



Faculty of Engineering & Technology

Electrical & Computer Engineering Department

Linux Laboratory – ENCS3130

Project 2 – Python

Medical Test Management System

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Testing Examples

1. Add a new medical test

```
C:\Users\admin\Desktop\Linux_lab\proj2\.venv\Scripts\python.exe C:\Users\admin\Desktop\Linux_lab\proj2\project2_1210766.py
```

```
Choose an operation:
```

- 1) Add new medical test.
- 2) Add new medical test record.
- 3) Update patient records.
- 4) Update medical tests.
- 5) Filter medical tests.
- 6) Generate textual summary reports.
- 7) Export medical records to a comma separated file.
- 8) Import medical records from a comma separated file.
- 9) Exit.

```
Please choose one operation:1
```

```
Please enter the name of the new type of medical test: a1
```

```
The name contains numbers or other characters. Please try again.
```

```
Please enter the name of the new type of medical test: Blood Pressure Test
```

```
Please enter the abbreviation of the new type of medical test: BPT
```

```
Does this test have one (1) or two (2) ranges? 1
```

```
Please enter the normal range of the new type of medical test: 1a
```

```
The Range contains letters or other characters than decimal point. Please try again.
```

```
Please enter the normal range of the new type of medical test: 120
```

```
Please enter the normal range of the new type of medical test: 120
```

```
Please enter the unit of the new type of medical test (can contains space or /): mm
```

```
The time required to complete the test
```

```
Please enter the number of days needed to complete the test, in the format (DD): 00
```

```
Please enter the number of hours needed to complete the test, in the format (hh): 1
```

```
The number of hours is not in 2 digits format. Please try again.
```

```
Please enter the number of hours needed to complete the test, in the format (hh): 00
```

```
Please enter the number of minutes needed to complete the test, in the format (mm): 20
```

```
THE NEW TYPE OF MEDICAL TEST HAS BEEN ADDED SUCCESSFULLY!!
```

2. Add a new medical test record

Choose an operation:

- 1) Add new medical test.
- 2) Add new medical test record.
- 3) Update patient records.
- 4) Update medical tests.
- 5) Filter medical tests.
- 6) Generate textual summary reports.
- 7) Export medical records to a comma separated file.
- 8) Import medical records from a comma separated file.
- 9) Exit.

Please choose one operation:2

Please enter the ID: 12

Inavlid it should be 7 digits.

Please enter the ID: 14@

Invalid ID it should be integer.

Please enter the ID: 1a

Invalid ID it should be integer.

Please enter the ID: 1210766

Please enter the test name: `ld`

Invalid name. try again.

Please enter the test name: `LDL`

please enter the year - YYYY: `2`

Invalid . it should be YYYY.

please enter the year - YYYY: `2a`

Invalid . it should be YYYY.

please enter the year - YYYY: `2024`

please enter the month - MM: `1`

Invalid . it should be MM.

please enter the month - MM: `08`

please enter the day - DD: `17`

Please enter the hour - hh: `25`

Invalid it should be from 01 to 24

Please enter the hour - hh: `4`

Invalid . it should be hh.

Please enter the hour - hh: `04`

Please enter the minutes - mm: `70`

Invalid it should be from 00 to 59

Please enter the minutes - mm: `15`

Please enter the test result:`80`

choose a status:

1)Pending

2)Completed

3)Reviewed

Enter your choice:`4`

Invalid choice. Please enter a number between 1 and 3

choose a status:

1)Pending

2)Completed

3)Reviewed

Enter your choice:2

please enter the year - YYYY: 2024

please enter the month - MM: 08

please enter the day - DD: 17

Please enter the hour - hh: 04

Please enter the minutes - mm: 30

RECORD HAS BEEN ADDED SUCCESSFULLY.

3. Update patient records including all fields.

Choose an operation:

- 1) Add new medical test.
- 2) Add new medical test record.
- 3) Update patient records.
- 4) Update medical tests.
- 5) Filter medical tests.
- 6) Generate textual summary reports.
- 7) Export medical records to a comma separated file.
- 8) Import medical records from a comma separated file.
- 9) Exit.

Please choose one operation:3

Please enter the ID of the patient whose records you want to modify: 1210766

1) LDL, 2024-08-17 04:15, 80, mg/dL, completed, 2024-08-17 04:30

Choose the line you want to modify its records: 1

- 1) Test Name: LDL
- 2) Test date and time: 2024-08-17 04:15
- 3) Result: 80
- 4) Unit: mg/dL
- 5) Status: completed
- 6) Result date and time: 2024-08-17 04:30

- 1) Test Name: LDL
- 2) Test date and time: 2024-08-17 04:15
- 3) Result: 80
- 4) Unit: mg/dL
- 5) Status: completed
- 6) Result date and time: 2024-08-17 04:30

Choose the field you want to modify: 3

Enter the new result: a

Invalid result, it should be integer or float. Please try again.

Enter the new result: 85

-----The record has been updated successfully!!-----

```
1300500: RBC, 2024-01-01 14:10, 13.4, mg/dL, Completed, 2024-01-01 15:30
1300500: BGT, 2024-03-01 05:20, 13.6, mg/dL, Completed, 2024-03-01 05:30
1300511: BGT, 2024-03-02 07:30, 110, mg/dL, Pending
1300520: Systole, 2024-03-04 04:40, 150, mm Hg, Pending
1210766: LDL, 2024-08-17 04:15, 85, mg/dL, completed, 2024-08-17 04:30
```

4. Update medical tests in the medical Test file

Choose an operation:

- 1) Add new medical test.
 - 2) Add new medical test record.
 - 3) Update patient records.
 - 4) Update medical tests.
 - 5) Filter medical tests.
 - 6) Generate textual summary reports.
 - 7) Export medical records to a comma separated file.
 - 8) Import medical records from a comma separated file.
 - 9) Exit.
- Please choose one operation:4

Please enter the test name to update:1a

Test not found. Try again.

Please enter the test name to update:LDL

Test found: Name: LDL Cholesterol Low-Density Lipoprotein (LDL); Range: < 100; Unit: mg/dL; 00-17-06

What do you want to update?

- 1-range
- 2-Unit
- 3-Turnaround time
- 4-Exit

Enter your choice: 1

Current range for LDL: < 100

Enter the new range value: 105

What do you want to update?

- 1-range
- 2-Unit
- 3-Turnaround time
- 4-Exit

Enter your choice: 4

TEST HAS BEEN UPDATED SUCCESSFULLY!!

```
Name: Hemoglobin (Hgb); Range: > 13.8, < 17.2; Unit: g/dL; 00-03-04
Name: Blood Glucose Test (BGT); Range: > 70, < 99; Unit: mg/dL; 00-12-06
Name: LDL Cholesterol Low-Density Lipoprotein (LDL); Range: < 105; Unit: mg/dL; 00-17-06
Name: Systolic Blood Pressure (systole); Range: < 120; Unit: mm Hg; 00-08-04
Name: Diastolic Blood Pressure (diastole); Range: < 80; Unit: mm Hg; 00-10-00
Name: Serum Sodium (SS); Range: > 135, < 150; Unit: mg/L; 00-02-12
Name: Serum Potassium (SP); Range: < 50; Unit: mg/L; 00-05-12
Name: Blood Pressure Test (BPT); Range: < 120; Unit: mm; 00-00-20
```

5. Filter medical tests

Choose an operation:

- 1) Add new medical test.
- 2) Add new medical test record.
- 3) Update patient records.
- 4) Update medical tests.
- 5) Filter medical tests.
- 6) Generate textual summary reports.
- 7) Export medical records to a comma separated file.
- 8) Import medical records from a comma separated file.
- 9) Exit.

Please choose one operation:5

Select criteria to filter records:

1. Filter by patient ID
2. Filter by test name
3. Filter by status
4. Filter by date range
5. Filter by turnaround time
6. Filter by abnormal results

Enter your choices(seperated by ','): 1,8

Invalid choice: 8

Choose from thess criteria.

Select criteria to filter records:

1. Filter by patient ID
2. Filter by test name
3. Filter by status
4. Filter by date range
5. Filter by turnaround time
6. Filter by abnormal results

Enter your choices(seperated by ','): 1,2

Enter Patient ID: 12

Invalid . Try again.

Enter Patient ID: 1210766

Enter Test Name: 1

Invalid. Try again

Enter Test Name: LDL

FILTERED RECORDS:

Patient ID: 1210766, Test Name: LDL, Test DateTime: 2024-08-17 04:15, Result: 85 mg/dL, Status: completed, Result DateTime: 2024-08-17 04:30

Example 2:

Select criteria to filter records:

1. Filter by patient ID
2. Filter by test name
3. Filter by status
4. Filter by date range
5. Filter by turnaround time
6. Filter by abnormal results

Enter your choices(seperated by ','): 4

Enter the start Date:

please enter the year - YYYY: 2023

please enter the month - MM: 11

please enter the day - DD: 25

Please enter the hour - hh: 11

Please enter the minutes - mm: 10

Enter the end Date:

please enter the year - YYYY: 2024

please enter the month - MM: 09

please enter the day - DD: 01

Enter the end Date:

please enter the year - YYYY: 2024

please enter the month - MM: 09

please enter the day - DD: 01

Please enter the hour - hh: 10

Please enter the minutes - mm: 00

FILTERED RECORDS:

Patient ID: 1300500, Test Name: RBC, Test DateTime: 2024-01-01 14:10, Result: 13.4 mg/dL, Status: Completed, Result DateTime: 2024-01-01 15:30

Patient ID: 1300500, Test Name: BGT, Test DateTime: 2024-03-01 05:20, Result: 13.6 mg/dL, Status: Completed, Result DateTime: 2024-03-01 05:30

Patient ID: 1300511, Test Name: BGT, Test DateTime: 2024-03-02 07:30, Result: 110 mg/dL, Status: Pending, Result DateTime: None

Patient ID: 1300520, Test Name: Systole, Test DateTime: 2024-03-04 04:40, Result: 150 mm Hg, Status: Pending, Result DateTime: None

Patient ID: 1210766, Test Name: LDL, Test DateTime: 2024-08-17 04:15, Result: 85 mg/dL, Status: completed, Result DateTime: 2024-08-17 04:30

6. Generate textual summary reports

```
Choose an operation:
1) Add new medical test.
2) Add new medical test record.
3) Update patient records.
4) Update medical tests.
5) Filter medical tests.
6) Generate textual summary reports.
7) Export medical records to a comma separated file.
8) Import medical records from a comma separated file.
9) Exit.
Please choose one operation:6

Select criteria to filter records:
1. Filter by patient ID
2. Filter by test name
3. Filter by status
4. Filter by date range
5. Filter by turnaround time
6. Filter by abnormal results
Enter your choices(seperated by ','): 1,2

Enter Patient ID: 1210766
Enter Test Name: BGT

THERE IS NO RECORDS MATCH THE SELECTED CRITERIA.
```

7. Export medical records to a comma separated file

```
Choose an operation:
1) Add new medical test.
2) Add new medical test record.
3) Update patient records.
4) Update medical tests.
5) Filter medical tests.
6) Generate textual summary reports.
7) Export medical records to a comma separated file.
8) Import medical records from a comma separated file.
9) Exit.
Please choose one operation:7

Please enter the file name .csv:m

File not found!!!

Please enter the file name .csv:medicalRecord.csv

-----Export medical records to CSV has be completed successfully!!-----
```

8. Import medical records from a comma separated file.

Choose an operation:

- 1) Add new medical test.
- 2) Add new medical test record.
- 3) Update patient records.
- 4) Update medical tests.
- 5) Filter medical tests.
- 6) Generate textual summary reports.
- 7) Export medical records to a comma separated file.
- 8) Import medical records from a comma separated file.
- 9) Exit.

Please choose one operation:8

Please enter the file name .csv:in

File not found!!!

Please enter the file name .csv:input.csv

RECORDS IMPORTED SUCCESSFULLY FROM THE COMMA SEPERATED FILE.