C# problems

**Problem#1:** You know that array items are accessed using indexers like

int value = arr[3];

Similarly, I want data to be stored sequentially where I can access a particular data using a unique key. Below is an example where the indexer passed with the collection is the unique phone number of an employee.

Employee emp1 = collection[“9810101010”];

Employee emp8 = collection[“9820202020”];

There could be N number of employees in the collection. Write a C# program to implement this requirement.

**Problem#2:** I need a console application where user will chose the time zone from (IST, EST, PT, CST). Then enter a 24 hour format time like 14:30. Then chose the target time zone similar to above 4 codes. And convert the time entered into the target time zone and display. Ensure source and target time zone are not same.

Problem#3: In a console application, enter any input sentence from the user and validate if it is a valid email id or not.

**Problem#4:** In a console application, enter a phone number and validate if the format is

(xxx)-xxx-xxxx

**Problem#5:** In a console application, generate 100 mock employee data {Id, Name, Phone, Department} into a List of Employee. Then write a logic to find all the employees whose department is Finance.

**Problem#6:** I have 2 arrays of people {id, Name, state, language}. One array is of people from Bihar and another array is people from Assam. Find all the people who speak ‘Hindi’ from both the array and combined into one array.

Problem#7: For all the employees from the array of problem#6, print all of them in a format as below

ID NAME STATE LANGUAGE

1 Ram Assam Assamese

2 Shyam Bihar Hindi

\*\* Make sure each column should exactly fit into 15 characters. If more than 15 characters, then truncate, else pad with spaces.