

#README

#STUDENTID : 10660472

#APP NAME : SCHOOL MANAGEMENT APP

#AUTHOR : ATINGA BERNARD AZUMAH

APP WORKS BETTER ON WINDOWS OS

At Enter A Command >>>>

use commands with ##

q ----- use 'q' to leave any command center.....
(this one is for inside any of the other commands)

q	-----	use 'q' to leave any command center.....	
add	-----	create new student, dep. or staff.....	##
exit	-----	end the program.....	##
list	-----	query list student, dep. or staff.....	##
edit	-----	change student, dep. or staff details...	##
done	-----	to save changes made to any object.....	
clear	-----	reset the screen to a clean screen.....	##
search	-----	look for student, dep. or staff info....	##
remove	-----	delete staff, department or student.....	##
readme	-----	shows documentation of the app.....	##
help\h	-----	get help with commands.....	##
manage	-----	pay or set student school fees etc	##
records	-----	record or view student academic records.	##
settings	-----	set app variables, turn off help tips...	##

EACH COMMAND HAS A LOT OF FUNCTIONS SO PLEASE USE help OR h for HELP if you should get STUCK
or goto settings then tips and enter y for tips at every route.

#####

Process Flow:

1.Before you begin anything you should probably add more departments to your department list

there is 1 inbuilt department CSCD - Computer Science Department.

you can do this by using the 'add' command keyword

2.After you can add students to a variety of different departments

Staff objects can also be created using the 'add' command

NOTE :: ASSIGNING OBJECT ID is AUTOMATIC

3.You can now add subjects or edit any object (student , department or staff) with the 'edit'

command.. Use h or help for help on how to use.

4.you can search objects with 'search' keyword

after object is found use help for objects on routes..

you can go to the

'edit' route ---- edit found objects details use help or h at command for more help

'records' route --- enter records for student or view student records

(subjects must be added to student before this route can be used)

'manage' route ---- manage student object..pay school fees, set student school fees etc

(remove student obj etc..use help at this route for help)

'explore' route ---- use this to find details about found object

eg. of search===search student id 10640000 or search s name bernard

5.At records route with found student object --use s or show to show academic records

```
D:\Codes\Cplusplus\p_10660742\main.cpp
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##### SCHOOL MANAGEMENT #####
##### SYSTEM #####
##### ATINGA BERNARD #####
##### @10660742 #####
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=====
USE the keyword 'commands' to view available command options.
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398         for (int i=0;i<len;i++){
399             if (upper(semester_records[i].course_name) == upper(val)){
400                 printf("Error: course name already exists\n");
401                 break;
402             }
403             if (i == len)
404                 printf("Query list student, dep. or staff details\n");
405             change student, dep. or staff details....
406             to save changes made to any object....
407             reset the screen to a clean screen....
408             look for student, dep. or staff info....
409             delete staff, department or student....
410             shows documentation of the app....
411             get help with commands....
412             pay or set student school fees etc ....
413             record or view student academic records.
414             change console view, turn off help tips.
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```
D:\Codes\Cplusplus\p_10660742\main.exe
## TO SEARCH STUDENT.....: use option 's' or 'student' [student first and lastname] ##
## [option] 'id' [student id] or [option] 'name' [student first and lastname] ##
## TO SEARCH STAFF.....: use 'l' or 'staff' [staff first and lastname] ##
## [option] 'id' [staff id] or [option] 'name' [staff first and lastname] ##
## TO SEARCH DEPARTMENT...: use 'd' or 'department' [dept code] ##
## [option] [Department Code] e.g. search d [csd/MATHS].. list dep_code with 'ldc' ##
## With GOTO.....: use 'explore' or 'edit' or 'manage' or 'academics' ##
## e.g. Route Goto >> explore >> Goto >> edit >> i Goto >> remove >> Goto >> academics ##

Search >> s
527 string ret_lower = "";
528 int len = line.length();
529 for (int i=0;i<len;i++){
530     for (int j=0;j<26;j++){
531         if (line[i] == (char)(j+'a')){
532             ret_lower += line[i];
533         }
534     }
535     else if (j == 25){
536         ret_lower += line[i];
537     }
538     Please Enter The Name
539     [..] : bernard
540     return ret_lower;
541 }

***** Found Object *****
Log & others
## TO EDIT DETAILS .....: use the option 'edit'
## TO EXPLORE DETAILS .....: use the option 'explore'
## TO MANAGE OBJECT.....: use the option 'manage'
## TO GOTO STUDENT ACADEMIC RECORDS.....: use the option 'records' (student's only)

Route Goto >>> q_10660742\main.cpp C/C++ Windows (CR+LF) WINDOWS-1252 Line 1853, Col 11, Pos 87197 Insert Read/Write default 12:54 AM 29-Dec-18
```

```
D:\Codes\Cplusplus\p_10660742\main.exe
***** Found Object *****
<global>
searchStudent(string val): student
## TO EDIT DETAILS .....: use the option 'edit'
## TO EXPLORE DETAILS .....: use the option 'explore'
## TO MANAGE OBJECT.....: use the option 'manage'
## TO GOTO STUDENT ACADEMIC RECORDS.....: use the option 'records' (student's only)

Route Goto >> edit
569 return false;
570 }
571 }
572 return true;

***** USE the following keywords *****
***** 'name', 'age', 'level', 'residence' *****
***** 'course', 'dep', 'subj' or 'subjects' *****

Edit Student's > residence
577 string str = "";
578 vector<string> splitVec;
579 int len = line.length();
580 for (int i=0;i<len;i++){
581     char _line = line[i];
582     if (_line == '\n'){
583         splitVec.push_back(str);
584         str = "";
585     }
586 }

Students Residence :
Change to : James Topp Yankah Nelson Hall
587 splitVec.push_back(str);
588 str = "";

Edit Student's > done
<
Log & others
***** Successfully Saved *****
file Line Message
Route Goto >>
== Build file: "no target" in "no project" (compiler: unknown) ==
== Build finished: 0 error(s), 0 warning(s) (0 minute(s), 27 second(s)) ==

D:\Codes\Cplusplus\p_10660742\main.cpp C/C++ Windows (CR+LF) WINDOWS-1252 Line java_tutorial.pdf - Adobe Acrobat Reader DC Read/Write default 12:56 AM 29-Dec-18
```

The screenshot shows a C++ IDE with the following components:

- Menu Bar:** Route Goto >> edit Project Build Debug Fortran wxSmith Tools Plugins DovyBlocks Settings Help
- Toolbar:** Standard IDE icons for file operations, editing, and running.
- Editor Window:** Displays a C++ program named "main.exe". The code includes comments and logic for managing subjects.


```
##### USE the following keywords #####  
##### 'name', 'age', 'level', 'residence' #####  
##### 'course', 'dep.', 'subj' or 'subjects' #####  
#####  
#tagement X 'course', 'dep.', 'subj' or 'subjects' ##  
#####  
Projects Symbol Files  
564  
565 bool isEmpty(string line){  
566     int len = line.length();  
567     for (int i=0;i<len;i++){  
#####  
## TO ADD SUBJECTS..... use option 'add' or 'n' return false; ##  
## [option] ['main' or 'm'] 'free' or 'f' [full subject name] ##  
#####  
## TO REMOVE SUBJECTS..... use option 'remove' or 'r' ##  
## [option] [enter subject from list] [y or n] ##  
#####  
## USE the exact Subjects names from the list... ##  
## eg.. CSCD 201 or cscd 201 or FE-CHEM 201 ##  
#####  
## TO SAVE EDITED DETAILS..... use 'done' or use 'q' ot ignore changes ##  
#####  
579     int Len = line.length();  
580     for (int i=0;i<Len;i++){  
581         char_line = line[i];  
582         if (_line == byt){  
583             splitVec.push_back(str);  
584             str = "";  
  
Students subject :  
  
Add\Remove Course : add  
Is it a main or free course? (main/free) : m  
  
Logs and others  
#####  
## choose from the following list ##  
#####  
== Build file: "no target" in "no project" (compiler: unknown) ===  
CSCD 201 CSCD 202 CSCD 203 finished: 0 error(s), 0 warning(s) (0 minute(s), 27 second(s)) ===  
CSCD 204 CSCD 205 CSCD 206  
CSCD 207 CSCD 208 CSCD 209  
CSCD 210
```
- Status Bar:** Shows "Enter the subject id: 742 m cscd 201", "C/C++", "Windows (CR+LF)", "WINDOWS-1252", "Line 1853, Col 11, Pos 877", "D:\Codes\Cplusplus\p_10660742\main.exe", "ed/Write default", and the time "12:58 AM 29-Dec-18".
- Taskbar:** Windows taskbar at the bottom with search bar and various application icons.

The screenshot displays a C++ development environment with multiple tabs open at the top: D:\Codes\Cplusplus\p_10660742\main.exe, Edit View Search Project Build, Choose from the following list..., Plugins DayBlocks Settings Help ##, searchStudent.cpp, main.cpp, Untitled1, and input.txt.

```

CSCD 201      CSCD 202      searchStudent.cpp    CSCD 203-nt
CSCD 204      CSCD 205      CSCD 206
CSCD 207      CSCD 208      CSCD 209
CSCD 210      CSCD 209

Enter the subject : cscd 201
Workspace
1393
1394     string GpaCalc(student obj, string type){
Add/Remove Course : add m cscd 202 add m cscd 203 add m cscd 204 ==> bool empty_score = false;
Is it a main or free course? (main/free) : if (type == "gen"){
1397         int len = obj.getSemRecords().size();
=====choose from the following list ===== #
1400         if (temp_record[i].mark <= 0){
CSCD 201          CSCD 202          CSCD 203          empty_score = true;
CSCD 204          CSCD 205          CSCD 206          return "***N/A***";
CSCD 207          CSCD 208          CSCD 209          break;
CSCD 210          }
1405       else{
1406           tch += temp_record[i].credit_hr;
1407           gpa += getGpaScore(temp_record[i].grade)*temp_record[i].credit_hr;
=====choose from the following list ===== #
1411       if (len != 0){
CSCD 201          CSCD 202          CSCD 203          cout<<"ingstream ss";
CSCD 204          CSCD 205          CSCD 206
CSCD 207          CSCD 208          CSCD 209

Logs & others
Build results | Cccc | Build log | Build messages | CppCheck/Vera++ | CppCheck/Vera++ messages | Scope | Debugge
(invalid choice) Enter the subject : cscd 210
File Line Message
Add/Remove Course : done
==== Build file: "no target" in "no project" (compiler: unknown) ====
==== Build finished: 0 error(s), 0 warning(s) [0 minute(s), 27 second(s)] ====

***** Successfully Saved. *****
D:\Codes\Cplusplus\p_10660742\main.cpp C/C++ Windows (CR+LF) WINDOWS-1252 Line 1853, Col 11, Pos 877 D:\Codes\Cplusplus\p_10660742\main.exe dd/Write default
Type here to search

```


The screenshot displays a C++ IDE with the following components:

- Menu:**
 - File: Route Goto >> Help
 - Project: Build Debug Fortran wxSmith Tools Tools+ Plugins DovyBlocks Settings Help
- Code Editor:**

```

#####
## TO EDIT DETAILS ..... use the option 'edit' #####
## TO EXPLORE DETAILS ..... use the option 'explore' #####
## TO MANAGE OBJECT..... use the option 'manage' #####
## TO GOTO STUDENT ACADEMIC RECORDS..... use the option 'records' (student's only) #####
#####
Route Goto >> records
1396 if (type == "sem"){
1397     int len = obj.getSemRecords().size();
1398     vector<record> temp_record = obj.getSemRecords();
1399     int i;
1400     for(i=0; i<len; i++){
#####
## TO ENTER STUDENT ACADEMIC RECORDS..... use option 'entry' or 'en' #####
## TO EDIT STUDENT ACADEMIC RECORDS..... use option 'edit' or 'ed' #####
## TO SHOW STUDENT ACADEMIC RECORDS..... use option 'show' or 's' #####
## TO SAVE EDITED DETAILS..... use 'done' or use 'q' to ignore changes #####
#####
1409 }
1410 if (empty_score == false){
1411     if (len != 0){
#####
## TO VIEW FULL STUDENT ACADEMIC RECORDS..... use option 'full' or 'f' #####
## TO VIEW SEMESTER STUDENT ACADEMIC RECORDS..... use option 'sem' or 's' #####
## TO EXPORT STUDENT RECORDS..... use option 'exp' or 'e' #####
## TO CHECK STUDENT GPA..... use the option 'gpa' #####
#####
===== Compiler: unknown =====
===== Build finished: 0 error(s), 0 warning(s) 0 minute(s), 27 second(s) =====
Show Records (f/s) >>

```
- File Explorer:**
 - D:\Codes\Cplusplus\p_10660742\main.cpp
 - C/C++
 - Windows (C++ LF)
 - WINDOWS-1252
 - Line 183, Col 11, Pos 87
 - D:\Codes\Cplusplus\p_10660742\main.exe
 - ed/Write
 - default
- Taskbar:**
 - Windows Start button
 - Search bar: Type here to search
 - Taskbar icons: File Explorer, Edge, Chrome, Firefox, VS Code, Task View, Network, Volume, Date/Time (1:03 AM, 29-Dec-18)

[illegible]

[illegible][illegible]


```
D:\Codes\Cplusplus\p_10660742\main.exe
Enter A Command >>> settings.view
Setting >>
#####
##### TO USE NORMAL CONSOLE VIEW ..... use the option 'normal' or 'l' #####
##### NORMAL PREVIEW : #####
##### 1. #####
##### Enter A Command >>> add #####
##### Add >> student #####
##### 2. #####
##### Enter A Command >>> search student name bernard #####
##### 3. #####
##### Enter A Command >>> manage s id 10640000 #####
##### #####
##### TO USE LIST CONSOLE VIEW ..... use the option 'list' or 'l' #####
##### LIST PREVIEW : #####
##### 1. #####
##### Enter A Command >>> Add >> 1 #####
##### 2. #####
##### Enter A Command >>> 4 1 2 bernard #####
##### 3. #####
##### Enter A Command >>> 6 1 1 10640000 #####
##### #####
##### What View Do You Want To Use ? ( normal/list ) #####
##### [-] : list #####
D:\Codes\Cplusplus\p_10660742\main.cpp
C/C++ Windows (CR+LF) WINDOWS-1252 Line 1853, Col 11, Pos 87197 Insert Read/Write default
Type here to search 1:17 AM 29-Dec-18
```

```
D:\Codes\Cplusplus\p_10660742\main.exe
##### SCHOOL MANAGEMENT #####
##### SYSTEM #####
##### ATINGA BERNARD #####
##### @10660742 #####
##### USE the keyword 'commands' to view available command options. #####
##### for (int i=0;i<len;i++){ #####
##### if ((lower(Students[i].getResidence()).find(lower(residence))) != string::npos){ #####
##### Students[i].getInfo(); #####
##### #####
##### 0. q ..... use 'q' to leave any command center..... #####
##### 1. add ..... create new student, dep. or staff..... #####
##### 2. list ..... query list student, dep. or staff..... #####
##### 3. edit ..... change student, dep. or staff details.... #####
##### 4. search ..... look for student, dep. or staff info.... #####
##### 5. remove ..... delete staff, department or student.... #####
##### 6. manage ..... pay or set student school fees etc..... #####
##### 7. records ..... view student academic records. #####
##### 8. readme ..... shows documentation of the app..... #####
##### 9. help/h ..... get help with commands..... #####
##### 00. exit ..... end the program..... #####
##### 99. clear ..... (reset the screen to a clean screen..... #####
##### 10. settings ..... set app variables, turn off help tips... #####
##### #####
Enter A Command >>> 4
Logs & others
##### Select Object #####
##### Build finished: 0 error(s), 0 warning(s) (0 minute(s), 27 second(s)) ==
##### 1. Student #####
##### 2. Staff #####
##### 3. Department #####
##### #####
Search: S:\usplus\p_10660742\main.cpp C/C++ Windows (CR+LF) WINDOWS-1252 Line 1853, Col 11, Pos 87197 D:\Codes\Cplusplus\p_10660742\main.exe Read/Write default
Type here to search 1:18 AM 29-Dec-18
```

[illegible][illegible]

[illegible]

The screenshot shows a C++ IDE with the following components:

- Top Bar:** File explorer, search bar, and various tool icons.
- Left Panel:** Project and file tree showing 'Workspace'.
- Main Editor:** Displays the source code for 'student.cpp'. The code includes functions for adding, deleting, and managing students. The program is running, and the user has entered '00' to exit. The output shows a thank you message and build statistics.
- Bottom Panel:** Output window showing the program's execution results, including a 'Thank you for your patience' message and build statistics.
- Status Bar:** Shows the current file, line, and column information.