Faculty of Engineering & Technology Electrical & Computer Engineering Department

ENCS3130: Linux Laboratory

Python Project – Medical Test Management System

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Section: 2

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Medical Record File

```
1300500: Hgb, 2024-08-23 10:00, 222, g/dL, completed, 2024-09-04 11:02
1300500: Hgb, 2024-03-01 05:20, 123, mg/dL, pending
1300511: LDL, 2024-03-02 07:30, 1, mg/dL, pending
1300520: systole, 2024-03-4 04:40, 150, mm Hg, pending
1300520: systole, 2023-03-4 04:40, 150, mm Hg, pending
```

Medical Test File

```
Hemoglobin (Hgb); > 12.0, < 17.2; g/dL, 00-03-04
Blood Glucose Test (BGT); > 70, < 99; mg/dL, 00-12-06
LDL Cholesterol Low-Density Lipoprotein (LDL); < 100; mg/dL, 00-17-06
Systolic Blood Pressure (systole); < 120; mm Hg, 00-08-04
Diastolic Blood Pressure (diastole); < 80; mm Hg, 00-10-00
```

Test Cases

** invalid file names:

```
Please enter the medical record file name: testfilename
File does not exist...
Please enter the medical record file name: medicalRecord.txt
Please enter the medical test file name: hcjfv
File does not exist...
Please enter the medical test file name: medicalTest.txt

Welcome to our Program.

1- Add new medical Test.
2- Add new medical Record.
3- Update patient records including all fields.
4- Update medicalt test in the medical test file.
5- Filter medical tests.
6- Generate textual summary report.
7- Export medical records to a comma separated file.
8- Import medical records from a comma separated file.
9- Exit.

Please choose one of the options above from 1-9: 
```

Adding new record:

```
Please choose one of the options above from 1-9: 2
Enter the id from 7 digits: 1234567
Enter the test name: LDL
Enter the result of the test: 45
Enter the status of the test: completed
Enter the begin date: 2024-01-05 12:06
```

Record File after adding:

```
1300500: Hgb, 2024-08-23 10:00, 222, g/dL, completed, 2024-09-04 11:02
1300500: Hgb, 2024-03-01 05:20, 123, mg/dL, pending
1300511: LDL, 2024-03-02 07:30, 1, mg/dL, pending
1300520: systole, 2024-3-4 04:40, 150, mm Hg, pending
1300520: systole, 2023-3-4 04:40, 150, mm Hg, pending
1234567: LDL, 2024-01-05 12:06, 45, mg/dL, completed, 2024-01-06 05:12
```

Statistics based on id:

```
Please choose one of the options above from 1-9: 6

1- Patient id.
2- Test name.
3- Abnormal tests.
4- Test added to the system within a spesific period.
5- Test status.
6- Test turnaround time within a period.
7- Exit

Please choose a combination of the options from 1-7: 1

Enter the id of the patient: 1300500
```

```
1300500: Hgb, 2024-08-23 10:00, 222, g/dL, completed, 2024-09-04 11:02
1300500: Hgb, 2024-03-01 05:20, 123, mg/dL, pending

The minimum value of Hgb: 123.0
The maximum value of Hgb: 222.0
The avearge value of Hgb: 172.5


Minimum turnaround time test: 1300500: Hgb, 2024-08-23 10:00, 222, g/dL, completed, 2024-09-04 11:02
Maximum turnaroundTime test: 1300500: Hgb, 2024-08-23 10:00, 222, g/dL, completed, 2024-09-04 11:02
Average turnaround time: 0-3-4
```

Filter based on test name and period time:

```
Please choose a combination of the options from 1-7: 2

Please enter the test name: Hgb

1- Patient id.
2- Test name.
3- Abnormal tests.
4- Test added to the system within a spesific period.
5- Test status.
6- Test turnaround time within a period.
7- Exit

Please choose a combination of the options from 1-7: 4
Enter the start date: 2023-05-04
Enter the end date: 2024-03-05
```

```
1300500: Hgb, 2024-03-01 05:20, 123, mg/dL, pending
```