✓ Done

Opened: Friday, 6 October 2023, 12:00 AM
Due: Monday, 16 October 2023, 12:00 AM

L1 Activities

Problem 1:

Write a program that would accept the following parameters from the user. Aim is to use functions, strings, pass by reference.
- City -> String of size not exceeding 20 characters
- Temperature -> Double value
- Humidity -> Interger value

Approach
Implement 3 functions
- main, define 3 varibles named city, temperature and humidity
- scan_info that should accept all 3 varaibles and scan from the user
- print_info that should print the values of all the 3 variables

Problem 2:

Adapt activity 1 to store all the parameters (city, temperature and humidity) stored as single object (structure) for a given city. Aim is to use functions, strings, pass by reference, structures
Approach
Implement 3 functions
- main, define 1 object named city_info which has 3 members named city, temperature and humidity
  #NAME?
- print_info that should print the values of all the 3 members of the object.

Problem 3:

Adapt activity 3 to store information of N cities. Aim is to use functions, strings, pass by reference, array of structures
Approach
Implement 3 functions
- main, define an array of N object (structures) named city_info where every element has 3 members named city, temperature and humidity
  #NAME?
- print_info that should print the values of all the 3 members of every object.

Problem 4:

Assume you have activity 3 implementation, adapt it to add a feature of search a city name for the list. Aim is to use functions, strings, pass by reference, array of structures, parsing ? c
Assume you have, we have 4 entries
city_info[0] = {"Bangalore", 30.60, 50}
city_info[1] = {"Mysore", 31.50, 40}
city_info[2] = {"Vadodara", 40.50, 60}
city_info[3] = {"Chennai", 45.50, 42}

If the search input is "Hyderabad", it should print
Information not available

If the search input is "Mysore", it should print
City : Mysore
Temperature: 31.50
Humidity : 40

Problem 5:

Adapt activity 4 to add a feature of delete a city name for the list. Aim is to use parsing logic, drawback of static memory allocation, the need of linked list
Assume you have, we have 4 entries
city_info[0] = {"Bangalore", 30.60, 50}
city_info[1] = {"Mysore", 31.50, 40}
city_info[2] = {"Vadodara", 40.50, 60}

city_info[3] = {"Chennai", 45.50, 42}

If the input is "Hyderabad", it should print
Information not available

If the input is "Mysore", it should print
city_info[0] = {"Bangalore", 30.60, 50}
city_info[1] = {"Vadodara", 40.50, 60}
city_info[2] = {"Chennai", 45.50, 42}

Observe the index position

Added Functionalities: Your Task

a. Find average temperature & Humidity of all records
b. Find max & min humidity of all records
c. Find Max & min temperature of all records
d. Count no.of records whose temperature is within certain range
e. Append new record to list
f. Find record with longest city name
g. Sort records by city name

Added Functionalities: Till now let's assume that only one record per city exists in the data Now let's extend the problem that, multiple records per city can exists, on different dates

a. Add additional member date in "dd/mm/yyyy" format to capture for which date record belongs to
b. Find average, minimum and maximum temperature of a particular city (among multiple records on diff dates)
c. On how many days temperature is within certain range for particular city
d. Replace date as another structure (dd,mm,yy fields) instead of string format used earlier

L2 Activities

Problem: Employee Record System in C using File Handling

Employee Record System is built to handle the primary functions of an organization. ERS helps organizations keep track of all th used to manage the organization using a computerized system. This is built to handle the records of employees of any organiza track of all the employees' records in a file.

Aim of the Employee's Record System: The user will be provided with 5 options:

1. Add a new record.
2. Delete a record.
3. Modify a record.
4. View all the records.
5. Exit.

Data of the Employees:

Name.
Age.
Salary.
Employee ID.

Approach:

1. All the functions will be provided under switch cases. The idea is to use the concepts of File Handling to write the data in a tex We need to add a data.txt file in the same folder as well.
2. The opening frame consists of the name of the application and the developer: It is created using some printf statements and a The system() function is a part of the C/C++ standard library. It is used to pass the commands that can be executed in the comm the operating system and finally returns the command after it has been completed.
3. system("Color 3F") will change the color of the console i.e. background (3) and the text on the console i.e. foreground (F).
4. system("pause") will pause the screen, so the user will get a message: Press any key to continue
. . .
5. gotoxy() function: It will help to set the coordinates of the displayed data.
6. Switch Case: The required function under the switch cases will be executed as per the input of the user. Simple file handling co file, writing in a file, and reading the file, etc. are used to develop the code.

Edit submission | Remove submission

Submission status

Submission status	Submitted for grading
Grading status	Not graded
Time remaining	Assignment was submitted 6 days 22 hours early
Last modified	Monday, 9 October 2023, 1:14 AM
File submissions	+ 6 files
Submission comments	▸ Comments (0)