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| An-Najah National<br>University Faculty of<br>Engineering and IT<br>Electrical and Computer<br>Engineering Department |  | جامعة النجاح الوطنية كلية الهندسة<br>وتكنولوجيا المعلومات دائرة<br>الهندسة الكهربائية والحاسوب |
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## Software Engineering Project Report

|                        |   |
|------------------------|---|
| <b>Students</b>        | Najat Mansour (12028099)<br>Mohammad Alawneh (12028067) |
| <b>Instructor Name</b> | Dr. Haya Samaana  |
| <b>Performed In</b>    | 02.08.2023  |

### ✚ Content

- GitHub Link
- Run all the testcases
- Code Coverage from IntelliJ Ultimate
- Hot topics in our project 😊!
- Sonar Cloud analysis

### ✚ GitHub Link

<https://github.com/SakancomOrganization/Sakancom>

|                     |                             |
|---------------------|-----------------------------|
| <b>Organization</b> | <b>SakancomOrganization</b> |
| <b>Owner</b>        | <b>mo-alawneh</b>           |
| <b>Repository</b>   | <b>Sakancom</b>             |

### ✚ Run all the testcases

```

> ✓ TestSaleContract
> ✓ TestHouse
> ✓ TestLocation
> ✓ TestHouseRate
> ✓ TestBuilding
> ✓ TestContactInfo
> ✓ TestEmailServiceWithMockito
> ✓ TestUser
> ✓ TestRunnerForTenant
> ✓ TestPasswordChecker
> ✓ TestSakancom
> ✓ TestFurniture
> ✓ TestServices
> ✓ TestEmailFormatChecker
> ✓ TestYmlHandler
> ✓ TestRunnerForUserGeneralOperations

```

```

> ✓ TestRunnerForOwner
> ✓ TestRunnerForAdmin
> ✓ TestRunnerForAuthentication
> ✓ TestStringComparator
> ✓ TestUserLocation
> ✓ TestName

```

These are the top-level test labels (names of the test classes) and each one contains several tests. -we have **252** test-

✓ Tests passed: 252 of 252 tests – 6 sec 263 ms

## Code Coverage from IntelliJ Ultimate

We got a 100% line -statement- coverage!

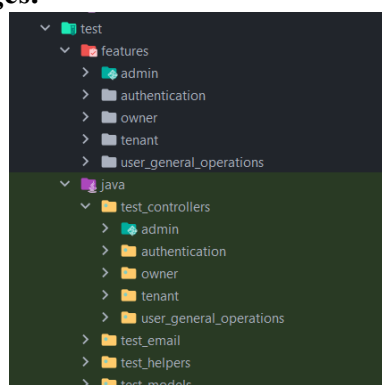
|                       |              |                |                |
|-----------------------|--------------|----------------|----------------|
| all                   | 100% (37/37) | 100% (216/216) | 100% (614/614) |
| controllers           | 100% (7/7)   | 100% (45/45)   | 100% (193/193) |
| Admin                 | 100% (1/1)   | 100% (21/21)   | 100% (49/49)   |
| Login                 | 100% (1/1)   | 100% (2/2)     | 100% (8/8)     |
| Logout                | 100% (1/1)   | 100% (1/1)     | 100% (1/1)     |
| Owner                 | 100% (1/1)   | 100% (13/13)   | 100% (69/69)   |
| SignUp                | 100% (1/1)   | 100% (1/1)     | 100% (4/4)     |
| Tenant                | 100% (1/1)   | 100% (4/4)     | 100% (20/20)   |
| UserGeneralOperations | 100% (1/1)   | 100% (3/3)     | 100% (42/42)   |
| email                 | 100% (3/3)   | 100% (10/10)   | 100% (37/37)   |
| EmailService          | 100% (2/2)   | 100% (8/8)     | 100% (32/32)   |
| YmlHandler            | 100% (1/1)   | 100% (2/2)     | 100% (5/5)     |
| enums                 | 100% (4/4)   | 100% (4/4)     | 100% (16/16)   |
| exceptions            | 100% (8/8)   | 100% (8/8)     | 100% (8/8)     |
| helpers               | 100% (3/3)   | 100% (9/9)     | 100% (43/43)   |
| EmailFormatChecker    | 100% (1/1)   | 100% (2/2)     | 100% (15/15)   |
| PasswordChecker       | 100% (1/1)   | 100% (6/6)     | 100% (24/24)   |
| StringsComparator     | 100% (1/1)   | 100% (1/1)     | 100% (4/4)     |
| models                | 100% (12/12) | 100% (140/140) | 100% (317/317) |
| Building              | 100% (1/1)   | 100% (19/19)   | 100% (38/38)   |
| ContactInfo           | 100% (1/1)   | 100% (9/9)     | 100% (15/15)   |
| Furniture             | 100% (1/1)   | 100% (7/7)     | 100% (12/12)   |
| House                 | 100% (1/1)   | 100% (22/22)   | 100% (41/41)   |
| HouseRate             | 100% (1/1)   | 100% (3/3)     | 100% (11/11)   |
| Location              | 100% (1/1)   | 100% (7/7)     | 100% (12/12)   |
| Name                  | 100% (1/1)   | 100% (9/9)     | 100% (16/16)   |
| Sakancom              | 100% (1/1)   | 100% (14/14)   | 100% (79/79)   |
| SaleContract          | 100% (1/1)   | 100% (7/7)     | 100% (10/10)   |
| Services              | 100% (1/1)   | 100% (17/17)   | 100% (36/36)   |
| User                  | 100% (1/1)   | 100% (19/19)   | 100% (32/32)   |
| UserLocation          | 100% (1/1)   | 100% (7/7)     | 100% (15/15)   |

| Current scope: all classes |              |                |                |
|----------------------------|--------------|----------------|----------------|
| Overall Coverage Summary   |              |                |                |
| Package                    | Class, %     | Method, %      | Line, %        |
| all classes                | 100% (37/37) | 100% (228/228) | 100% (596/596) |
| Coverage Breakdown         |              |                |                |
| Package                    | Class, %     | Method, %      | Line, %        |
| controllers                | 100% (7/7)   | 100% (45/45)   | 100% (201/201) |
| email                      | 100% (3/3)   | 100% (10/10)   | 100% (37/37)   |
| enums                      | 100% (4/4)   | 100% (8/8)     | 100% (16/16)   |
| exceptions                 | 100% (8/8)   | 100% (8/8)     | 100% (8/8)     |
| helpers                    | 100% (3/3)   | 100% (9/9)     | 100% (43/43)   |
| models                     | 100% (12/12) | 100% (140/140) | 100% (291/291) |

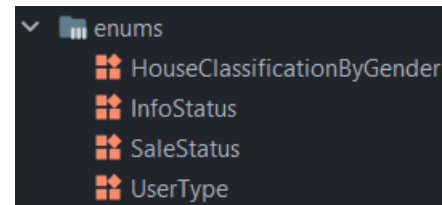
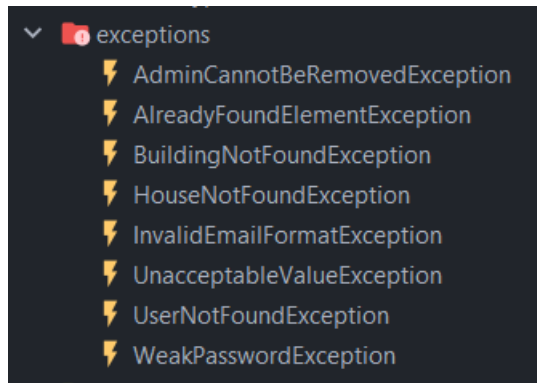
generated on 2023-08-04 16:50

## Hot topics in out project

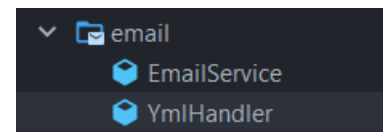
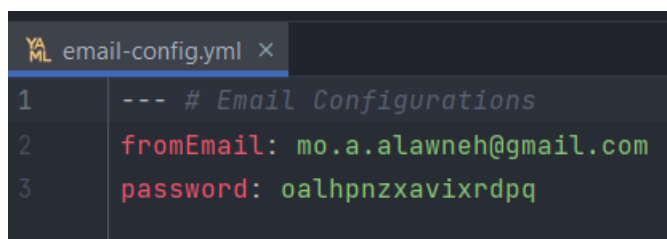
- We design our project using MVC model view controller. The models are basic elements (objects) of the design; see the coverage photo to see the classes, and see the models UML on the last page! In addition to **Models**, **Views** and **Controllers**, we also have packages for: **email service** and **helper** classes.
- We divide the scenarios and the corresponding test classes in sub folders and packages.



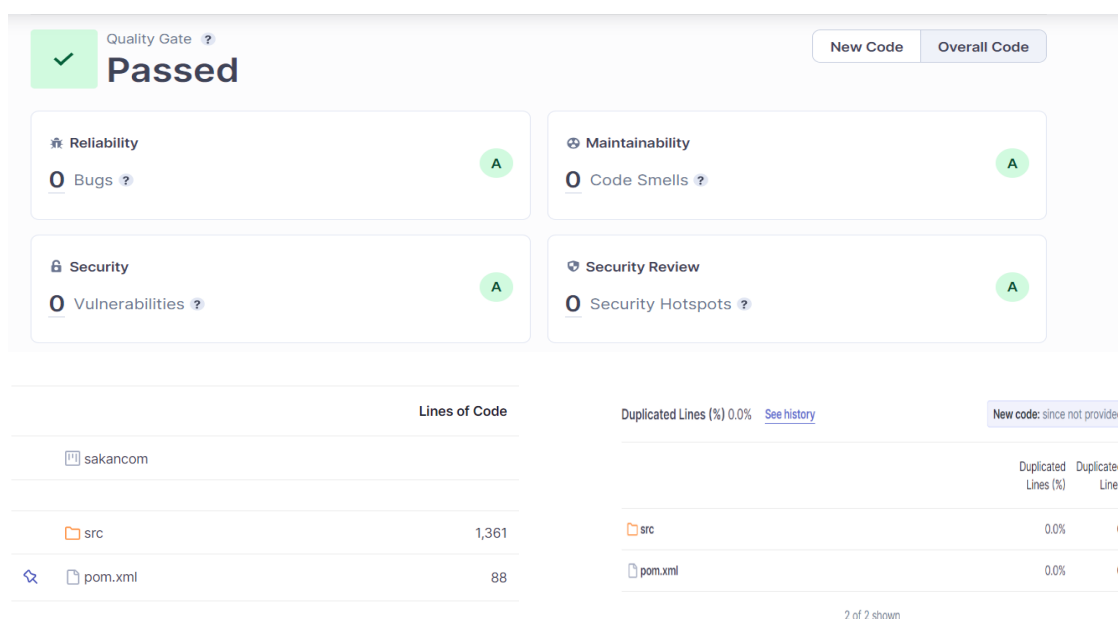
- We achieved the “**Single-Responsibility**” principle even in the scenarios; since we have **35 different scenarios**.
- We add customized **Exceptions** and **Enums** such as:



- We add an email service using **JavaMailServer** and we test it using the **Mockito** Framework.
- We put the **sender email and its token** on **YML** file and read them in the code using the **YmlHandler** class to avoid any security issue.

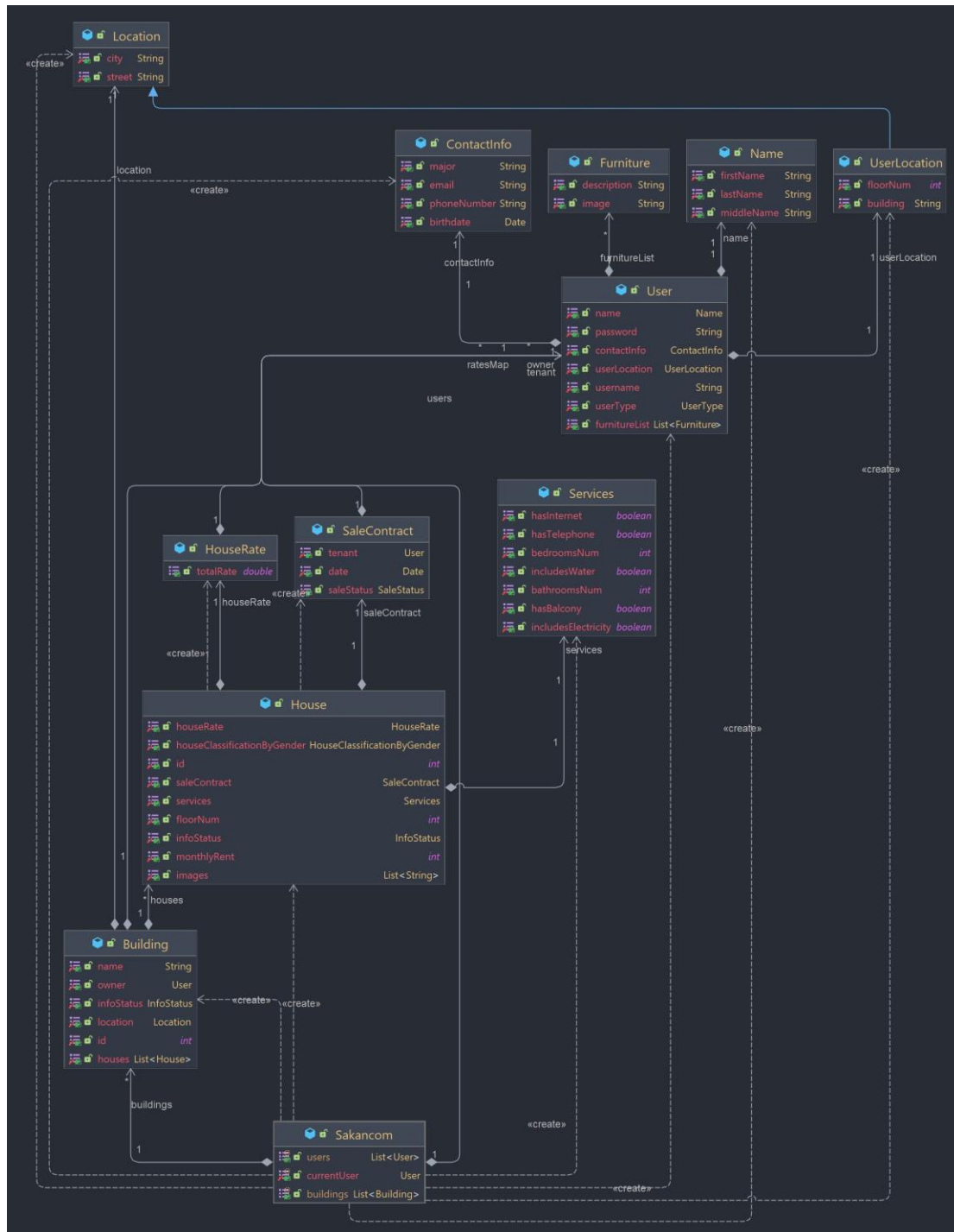


## Sonar Cloud static analysis



**NOTE:** We used **SonarLint** plugin on IntelliJ since we have been starting the project.

**As I promised, this is the models UML!**



**THE END!**

**THANK YOU!**