

## Computer Systems Engineering ENCS project 2

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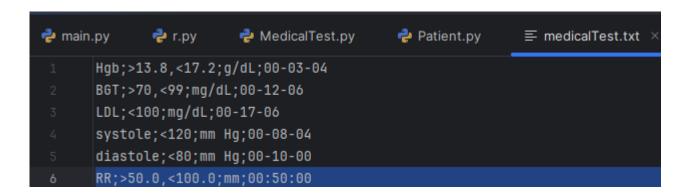
**Section: 4** 

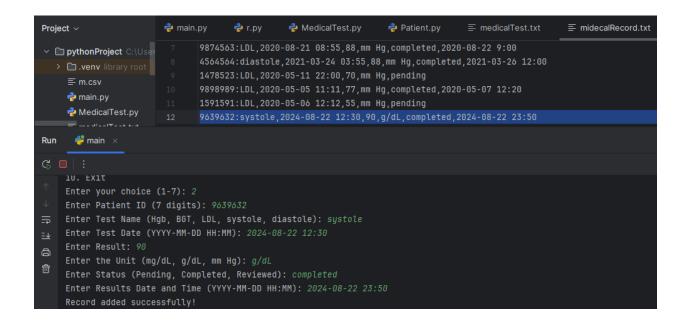
Instructor: Dr. Abdallatif Abuissa

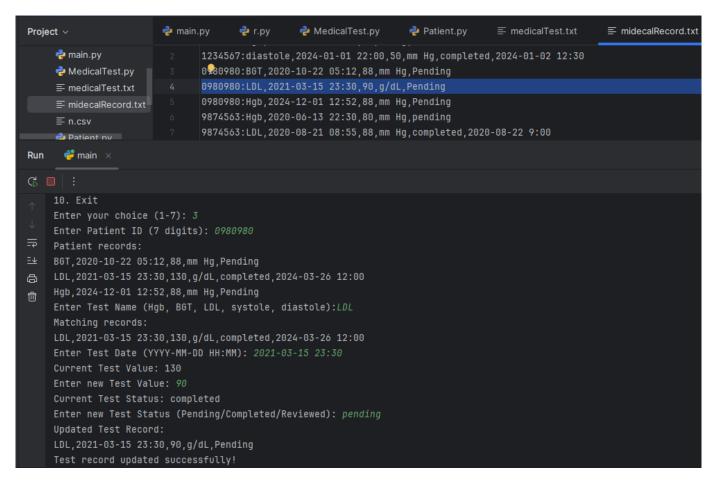
**Teacher assistance: Eng. Mohammad Balawi** 

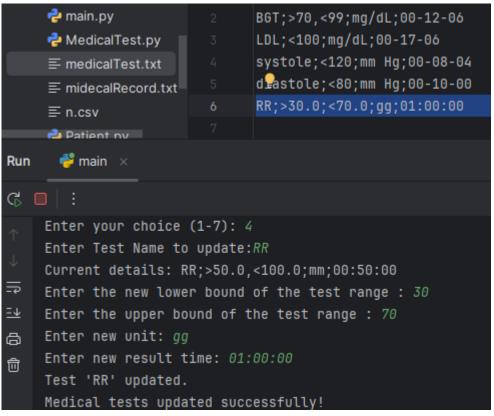
Date: 23-8-2024

```
C:\Users\SS\Desktop\Raghed\Python\pythonProject\.venv\
Medical Test Management System
1. Add new medical test type
2. Add a new medical test record
3. Update a patient record
4. Update medical tests in the medicalTest file
5. Filter medical tests
6. Generate textual summary reports
7. Delete a medical test record
8. Export medical records to a comma separated file
9. Import medical records from a comma separated file
10. Exit
Enter your choice (1-7): 1
Add New Medical Test Type
Enter Test Name: RR
Enter the lower bound of the test range: 50
Enter the upper bound of the test range: 100
Enter the Unit: mm
Enter new result time: 00:50:00
Valid time format.
New medical test type added successfully!
```









```
Enter your choice (1-7): 5

Enter (0) for things you don't want to filter and (1) for things you want 1-Patient ID (0 or 1) ? 0

2-Test Name (0 or 1)? 1

Enter Test name (Hgb, BGT, LDL, systole, diastole): Hgb

3-Abnormal Test (0 or 1)? 0

4-Specific Period (0 or 1)? 0

5-Test Status (0 or 1)? 0

6-Test turnaround time within a period (0 or 1)? 0

1234567:Hgb, 2020-06-13 22:30,90,mm Hg, Reviewed

0980980:Hgb, 2024-12-01 12:52,88,mm Hg, Pending

9874563:Hgb, 2020-06-13 22:30,80,mm Hg, pending
```

```
Enter your choice (1-7): 5

Enter (0) for things you don't want to filter and (1) for things you want 1-Patient ID (0 or 1) ? 1

Enter Patient ID: 9874563

2-Test Name (0 or 1)? 0

3-Abnormal Test (0 or 1)? 0

4-Specific Period (0 or 1)? 0

5-Test Status (0 or 1)? 0

6-Test turnaround time within a period (0 or 1)? 0

9874563:Hgb,2020-06-13 22:30,80,mm Hg,pending

9874563:LDL,2020-08-21 08:55,88,mm Hg,completed,2020-08-22 9:00

Medical Test Management System
```

```
Enter your choice (1-7): 5
Enter (0) for things you don't want to filter and (1) for things you want 1-Patient ID (0 or 1) ? 0
2-Test Name (0 or 1)? 1
Enter Test name (Hgb, BGT, LDL, systole, diastole): LDL
3-Abnormal Test (0 or 1)? 0
4-Specific Period (0 or 1)? 1
Enter Start Date (YYYY-MM-DD): 2020-01-01
Enter End Date (YYYY-MM-DD): 2020-12-31
5-Test Status (0 or 1)? 0
6-Test turnaround time within a period (0 or 1)? 0
9874563:LDL,2020-08-21 08:55,88,mm Hg,completed,2020-08-22 9:00
1478523:LDL,2020-05-11 22:00,70,mm Hg,pending
9898989:LDL,2020-05-06 12:12,55,mm Hg,completed,2020-05-07 12:20
1591591:LDL,2020-05-06 12:12,55,mm Hg,pending
```

```
Medical Test Management System
```

- 1. Add new medical test type
- 2. Add a new medical test record
- 3. Update a patient record
- 4. Update medical tests in the medicalTest file
- Filter medical tests
- 6. Generate textual summary reports
- search\_tests\_by\_patient\_id
- 8. Delete a medical test record
- 9. Export medical records to a comma separated file
- 10. Import medical records from a comma separated file
- 11. Exit

Enter your choice (1-7): 7

Enter Patient ID to search: 0980980

Patient ID: 0980980

BGT, 2020-10-22 05:12,88,mm Hg, Pending

LDL,2021-03-15 23:30,90,g/dL,Pending

Hgb,2024-12-01 12:52,88,mm Hg,Pending

```
Enter your choice (1-7): 5
Enter (0) for things you don't want to filter and (1) for things you want
1-Patient ID (0 or 1) ? 0
2-Test Name (0 or 1)? 0
3-Abnormal Test (0 or 1)? 0
4-Specific Period (0 or 1)? 0
5-Test Status (0 or 1)? 1
Enter Test Status (Pending/Completed/Reviewed): completed
6-Test turnaround time within a period (0 or 1)? 0
1234567:diastole,2024-01-01 22:00,50,mm Hg,completed,2024-01-02 12:30
9874563:LDL,2020-08-21 08:55,88,mm Hg,completed,2020-08-22 9:00
4564564:diastole,2021-03-24 03:55,88,mm Hg,completed,2021-03-26 12:00
9898989:LDL,2020-05-05 11:11,77,mm Hg,completed,2020-05-07 12:20
9639632:systole,2024-08-22 12:30,90,g/dL,completed,2024-08-22 23:50
```

```
Enter your choice (1-7): 7
Enter Patient ID (7 digits): 4564564
Patient ID found.
Test Records for Patient:
Test Name: diastole, Date: 2021-03-24 03:55, Status: completed, Result Date: 2021-03-26 12:00
Enter Test Name (Hgb, B6T, LDL, systole, diastole): diastole
Test Name found.
Date: 2021-03-24 03:55, Status: Completed
Enter Test Date (YYYY-MM-DD HH:MM): 2021-03-24 03:55
Test Date found.
Test result deleted successfully.
```

Enter your choice (1-7): 8 Enter the filename to save the records (default is 'medical\_records.csv'): m.csv Records successfully exported to m.csv.

```
ibrary root
                                 Patient ID, Test Name, Test Date, Test Value, Unit, Status, Result Date
  ≡ m.csv
                                 1234567, Hgb, 2020-06-13 22:30, 90, mm Hg, Reviewed
 main.py
                                1234567, diastole, 2024-01-01 22:00,50, mm Hg, completed, 2024-01-02 12:30
 MedicalTest.py
                                0980980,BGT,2020-10-22 05:12,88,mm Hg,Pending
 0980980,LDL,2021-03-15 23:30,90,g/dL,Pending
                                0980980, Hgb, 2024-12-01 12:52, 88, mm Hg, Pending

≡ midecalRecord.txt

                                9874563, Hgb, 2020-06-13 22:30, 80, mm Hg, pending
 ≡ n.csv
                                9874563,LDL,2020-08-21 08:55,88,mm Hg,completed,2020-08-22 9:00
 Patient.py
                                 1478523,LDL,2020-05-11 22:00,70,mm Hg,pending
 🔁 r.py
                                9898989,LDL,2020-05-05 11:11,77,mm Hg,completed,2020-05-07 12:20
1591591,LDL,2020-05-06 12:12,55,mm Hg,pending
Scratches and Consoles
                                 9639632,systole,2024-08-22 12:30,90,g/dL,completed,2024-08-22 23:50
```

Enter your choice (1-7): 9
Enter the filename to import records from: m.csv
Records successfully imported from m.csv.

```
r.py
                     MedicalTest.py
                                         Patient.py

    ≡ midecalRecord.txt

main.py
       1234567:Hgb,2020-06-13 22:30,90,mm Hg,Reviewed
       1234567:diastole,2024-01-01 22:00.50.mm Hg.completed,2024-01-02 12:30
       0980980:BGT,2020-10-22 05:12,88,mm Hg,Pending
       0980980:LDL,2021-03-15 23:30,90,g/dL,Pending
       0980980:Hgb,2024-12-01 12:52,88,mm Hg,Pending
       9874563:Hgb,2020-06-13 22:30,80,mm Hg,pending
       9874563:LDL,2020-08-21 08:55,88,mm Hg,completed,2020-08-22 9:00
       1478523:LDL,2020-05-11 22:00,70,mm Hg,pending
       9898989:LDL,2020-05-05 11:11,77,mm Hg,completed,2020-05-07 12:20
       1591591:LDL,2020-05-06 12:12,55,mm Hg,pending
       9&39632:systole,2024-08-22 12:30,90,g/dL,completed,2024-08-22 23:50
       1234567:Hgb,2020-06-13 22:30,90,mm Hg,Reviewed,None
       1234567:diastole,2024-01-01 22:00,50,mm Hg,completed,2024-01-02 12:30
       0980980:BGT,2020-10-22 05:12,88,mm Hg,Pending,None
       0980980:LDL,2021-03-15 23:30,90,g/dL,Pending,None
       0980980:Hgb,2024-12-01 12:52,88,mm Hg,Pending,None
       9874563:Hgb,2020-06-13 22:30,80,mm Hg,pending,None
       9874563:LDL,2020-08-21 08:55,88,mm Hg,completed,2020-08-22 9:00
       1478523:LDL,2020-05-11 22:00,70,mm Hg,pending,None
       9898989:LDL,2020-05-05 11:11,77,mm Hg,completed,2020-05-07 12:20
       1591591:LDL,2020-05-06 12:12,55,mm Hg,pending,None
       9639632:systole,2024-08-22 12:30,90,g/dL,completed,2024-08-22 23:50
```

## Some of error massege

```
Enter your choice (1-7): \theta Invalid choice. Please enter a number from 1 to 7.
```

```
Enter your choice (1-7): 1

Add New Medical Test Type

Enter Test Name: pp

Enter the lower bound of the test range: 80

Enter the upper bound of the test range: 40

Error: The lower bound must be less than the upper bound.

Enter the lower bound of the test range: 40

Enter the upper bound of the test range: 80
```

```
Enter your choice (1-7): 2
Enter Patient ID (7 digits): 8
Error: Patient ID must be a 7-digit integer.
Enter Patient ID (7 digits): 8798799
Enter Test Name (Hgb, BGT, LDL, systole, diastole): p
Error: The test name must be one of the following: Hgb, BGT, LDL, systole, diastole
Enter Test Name (Hgb, BGT, LDL, systole, diastole): BGT
Enter Test Date (YYYY-MM-DD HH:MM): 2020
Error: Test date must be in the format YYYY-MM-DD HH:MM.
Enter Test Date (YYYY-MM-DD HH:MM): 2020-12-11 23:50
Enter Result: 88
Enter the Unit (mg/dL, g/dL, mm Hg): g
Error: The unit must be one of the following: mg/dL, g/dL, mm Hg
Enter the Unit (mg/dL, g/dL, mm Hg): g/dL
Enter Status (Pending, Completed, Reviewed): p
Error: Status must be one of the following: Pending, Completed, Reviewed
Enter Status (Pending, Completed, Reviewed): pending
Record added successfully!
```

```
Enter your choice (1-7): 3
Enter Patient ID (7 digits): 1477415
Error: Patient ID not found. Please enter a valid ID.
Enter Patient ID (7 digits): 1234567
Patient records:
Hgb, 2020-06-13 22:30,90,mm Hg, Reviewed
diastole, 2024-01-01 22:00,50,mm Hg, completed, 2024-01-02 12:30
Enter Test Name (Hgb, BGT, LDL, systole, diastole):LDL
Error: Test name not found for the patient. Please enter a valid test name.
Enter Test Name (Hgb, BGT, LDL, systole, diastole):Hgb
Matching records:
Hgb, 2020-06-13 22:30, 90, mm Hg, Reviewed
Enter Test Date (YYYY-MM-DD HH:MM): 2020
Error: Test date must be in the format YYYY-MM-DD HH:MM.
Invalid date format. Please enter the date in YYYY-MM-DD HH:MM format.
Enter Test Date (YYYY-MM-DD HH:MM): 2020-06-12 22:30
Error: The test date not found for the patient. Please enter again.
Enter Test Date (YYYY-MM-DD HH:MM): 2020-06-13 22:30
```

```
Current Test Value: 90
Enter new Test Value: 99
Current Test Status: Reviewed
Enter new Test Status (Pending/Completed/Reviewed): p
Invalid status. Please enter one of the following: Pending, Completed, Reviewed.
Enter new Test Status (Pending/Completed/Reviewed): pending
Updated Test Record:
Hgb,2020-06-13 22:30,99,mm Hg,Pending
Test record updated successfully!
```

```
Enter your choice (1-7): 4
Enter Test Name to update: p
Error: Test name not found. Please enter a valid test name.
Enter Test Name to update: RR
Current details: rr;10.0;20.0;m
Enter the new lower bound of the test range: 60
Enter the new upper bound of the test range: 30
Error: The lower bound must be less than the upper bound.
Enter the new lower bound of the test range: 30
Enter the new upper bound of the test range: 60
Enter new unit: m
Enter new result time (HH:MM:SS): 50
Error: Invalid time format. Please enter time in HH:MM:SS format.
Enter new result time (HH:MM:SS): 00:50:00
Test 'rr' updated.
Medical tests updated successfully!
```

```
Enter your choice (1-7): 5
Enter (0) for things you don't want to filter and (1) for things you want
1-Patient ID (0 or 1) ? 1
Enter Patient ID: 9696963
Error: Patient ID not found. Please enter a valid ID.
1-Patient ID (0 or 1) ? 1
Enter Patient ID: 1234567
2-Test Name (0 or 1)? 1
Enter Test name (Hgb, BGT, LDL, systole, diastole): sys
Error: The test name must be one of the following: Hgb, BGT, LDL, systole, diastole
Invalid test name. Please enter a valid test name.
2-Test Name (0 or 1)? 1
Enter Test name (Hgb, BGT, LDL, systole, diastole): LDL
3-Abnormal Test (0 or 1)? 0
4-Specific Period (0 or 1)? 0
5-Test Status (0 or 1)? 0
6-Test turnaround time within a period (0 or 1)? \theta
No matching tests found.
```