

CBM Integrated Software Inc.

www.cbmis.com

PWA Full Stack Training (Build one app for any device)

Task 1:

MySQL Database, Server-Application & Client-Application

Artifact 1 Duration: 7 Days

Artifact 2 Duration: 3 Days

Task Description:

In this task you will learn the difference between client & server machines. You will also learn how to use various scripting languages and technology to build database server, server application, and client application.

1- To build the **Database** you can use Mysql Workbench. Your database should be called "cbmisdb" and it should contain a "tblUser" table. The "tblUser" table should contain the following fields:

- intUserID (integer-primary key- auto increment)
- strName (string)
- dtmDOB (date)
- strEmail (string)
- strPassword (string)
- blnIsActive (Boolean – default value "true")

2- To build the **Server Application**, use visual studio code, Node.js, and express.js. Your server should run on port 4000. Your server should also handle a Get and a Post request to receive the following from the client application (strName, strProfileImgName, dtmDOB, strEmail, strPassword), and it should response to the client with the following message:

Thank you for your request. The serverApp received the following information and soon will be able to save this data into the database:

strName: Mike Smith
dtmDOB: 02/02/2000
strEmail: Mike@gmail.com
strPassword: Password1

To test your server application, use any client agent (Postman for instance) to send you the above information.

- 3- To build the **Client Application**, you should use visual studio code, React.js, JSX, & CSS3

Task Deliverables:

- 1- Create a zip folder that contains all your apps & source codes. Upload the folder to google drive and submit your google drive link of that folder.
- 2- Using (www.screencast-o-matic.com) record a video presentation explaining your codes and challenging you faces while working on this task.

Task Learning Outcome:

Upon successful completion of this task, you will be able to:

- 1- Describe the difference between client & server
- 2- Understand the different between Server, Web Server, & Server Application
- 3- Explain what database server & Web server are and list few famous (database & web) servers
- 4- Create database and maintain table and fields to save users information
- 5- Develop server application using Visual Studio code, Node.js, and Express.js
- 6- Build client application using Visual Studio Code, React.js, HTML5, and CSS3

Recommended Recourses:

- 1- Visual Studio Code - <https://www.youtube.com/watch?v=S32ON3sxnE>
- 2- Screencast-O-Matic - <https://www.youtube.com/watch?v=s1jIPo1bWCo>
- 3- MySQL Workbench - <https://www.youtube.com/watch?v=chezeWdTHbo>
- 4- Express.js - <https://www.youtube.com/watch?v=JlgKybraoy4>
- 5- Learn React JS - Free 4-Hour Course - <https://scrimba.com/learn/learnreact>

Team,

Coding is not generally instinctive so everyone will need to allow themselves enough time to experiment with the code to figure out how to get it to compile and run. You may think of it just like trying to learn a new language and it can be hard for the first-time to understand everything in couple days. You don't have to limit yourself to the resources I shared with you. You are always encouraged to employ your research skills to find new resources and to retrieve robust information.

Regards,
Dr. Amjad

