Computer Programming I — Homework Assignment #10

Problem: Design a simplified student grade processing system

Functions:

1. store a text file of all students’ information.

2. update a student’s grade.

3. add a student’s grade.

4. delete a student’s information.

Requirements:

1. Global variables are not allowed.

2. The format of the file **grades.dat** is as follows:

char studentId[ 8 ];

char lastName[ 12 ];

char firstName[ 12 ];

int grade;

The screen dialog should appear as follows:

|  |
| --- |
| Enter your choice  1 - store a text file of all students' information  called "grades.txt" for printing  2 - update a student's grade  3 - add a student's grade  4 - delete a student's information  5 - end program  ? 1  ID Last Name First Name Grade  1111401 Smith James -1  1111402 Jones Robert -1  1111403 Taylor John -1  1111404 Brown Michael -1  1111405 Williams David -1  1111406 Wilson William -1  1111407 Johnson Mary -1  1111408 Davies Richard -1  1111409 Patel Joseph -1  1111410 Robinson Thomas -1  1111411 Wright Charles -1  1111412 Thompson Christopher -1  1111413 Evans Daniel -1  1111414 Walker Matthew -1  1111415 White Patricia -1  1111416 Roberts Jennifer -1  1111417 Green Linda -1  1111418 Hall Elizabeth -1  1111419 Thomas Anthony -1  1111420 Clarke Barbara -1  1111421 Jackson Mark -1  1111422 Wood Donald -1  1111423 Harris Steven -1  1111424 Edwards Paul -1  1111425 Turner Andrew -1  1111426 Martin Joshua -1  1111427 Cooper Kenneth -1  1111428 Hill Kevin -1  1111429 Ward Brian -1  1111430 Hughes George -1  1111431 Moore Susan -1  1111432 Clark Timothy -1  1111433 King Ronald -1  1111434 Harrison Edward -1  1111435 Lewis Jessica -1  1111436 Baker Jason -1  1111437 Lee Sarah -1  1111438 Allen Karen -1  1111439 Morris Jeffrey -1  1111440 Khan Lisa -1  1111441 Scott Nancy -1  1111442 Watson Ryan -1  1111443 Davis Jacob -1  1111444 Parker Betty -1  1111445 James Gary -1  1111446 Bennett Nicholas -1  1111447 Young Margaret -1  1111448 Phillips Eric -1  1111449 Richardson Sandra -1  1111450 Mitchell Jonathan -1  Enter your choice  1 - store a text file of all students' information  called "grades.txt" for printing  2 - update a student's grade  3 - add a student's grade  4 - delete a student's information  5 - end program  ? 4  Enter student ID to delete ( 1111401 - 1111450 ): 1111444  Student ID 1111444 deleted.  Enter your choice  1 - store a text file of all students' information  called "grades.txt" for printing  2 - update a student's grade  3 - add a student's grade  4 - delete a student's information  5 - end program  ? 2  Enter student ID to update ( 1111401 - 1111450 ): 1111444  Student ID 1111444 is empty.  Enter your choice  1 - store a text file of all students' information  called "grades.txt" for printing  2 - update a student's grade  3 - add a student's grade  4 - delete a student's information  5 - end program  ? 3  Enter student ID to add ( 1111401 - 1111450 ): 1111444  Student ID 1111444 is empty.  Enter your choice  1 - store a text file of all students' information  called "grades.txt" for printing  2 - update a student's grade  3 - add a student's grade  4 - delete a student's information  5 - end program  ? 4  Enter student ID to delete ( 1111401 - 1111450 ): 1111444  Student ID 1111444 is empty.  Enter your choice  1 - store a text file of all students' information  called "grades.txt" for printing  2 - update a student's grade  3 - add a student's grade  4 - delete a student's information  5 - end program  ? 2  Enter student ID to update ( 1111401 - 1111450 ): 1111433  Student ID 1111433 has no grade.  Enter your choice  1 - store a text file of all students' information  called "grades.txt" for printing  2 - update a student's grade  3 - add a student's grade  4 - delete a student's information  5 - end program  ? 3  Enter student ID to add ( 1111401 - 1111450 ): 1111433  Enter grade: 89  1111433 King Ronald 89  Enter your choice  1 - store a text file of all students' information  called "grades.txt" for printing  2 - update a student's grade  3 - add a student's grade  4 - delete a student's information  5 - end program  ? 1  ID Last Name First Name Grade  1111401 Smith James -1  1111402 Jones Robert -1  1111403 Taylor John -1  1111404 Brown Michael -1  1111405 Williams David -1  1111406 Wilson William -1  1111407 Johnson Mary -1  1111408 Davies Richard -1  1111409 Patel Joseph -1  1111410 Robinson Thomas -1  1111411 Wright Charles -1  1111412 Thompson Christopher -1  1111413 Evans Daniel -1  1111414 Walker Matthew -1  1111415 White Patricia -1  1111416 Roberts Jennifer -1  1111417 Green Linda -1  1111418 Hall Elizabeth -1  1111419 Thomas Anthony -1  1111420 Clarke Barbara -1  1111421 Jackson Mark -1  1111422 Wood Donald -1  1111423 Harris Steven -1  1111424 Edwards Paul -1  1111425 Turner Andrew -1  1111426 Martin Joshua -1  1111427 Cooper Kenneth -1  1111428 Hill Kevin -1  1111429 Ward Brian -1  1111430 Hughes George -1  1111431 Moore Susan -1  1111432 Clark Timothy -1  1111433 King Ronald 89  1111434 Harrison Edward -1  1111435 Lewis Jessica -1  1111436 Baker Jason -1  1111437 Lee Sarah -1  1111438 Allen Karen -1  1111439 Morris Jeffrey -1  1111440 Khan Lisa -1  1111441 Scott Nancy -1  1111442 Watson Ryan -1  1111443 Davis Jacob -1  1111445 James Gary -1  1111446 Bennett Nicholas -1  1111447 Young Margaret -1  1111448 Phillips Eric -1  1111449 Richardson Sandra -1  1111450 Mitchell Jonathan -1  Enter your choice  1 - store a text file of all students' information  called "grades.txt" for printing  2 - update a student's grade  3 - add a student's grade  4 - delete a student's information  5 - end program  ? 2  Enter student ID to update ( 1111401 - 1111450 ): 1111433  1111433 King Ronald 89  Enter grade: 98  1111433 King Ronald 98  Enter your choice  1 - store a text file of all students' information  called "grades.txt" for printing  2 - update a student's grade  3 - add a student's grade  4 - delete a student's information  5 - end program  ? 1  ID Last Name First Name Grade  1111401 Smith James -1  1111402 Jones Robert -1  1111403 Taylor John -1  1111404 Brown Michael -1  1111405 Williams David -1  1111406 Wilson William -1  1111407 Johnson Mary -1  1111408 Davies Richard -1  1111409 Patel Joseph -1  1111410 Robinson Thomas -1  1111411 Wright Charles -1  1111412 Thompson Christopher -1  1111413 Evans Daniel -1  1111414 Walker Matthew -1  1111415 White Patricia -1  1111416 Roberts Jennifer -1  1111417 Green Linda -1  1111418 Hall Elizabeth -1  1111419 Thomas Anthony -1  1111420 Clarke Barbara -1  1111421 Jackson Mark -1  1111422 Wood Donald -1  1111423 Harris Steven -1  1111424 Edwards Paul -1  1111425 Turner Andrew -1  1111426 Martin Joshua -1  1111427 Cooper Kenneth -1  1111428 Hill Kevin -1  1111429 Ward Brian -1  1111430 Hughes George -1  1111431 Moore Susan -1  1111432 Clark Timothy -1  1111433 King Ronald 98  1111434 Harrison Edward -1  1111435 Lewis Jessica -1  1111436 Baker Jason -1  1111437 Lee Sarah -1  1111438 Allen Karen -1  1111439 Morris Jeffrey -1  1111440 Khan Lisa -1  1111441 Scott Nancy -1  1111442 Watson Ryan -1  1111443 Davis Jacob -1  1111445 James Gary -1  1111446 Bennett Nicholas -1  1111447 Young Margaret -1  1111448 Phillips Eric -1  1111449 Richardson Sandra -1  1111450 Mitchell Jonathan -1  Enter your choice  1 - store a text file of all students' information  called "grades.txt" for printing  2 - update a student's grade  3 - add a student's grade  4 - delete a student's information  5 - end program  ? 2  Enter student ID to update ( 1111401 - 1111450 ): 1111433  1111433 King Ronald 98  Enter grade: -1  1111433 King Ronald -1  Enter your choice  1 - store a text file of all students' information  called "grades.txt" for printing  2 - update a student's grade  3 - add a student's grade  4 - delete a student's information  5 - end program  ? 1  ID Last Name First Name Grade  1111401 Smith James -1  1111402 Jones Robert -1  1111403 Taylor John -1  1111404 Brown Michael -1  1111405 Williams David -1  1111406 Wilson William -1  1111407 Johnson Mary -1  1111408 Davies Richard -1  1111409 Patel Joseph -1  1111410 Robinson Thomas -1  1111411 Wright Charles -1  1111412 Thompson Christopher -1  1111413 Evans Daniel -1  1111414 Walker Matthew -1  1111415 White Patricia -1  1111416 Roberts Jennifer -1  1111417 Green Linda -1  1111418 Hall Elizabeth -1  1111419 Thomas Anthony -1  1111420 Clarke Barbara -1  1111421 Jackson Mark -1  1111422 Wood Donald -1  1111423 Harris Steven -1  1111424 Edwards Paul -1  1111425 Turner Andrew -1  1111426 Martin Joshua -1  1111427 Cooper Kenneth -1  1111428 Hill Kevin -1  1111429 Ward Brian -1  1111430 Hughes George -1  1111431 Moore Susan -1  1111432 Clark Timothy -1  1111433 King Ronald -1  1111434 Harrison Edward -1  1111435 Lewis Jessica -1  1111436 Baker Jason -1  1111437 Lee Sarah -1  1111438 Allen Karen -1  1111439 Morris Jeffrey -1  1111440 Khan Lisa -1  1111441 Scott Nancy -1  1111442 Watson Ryan -1  1111443 Davis Jacob -1  1111445 James Gary -1  1111446 Bennett Nicholas -1  1111447 Young Margaret -1  1111448 Phillips Eric -1  1111449 Richardson Sandra -1  1111450 Mitchell Jonathan -1  Enter your choice  1 - store a text file of all students' information  called "grades.txt" for printing  2 - update a student's grade  3 - add a student's grade  4 - delete a student's information  5 - end program  ? 5  請按任意鍵繼續 . . . |