



Computer Systems Engineering ENCS
project 2

Students' Name:

Raghd Isleem

Mais Younis

Student ID:

1211326

1212326

Section: 4

Instructor: Dr. Abdallatif Abuissa

Teacher assistance: Eng.Mohammad Balawi

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```

C:\Users\SS\Desktop\Raghd\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!

```

```

main.py  r.py  MedicalTest.py  Patient.py  medicalTest.txt x
1  Hgb;>13.8,<17.2;g/dL;00-03-04
2  BGT;>70,<99;mg/dL;00-12-06
3  LDL;<100;mg/dL;00-17-06
4  systole;<120;mm Hg;00-08-04
5  diastole;<80;mm Hg;00-10-00
6  RR;>50.0,<100.0;mm;00:50:00

```

Project
pythonProject C:\User
.venv library root
m.csv
main.py
MedicalTest.py

main.py r.py MedicalTest.py Patient.py medicalTest.txt midecalRecord.txt
7 9874563:LDL,2020-08-21 08:55,88,mm Hg,completed,2020-08-22 9:00
8 4564564:diastole,2021-03-24 03:55,88,mm Hg,completed,2021-03-26 12:00
9 1478523:LDL,2020-05-11 22:00,70,mm Hg,pending
10 9898989:LDL,2020-05-05 11:11,77,mm Hg,completed,2020-05-07 12:20
11 1591591:LDL,2020-05-06 12:12,55,mm Hg,pending
12 9639632:systole,2024-08-22 12:30,90,g/dL,completed,2024-08-22 23:50

Run
main x
10. EXIT
Enter your choice (1-7): 2
Enter Patient ID (7 digits): 9639632
Enter Test Name (Hgb, BGT, LDL, systole, diastole): systole
Enter Test Date (YYYY-MM-DD HH:MM): 2024-08-22 12:30
Enter Result: 90
Enter the Unit (mg/dL, g/dL, mm Hg): g/dL
Enter Status (Pending, Completed, Reviewed): completed
Enter Results Date and Time (YYYY-MM-DD HH:MM): 2024-08-22 23:50
Record added successfully!

Project ▾

main.py

r.py

MedicalTest.py

Patient.py

medicalTest.txt

midecalRecord.txt

main.py

MedicalTest.py

medicalTest.txt

midecalRecord.txt

n.csv

Patient.py

2

1234567:diastole,2024-01-01 22:00,50,mm Hg,completed,2024-01-02 12:30

3

0980980:B6T,2020-10-22 05:12,88,mm Hg,Pending

4

0980980:LDL,2021-03-15 23:30,90,g/dL,Pending

5

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

6

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

7

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

Run

main ×

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10. Exit

Enter your choice (1-7): 3

Enter Patient ID (7 digits): 0980980

Patient records:

B6T,2020-10-22 05:12,88,mm Hg,Pending

LDL,2021-03-15 23:30,130,g/dL,completed,2024-03-26 12:00

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

Enter Test Name (Hgb, B6T, LDL, systole, diastole):LDL

Matching records:

LDL,2021-03-15 23:30,130,g/dL,completed,2024-03-26 12:00

Enter Test Date (YYYY-MM-DD HH:MM): 2021-03-15 23:30

Current Test Value: 130

Enter new Test Value: 90

Current Test Status: completed

Enter new Test Status (Pending/Completed/Reviewed): pending

Updated Test Record:

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

Test record updated successfully!

main.py

MedicalTest.py

medicalTest.txt

midecalRecord.txt

n.csv

Patient.py

2

B6T;>70,<99;mg/dL;00-12-06

3

LDL;<100;mg/dL;00-17-06

4

systole;<120;mm Hg;00-08-04

5

diastole;<80;mm Hg;00-10-00

6

RR;>30.0;<70.0;gg;01:00:00

7

Run

main ×

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Enter your choice (1-7): 4

Enter Test Name to update:RR

Current details: RR;>50.0,<100.0;mm;00:50:00

Enter the new lower bound of the test range : 30

Enter the upper bound of the test range : 70

Enter new unit: gg

Enter new result time: 01:00:00

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) ? 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,2020-05-05 11:11,77,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
5. Filter medical tests
6. Generate textual summary reports
7. 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, BGT, 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.
```

.venv library root	
m.csv	
main.py	
MedicalTest.py	
medicalTest.txt	
midecalRecord.txt	
n.csv	
Patient.py	
r.py	
External Libraries	
Scratches and Consoles	

	Patient ID,Test Name,Test Date,Test Value,Unit,Status,Result Date
1	1234567,Hgb,2020-06-13 22:30,90,mm Hg,Reviewed
2	1234567,diastole,2024-01-01 22:00,50,mm Hg,completed,2024-01-02 12:30
3	0980980,BGT,2020-10-22 05:12,88,mm Hg,Pending
4	0980980,LDL,2021-03-15 23:30,90,g/dL,Pending
5	0980980,Hgb,2024-12-01 12:52,88,mm Hg,Pending
6	9874563,Hgb,2020-06-13 22:30,80,mm Hg,pending
7	9874563,LDL,2020-08-21 08:55,88,mm Hg,completed,2020-08-22 9:00
8	1478523,LDL,2020-05-11 22:00,70,mm Hg,pending
9	9898989,LDL,2020-05-05 11:11,77,mm Hg,completed,2020-05-07 12:20
10	1591591,LDL,2020-05-06 12:12,55,mm Hg,pending
11	
12	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.
```

main.py	r.py	MedicalTest.py	Patient.py	medicalTest.txt	midecalRecord.txt
1	1234567:Hgb,2020-06-13 22:30,90,mm Hg,Reviewed				
2	1234567:diastole,2024-01-01 22:00,50,mm Hg,completed,2024-01-02 12:30				
3	0980980:BGT,2020-10-22 05:12,88,mm Hg,Pending				
4	0980980:LDL,2021-03-15 23:30,90,g/dL,Pending				
5	0980980:Hgb,2024-12-01 12:52,88,mm Hg,Pending				
6	9874563:Hgb,2020-06-13 22:30,80,mm Hg,pending				
7	9874563:LDL,2020-08-21 08:55,88,mm Hg,completed,2020-08-22 9:00				
8	1478523:LDL,2020-05-11 22:00,70,mm Hg,pending				
9	9898989:LDL,2020-05-05 11:11,77,mm Hg,completed,2020-05-07 12:20				
10	1591591:LDL,2020-05-06 12:12,55,mm Hg,pending				
11	9639632:systole,2024-08-22 12:30,90,g/dL,completed,2024-08-22 23:50				
12	1234567:Hgb,2020-06-13 22:30,90,mm Hg,Reviewed,None				
13	1234567:diastole,2024-01-01 22:00,50,mm Hg,completed,2024-01-02 12:30				
14	0980980:BGT,2020-10-22 05:12,88,mm Hg,Pending,None				
15	0980980:LDL,2021-03-15 23:30,90,g/dL,Pending,None				
16	0980980:Hgb,2024-12-01 12:52,88,mm Hg,Pending,None				
17	9874563:Hgb,2020-06-13 22:30,80,mm Hg,pending,None				
18	9874563:LDL,2020-08-21 08:55,88,mm Hg,completed,2020-08-22 9:00				
19	1478523:LDL,2020-05-11 22:00,70,mm Hg,pending,None				
20	9898989:LDL,2020-05-05 11:11,77,mm Hg,completed,2020-05-07 12:20				
21	1591591:LDL,2020-05-06 12:12,55,mm Hg,pending,None				
22	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): 0
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)? 0
No matching tests found.
```