## Lizard Output – Engenharia de Software II

| NLOC- | CCN- | token | -PAR | AM-le | ngth lo | cation   |
|-------|------|-------|------|-------|---------|--|
| 3     | 1    | 12    | 1    | 3     | сс      | onstructor@7-9@./main/composers/user.composer.ts         |
| 3     | 1    | 20    | 0    | 3     | CC      | ompose@11-13@./main/composers/user.composer.ts           |
| 3     | 1    | 12    | 1    | 3     | CC      | onstructor@7-9@./main/composers/patient.composer.ts      |
| 3     | 1    | 20    | 0    | 3     | CC      | ompose@11-13@./main/composers/patient.composer.ts        |
| 3     | 1    | 12    | 1    | 3     | co      | onstructor@7-9@./main/composers/receptionist.composer.ts |
| 6     | 1    | 20    | 0    | 6     | CC      | ompose@11-16@./main/composers/receptionist.composer.ts   |
| 3     | 1    | 12    | 1    | 3     | co      | onstructor@7-9@./main/composers/appointment.composer.ts  |
| 3     | 1    | 20    | 0    | 3     | CC      | ompose@11-13@./main/composers/appointment.composer.ts    |
| 3     | 1    | 12    | 1    | 3     | CC      | onstructor@7-9@./main/composers/doctor.composer.ts       |
| 3     | 1    | 20    | 0    | 3     | co      | ompose@11-13@./main/composers/doctor.composer.ts         |
| 3     | 1    | 12    | 1    | 3     | CC      | onstructor@7-9@./main/composers/exam.composer.ts         |
| 3     | 1    | 20    | 0    | 3     | CC      | ompose@11-13@./main/composers/exam.composer.ts           |
| 1     | 1    | 13    | 0    | 1     | (a      | nonymous)@25-25@./main/models/tests/user.test.ts         |
| 8     | 1    | 65    | 0    | 9     | (a      | nonymous)@18-26@./main/models/tests/user.test.ts         |
| 7     | 1    | 66    | 0    | 8     | (a      | nonymous)@28-35@./main/models/tests/user.test.ts         |
| 1     | 1    | 13    | 0    | 1     | (a      | nonymous)@44-44@./main/models/tests/user.test.ts         |
| 8     | 1    | 65    | 0    | 9     | (a      | nonymous)@37-45@./main/models/tests/user.test.ts         |
| 7     | 1    | 66    | 0    | 8     | (a      | nonymous)@47-54@./main/models/tests/user.test.ts         |
| 7     | 1    | 66    | 0    | 8     | (a      | nonymous)@56-63@./main/models/tests/user.test.ts         |
| 7     | 1    | 64    | 0    | 8     | (a      | nonymous)@65-72@./main/models/tests/user.test.ts         |
| 8     | 1    | 62    | 0    | 57    | (a      | nonymous)@17-73@./main/models/tests/user.test.ts         |
| 1     | 1    | 1     | 0    | 1     | (a      | non)@29-29@./main/models/tests/receptionist.test.ts      |
| 10    | 1    | 77    | 0    | 11    | (a      | non)@21-31@./main/models/tests/receptionist.test.ts      |
| 11    | 1    | 66    | 0    | 12    | (a      | non)@33-44@./main/models/tests/receptionist.test.ts      |
| 1     | 1    | 1     | 0    | 1     | (a      | non)@54-54@./main/models/tests/receptionist.test.ts      |
| 10    | 1    | 77    | 0    | 11    | (a      | non)@46-56@./main/models/tests/receptionist.test.ts      |
| 11    | 1    | 66    | 0    | 12    | (a      | non)@58-69@./main/models/tests/receptionist.test.ts      |

| 7  | 1 | 66 | 0 | 8  | (anon)@71-78@./main/models/tests/receptionist.test.ts |
|----|---|----|---|----|---|
| 7  | 1 | 64 | 0 | 8  | (anon)@80-87@./main/models/tests/receptionist.test.ts |
| 8  | 1 | 62 | 0 | 69 | (anon)@20-88@./main/models/tests/receptionist.test.ts |
| 1  | 1 | 13 | 0 | 1  | (anonymous)@32-32@./main/models/tests/exam.test.ts    |
| 8  | 1 | 65 | 0 | 9  | (anonymous)@25-33@./main/models/tests/exam.test.ts    |
| 7  | 1 | 66 | 0 | 8  | (anonymous)@35-42@./main/models/tests/exam.test.ts    |
| 1  | 1 | 13 | 0 | 1  | (anonymous)@51-51@./main/models/tests/exam.test.ts    |
| 8  | 1 | 65 | 0 | 9  | (anonymous)@44-52@./main/models/tests/exam.test.ts    |
| 7  | 1 | 66 | 0 | 8  | (anonymous)@54-61@./main/models/tests/exam.test.ts    |
| 7  | 1 | 66 | 0 | 8  | (anonymous)@63-70@./main/models/tests/exam.test.ts    |
| 7  | 1 | 64 | 0 | 8  | (anonymous)@72-79@./main/models/tests/exam.test.ts    |
| 8  | 1 | 62 | 0 | 57 | (anonymous)@24-80@./main/models/tests/exam.test.ts    |
| 1  | 1 | 13 | 0 | 1  | (anonymous)@28-28@./main/models/tests/patient.test.ts |
| 8  | 1 | 65 | 0 | 9  | (anonymous)@21-29@./main/models/tests/patient.test.ts |
| 7  | 1 | 66 | 0 | 8  | (anonymous)@31-38@./main/models/tests/patient.test.ts |
| 1  | 1 | 13 | 0 | 1  | (anonymous)@47-47@./main/models/tests/patient.test.ts |
| 8  | 1 | 65 | 0 | 9  | (anonymous)@40-48@./main/models/tests/patient.test.ts |
| 7  | 1 | 66 | 0 | 8  | (anonymous)@50-57@./main/models/tests/patient.test.ts |
| 7  | 1 | 66 | 0 | 8  | (anonymous)@59-66@./main/models/tests/patient.test.ts |
| 7  | 1 | 64 | 0 | 8  | (anonymous)@68-75@./main/models/tests/patient.test.ts |
| 8  | 1 | 62 | 0 | 57 | (anonymous)@20-76@./main/models/tests/patient.test.ts |
| 1  | 1 | 13 | 0 | 1  | (anonymous)@29-29@./main/models/tests/doctor.test.ts  |
| 8  | 1 | 65 | 0 | 9  | (anonymous)@22-30@./main/models/tests/doctor.test.ts  |
| 7  | 1 | 66 | 0 | 8  | (anonymous)@32-39@./main/models/tests/doctor.test.ts  |
| 1  | 1 | 13 | 0 | 1  | (anonymous)@48-48@./main/models/tests/doctor.test.ts  |
| 8  | 1 | 65 | 0 | 9  | (anonymous)@41-49@./main/models/tests/doctor.test.ts  |
| 7  | 1 | 66 | 0 | 8  | (anonymous)@51-58@./main/models/tests/doctor.test.ts  |
| 7  | 1 | 66 | 0 | 8  | (anonymous)@60-67@./main/models/tests/doctor.test.ts  |
| 7  | 1 | 64 | 0 | 8  | (anonymous)@69-76@./main/models/tests/doctor.test.ts  |
| 8  | 1 | 62 | 0 | 57 | (anonymous)@21-77@./main/models/tests/doctor.test.ts  |
| 1  | 1 | 1  | 0 | 1  | (anon)@35-35@./main/models/tests/appointment.test.ts  |
| 10 | 1 | 77 | 0 | 11 | (anon)@27-37@./main/models/tests/appointment.test.ts  |
| 9  | 1 | 66 | 0 | 10 | (anon)@39-48@./main/models/tests/appointment.test.ts  |

| 1          | 1         | 13          | 0           | 1           | (anon)@57-57@./main/models/tests/appointment.test.ts            |   |
|------------|-----------|-------------|-------------|-------------|---|---|
| 8          | 1         | 65          | 0           | 9           | (anonymous)@50-   |   |
| 58@./      | main      | /mod        | lels/_      | _tests_     | /appointment.test.ts  |   |
| 9          | 1         | 66          | 0           | 10          | (anon)@60-69@./main/models/tests/appointment.test.ts            |   |
| 7          | 1         | 66          | 0           | 8           | (anon)@71-78@./main/models/tests/appointment.test.ts            |   |
| 7          | 1         | 64          | 0           | 8           | (anon)@80-87@./main/models/tests/appointment.test.ts            |   |
| 8          | 1         | 62          | 0           | 63          | (anon)@26-88@./main/models/tests/appointment.test.ts            |   |
| 3          | 1         | 13          | 0           | 3           | retrieve Exams@5-7@./main/models/exam.model.ts                  |   |
| 3          | 1         | 23          | 1           | 3           | retrieveExamById@9-11@./main/models/exam.model.ts               |   |
| 3          | 1         | 24          | 1           | 3           | createExam@13-15@./main/models/exam.model.ts                    |   |
| 3          | 1         | 23          | 1           | 3           | deleteExam@17-19@./main/models/exam.model.ts                    |   |
| 6          | 1         | 43          | 3           | 6           | editExam@21-26@./main/models/exam.model.ts                      |   |
| 3          | 1         | 25          | 1           | 3           | retrieve Patient Exams @ 28-30 @ ./main/models/exam.model.ts    |   |
| 3          | 1         | 13          | 0           | 3           | retrieve Patients @ 5-7 @ ./main/models/patient.model.ts        |   |
| 3          | 1         | 23          | 1           | 3           | retrieve Patient By Id@9-11@./main/models/patient.model.ts      |   |
| 3          | 1         | 24          | 1           | 3           | createPatient@13-15@./main/models/patient.model.ts              |   |
| 3          | 1         | 23          | 1           | 3           | delete Patient @ 17-19 @ ./main/models/patient.model.ts         |   |
| 3          | 1         | 42          | 3           | 3           | edit Patient @ 21-23 @ ./main/models/patient.model.ts           |   |
| 3          | 1         | 13          | 0           | 3           | retrieve Users @ 5-7 @ ./main/models/user.model.ts              |   |
| 3          | 1         | 23          | 1           | 3           | retrieveUserById@9-11@./main/models/user.model.ts               |   |
| 3          | 1         | 24          | 1           | 3           | createUser@13-15@./main/models/user.model.ts                    |   |
| 3          | 1         | 23          | 1           | 3           | delete User@17-19@./main/models/user.model.ts                   |   |
| 3          | 1         | 42          | 3           | 3           | edit User @ 21-23 @./main/models/user.model.ts                  |   |
| 3          | 1         | 13          | 0           | 3           | retrieve Receptionists @ 5-7@./main/models/receptionist.model.t | S |
| 3          | 1         | 23          | 1           | 3           | retrieve Reception ist By Id@9-                                 |   |
| 11@./      | main      | /mod        | lels/r      | eceptic     | nist.model.ts   |   |
| 3          | 1         | 24          | 1           | 3           | createReceptionist@13-15@./main/models/receptionist.model.t     | S |
| 3          | 1         | 23          | 1           | 3           | deleteReceptionist@17-19@./main/models/receptionist.model.t     | S |
| 9          | 1         | 43          | 3           | 9           | edit Receptionist @ 21-29@./main/models/receptionist.model.ts   |   |
| 3          | 1         | 13          | 0           | 3           | retrieveAppointments@5-   |   |
| 7@./11     | iaiii/    |             | •           | ротпит      | nent.model.ts   |   |
| 3<br>11@./ | 1<br>main | 23<br>ı/mod | 1<br>lels/a | 3<br>ppoint | retrieve Appointment ById@9-<br>ment.model.ts                   |   |
| 3          | 1         | 24          | 1           | 3           | createAppointment@13-   |   |
| ر<br>15ھ / | <br>T     |             | 1<br>       |             | ment model to   |   |

15@./main/models/appointment.model.ts

| 5<br>21@./r  | 1<br>nain | 26<br>/mod   | 1<br>els/a   | 5<br>ppointmen   | retrievePatientAppointments@17-<br>t.model.ts                     |
|--------------|-----------|--------------|--------------|------------------|---|
| 3<br>25@./r  | 1<br>nain | 23<br>/mod   | 1<br>els/a   | 3<br>ppointmen   | deleteAppointment@23-<br>t.model.ts                               |
| 9            | 1         | 43           | 3            | 9                | editAppointment@27-35@./main/models/appointment.model.ts          |
| 3            | 1         | 13           | 0            | 3                | retrieveDoctors@5-7@./main/models/doctor.model.ts                 |
| 3            | 1         | 23           | 1            | 3                | retrieveDoctorById@9-11@./main/models/doctor.model.ts             |
| 3            | 1         | 24           | 1            | 3                | createDoctor@13-15@./main/models/doctor.model.ts                  |
| 3            | 1         | 23           | 1            | 3                | deleteDoctor@17-19@./main/models/doctor.model.ts                  |
| 4            | 1         | 15           | 1            | 4                | Number@23-26@./main/models/doctor.model.ts                        |
| 4            | 1         | 35           | 2            | 4                | getAppointments@7-10@./main/controllers/appointment.controller.ts |
| 15<br>30@./r | 3<br>nain | 99<br>/cont  | 6<br>roller  | 19<br>s/appointr | getAppointmentById@12-<br>nent.controller.ts                      |
| 12<br>49@./r | 5<br>nain | 127<br>/cont |              | 18<br>s/appointr | getPatientAppointments@32-<br>nent.controller.ts                  |
| 1            | 1         | 1            | 0            | 1                | (anon)@64-64@./main/controllers/appointment.controller.ts         |
| 20           | 5         | 147          |              | 26               | createAppointment@51-   |
|              |           |              |              |                  | nent.controller.ts  |
| 1            | 1         | 1            | 0            | 1                | (anon)@97-97@./main/controllers/appointment.controller.ts         |
| 1            | 1         | 6            | 0            | 1                | (anon)@101-101@./main/controllers/appointment.controller.ts       |
| 26<br>109@., | 6<br>/mai | 178<br>n/cor | 6<br>ntrolle | 32<br>ers/appoin | editAppointment@78-<br>ment.controller.ts                         |
| 10<br>124@., | 3<br>/mai | 91<br>n/cor  | 5<br>ntrolle | 14<br>ers/appoin | deleteAppointment@111-<br>ment.controller.ts                      |
| 4            | 1         | 35           | 2            | 4                | getUsers@6-9@./main/controllers/user.controller.ts                |
| 9            | 2         | 68           | 5            | 10               | getUser@11-20@./main/controllers/user.controller.ts               |
| 7            | 1         | 47           | 5            | 7                | createUser@22-28@./main/controllers/user.controller.ts            |
| 8            | 1         | 69           | 6            | 8                | editUser@30-37@./main/controllers/user.controller.ts              |
| 8            | 1         | 57           | 5            | 8                | deleteUser@39-46@./main/controllers/user.controller.ts            |
| 4            | 1         | 35           | 2            | 4                | getPatients@6-9@./main/controllers/patient.controller.ts          |
| 15           | 3         | 99           | 6            | 19               | getPatientById@11-29@./main/controllers/patient.controller.ts     |
| 1            | 1         | 8            | 0            | 1                | (anon)@41-41@./main/controllers/patient.controller.ts             |
| 14           | 4         | 125          | 5            | 19               | create Patient @31-49@./main/controllers/patient.controller.ts    |
| 16           | 4         | 110          | 6            | 20               | editPatient@51-70@./main/controllers/patient.controller.ts        |
| 10           | 3         | 91           | 5            | 14               | deletePatient@72-85@./main/controllers/patient.controller.ts      |
| 4            | 1         | 35           | 2            | 4                | getExams@6-9@./main/controllers/exam.controller.ts                |

| 10          | 3         | 91          | 5           | 14              | getExamById@11-24@./main/controllers/exam.controller.ts         |
|-------------|-----------|-------------|-------------|-----------------|---|
| 10          | 3         | 85          | 5           | 14              | createExam@26-39@./main/controllers/exam.controller.ts          |
| 11          | 4         | 112         | 6           | 15              | editExam@41-55@./main/controllers/exam.controller.ts            |
| 10          | 3         | 91          | 5           | 14              | delete Exam@57-70@./main/controllers/exam.controller.ts         |
| 10          | 3         | 91          | 5           | 14              | getPatientExams @72-85 @./main/controllers/exam.controller.ts   |
| 4           | 1         | 35          | 2           | 4               | getDoctors@6-9@./main/controllers/doctor.controller.ts          |
| 10          | 3         | 99          | 6           | 14              | getDoctorById@11-24@./main/controllers/doctor.controller.ts     |
| 1           | 1         | 8           | 0           | 1               | (anon)@36-36@./main/controllers/doctor.controller.ts            |
| 14          | 4         | 124         | 5           | 19              | createDoctor@26-44@./main/controllers/doctor.controller.ts      |
| 11          | 4         | 110         | 6           | 15              | editDoctor@46-60@./main/controllers/doctor.controller.ts        |
| 10          | 3         | 91          | 5           | 14              | deleteDoctor@62-75@./main/controllers/doctor.controller.ts      |
| 4           | 1         | 35          | 2           | 4               | getReceptionists@6-   |
| @./m        | ain/      |             | ollers      |                 | onist.controller.ts   |
| 15<br>9@./r | 3<br>nain | 99<br>/cont | 6<br>roller | 19<br>rs/recept | getReceptionistById@11-<br>tionist.controller.ts                |
| 1           | 1         | 8           | 0           | 1               | (anonymous)@41-41@./main/controllers/receptionist.controller.ts |
| 14          | 4         | 125         | 5           | 19              | createReceptionist@31-  |
|             | nain      |             |             |                 | tionist.controller.ts   |
| 16          | 4         |             | 6           | 20              | editReceptionist@51-  |
|             |           |             |             |                 | tionist.controller.ts   |
| 10<br>5@./r | 3<br>nain | 91<br>/cont | 5<br>roller | 14<br>rs/recept | deleteReceptionist@72-<br>tionist.controller.ts                 |
| 4           | 1         | 21          | 2           | 4               | constructor@8-11@./main/routes/doctor.route.ts                  |
| 7           | 1         | 74          | 0           | 7               | buildRoutes@12-18@./main/routes/doctor.route.ts                 |
| 4           | 1         | 21          | 2           | 4               | constructor@8-11@./main/routes/receptionist.route.ts            |
| 7           | 1         | 74          | 0           | 7               | buildRoutes@12-18@./main/routes/receptionist.route.ts           |
| 4           | 1         | 21          | 2           | 4               | constructor@8-11@./main/routes/exam.route.ts                    |
| 8           | 1         | 88          | 0           | 8               | buildRoutes@12-19@./main/routes/exam.route.ts                   |
| 4           | 1         | 21          | 2           | 4               | constructor@8-11@./main/routes/patient.route.ts                 |
| 7           | 1         | 74          | 0           | 7               | buildRoutes@12-18@./main/routes/patient.route.ts                |
| 4           | 1         | 21          | 2           | 4               | constructor@7-10@./main/routes/user.route.ts                    |
| 7           | 1         | 74          | 0           | 7               | buildRoutes@11-17@./main/routes/user.route.ts                   |
| 4           | 1         | 21          | 2           | 4               | constructor@8-11@./main/routes/appointment.route.ts             |
| 11          | 1         | 88          | 0           | 11              | buildRoutes@12-22@./main/routes/appointment.route.ts            |
| 4           | 1         | 21          | 2           | 4               | constructor@12-15@./main/app.ts                                 |
| •           | -         |             | -           | •               | 5553. 55.5. C == 15 G 1/11din/ applie                           |

| 8 | 1 | 70 | 0 | 8                | setupRoutes@17-24@./main/app.ts     |
|---|---|----|---|------------------|-------------------------------------|
| 1 | 1 | 1  | 0 | 1                | (anon)@31-31@./main/app.ts          |
| 8 | 1 | 49 | 0 | 8                | run@26-33@./main/app.ts             |
| 2 | 1 | 6  | 0 | 2                | >@8-9@./helpers/singleton.ts        |
| 3 | 1 | 6  | 0 | 3                | (anon)@11-13@./helpers/singleton.ts |
| 4 | 1 | 19 | 0 | 4 main@7-10@./ii | ndex.ts                             |
| 1 | 1 | 7  | 0 | 1                | (anon)@12-12@./index.ts             |

35 file analyzed.

## NLOC Avg.NLOC AvgCCN Avg.token function\_cnt file

3 0.0 0.0 0.0 0 ./database/client.ts 12 3.0 1.0 16.0 ./main/composers/user.composer.ts 12 3.0 1.0 16.0 ./main/composers/patient.composer.ts 15 4.5 1.0 16.0 ./main/composers/receptionist.composer.ts 16.0 ./main/composers/appointment.composer.ts 12 3.0 1.0 12 3.0 1.0 16.0 2 ./main/composers/doctor.composer.ts 12 3.0 1.0 16.0 ./main/composers/exam.composer.ts ./main/models/\_\_tests\_\_/user.test.ts 61 6.0 1.0 53.3 75 7.3 1.0 53.3 9 ./main/models/\_\_tests\_\_/receptionist.test.ts 67 6.0 1.0 53.3 ./main/models/\_\_tests\_\_/exam.test.ts 63 6.0 1.0 53.3 ./main/models/\_\_tests\_\_/patient.test.ts ./main/models/\_\_tests\_\_/doctor.test.ts 64 6.0 1.0 53.3 75 ./main/models/\_\_tests\_\_/appointment.test.ts 6.7 1.0 53.3 25 3.5 1.0 25.2 ./main/models/exam.model.ts 3.0 25.0 ./main/models/patient.model.ts 19 1.0 19 3.0 1.0 25.0 ./main/models/user.model.ts 25 4.2 1.0 25.2 5 ./main/models/receptionist.model.ts 30 4.3 1.0 25.3 ./main/models/appointment.model.ts 22 3.2 1.0 19.6 ./main/models/doctor.model.ts 0 0.0 0.0 0.0 0 ./main/controllers/\_\_tests\_\_/patient.spec.ts ./main/controllers/appointment.controller.ts 93 10.0 2.9 76.1 41 7.2 1.2 55.2 ./main/controllers/user.controller.ts

| 64 | 10.0 | 2.7 | 78.0 | 6 | ./main/controllers/patient.controller.ts      |
|----|------|-----|------|---|---|
| 60 | 9.2  | 2.8 | 84.2 | 6 | ./main/controllers/exam.controller.ts         |
| 54 | 8.3  | 2.7 | 77.8 | 6 | ./main/controllers/doctor.controller.ts       |
| 64 | 10.0 | 2.7 | 78.3 | 6 | ./main/controllers/receptionist.controller.ts |
| 17 | 5.5  | 1.0 | 47.5 | 2 | ./main/routes/doctor.route.ts                 |
| 17 | 5.5  | 1.0 | 47.5 | 2 | ./main/routes/receptionist.route.ts           |
| 18 | 6.0  | 1.0 | 54.5 | 2 | ./main/routes/exam.route.ts                   |
| 17 | 5.5  | 1.0 | 47.5 | 2 | ./main/routes/patient.route.ts                |
| 17 | 5.5  | 1.0 | 47.5 | 2 | ./main/routes/user.route.ts                   |
| 21 | 7.5  | 1.0 | 54.5 | 2 | ./main/routes/appointment.route.ts            |
| 32 | 5.2  | 1.0 | 35.2 | 4 | ./main/app.ts                                 |
| 11 | 2.5  | 1.0 | 6.0  | 2 | ./helpers/singleton.ts                        |
| 9  | 2.5  | 1.0 | 13.0 | 2 | ./index.ts                                    |

===============

No thresholds exceeded (cyclomatic\_complexity > 15 or length > 1000 or nloc > 1000000 or parameter\_count > 100)

\_\_\_\_\_\_\_

Total nloc Avg.NLOC AvgCCN Avg.token Fun Cnt Warning cnt Fun Rt nloc Rt

-----

 $1158 \quad \ 6.1 \quad 1.4 \quad \ 48.1 \quad \ 156 \qquad \quad 0 \quad \ 0.00 \quad 0.00$