**Fun with ES6 Assignment**

Problem 1:

Convert the following two functions written in simple Javascript to ES6. Try and use as many features of ES6 as you can.

Solution:

We have created a file named Login.js where we have created an array of objects containing information of all users – name, email, password and mobileNumber. Next, we have prompted the user to enter email and password.

Using the features of ES6, we convert the function written in simple Javascript to arrow function. We use the let keyword instead of var keyword to define the variables. We replace the for-in loop with for-of loop which iterates through the array of allUsers and checks if the correct user has logged in.

Then we define a file named ‘Login.html’ and inside the HTML <script> tag, the ‘src’ attribute points to the external Javascript file – ‘Login.js’.

The second file is bubbleSort.js and the bubble\_Sort function is converted to arrow function with default parameters. Next, the keyword ‘var’ is replaced by the ‘let’ keyword in variable declaration and definition inside the function. Outside the function, we define 2 arrays and sort them into one combined array using SPREAD parameters functionality of ES6 and display them using template literals. We call the function 2 times – one with 2 arrays passes as parameters and the other without any parameters. The arrays are sorted in descending order.

Then we define a file named ‘bubbleSort.html’ and inside the HTML <script> tag, the ‘src’ attribute points to the external Javascript file – ‘bubbleSort.js’.

Problem 2:

Given a JSON dataset of a popular TV show called Big Bang Theory, include the dataset in a JS file as a variable and write the following functions (using ES6 features):

1. Write a function that takes Season number and episode number as input and gives all the information about that particular episode as output.
2. Write a function that can take any number of episode ids as input and returns all the information about those episodes.
3. Write a function to search episode by its name.

Solution:

1. Firstly, we take a variable named ‘bigBangTheoryInfo’ and assign the JSON dataset to this variable using the ‘let’ keyword. Next, we prompt the user to enter the ‘season\_number’ and ‘episode\_number’.

Then, we define an arrow function displayEpisodeInfo() with 3 parameters - season\_number,episode\_number, bigBangTheoryInfo. We take a for-of loop which iterates through each episode in the episodes array and within that it checks whether the inputs of season\_number and episode\_number matches or not. If it matches, it displays the episode details and if it does not match, it gives an error message. We save this file as ‘BigBangTheory1.js’.

Then we define a file named ‘BigBangTheory1.html’ and inside the HTML <script> tag, the ‘src’ attribute points to the external Javascript file – ‘BigBangTheory1.js’.

1. We name a file as ‘BigBangTheory2.js’ and we take a variable named ‘bigBangTheoryInfo’ and assign the JSON dataset to this variable. Next, we prompt the user to enter the episode ids as comma separated values (CSV). The arrow function episodeDetails() takes 2 parameters – bigBangTheoryInfo and REST parameters of episodeIdsList. A for of loop iterates over each existing episode in the episodes array, inside which there is another for of loop used to iterate over each ID in array entered by user. In the inner for of loop, an if condition is applied to check whether episode ID in the current episode matches with the ID in the array entered by user. If this condition is satisfied, then the entire current episode details are displayed as output for all the entered episode IDs. A variable “list” is declared and assigned value false which turns true if the condition is satisfied otherwise it remains false and displays error message.

Then we define a file named ‘BigBangTheory2.html’ and inside the HTML <script> tag, the ‘src’ attribute points to the external Javascript file – ‘BigBangTheory2.js’.

1. Firstly, we take a variable named ‘bigBangTheoryInfo’ and assign the JSON dataset to this variable using the ‘let’ keyword. Next, we prompt the user to enter the episode name. We define an arrow function that takes 2 parameters – bigBangTheoryInfo and nameOfEpisode. A for of loop iterates over each existing episode in the episodes array and checks whether the input matches with the episode name. If it matches, the function displays the episode details otherwise it displays an error message.

Then we define a file named ‘BigBangTheory3.html’ and inside the HTML <script> tag, the ‘src’ attribute points to the external Javascript file – ‘BigBangTheory3.js’.