Faculty of Engineering & Technology Electrical & Computer Engineering Department

COMPUTER ARCHITECTURE

ENCS4370

First Project – Medical Test Management System

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Section:	3	

Input file:

```
1    1300500: LDL, 2002-03, 100.0
2    1300500: BGT, 2024-03, 999.0
3    1300511: BGT, 2022-03, 13.0
4    1300511: LDL, 2024-03, 20.0
5    1300512: BPT, 2022-03, 10.0, 1.90
6    1300500: BPT, 2024-04, 80.0, 100.0
7    1300512: LDL, 2024-07, 50.0
```

Inserting a new medical test:

```
welcome to our Medical tests database :)
chose an a option (1-7)
1)Enter a new medical test
2)Search for a test By id
3)Search for unnormal tests
4)Find the average test value
5)Update an existing test result
6)Delete a test
7)Update input file and exit
1
Enter patient ID
123456
the id intered is invalid
```

```
Enter patient ID
1300400

Enter Test name
lpl
the test name is invalid

Enter Test name
BPT
Enter the date of the test
Enter Year
200
Year must be between (2000-2024)
Enter Year
2004
Enter the Month of the test
13
Month must be between (1-12)
Enter the Month of the test
12
Enter test result
12
Enter test second result
23
The record is succsesfully saved

welcome to our Medical tests database :)
chose an a option (1-7)
1)Enter a new medical test
2)Search for a test By id
3)Search for unnormal tests
4)Find the average test value
5)Update an existing test result
6)Delete a test
7)Update input file and exit
1
Enter patient ID
1300450

Enter Test name
LDL
Enter the date of the test
Enter Year
2024
Enter the Month of the test
3
Enter test result
12.5
The record is succsesfully saved
```

```
welcome to our Medical tests database :)
chose an a option (1-7)
1) Enter a new medical test
2) Search for a test By id
3) Search for unnormal tests
4) Find the average test value
5) Update an existing test result
6) Delete a test
7) Update input file and exit
7
-- program is finished running --
```

Output file

```
1   1300500: LDL, 2002-03, 100.0
2   1300500: BGT, 2024-03, 999.0
3   1300511: BGT, 2022-03, 13.0
4   1300511: LDL, 2024-03, 20.0
5   1300512: BPT, 2022-03, 10.0, 1.90
6   1300500: BPT, 2024-04, 80.0, 100.0
7   1300512: LDL, 2024-07, 50.0
8   1300400: BPT, 2004-12, 12.0, 23.0
9   1300450: LDL, 2024-03, 12.5
```

```
welcome to our Medical tests database :)
chose an a option (1-7)
1)Enter a new medical test
2)Search for a test By id
3)Search for unnormal tests
4)Find the average test value
5)Update an existing test result
6)Delete a test
7)Update input file and exit
2
Choose a retrtival option (1-4)
1)Retrieve all tests
2)Retrieve all up normal patient tests
3)Retrieve all patient tests in a given specific period
4)Return to menu
1

Enter patient ID
12
the id intered is invalid

Enter patient ID
1300500
0)1300500: LDL, 2002-03, 100.0, 0.0
1)1300500: BGT, 2024-03, 999.0, 0.0
2)1300500: BPT, 2024-04, 80.0, 100.0

Choose a retrtival option (1-4)
1)Retrieve all tests
2)Retrieve all up normal patient tests
3)Retrieve all patient tests in a given specific period
4)Return to menu
2

Enter patient ID
1300511
ABNORMAL TEST:
1300511: BGT, 2022-03, 13.0, 0.0
```

```
Choose a retrtival option (1-4)
1)Retrieve all tests
2)Retrieve all up normal patient tests
3)Retrieve all patient tests in a given specific period
4)Return to menu
3

Enter patient ID
1300500
Enter the date of the test
Enter Year
2004
Enter the Month of the test
3
Enter the date of the test
Enter Year
2024
Enter the Month of the test
12

1300500: BGT, 2024-03, 999.0, 0.0
1300500: BPT, 2024-04, 80.0, 100.0

Choose a retrtival option (1-4)
1)Retrieve all tests
2)Retrieve all up normal patient tests
3)Retrieve all patient tests in a given specific period
4)Return to menu
3

Enter patient ID
1300450
Enter the date of the test
Enter Year
2000
Enter the Month of the test
2
Enter the date of the test
Enter Year
```

```
2003
Enter the Month of the test
3


 No tests found within given period!
```

Search for abnormal tests

```
welcome to our Medical tests database :)
chose an a option (1-7)
1)Enter a new medical test
2)Search for a test By id
3)Search for unnormal tests
4)Find the average test value
5)Update an existing test result
6)Delete a test
7)Update input file and exit
3
Enter Test name
l
the test name is invalid

Enter Test name
LDL
ABNORMAL TEST:
1300500: LDL, 2002-03, 100.0
```

Average tests value

```
welcome to our Medical tests database :)
chose an a option (1-7)
1)Enter a new medical test
2)Search for a test By id
3)Search for unnormal tests
4)Find the average test value
5)Update an existing test result
6)Delete a test
7)Update input file and exit
4
HGB Average :  There aren't any saved tests of this type
BGT Average :  506.0
LDL Average :  45.625
BPT Systolic Average :  34.0
BPT Diastolic Average :  41.633335
```

Delete a test

```
welcome to our Medical tests database :)
chose an a option (1-7)
1) Enter a new medical test
2) Search for a test By id
3) Search for unnormal tests
4) Find the average test value
5) Update an existing test result
6) Delete a test
7) Update input file and exit
6
Enter patient ID
1300500
0) 1300500: LDL, 2002-03, 100.0
1) 1300500: BGT, 2024-03, 999.0
2) 1300500: BPT, 2024-04, 80.0, 100.0
Enter test index or enter -1 to exit
1
The test has been deleted successfully
```

Output file

```
1300500: LDL, 2002-03, 100.0
1300511: BGT, 2022-03, 13.0
1300511: LDL, 2024-03, 20.0
1300512: BPT, 2022-03, 10.0, 1.90
1300500: BPT, 2024-04, 80.0, 100.0
1300512: LDL, 2024-07, 50.0
1300400: BPT, 2004-12, 12.0, 23.0
1300450: LDL, 2024-03, 12.50
```

Update a test

```
welcome to our Medical tests database :)
chose an a option (1-7)
1)Enter a new medical test
2)Search for a test By id
3)Search for unnormal tests
4)Find the average test value
5)Update an existing test result
6)Delete a test
7)Update input file and exit
5
Enter patient ID
1300511
0)1300511: BGT, 2022-03, 13.0
1)1300511: LDL, 2024-03, 20.0
Enter test index or enter -1 to exit
1
Enter the new result
90
The new result has been saved successfully
```

Output file

```
1300500: LDL, 2002-03, 100.0
1300511: BGT, 2022-03, 13.0
1300511: LDL, 2024-03, 90.0
1300512: BPT, 2022-03, 10.0, 1.90
1300500: BPT, 2024-04, 80.0, 100.0
1300512: LDL, 2024-07, 50.0
1300400: BPT, 2004-12, 12.0, 23.0
1300450: LDL, 2024-03, 12.50
```