



CAPSTONE PROJECT REPORT

**EasyDoctor - An e-health platform that connects
patients and doctors**

Report 5 – Software Test Documentation

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I. Record of Changes

| Date | A* M, D | In charge | Change Description |
|------|------------|----------------|---|
| | | WEB | https://easydoctors.herokuapp.com/ |
| | | VIDEO | https://www.youtube.com/playlist?list=PLCA6YmLMBvjjTTzTtruiUcNRzqlG_wEud |
| | | Github code | https://github1s.com/huyhue/EasyDoctor |
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| | | | |

*A - Added M - Modified D - Deleted

II. Testing Documentation

1. Scope of Testing

The test model we implemented in this project is the Iterative model. We focus on testing all functions in the system and the user interface of the website. In addition, we also test non-functional as well as test the security and performance of the system.

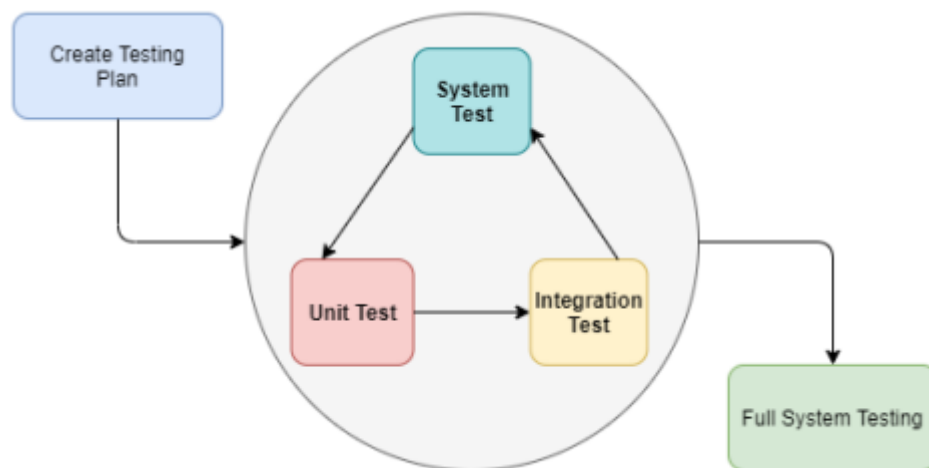


Figure 1: EasyDoctor Test Model

2. Test Strategy

2.1 Testing Types

Below are the test types we implemented in the project:

| LEVELS | PURPOSE |
|------------------------|---|
| Functional Testing | Test cases are created to test for bugs and quality of input and examine the output without considering internal program structure. |
| Non-Functional Testing | Test for performance, usability, and reliability. |
| User Interface Testing | Test for bugs and quality of user experience with developed UI systems. |
| Security Testing | Check all roles and permission of user when using this system |
| Performance Testing | Testing the latency of the system with a specific amount of user access |

2.2 Test Levels

Below are the test levels we performed in the project:

| ID | Test level | Description |
|----|---------------------|---|
| 1 | Unit testing | Unit testing is a level of software testing where individual units or components of a software are tested. The main purpose of this testing phase is to confirm whether the application functions are coded correctly or not. |
| 2 | Integration Testing | Integration testing is a level of software testing where individual units are combined and tested as a group. The purpose of this level of testing is to expose faults in the interaction between integrated units. |
| 2 | System testing | System testing is a level of software testing where a complete and integrated software is tested. The purpose of this test is to evaluate the system's compliance with the specified requirements. |

| Type of Tests | Test Level | | |
|------------------------|------------|-------------|--------|
| | Unit | Integration | System |
| Functional Testing | X | X | X |
| Non-Functional Testing | | | X |
| User Interface Testing | | X | X |
| Security Testing | X | X | X |

3. Test Plan

3.1 Human Resources

| Worker/Doer | Role | Specific Responsibilities/Comments |
|-------------|-----------|---|
| HuyTV | Tester | Create test plan Create Unit Test Cases Execute Unit Test Fix bug |
| Thang | Tester | Create Integration Test Cases and reports Execute Integration Test Execute System Test Log test report |
| HuyTPG | Developer | Create Integration Test Cases and reports Execute Unit Test Execute Integration Test Execute System Test |
| SonCT | Developer | Execute Unit Test |

| | | |
|--------|-----------|--|
| | | Fix bug |
| LongNQ | Developer | Execute Unit Test Execute Integration Test Fix bug |

3.2 Test Environment

| Purpose | Tool | Provider | Version |
|--------------------------------------|------------------|-------------|---------|
| Define, writing test cases documents | Excel | Microsoft | 1.0 |
| Test case coverage documents | Excel | Microsoft | 1.0 |
| Test report documents | Excel | Microsoft | 1.0 |
| Non-Functional Testing Tools | Yellow Lab Tools | Open source | |
| Create test scenario | Selenium IDE | Open source | 3.17.2 |
| Reviewing code | Github | Open source | |

3.3 Test Milestones

| Milestone Task | Start Date | End Date |
|------------------|------------|-----------|
| Unit Test | 27/06/2022 | 10/7/2022 |
| Integration Test | 15/7/2022 | 29/7/2022 |
| System Test | 31/7/2022 | 10/8/2022 |

4. Test Cases

We've broken down the test cases in the reports as shown below, please navigate to each report for additional information.

Unit Test Case:

- Report5_Unit Test_User.xls
- Report5_Unit Test_Appointment.xls
- Report5_Unit Test_Email.xls
- Report5_Unit Test_Invoice.xls
- Report5_Unit Test_Notification.xls
- Report5_Unit Test_Packages.xls
- Report5_Unit-Test_Post.xls

Integration Test Case:

- Report5_Test-Report_Patient.xls
- Report5_Test-Report_Doctor.xls
- Report5_Test-Report_Admin.xls

5. Test Reports

1. Result of unit test

1.1. Appointment

[Report5_Unit Test Appointment.xlsx](#)

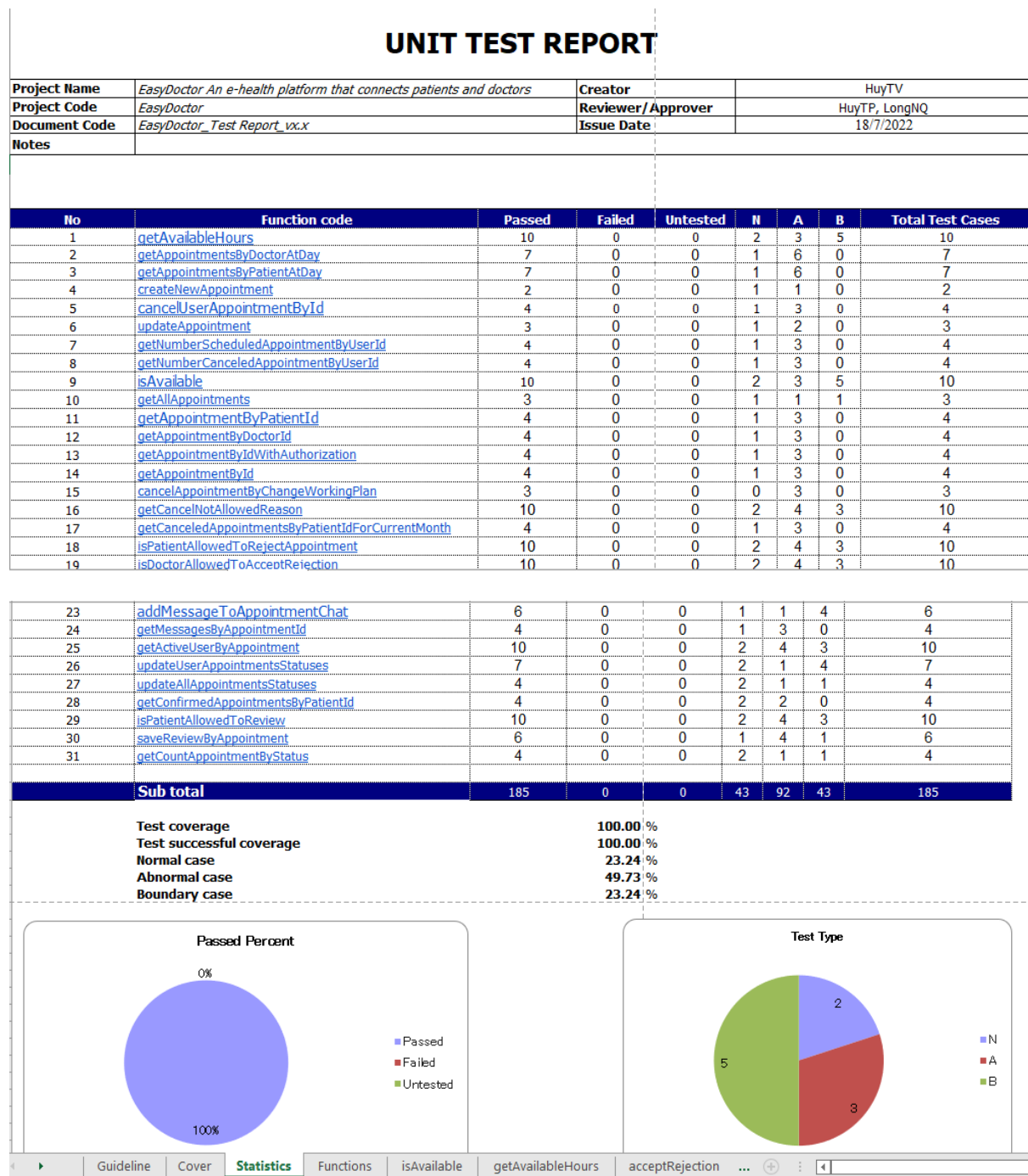


Figure 2: Unit Test Appointment

1.2. User

[Report5_Unit Test_User.xlsx](#)

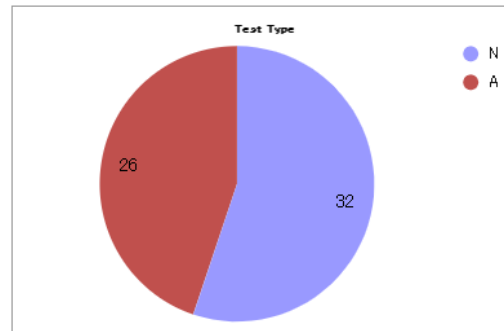
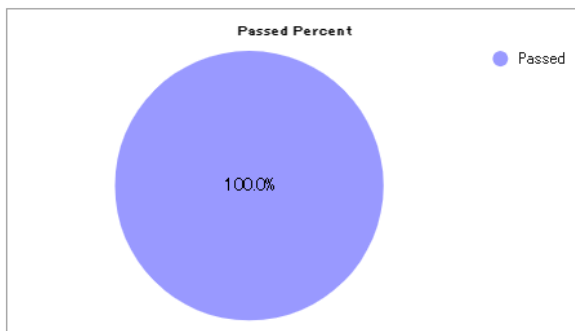
UNIT TEST REPORT

| | | | |
|---------------|--|-------------------|---------------|
| Project Name | EasyDoctor An e-health platform that connects patients and doctors | Creator | Son |
| Project Code | EasyDoctor | Reviewer/Approver | HuyTP, LongNQ |
| Document Code | EasyDoctor_Test Report_vx.x | Issue Date | 18/7/2022 |
| Notes | | | |

| No | Function code | Passed | Failed | Untested | N | A | B | Total Test Cases |
|----|---|--------|--------|----------|----|---|---|------------------|
| 1 | getAllPatients | 4 | 0 | 0 | 2 | 2 | 0 | 4 |
| 2 | findByEmail | 3 | 0 | 0 | 2 | 1 | 0 | 3 |
| 3 | updatePatient | 15 | 0 | 0 | 10 | 5 | 0 | 15 |
| 4 | updateDoctor | 15 | 0 | 0 | 10 | 5 | 0 | 15 |
| 5 | findByUserName | 3 | 0 | 0 | 1 | 2 | 0 | 3 |
| 6 | getAllDoctors | 3 | 0 | 0 | 1 | 2 | 0 | 3 |
| 7 | getAllDoctorsBySpecialty | 3 | 0 | 0 | 1 | 2 | 0 | 3 |
| 8 | getUserById | 3 | 0 | 0 | 1 | 2 | 0 | 3 |
| 9 | updateUserPassword | 6 | 0 | 0 | 3 | 3 | 0 | 6 |
| 10 | getAllReviewByDoctorId | 3 | 0 | 0 | 1 | 2 | 0 | 3 |
| 11 | getHistoryByPatientId | 3 | 0 | 0 | 1 | 2 | 0 | 3 |
| 12 | saveCertificationByDoctor | 4 | 0 | 0 | 2 | 2 | 0 | 4 |
| 13 | getFileByFileId | 3 | 0 | 0 | 1 | 2 | 0 | 3 |
| 14 | getHistoryByAppointmentId | 3 | 0 | 0 | 1 | 2 | 0 | 3 |

| | | | | | | | |
|------------------|-----------|----------|----------|-----------|-----------|----------|-----------|
| Sub total | 58 | 0 | 0 | 32 | 26 | 0 | 58 |
|------------------|-----------|----------|----------|-----------|-----------|----------|-----------|

Test coverage **100.00 %**
 Test successful coverage **100.00 %**
 Normal case **55.17 %**
 Abnormal case **44.83 %**
 Boundary case **0.00 %**



| | | | | | | | | |
|---|---|-------------|-----------|-------------|--------------|----------------|------------------|-------------|
| + | ≡ | Guideline ▾ | 1 Cover ▾ | Functions ▾ | Statistics ▾ | 1 Function 1 ▾ | getAllPatients ▾ | findByEmail |
|---|---|-------------|-----------|-------------|--------------|----------------|------------------|-------------|

Figure 3: Unit Test User

1.3. Email

[Report5_Unit Test_Email.xlsx](#)

UNIT TEST REPORT

| | | | |
|---------------|---|-------------------|---------------|
| Project Name | EasyDoctor An e-health platform that connects patient | Creator | HuyTV |
| Project Code | EasyDoctor | Reviewer/Approver | HuyTP, LongNQ |
| Document Code | EasyDoctor_Test Report_vx.x | Issue Date | 18/7/2022 |
| Notes | | | |

| No | Function code | Passed | Failed | Untested | N | A | B | Total Test Cases |
|------------------|-----------------------------------|-----------|----------|----------|-----------|-----------|-----------|------------------|
| 1 | sendEmail | 5 | 0 | 0 | 1 | 3 | 1 | 5 |
| 2 | sendConfirmForgotPassword | 4 | 0 | 0 | 2 | 1 | 1 | 4 |
| 3 | sendRegisterSuccess | 4 | 0 | 0 | 1 | 2 | 1 | 4 |
| 4 | sendNewAppointment | 4 | 0 | 0 | 2 | 1 | 1 | 4 |
| 5 | sendAppointmentCanceledByPatient | 4 | 0 | 0 | 0 | 3 | 1 | 4 |
| 6 | sendAppointmentCanceledByDoctor | 4 | 0 | 0 | 2 | 1 | 1 | 4 |
| 7 | sendAppointmentRejectionRequested | 4 | 0 | 0 | 2 | 1 | 1 | 4 |
| 8 | sendAppointmentRejectionAccepted | 4 | 0 | 0 | 1 | 1 | 2 | 4 |
| 9 | sendAppointmentFinished | 4 | 0 | 0 | 2 | 1 | 1 | 4 |
| 10 | sendInvoice | 4 | 0 | 0 | 1 | 1 | 2 | 4 |
| 11 | sendAppointmentOTPConfirm | 4 | 0 | 0 | 2 | 1 | 1 | 4 |
| Sub total | | 45 | 0 | 0 | 16 | 16 | 13 | 45 |

| | |
|--------------------------|----------|
| Test coverage | 100.00 % |
| Test successful coverage | 100.00 % |
| Normal case | 35.56 % |
| Abnormal case | 35.56 % |
| Boundary case | 28.89 % |

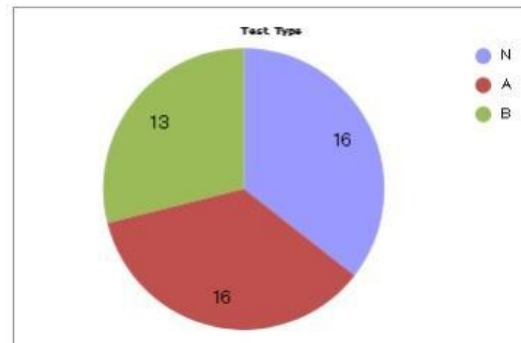
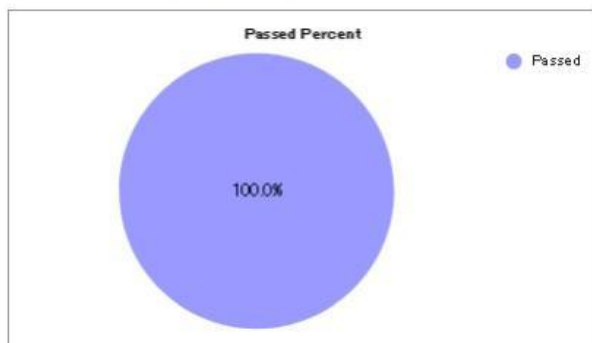


Figure 4: Unit Test Email

1.4. Invoice

[Report5_Unit Test_Invoice.xlsx](#)

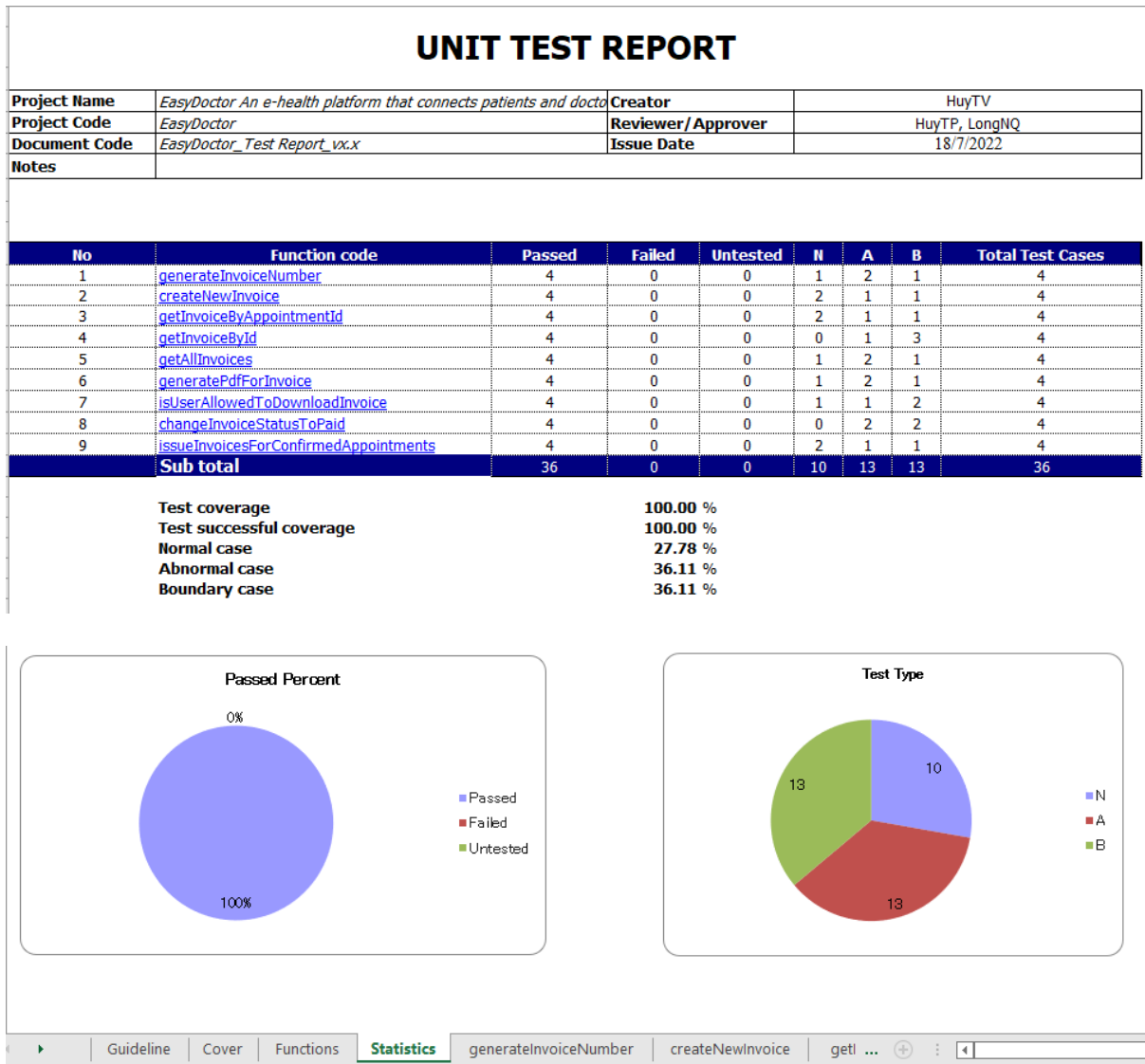


Figure 5: Unit Test Invoice

1.5. Notification

[Report5_Unit Test_Notification.xlsx](#)

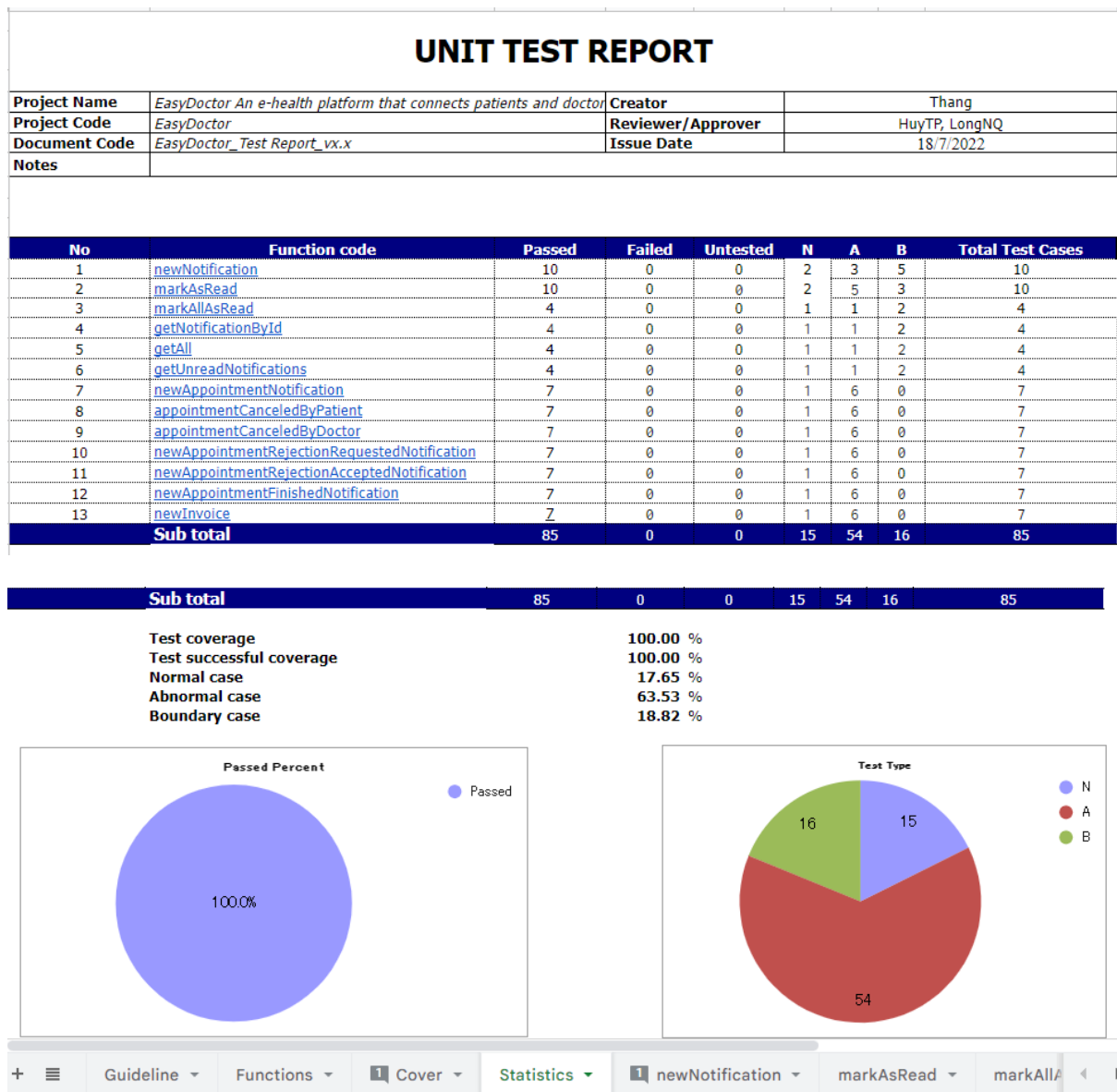


Figure 6: Unit Test Notification

1.6. Packages

[Report5_Unit Test_Packages.xlsx](#)

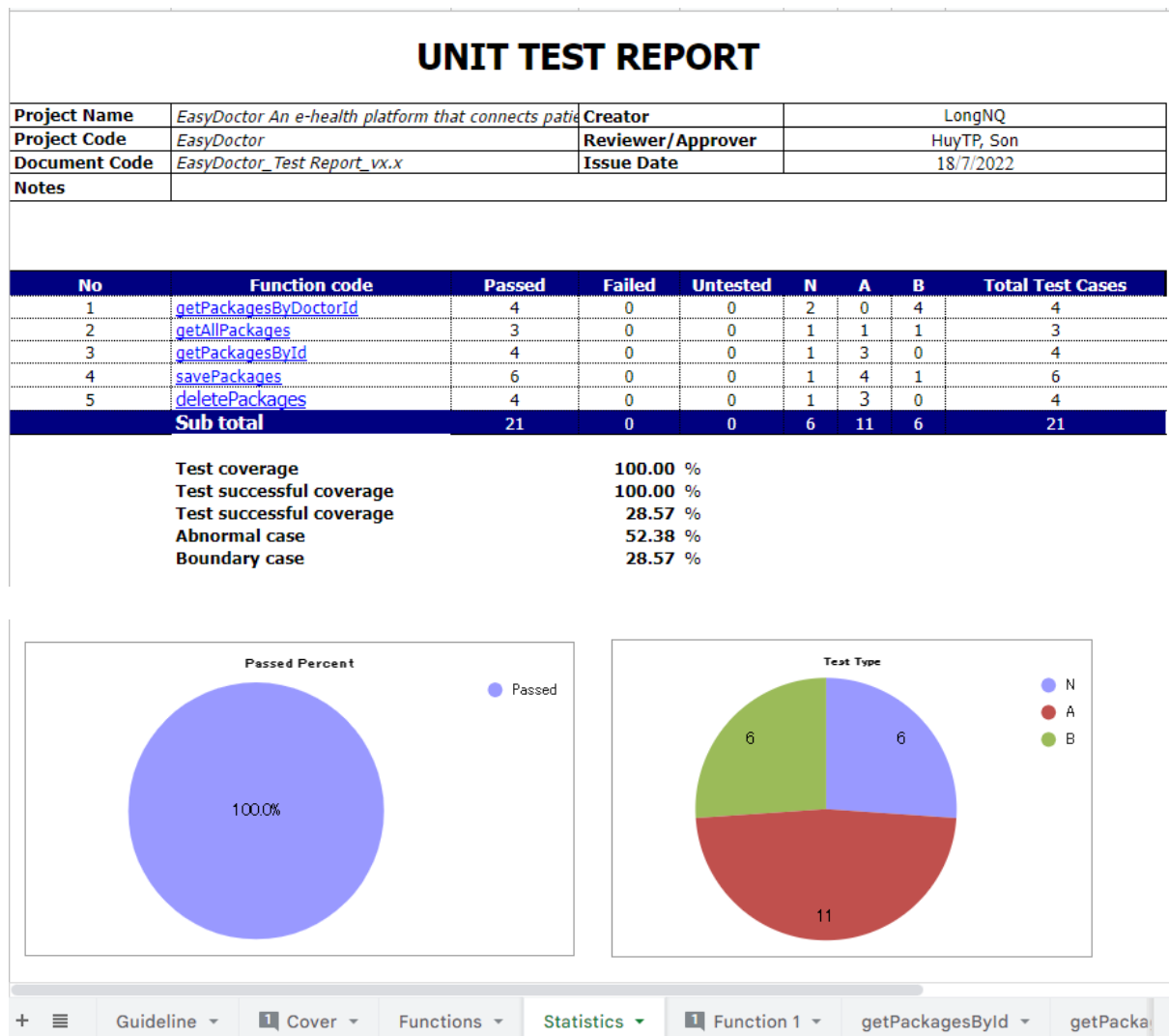


Figure 7: Unit Test Package

1.7. Post

[Report5_Unit Test_Post.xlsx](#)

UNIT TEST REPORT

| | | | |
|---------------|--|-------------------|---------------|
| Project Name | EasyDoctor An e-health platform that connects patients and doctors | Creator | HuyTV |
| Project Code | EasyDoctor | Reviewer/Approver | HuyTP, LongNQ |
| Document Code | EasyDoctor_Test Report_vx.x | Issue Date | 18/7/2022 |
| Notes | | | |

| No | Function code | Passed | Failed | Untested | N | A | B | Total Test Cases |
|-----------|---------------|--------|--------|----------|---|----|---|------------------|
| 1 | getListPost | 5 | 0 | 0 | 4 | 1 | 0 | 5 |
| 2 | deletePost | 4 | 0 | 0 | 1 | 2 | 1 | 4 |
| 3 | updatePost | 5 | 0 | 0 | 1 | 2 | 2 | 5 |
| 4 | addPost | 7 | 0 | 0 | 1 | 4 | 2 | 7 |
| 5 | getComment | 3 | 0 | 0 | 1 | 1 | 1 | 3 |
| 6 | handleLike | 4 | 0 | 0 | 2 | 2 | 0 | 4 |
| 7 | isLike | 7 | 0 | 0 | 1 | 4 | 2 | 7 |
| Sub total | | 35 | 0 | 0 | 8 | 10 | 6 | 35 |

| | |
|--------------------------|----------|
| Test coverage | 100.00 % |
| Test successful coverage | 100.00 % |
| Normal case | 22.86 % |
| Abnormal case | 28.57 % |
| Boundary case | 17.14 % |

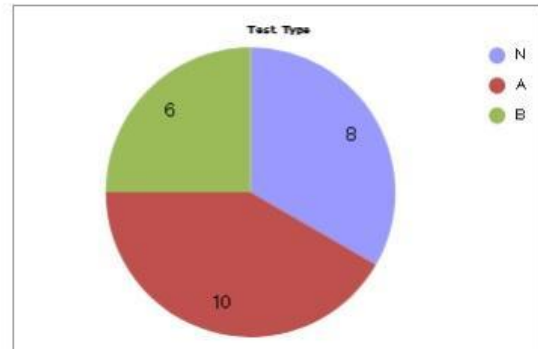
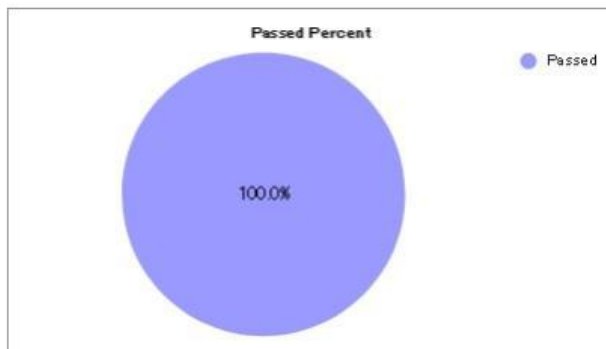


Figure 8: Unit Test Post

2. Result of integration test

2.1. Patient

[Report5_Test Report_Patient.xlsx](#)

TEST STATISTICS

| | | | |
|---------------|--|-------------------|--------------|
| Project Name | EasyDoctor An e-health platform that connects patients and doctors | Creator | ThangPHC |
| Project Code | EasyDoctor | Reviewer/Approver | HuyTP, SonCT |
| Document Code | EasyDoctor_Test Report_vx.x | Issue Date | 10/7/2022 |
| Notes | | | |

| No | Module code | Passed | Failed | Pending | N/A | Number of test cases |
|----|--------------------|--------|--------|---------|-----|----------------------|
| 1 | Login | 5 | 0 | 0 | 0 | 5 |
| 2 | Register | 3 | 0 | 0 | 0 | 3 |
| 3 | Reset password | 5 | 0 | 0 | 0 | 5 |
| 4 | View profile | 1 | 0 | 0 | 0 | 1 |
| 5 | Edit profile | 3 | 0 | 0 | 0 | 3 |
| 6 | Change password | 3 | 0 | 0 | 0 | 3 |
| 7 | List doctor | 1 | 0 | 0 | 0 | 1 |
| 8 | Update declaration | 1 | 0 | 0 | 0 | 1 |
| 9 | Search name and | 2 | 0 | 0 | 0 | 2 |
| 10 | Detail doctor | 1 | 0 | 0 | 0 | 1 |
| 11 | List review | 1 | 0 | 0 | 0 | 1 |
| 12 | Choose doctor | 1 | 0 | 0 | 0 | 1 |
| 13 | Choose packages | 1 | 0 | 0 | 0 | 1 |
| 14 | Choose time | 1 | 0 | 0 | 0 | 1 |
| 15 | List appointment | 2 | 0 | 0 | 0 | 2 |
| 16 | Detail appointment | 1 | 0 | 0 | 0 | 1 |

| | | | | | | |
|-----------|------------------------|----|---|---|---|----|
| 18 | Reject appointment | 1 | 0 | 0 | 0 | 1 |
| 19 | Review doctor | 1 | 0 | 0 | 0 | 1 |
| 20 | Chat realtime | 2 | 0 | 0 | 0 | 2 |
| 21 | Download QR | 1 | 0 | 0 | 0 | 1 |
| 22 | Download invoice(note) | | | | | |
| 23 | View medical record | 1 | 0 | 0 | 0 | 1 |
| 24 | List post | 1 | 0 | 0 | 0 | 1 |
| 25 | Add/edit post | 2 | 0 | 0 | 0 | 2 |
| 26 | Comment post | 1 | 0 | 0 | 0 | 1 |
| 27 | Like post | 2 | 0 | 0 | 0 | 2 |
| 28 | Follow doctor | 1 | 0 | 0 | 0 | 1 |
| 29 | List notification | 2 | 0 | 0 | 0 | 2 |
| 30 | Read notification | 2 | 0 | 0 | 0 | 2 |
| Sub total | | 50 | 0 | 0 | 0 | 50 |

Test coverage 100.00 %
Test successful coverage 100.00 %

Figure 9: Integration Test Patient

2.2. Doctor

[Report5_Test Report_Doctor.xlsx](#)

TEST STATISTICS

| | | | |
|---------------|--|-------------------|---------------|
| Project Name | EasyDoctor An e-health platform that connects patients and doctors | Creator | HuyTV |
| Project Code | EasyDoctor | Reviewer/Approver | HuyTP, LongLQ |
| Document Code | EasyDoctor_Test Report_vx.x | Issue Date | 10/7/2022 |
| Notes | | | |

| No | Module code | Passed | Failed | Pending | N/A | Number of test cases |
|----|---------------------------------|--------|--------|---------|-----|----------------------|
| 1 | Login | 5 | 0 | 0 | 0 | 5 |
| 2 | Forgot password | 3 | 0 | 0 | 0 | 3 |
| 3 | Logout | 1 | 0 | 0 | 0 | 1 |
| 4 | Edit profile | 3 | 0 | 0 | 0 | 3 |
| 5 | Change password | 5 | 0 | 0 | 0 | 5 |
| 6 | Change of work schedule | 1 | 0 | 0 | 0 | 1 |
| 7 | List appointment | 2 | 0 | 0 | 0 | 2 |
| 8 | View statistics | 1 | 0 | 0 | 0 | 1 |
| 9 | View detail appointment | 1 | 0 | 0 | 0 | 1 |
| 10 | Add medical examination results | 2 | 0 | 0 | 0 | 2 |
| 11 | Cancel appointment | 1 | 0 | 0 | 0 | 1 |
| 12 | Reject appointment | 1 | 0 | 0 | 0 | 1 |
| 13 | Chat realtime | 2 | 0 | 0 | 0 | 2 |
| 14 | View calendar | 1 | 0 | 0 | 0 | 1 |
| 15 | View medical record | 1 | 0 | 0 | 0 | 1 |
| 16 | List post | 2 | 0 | 0 | 0 | 2 |
| 17 | Add/edit post | 2 | 0 | 0 | 0 | 2 |

| | | | | | | |
|-----------|-------------------|----|---|---|---|----|
| 17 | Add/edit post | 2 | 0 | 0 | 0 | 2 |
| 18 | Comment post | 1 | 0 | 0 | 0 | 1 |
| 19 | Like post | 1 | 0 | 0 | 0 | 1 |
| 20 | List notification | 2 | 0 | 0 | 0 | 2 |
| 21 | Read notification | 1 | 0 | 0 | 0 | 1 |
| Sub total | | 39 | 0 | 0 | 0 | 39 |

Test coverage

100.00 %

Test successful coverage

100.00 %

Figure 10: Integration Test Doctor

2.3. Admin

[Report5_Test Report_Admin.xlsx](#)

TEST STATISTICS

| | | | |
|---------------|--|-------------------|----------------|
| Project Name | EasyDoctor An e-health platform that con | Creator | LongLQ |
| Project Code | EasyDoctor | Reviewer/Approver | LongLQ, HuyTPG |
| Document Code | EasyDoctor_Test Report_vx.x | Issue Date | 10/7/2022 |
| Notes | | | |

| No | Module code | Passed | Failed | Pending | N/A | Number of test cases |
|----|-----------------|--------|--------|---------|-----|----------------------|
| 1 | Login | 5 | 0 | 0 | 0 | 5 |
| 2 | Logout | 1 | 0 | 0 | 0 | 1 |
| 3 | View profile | 1 | 0 | 0 | 0 | 1 |
| 4 | View packages | 1 | 0 | 0 | 0 | 1 |
| 5 | Add packages | 3 | 0 | 0 | 0 | 3 |
| 6 | Edit packages | 3 | 0 | 0 | 0 | 3 |
| 7 | Delete packages | 1 | 0 | 0 | 0 | 1 |
| 8 | View Clinic | 1 | 0 | 0 | 0 | 1 |
| 9 | Add Clinic | 3 | 0 | 0 | 0 | 3 |
| 10 | Edit Clinic | 3 | 0 | 0 | 0 | 3 |
| 11 | Delete Clinic | 1 | 0 | 0 | 0 | 1 |
| 12 | View Doctor | 1 | 0 | 0 | 0 | 1 |
| 13 | Add Doctor | 3 | 0 | 0 | 0 | 3 |
| 14 | Edit Doctor | 3 | 0 | 0 | 0 | 3 |
| 15 | Delete Doctor | 1 | 0 | 0 | 0 | 1 |
| 16 | View Patient | 1 | 0 | 0 | 0 | 1 |
| 17 | Edit Patient | 3 | 0 | 0 | 0 | 3 |

| | | | | | | |
|------------------|--------------------|-----------|----------|----------|----------|-----------|
| 18 | Delete Patient | 1 | 0 | 0 | 0 | 1 |
| 19 | View Appointment | 1 | 0 | 0 | 0 | 1 |
| 20 | Delete Appointment | 1 | 0 | 0 | 0 | 1 |
| 21 | View Question | 1 | 0 | 0 | 0 | 1 |
| 22 | Delete Question | 1 | 0 | 0 | 0 | 1 |
| 23 | View Invoice | 1 | 0 | 0 | 0 | 1 |
| 24 | Delete Invoice | 1 | 0 | 0 | 0 | 1 |
| 25 | View Review | 1 | 0 | 0 | 0 | 1 |
| 26 | Delete review | 1 | 0 | 0 | 0 | 1 |
| 27 | Report patient | | | | | |
| 28 | Report clinic | | | | | |
| Sub total | | 44 | 0 | 0 | 0 | 44 |

Test coverage 100.00 %
 Test successful coverage 100.00 %

Figure 11: Integration Test Admin

3. Result of system test

3.1. Framework and software: Google Chrome, Selenium IDE

Selenium IDE (Integrated Development Environment) is primarily a record/run tool that a test case developer uses to develop Selenium Test cases. Selenium IDE is an easy-to-use tool from the Selenium Test Suite and can even be used by someone new to developing automated test cases for their web applications.

<https://drive.google.com/drive/folders/190mQLteRrzMOPaTihhmZgZ0-bhpD222N>

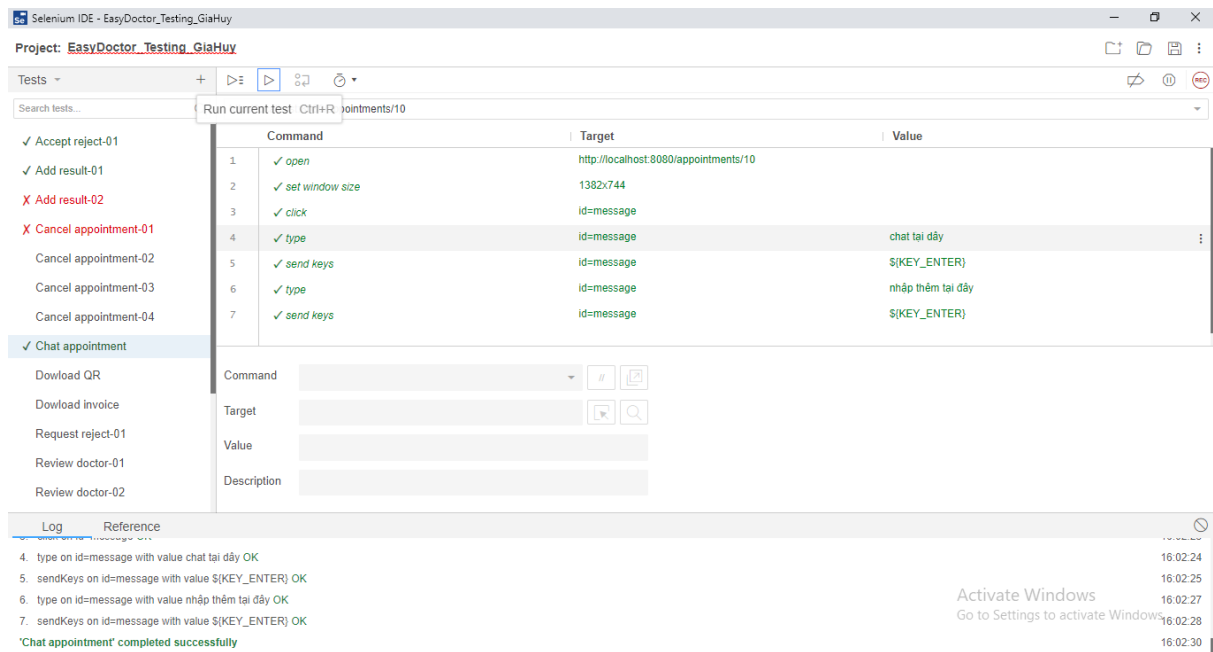


Figure 12: Selenium IDE of Gia Huy

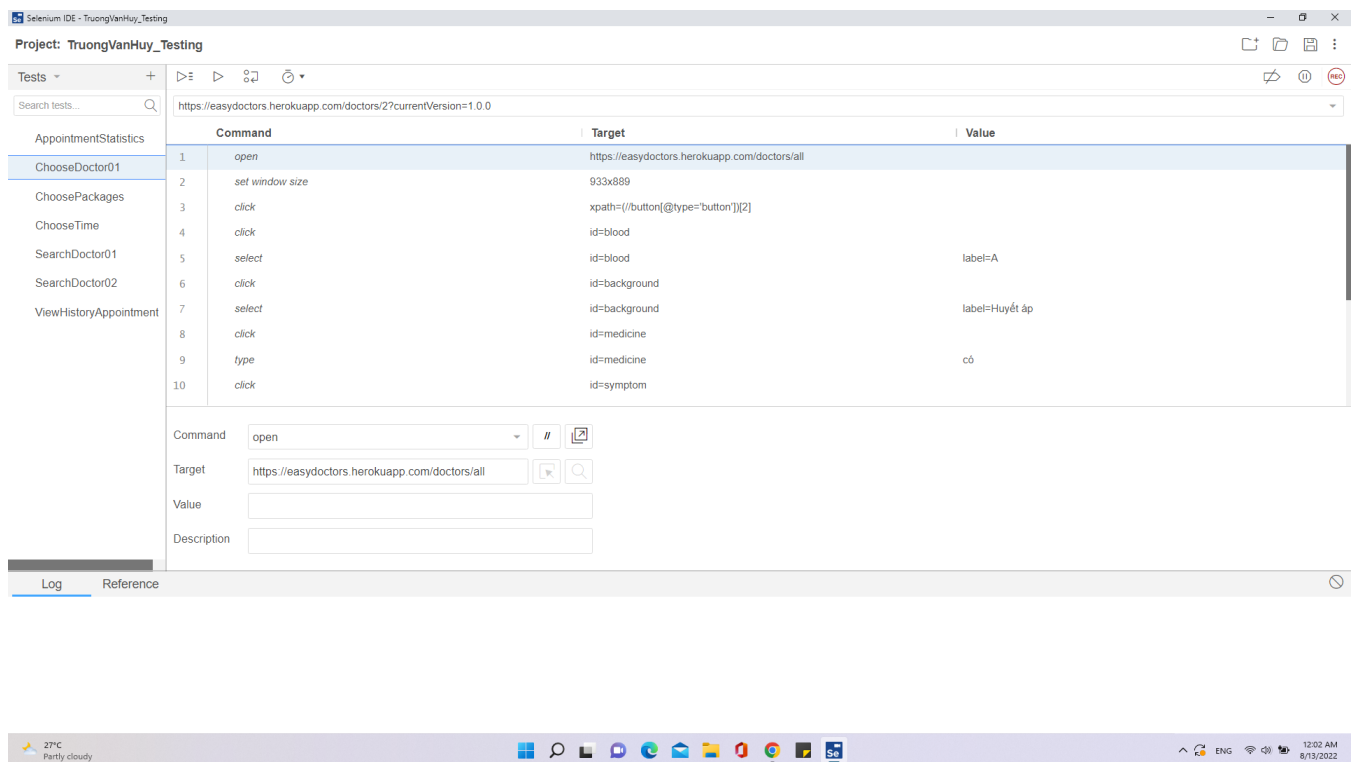


Figure 13: Selenium IDE of Văn Huy

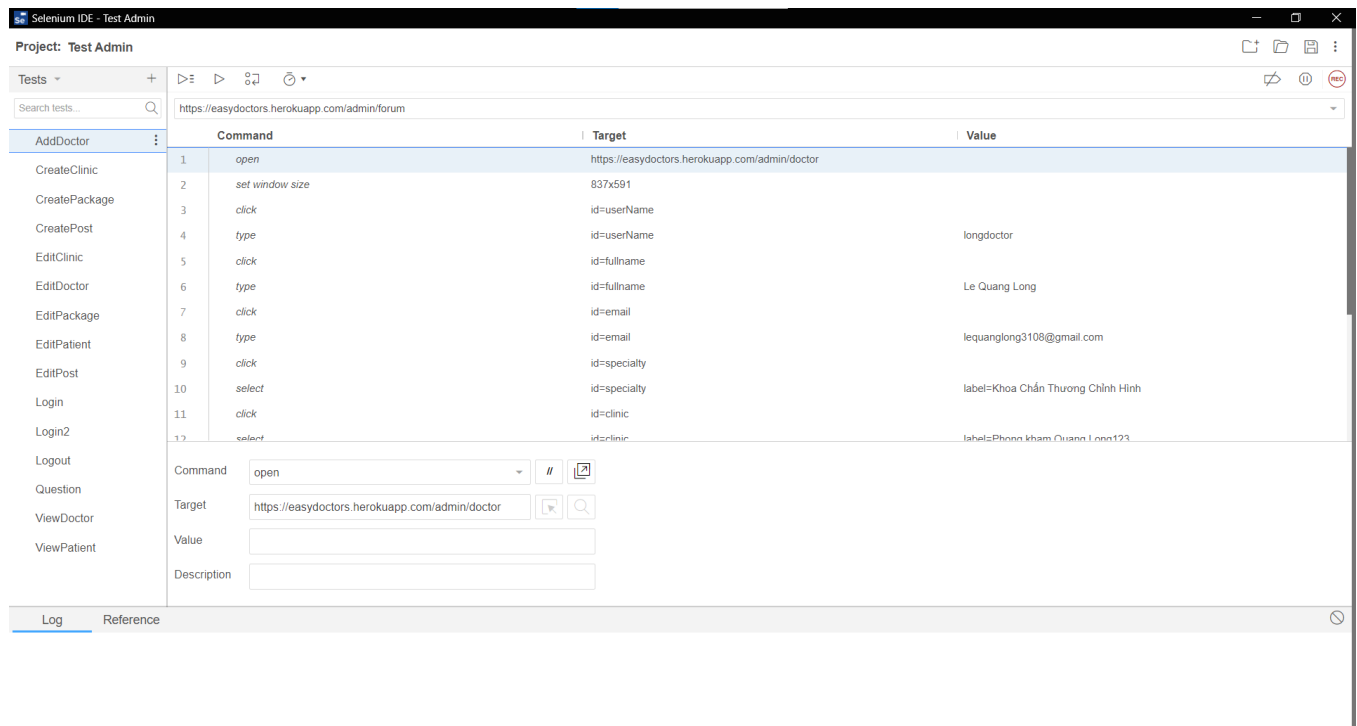


Figure 14: Selenium IDE of Quang Long

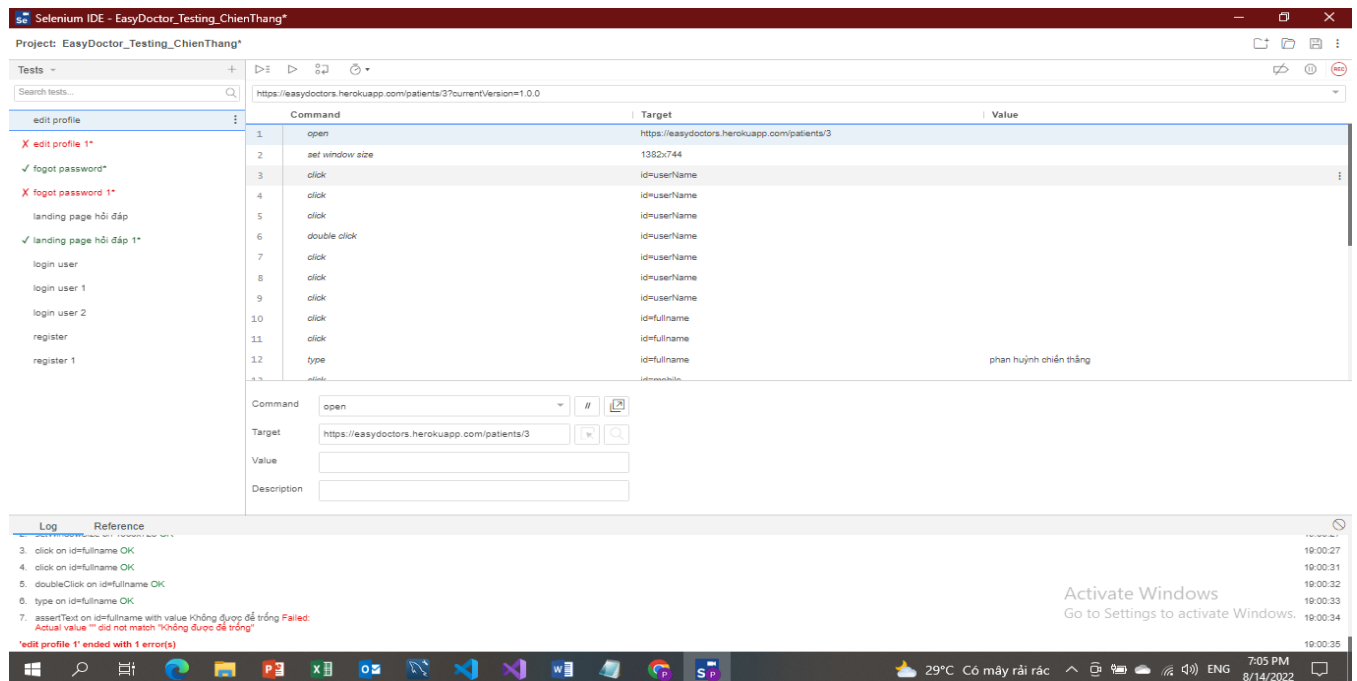


Figure 15: Selenium IDE of Chiến Thắng

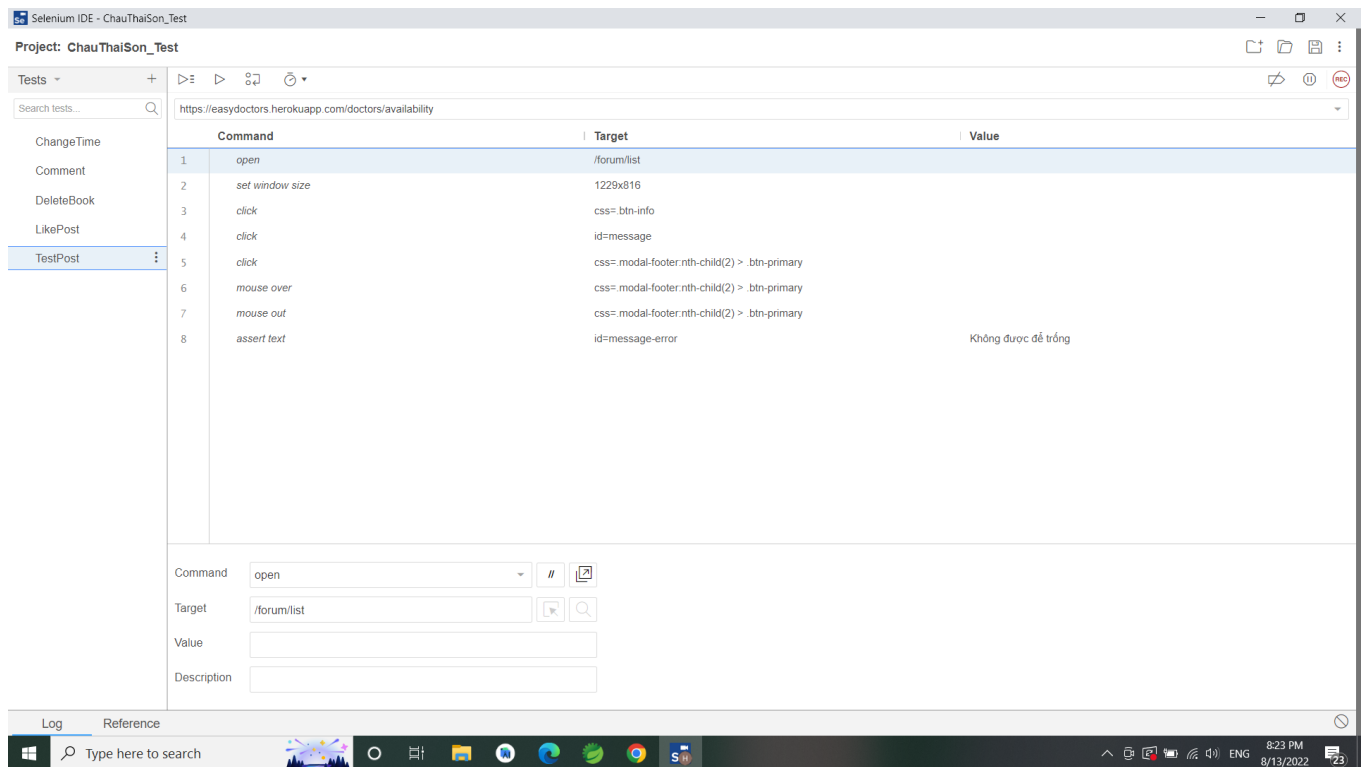


Figure 16: Selenium IDE of Thái Sơn

3.2. Tester

This is the excel file that our team has done to find the error is recorded [here](#).

| STT | Feature | Error (Bug) | Fix bug | Who | Time | PIC | Status |
|-----|---------------|--|---------------------------------------|----------|------------|----------|----------|
| 1 | QR | chỗ cái QR code này thêm chú thích vào nhé | đã thêm vào | HuyTPG | 2022-07-30 | ThaoHT | COMPLETE |
| 2 | | Lỗi ngôn từ | Lỗi ngôn từ | HuyTV | 2022-08-01 | HuyTPG | COMPLETE |
| 3 | | Lỗi fe | Lỗi fe | ThangPHC | 2022-08-01 | All | COMPLETE |
| 4 | Quên mật khẩu | token xác nhận bị null | do quên insert token khi test | ThangPHC | 2022-08-01 | ThaoHT | COMPLETE |
| 5 | Quên mật khẩu | vẫn còn tiếng anh | ok đã đổi sang tiếng việt | LongLQ | 2022-08-02 | ThaoHT | COMPLETE |
| 6 | CHI TIẾT CUỘC | patient null | do chưa cập nhật lúc mới đăng ký | HuyTPG | 2022-08-02 | ThaoHT | COMPLETE |
| 7 | đặt doctor | ko có time | lỗi khi tạo mới bác sĩ | HuyTPG | 2022-08-03 | ThangPHC | COMPLETE |
| 8 | | phải cập nhật địa chỉ clinic lúc mới chèn | ok để mình thêm vào | LongLQ | 2022-08-04 | HuyTV | COMPLETE |
| 9 | thay đổi lịch | sao lỗi vậy | chắc do thiết dữ liệu bị null á | LongLQ | 2022-08-04 | SonCT | COMPLETE |
| 10 | forum | lỗi hình ảnh | do để folder ở trong project | HuyTPG | 2022-08-05 | SonCT | COMPLETE |
| 11 | | cuộc hẹn | | LongLQ | 2022-08-05 | LongLQ | COMPLETE |
| 12 | Forum | Click vào tên bác sĩ ở forum bị đăng xuất ra trang login | OK Biết lỗi rồi | HuyTV | 2022-08-06 | ThangPHC | COMPLETE |
| 13 | Forum | Ảnh bài đăng ở forum chưa load lên được, load lần 2 mới được | | HuyTV | 2022-08-06 | LongLQ | COMPLETE |
| 14 | Notification | Thông báo xuất hóa đơn chưa xem được | xuất hóa đơn | HuyTV | 2022-08-06 | LongLQ | COMPLETE |
| 15 | Forum | Tổng số like hiển thị số âm | like âm | HuyTV | 2022-08-06 | LongLQ | COMPLETE |
| 16 | Forum | Click vào tên bác sĩ ở phần comment bài viết chưa dẫn đến được trang | ok hiểu để mình fix lại | HuyTV | 2022-08-06 | LongLQ | COMPLETE |
| 17 | Admin | duration validation ở admin bị sai | okfix nhé | SonCT | 2022-08-07 | LongLQ | COMPLETE |
| 18 | | nút xem chi tiết bác sĩ bị loutout ra ở admin doctor | OK FIX RỒI NHÉ | ThangPHC | 2022-08-07 | HuyTPG | COMPLETE |
| 19 | Forum | Nhấn like nhưng không thay đổi số lượng like | anh son nhận task nhé | ThangPHC | 2022-08-08 | ThangPHC | COMPLETE |
| 20 | Đặt bác sĩ | Lỗi mã QR | S | ThangPHC | 2022-08-09 | ThangPHC | COMPLETE |
| 21 | Forum | Không load ảnh | ảnh on fix sang ổ D nhé | SonCT | 2022-08-10 | SonCT | COMPLETE |
| 22 | Forum | Comment không được | Đã fix | ThangPHC | 2022-08-10 | ThangPHC | COMPLETE |

Figure 17: List test of tester

3.3. Tool testing front-end : Yellow Lab Tools

[Yellow Lab Tools - Công cụ kiểm thử phi chức năng](#)

Yellow Lab Tools is an open source project by Gaël Métais. It allows you to test a webpage (via an URL) and detects performance and front-end code quality issues. It is based on Phantomas, a tool that instruments Chrome Headless to collect dozens of metrics. These metrics are then categorised and transformed into scores. It also provides in-depth details so that developers can fix the detected issues.

<https://yellowlab.tools/>



Figure 18: Yellow Lab Tools

| Score details | | | |
|---------------|----------------|-----------------------------|-------------|
| F | Page weight | ● Total weight | 17.7 MB ▲▲▲ |
| | | ● Image optimization | 614 KB ▲▲ |
| | | ● Oversized images | 14 ▲ |
| | | ● Gzip/Brotli compression | 391 KB |
| | | ● File minification | 5.2 KB |
| B | Requests | ● Requests number | 59 |
| | | ● Different domains | 6 |
| | | ● 404 not found | 1 ▲ |
| | | ● Identical content | 0 |
| | | ● Empty requests | 0 |
| | | ● Below the fold images | 13 |
| | | ● Hidden images | 14 |
| A | DOM complexity | ● DOM elements count | 528 |
| | | ● DOM max depth | 14 |
| | | ● Number of iframes | 0 |
| | | ● IDs duplicated | 1 |
| A | JS complexity | ● Total JS execution time | 89 ms |
| | | ● DOM access | 64 |
| | | ● Scroll events bound | 1 |
| A | Bad JS | ● JavaScript errors | 1 |
| | | ● document.write calls | 0 |
| | | ● Synchronous Ajax requests | 0 |
| | | ● Global variables | 34 |

| | | | | |
|---|----------------|---|--------------------------------|----------|
| C | jQuery | ● | jQuery version | 1.9.1 |
| | | ● | Several jQuery loaded | 1 |
| B | CSS complexity | ● | Rules count | 4342 |
| | | ● | Complex selectors | 68 |
| | | ● | Colors count | 236 |
| | | ● | Similar colors | 13 |
| | | ● | Breakpoints count | 10 |
| | | ● | Not mobile-first media queries | 30 |
| E | Bad CSS | ● | CSS syntax error | 0 |
| | | ● | Uses of @import | 0 |
| | | ● | Duplicated selectors | 21 |
| | | ● | Duplicated properties | 31 |
| | | ● | Empty rules | 0 |
| | | ● | Uses of !important | 3892 ⚠ ⚠ |
| | | ● | Old IE fixes | 0 |
| | | ● | Old prefixes | 534 ⚠ |
| | | ● | Redundant body selectors | 0 |
| | | ● | Redundant tags selectors | 0 |
| F | Web fonts | ● | Webfonts number | 15 ⚠ ⚠ |
| | | ● | Overweighted webfonts | 0 bytes |
| | | ● | Unused Unicode ranges | 14 ⚠ |
| | | ● | WOFF 2 | 0 bytes |
| C | Server config | ● | HTTP protocols | 35 |
| | | ● | TLS protocols | 1 |
| | | ● | Connections closed | 0 |
| | | ● | Caching not specified | 0 |
| | | ● | Caching disabled | 37 ⚠ |

Ac
Go