1. Create your own object that contains a list of numerical sequence, with the following details

• Your constructor takes 3 parameters to define start, end of list and step

• The list should be private and filled with private method

• You can create getter and setter for the list if needed

• Allow the user to apply the following functionality to his created sequence o Append or prepend a new value (you have to ensure that you are pushing sequential value otherwise through exception) o Dequeue or pop a value, o display all its content,

• all of the properties should be defined using accessor descriptor, prevent them from being deleted, iterated or being modified.

• you can add any property you need.

1. Make a function that takes today’s temperature as a parameter, prints: “HOT” if the entered temperature are more than or equals 30 and “Cold” if it’s less than 30 (use ternary conditional operator).
2. Change the previous function to take 2 parameters: Temperature and Actual feel temperature to have 3 cases:
   1. Prints normal if both of temperature and actualFeel between 25 and 30.
   2. Prints Cold if both of temperature and actualFeel less than 25.
   3. Prints Hot if both of temperature and actualFeel higher than 30.
   4. Prints “Ambiguous, can’t detect”, in any different case.

Can you use ternary conditional operator in previous example? Why?

Can you use switch case in previous example? Why?

1. Make a buttons on a page when user clicks it, ask him to enter math expression (Ex. 3+4\*5/10\*8), and then pass this expression (user input) to a function that take one parameter and execute this expression and then show the result of this expression for the user in an alert in that format: (You entered: 3+4\*5, and the result is: 23).
2. On contact page prompt user to enter his name, make sure that name is string, and let the user enter his birth year and make sure that it is a number, and it is less than 2010, and then calculate his age. For each prompt if user input valid show him next prompt, if not valid show him the same prompt again until user enters it correctly (use loops). And after validating user input, write all user input on the page in that format:

**Name:** ahmed

**Birth year:** 1981

**Age:** 30

1. Try debuggers in the browser and log some debugging messages to the console log.
2. Try lecture example on: Hoisting, let, const.
3. Show prompt that ask user to enter his birth date and tell user to enter the date in the following format (DD – MM – YYYY) ex. 22–01–1999, and then create function that take user input as a parameter and ensure that the string is entered in this format (that user entered string is 10 characters and contains (-) after the second character and after fifth character).[Don't use RegExp, use string functions].
   1. If the user input was correct: make the function create new date object, and initialize it with Day, Month, year values (using date constructor: Date(y,m,d)) and then show alert to the user with the date in date string format.
   2. If user input wasn't correct, show alert saying "Wong Date Format".
   3. Create button “show date” that calls the function.
4. Use Try catch and onError to handle any errors in your page.

10-Make a function that takes date string as a parameter, and returns the Day name (Saturday, Sunday,…) of the given date.

11-In assignment Day4 ask the user to enter his mobile number in International format for the Egypt Code (00201xxxxxxxxx) format use regular expression to validate Mobile no. entered by the user, to be 14 numbers (not letters), and starts with: Egypt code (002) and after it (010 or 012 or 011), then the rest of the number (8 digits).

12-In assignment No.2 calculate the user’s Age (In years, Months, days) from his entered birth date and print it to the page (you need to handle the case if for example the entered date is 30-12-2000, and the current date is 1-11-2018, so the days and months of the age shouldn’t appear as negative numbers).

13-Ask the user to enter his birth date, and then choose the color he want to use to display his birthdate with it (Give him choices: (r) red, (b) blue, (g) green) and he enters the letter of color and use associative array to map his entered letter to color (if he entered r, use red color,…etc), and then display this text: "Current Date:" in bold font, and next to it the current date value in local format using the color he choose. (Don’t use HTML tags, and don't use if condition or switch to check the color).

14-In previous assignment No, make the function if user entered date format is correct initialize the date object with this date and make the function return the date object, and if it isn’t in correct format throw an exception, and use another function to call the previous function and handle this exception using (Try Catch), and show alert that shows description for the error if the date entered by user isn’t valid.

15-Try to handle the previous exception using onError Event.

1. Make function that write “welcome to my page” 6 times using h1 to h6 header sizes using one line (document.write) javascript code “see attached image” . (Use for loop, and don’t use h1 to h6 explicitly).

16-Write the previous output (Q.4) on a table and create the table on runtime, like this:

|  |  |
| --- | --- |
| **Name** | Ahmed |
| **Birth year** | 1981 |
| **Age** | 30 |

17-Work on the mentioned self-study topics on the lecture slides:

* 1. What’s XSS (cross-site scripting)?
  2. What are new features in ES6, with demo?
  3. What’s TypeScript? And what are its new features?

16-Design a list of skills like the following, and when click (X) of each one it should closed.

