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| database_2.png |
| Assignment 6 |
| CPTN230 |
|  |
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| **11/13/2011** |



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# Introduction

This assignment is about getting more practice with writing pseudo code. This design document will be based off a given problem statement and will be implemented with pseudo code as to what it will do in a programming setting. The design of the pseudo code will not adhere to any particular programming language as it should be understandable and interpreted by any programmer out there. (Bettle, 2011)

# Application Summary

The main function of this program is to manipulate a course to instructor assignment database. The user will be prompted to type in a Course Name, Course Number, Assigned Instructor, Course Time and Course Location. Furthermore, the user will be given a choice on what they provided to add, delete or modify their input from the course to instructor assignment database. Depending on what the user does or not does a summary can be produced and displayed showing whatever is currently in the database.

# Files Needed

## Application File

This file is where the interface will be developed. The variables will be initiated here which are Course Name, Course Number, Assigned Instructor, Course Time, and Course Location. These variables will be assigned values using some sort of text box or input box. Function calls will take place in this file that will access the database for adding, deleting, modifying, or summarizing information depending on the user’s request via a button of some sort.

## Function Definition File

This file is where the functions will be defined. The functions will be defined so the application can call the functions successfully and the functions themselves have access to the database to do whatever the user requests to do which is adding, deleting, modifying, or summarizing.

## Database File

This is where the application will send the data. It will be stored in this file with some sort of table like format that will be able to be modified at any time by the application file.

# Function Breakdown

## Add Content

* This function will allow a user to add a Course Name, Course Number, Assigned Instructor, Course Time, and Course Location to the database file.
* The function will take in the elements mentioned above as input and the output will be the values the user requested for those elements to be added to the database file.

## Delete Content

* This function will allow a user to delete a Course Name, Course Number, Assigned Instructor, Course Time, and Course Location from the database file.
* The function will take in the elements mentioned above as input and the output will be the values the user requested for those elements to be deleted from the database file.

## Modify Content

* This function will allow a user to modify a Course Name, Course Number, Assigned Instructor, Course Time, or Course Location that are in the database file.
* The function will take in the elements mentioned above as input and the output will be the values the user changed to update the database file with the new values.

## Display Summary

* This function will display what’s contained in the database file.
* The function will take in the database file as input and the output will be whatever is in that file at the time it’s requested.

# Program Variables

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Scope** | **Initial Value** | **Purpose** |
| Course Name | Global | Empty String | So a course name can be inputted for adding, deleting, or modifying |
| Course Number | Global | 0 | So a course number can be inputted for adding, deleting, or modifying |
| Assigned Instructor | Global | Empty String | So an assigned instructor can be inputted for adding, deleting, or modifying |
| Course Time | Global | Empty String | So a course time can be inputted for adding, deleting, or modifying |
| Course Location | Global | Empty String | So a course location can be inputted for adding, deleting, or modifying |

# Pseudo Code

## Application File

* Include code to allow the application to access or call the functions in the function definition file
* The application will have a GUI interface with input boxes and buttons
* Course Name, Course Number, Assigned Instructor, Course Time, and Course Location will be created as variables with the proper initialized values
* Input boxes will be created for the Course Name, Course Number, and Assigned Instructor in one row with the Course Time and Course Location being created in a row underneath the first one.

The buttons will be created with some space under the input boxes in one row for adding, deleting, modifying, or summarizing

* An add button will be created that will call the Add Content Function when clicked upon
* A delete button will be created that will call the Delete Content Function when clicked upon
* A modify button will be created that will call the Modify Content Function when clicked upon
* A Summary button will be created that will call the Display Summary Content Function when clicked upon

This concludes the functionality of the application file

## Function Definition File

Include Code to allow the functions to modify the database file

### Add Content Function

* Read in values of Course Name, Course Number, Assigned Instructor, Course Time, and Course Location
* Call the database file
* Check to see if values already exist and display a pop up message if they already exist
* Write values to database file in a table format
* Display a pop up message that the values were added successfully
* Clear values from input boxes after confirming

### Display Summary Function

* Call the database file
* Make an internal copy of the contents of the database file
* Paste the content into a new window in a table format with the variable names as column names

### Delete Content Function

* Read in values of Course Name, Course Number, Assigned Instructor, Course Time, and Course Location
* Call the database file
* Check to see if content is already deleted and display a pop up message if they are
* Remove the values from the database file
* Display pop up message that the values were deleted successfully
* Clear the values from the input boxes after confirming

### Modify Content Function

* Read in values of Course Name, Course Number, Assigned Instructor, Course Time, and Course Location
* Call the database file
* Check to see if the values exist and display a pop up message if the values are not there
* Have a new window pop up that prompts the user for the new values to be modified
* New Values entered will overwrite the old values in the database file
* Display a pop up message that values were changed successfully
* Clear the values from the input boxes after confirming

End of Function Definition File

# Database File

* Values of Course Name, Course Number, Assigned Instructor, Course Time, and Course Location will be stored here
* The variables will be sequence in a column by row format much like that of a table with even spacing between each value
* It will be formatted in such a way that it can be changed depending upon the request of the application file calling the function definition file

# References

Bettle, H. (2011). CPTN230 Assignment 6 Description. 2.