North South University

Department of Electrical and Computer Engineering

CSE 115L: Programming Language I Lab

Week 10 – Assignments

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1. Suppose you were hired for developing software for a new mobile phone company which has only 500 customers. Your task is to implement the followings for them:
    a. Declare a structure called **Customer** to store the necessary data of the customers.
    b. Write a function called **EidBonus** that takes an array of structures as parameter and then prints names, phone numbers, and the Eid bonus of those customers who will get Eid bonus. Customers who talked more than an hour will get 5 Taka bonus for each subsequent hours. For e.g. if someone talked 10 hours, s/he will get 9*5=45 Taka bonus.
    c. Write a function that creates a file named "**customer.txt**" and write the info of all customers in it.
2. Create a structure named **Books** with the following components and appropriate data types: Name, Author, Subject, Id.
    a. Create an Array of Books of size **3** and take the inputs (from console) to fill the array.
    b. Now take the final input from the user via that **input.txt** file to scan / read a book's name. Search the whole array and print the book's information in another **.txt** file named **output.txt** if the name is found. Print "**Not Found**" in that **.txt** file otherwise.
3. Create a structure named **Birds** with the following components and appropriate data types: Name, Kingdom, Phylum, Index.
    a. Create an Array of Birds of size **3** and take the inputs (from console) to fill the array.
    b. Now take the final input from the user via that **input.txt** file to scan / read a bird's name. Search the whole array and print the bird's information in another **.txt** file named **output.txt** if the name is found. Print "**Not Found**" in that **.txt** file otherwise.
4. Create a structure named **Employees** with the following components and appropriate data types: Name, Department, Salary, Id.
    a. Create an Array of Employees of size **5** and take the inputs (from console) to fill the array.
    b. Now take the final input from the user via that **input.txt** file to scan / read a Department Name. Search the whole array and print all the employees' information of that department in another **.txt** file named **output.txt** if any employee is found. Print "**Not Found**" in that **.txt** file otherwise.
5. Create a structure named **Students** with the following components and appropriate data types: Name, Roll, Department.
    a. Create an Array of Students of size **5** and take the inputs (from console) to fill the array.
    b. Now take the final input from the user via that **input.txt** file to scan / read a Department Name. Search the whole array and print all the students' information of that department in another **.txt** file named **output.txt** if any student is found. Print "**Not Found**" in that **.txt** file otherwise.
6. Create a structure named **Banks** with the following components and appropriate data types: Name, address, Money, Phone.
    a. Create an Array of Banks of size **3** and take the inputs (from consol) to fill the array.
    b. Now take the final input from the user via that **input.txt** file to scan / read an amount of money. Search the whole array and print all the Banks' information of those banks which

are greater than the inputted amount of money in another **.txt** file named **output.txt** if any bank is found. Print "**Not Found**" in that **.txt** file otherwise.

7. Create a structure named **Countries** with the following components and appropriate data types: Name, Population, Currency, Capital.
    a. Create an Array of Countries of size **3** and take the inputs (from console) to fill the array.
    b. Now take the final input from the user via that **input.txt** file to scan / read a Population. Search the whole array and print all the countries' information of those countries which have greater than the inputted amount of population in another **.txt** file named **output.txt** if any country is found. Print "**Not Found**" in that **.txt** file otherwise.