**Availity’s Fullstack Homework Assignment**

We highly recommend that you use one of the free source code management platforms (GitHub, GitLab or BitBucket) when storing your code. Once you are ready for us to look at your answers, send us the link to your code. If you have any questions about the homework, please do not hesitate to ask.

**Note**: If you have experience writing unit tests, please incorporate unit tests into the coding exercises below.

1. Tell me about your proudest professional achievement. It can be a personal or school project.

* I hosted my first software project “Online Quiz“ on inter college competition
* When I was able to deliver a product ( touch screen based app with MICR reader, coin reader, bill reader) by single handed on start of my career on 2002 and appreciated by the Employer and Client Management team.
* I handled a million-dollar project and successfully launched first time in USA.
* In certain projects when application integration was challenged to many vendors, I was able to accomplish it.
* Handled 6 million data center migration project for CVS , covered and managed all areas of the data center and moved to new modern platform successfully.

1. Tell me a about a book, blog, article or GitHub repo you read or liked recently, and why you like it and why you should recommend I do the same.

* I use Pluralsight.com and Edureka.co websites for learning new technologies. Because they have video blog and tutorials for all the latest technologies.
* StackOverflow.com helps for various coding issues.
* Microservice.io helps for understanding and advanced topic on microservice.
* Sometimes GeeksforGeeks.org for coding hacks and YouTube tutorials as well.

1. If you were to describe to a 7-year old what Availity does, what would you say?

* Dear, you know who is a doctor but there is another name for doctor called provider. If you get sick and get medical treatment from a doctor, a company will pay treatment cost is called payer. But ideally, we pay some amount through insurance policy. Now you know who is provider and payer correct.
* If the provider and payer want to communicate/talk to each other for your treatment & cost, they need a software system. To help these 2 people a company provide software systems to do this work, their name is Availity. Now you know who is Availity. Right?
* To be simple, if you need food you go to mom and ask, mom gets money from dad to get essentials but the essential is supplied by a merchant. Here mom is provider, dad is a payer and the merchant are Availity. Did you get it now?

[If the kid still did not understand then I will draw a picture and explain to the kid]

1. Coding exercise (using C#): You are tasked to write a checker that validates the parentheses of a LISP code. Write a program which takes in a string as an input and returns true if all the parentheses in the string are properly closed and nested.

Uploaded source code to:

<https://github.com/kskannan-cmr/Availity-Exercises/tree/master/Exercise-4>

1. Coding exercise (using Angular or a Javascript framework of your choice): Healthcare providers request to be part of the Availity system. Create a registration user interface so healthcare providers can electronically join Availity. The following data points should be collected:

* First and Last Name
* NPI number
* Business Address
* Telephone Number
* Email address

Uploaded source code to:

<https://github.com/kskannan-cmr/Availity-Exercises/tree/master/Exercise-5>

1. Coding exercise (using C#): Availity receives enrollment files from various benefits management and enrollment solutions (I.e. HR platforms, payroll platforms).  Most of these files are typically in EDI format.  However, there are some files in CSV format.  For the files in CSV format, write a program that will read the content of the file and separate enrollees by insurance company in its own file. Additionally, sort the contents of each file by last and first name (ascending).  Lastly, if there are duplicate User Ids for the same Insurance Company, then only the record with the highest version should be included. The following data points are included in the file:

* User Id (string)
* First and Last Name (string)
* Version (integer)
* Insurance Company (string)

Uploaded source code to:

<https://github.com/kskannan-cmr/Availity-Exercises/tree/master/Exercise-6>

1. This database diagram is to be used for the questions that follow: 
   1. Write a SQL query that will produce a reverse-sorted list (alphabetically by name) of customers (first and last names) whose last name begins with the letter ‘S.’

Select \* from Customer where LastName like 'S%' order by LastName desc, FirstName desc;

* 1. Write a SQL query that will show the total value of all orders each customer has placed in the past six months. Any customer without any orders should show a $0 value.

Select c.CustID, Sum(ifnull(l.Cost,0)) Total from customer c left outer join [order] o on c.CustID = o.CustomerID left outer join orderline l on o.OrderID = l.OrdID Where o.OrderDate >= DATEADD(MONTH, -6, GETDATE()) Group by c.CustID;

* 1. Amend the query from the previous question to only show those customers who have a total order value of more than $100 and less than $500 in the past six months.

Select c.CustID, Sum(ifnull(l.Cost,0)) Total from customer c left outer join [order] o on c.CustID = o.CustomerID left outer join orderline l on o.OrderID = l.OrdID Where o.OrderDate >= DATEADD(MONTH, -6, GETDATE()) Group by c.CustID having Sum(ifnull(l.Cost,0)) > 100 and Sum(ifnull(l.Cost,0)) < 500;

Again, please let us know if you have any questions. Thanks!

-Availity Team