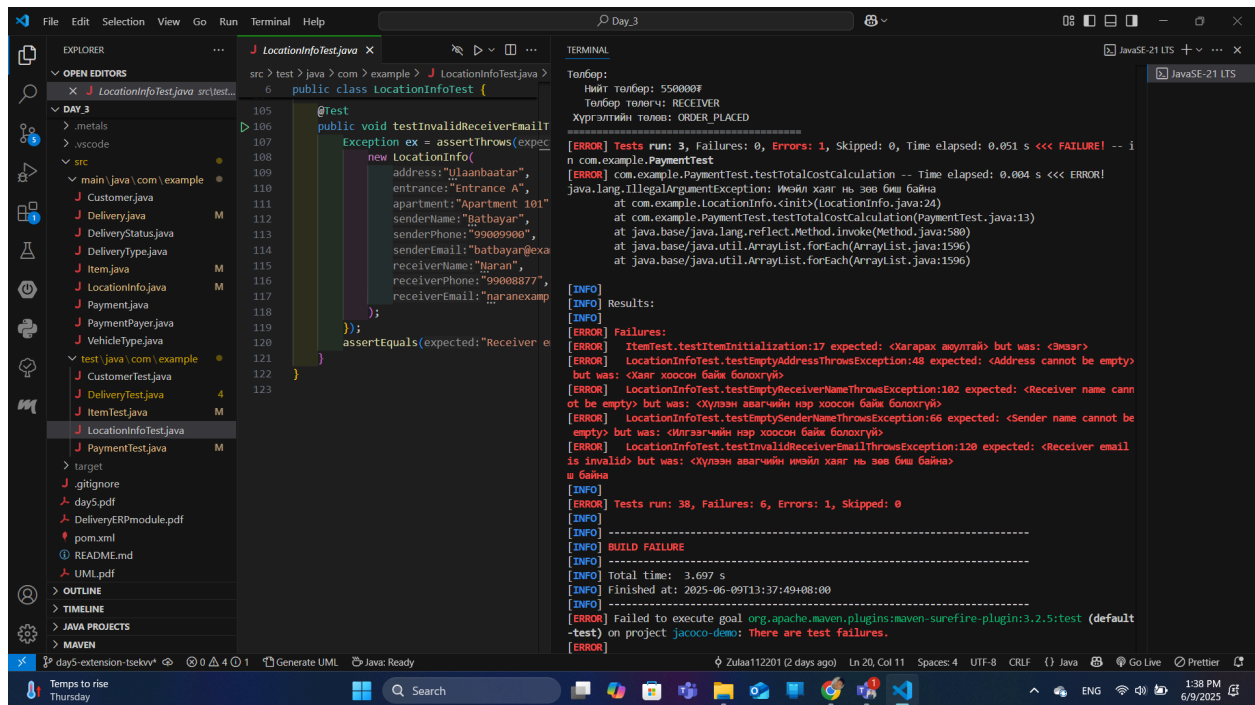


Log4j2 бичигдээгүй үед ажилуулсан утга:



The screenshot shows an IDE with a Java project. The left sidebar displays the project structure with files like `LocationInfoTest.java`, `PaymentTest.java`, and `DeliveryTest.java`. The main editor shows the `LocationInfoTest.java` file with a `testInvalidReceiverEmail` method. The terminal window on the right displays the output of a Maven test run, showing several test failures. The failures include `ItemTest.testItemInitialization`, `LocationInfoTest.testEmptyAddress`, `LocationInfoTest.testEmptyReceiverName`, `LocationInfoTest.testEmptySenderName`, and `LocationInfoTest.testInvalidReceiverEmail`. The terminal output also shows the total time taken for the tests and the build failure message.

```
src > test > java > com > example > J LocationInfoTest.java >
6 public class LocationInfoTest {
105 @Test
106 public void testInvalidReceiverEmail() {
107     Exception ex = assertThrows(expect
108         new LocationInfo(
109             address:"Ulaanbaatar",
110             entrance:"Entrance A",
111             apartment:"Apartment 101",
112             senderName:"Batbayar",
113             senderPhone:"99009900",
114             senderEmail:"batbayar@exa
115             receiverName:"Naran",
116             receiverPhone:"99008877",
117             receiverEmail:"naranexamp
118         ));
119     assertEquals(expected:"Receiver e
120     );
121 }
122 }
123 }

[ERROR] Tests run: 3, Failures: 0, Errors: 1, Skipped: 0, Time elapsed: 0.051 s <<< FAILURE! -- i
n com.example.PaymentTest
[ERROR] com.example.PaymentTest.testTotalCostCalculation -- Time elapsed: 0.004 s <<< ERROR!
java.lang.IllegalArgumentException: Ивэйл хаяг нь зөв биш байна
    at com.example.LocationInfo.<init>(LocationInfo.java:24)
    at com.example.PaymentTest.testTotalCostCalculation(PaymentTest.java:13)
    at java.base/java.lang.reflect.Method.invoke(Method.java:580)
    at java.base/java.util.ArrayList.forEach(ArrayList.java:1596)
    at java.base/java.util.ArrayList.forEach(ArrayList.java:1596)

[INFO] Results:
[INFO] Failures:
[ERROR] ItemTest.testItemInitialization:17 expected: <Харагах агуурай> but was: <Эмгэг>
[ERROR] LocationInfoTest.testEmptyAddressThrowsException:48 expected: <Address cannot be empty>
but was: <Хаяг хоосон байх болохгүй>
[ERROR] LocationInfoTest.testEmptyReceiverNameThrowsException:102 expected: <Receiver name cann
ot be empty> but was: <Хүлээн авагчийн нэр хоосон байх болохгүй>
[ERROR] LocationInfoTest.testEmptySenderNameThrowsException:66 expected: <Sender name cannot be
empty> but was: <Илгээгчийн нэр хоосон байх болохгүй>
[ERROR] LocationInfoTest.testInvalidReceiverEmailThrowsException:120 expected: <Receiver email
is invalid> but was: <Хүлээн авагчийн ивэйл хаяг нь зөв биш байна>
ш байна
[INFO] Tests run: 38, Failures: 6, Errors: 1, Skipped: 0
[INFO] BUILD FAILURE
[INFO] Total time: 3.697 s
[INFO] Finished at: 2025-06-09T13:37:49+08:00
[INFO]
[ERROR] Failed to execute goal org.apache.maven.plugins:maven-surefire-plugin:3.2.5:test (default
-test) on project jacoco-demo: There are test failures.
[ERROR]
```

Log4j2 бичигдсэн үед ажилуулсан утга:

The screenshot shows an IDE with a Java file named `PaymentTest.java` and a terminal window displaying log output. The code defines a `PaymentTest` class with two test methods: `testTotalCostCalculation()` and `testWeightCostCalculation()`. The log output shows the execution of these tests, including the creation of `Item`, `Delivery`, and `Customer` objects, and the calculation of total and weight costs.

```
src > test > java > com > example > J PaymentTest.java > PaymentTest > testTotalCostCalculation()
public class PaymentTest {
    @Test
    public void testTotalCostCalculation() {
        Item item = new Item(name:"Хоргогч", volume:2.5, weight:2);
        Delivery delivery = new Delivery(DeliveryType.EXPRESS, volume:2.5, weight:2);
        Customer customer = new Customer(fullName:"Ганболд", phone:"99009900", locationInfo location = new LocationInfo(
            address:"Улаанбаатар, Сүхбаатар дүүрэг",
            entrance:"Орц 1",
            apartment:"Давхар 3, 301 тоот",
            senderName:"Батбаяр",
            senderPhone:"99009900",
            receiverName:"Наран",
            receiverPhone:"99008877",
            receiverEmail:"naran@example.com");
        Payment payment = new Payment(item, delivery, customer, 1);
        assertEquals(expected:590000, payment.getTotalCost());
    }
    @Test
    public void testWeightCostCalculation() {
        Item item = new Item(name:"Зөөврийн компьютер", volume:0.1, weight:2.5);
        Delivery delivery = new Delivery(DeliveryType.STANDARD, volume:0.1, weight:2.5);
        Customer customer = new Customer(fullName:"Наран", phone:"99009900", locationInfo location = new LocationInfo(
            address:"Улаанбаатар, Баянзүрх дүүрэг",
            entrance:"Орц 2",
            apartment:"Давхар 1, 102 тоот",
            senderName:"Бат-Эрдэнэ",
            senderPhone:"99112233",
            receiverName:"Наран",
            receiverPhone:"99008877",
            receiverEmail:"naran@example.com");
        Payment payment = new Payment(item, delivery, customer, 1);
        assertEquals(expected:590000, payment.getTotalCost());
    }
}
```

Log output (Terminal):

```
15:33:46.844 [main] INFO com.example.Item - Шинэ Item үүсгэгдлээ: Хоргогч
15:33:46.852 [main] INFO com.example.Payment - Жин > 200 кг, эзэлхүүнээр тооцож байна: 2.5 м3 * 190000 = 475000
15:33:46.853 [main] INFO com.example.Payment - Төлбөрийн нийт дүн тооцогдлоо: 590000
15:33:46.854 [main] INFO com.example.Payment - Нэхэмжлэх хэвлэж байна...
15:33:46.854 [main] INFO com.example.Payment - Хэрэгтний Баримт
15:33:46.855 [main] INFO com.example.Payment - Захиалагч: Ганболд
15:33:46.855 [main] INFO com.example.Payment - Утас: 9999-8888
15:33:46.856 [main] INFO com.example.Payment - Иймэл: ganbold@example.com
15:33:46.857 [main] INFO com.example.Payment - Холбоо:
15:33:46.857 [main] INFO com.example.Payment - Хүргэлтийн хаяг: Улаанбаатар, Сүхбаатар дүүрэг
15:33:46.857 [main] INFO com.example.Payment - Орц: Орц 1
15:33:46.857 [main] INFO com.example.Payment - Орцыг дугаар: Давхар 3, 301 тоот
15:33:46.858 [main] INFO com.example.Payment - Илгээгч:
15:33:46.858 [main] INFO com.example.Payment - Нэр: Батбаяр
15:33:46.858 [main] INFO com.example.Payment - Утас: 99009900
15:33:46.859 [main] INFO com.example.Payment - Иймэл: batbayar@example.com
15:33:46.859 [main] INFO com.example.Payment - Хүлээн авагч:
15:33:46.860 [main] INFO com.example.Payment - Нэр: Наран
15:33:46.861 [main] INFO com.example.Payment - Утас: 99008877
15:33:46.861 [main] INFO com.example.Payment - Иймэл: naran@example.com
15:33:46.862 [main] INFO com.example.Payment - Бараа:
15:33:46.862 [main] INFO com.example.Payment - Нэр: Хоргогч
15:33:46.862 [main] INFO com.example.Payment - Асаруулга: Хоргогчийн шингэ
15:33:46.862 [main] INFO com.example.Payment - н асрагчар магадлалтай тул босоогоор нь зөөвөрлөх
15:33:46.862 [main] INFO com.example.Payment - Хэмжээ: 2.5 м3 x 190000 = 475000
15:33:46.863 [main] INFO com.example.Payment - Жин: 250.0 кг x 2000 = 500000
15:33:46.863 [main] INFO com.example.Payment - Зай: 20.0 км x 2500 = 50000
15:33:46.864 [main] INFO com.example.Payment - Хүргэлтийн мэдээлэл:
15:33:46.864 [main] INFO com.example.Payment - Хүргэлтийн төрөл: Хурдан = 150000
```

The screenshot shows the same IDE with the `PaymentTest.java` file. The log output now includes the results of the tests and the execution of the `PaymentTest` class.

```
src > test > java > com > example > J PaymentTest.java > PaymentTest > testTotalCostCalculation()
public class PaymentTest {
    @Test
    public void testTotalCostCalculation() {
        Item item = new Item(name:"Хоргогч", volume:2.5, weight:2);
        Delivery delivery = new Delivery(DeliveryType.EXPRESS, volume:2.5, weight:2);
        Customer customer = new Customer(fullName:"Ганболд", phone:"99009900", locationInfo location = new LocationInfo(
            address:"Улаанбаатар, Сүхбаатар дүүрэг",
            entrance:"Орц 1",
            apartment:"Давхар 3, 301 тоот",
            senderName:"Батбаяр",
            senderPhone:"99009900",
            receiverName:"Наран",
            receiverPhone:"99008877",
            receiverEmail:"naran@example.com");
        Payment payment = new Payment(item, delivery, customer, 1);
        assertEquals(expected:590000, payment.getTotalCost());
    }
    @Test
    public void testWeightCostCalculation() {
        Item item = new Item(name:"Зөөврийн компьютер", volume:0.1, weight:2.5);
        Delivery delivery = new Delivery(DeliveryType.STANDARD, volume:0.1, weight:2.5);
        Customer customer = new Customer(fullName:"Наран", phone:"99009900", locationInfo location = new LocationInfo(
            address:"Улаанбаатар, Баянзүрх дүүрэг",
            entrance:"Орц 2",
            apartment:"Давхар 1, 102 тоот",
            senderName:"Бат-Эрдэнэ",
            senderPhone:"99112233",
            receiverName:"Наран",
            receiverPhone:"99008877",
            receiverEmail:"naran@example.com");
        Payment payment = new Payment(item, delivery, customer, 1);
        assertEquals(expected:590000, payment.getTotalCost());
    }
}
```

Log output (Terminal):

```
15:33:46.864 [main] INFO com.example.Payment - Хүргэлтийн төрөл: Хурдан = 150000
15:33:46.868 [main] INFO com.example.Payment - Тээврийн хэрэгсэл: Машин = 100000
15:33:46.868 [main] INFO com.example.Payment - Хүргэлтийн ажилтан:
15:33:46.869 [main] INFO com.example.Payment - Нэр: Бат
15:33:46.869 [main] INFO com.example.Payment - Утас: 9999-3333
15:33:46.869 [main] INFO com.example.Payment - Иймэл: bat@example.com
15:33:46.870 [main] INFO com.example.Payment - Төлбөр:
15:33:46.870 [main] INFO com.example.Payment - Нийт төлбөр: 590000
15:33:46.871 [main] INFO com.example.Payment - Төлбөр талогч: RECEIVER
15:33:46.871 [main] INFO com.example.Payment - Хүргэлтийн төлөв: ORDER PLACED
15:33:46.871 [main] INFO com.example.Payment -
15:33:46.875 [main] INFO com.example.Item - Шинэ Item үүсгэгдлээ: Хоргогч
15:33:46.876 [main] INFO com.example.Payment - Жин > 200 кг, эзэлхүүнээр тооцож байна: 2.5 м3 * 190000 = 475000
15:33:46.877 [main] INFO com.example.Payment - Төлбөрийн нийт дүн тооцогдлоо: 590000
15:33:46.881 [main] INFO com.example.Item - Шинэ Item үүсгэгдлээ: Зөөврийн компьютер
15:33:46.882 [main] INFO com.example.Payment - Жин <= 200 кг, жингээр тооцож байна: 150.0 кг * 2000 = 300000
15:33:46.885 [main] INFO com.example.Payment - Төлбөрийн нийт дүн тооцогдлоо: 335000
[INFO] Tests run: 3, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.046 s - in com.example.PaymentTest
[INFO] Results:
[INFO]
[INFO] Tests run: 38, Failures: 0, Errors: 0, Skipped: 0
[INFO]
[INFO] --- jacoco:0.8.11:report (report) @ jacoco-demo ---
[INFO] Loading execution data file C:\Users\tsets\OneDrive\Documents\F.CS360\Day3\target\jacoco.exec
[INFO] Analyzed bundle 'jacoco-demo' with 9 classes
[INFO] BUILD SUCCESS
```