LAB 6

Objective: Students will practice

- JavaScript syntax
  - dynamic types – string, number, boolean, array, and object
  - JavaScript String and Math methods

Lab instruction

- The LAB06 instruction and lab resources are posted on MS Teams channel LAB06 – JavaScript of subject 953262 (your section).
- Download the zipped file of resources-lab06.
- There are 5 assignments according to the LAB06 sheet posted on the channel.
- The LAB06 is worth 21 points in total.
- Score criteria: full point (for correct output); -1 (for incorrect output); -1 (for not following problem constraints)
- **Assignment Submission:**
  - Upload your solutions to MS Team assignments. The submission later than the 'due date' will get 50% off your score. At the 'close date', you cannot submit your assignment to the system.
  - Post your 'Name and Student ID' on the MS Teams channel 'LAB06 – JavaScript. You should also be prompt for TA calling to verify your work on your computer.

Problems

1 What is your name? (3 pts)

1.1 Open **whatIsYourName.html**.

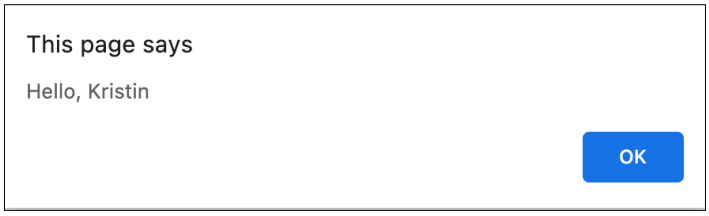
1.2 Make the document's title **"What is your name?"**

1.3 Add the JS code in the <script> tag that acts the following:

1.3.1 Create a var that stores the name that the user can enter via prompt. E.g.,

1.3.2 Then, capitalize the first letter of their input name.

1.3.3 Use the capitalized version of their name to greet them using an alert. E.g.,



1.3.4 Relevant JS methods: ***prompt(), alert(), slice(), toUpperCase()***

1.4 Save the file as **Q1.html** and submit it to MS Teams.

2 Who pays? (3 pts)

2.1 Open **whoPays.html**.

2.2 Make the document's title **"Who pays?"**

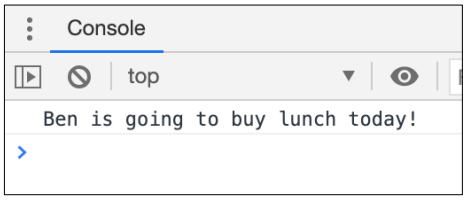
2.3 Write a JS code to complete the function whoPays() in the <script> tag that acts the following:

2.3.1 Store a list of names as the following ["Angela","Ben","Jenney","Micheal","Oleo"]

2.3.2 Use a JS math method to random one name from the list.

2.3.3 The function returns one name to buy lunch for everyone.

2.4 Write console.log to call the function. The output at the JS console is the following.



2.5 Relevant JS methods**: *Math.floor(), Math.random()***

2.6 Save the file as **Q2.html** and submit it to MS Teams.

3 Bean Counting (5 pts)

3.1 Open **beanCount.html**.

3.2 Make the document's title **"Bean Counting".**

3.3 Add the JS code in the <script> tag that acts the following:

3.3.1 Write a global function countBs that takes a string as its only argument and returns a number that indicates how many uppercase "B" characters are in the string.

3.3.2 Next, write a global function called countChar that behaves like countBs, except it takes a second argument that indicates the character that is to be counted. Rewrite countBs to make use of this new function.

3.3.3 Example outputs:

```
console.log(countBs("BBC"));     // → 2
console.log(countChar("kakkerlak", "k"));    // → 4
```

3.4 Save the file as **Q3.html** and submit it to MS Teams.

4 Life in weeks (5 pts)

4.1 Open **lifeInWeeks.html**.

4.2 Make the document's title **"Life in weeks".**

4.3 Add the JS code in the <script> tag that acts the following:

4.3.1 Create a function that tells you how many days, weeks, and months you have left ***if you live until 90 years old.*** In a year, there are 365 days, 52 weeks, and 12 months.

4.3.2 Create **an Object variable** to store the information of days, weeks, and months you have left.

4.3.3 It will take your current age as you enter via prompt. E.g.,

and alert a message with your time left in this format.
"You have x days, y weeks, and z months left."
E.g.,

4.4 Save the file as **Q4.html** and submit it to MS Teams.

5 99 bottle challenge (5 pts)

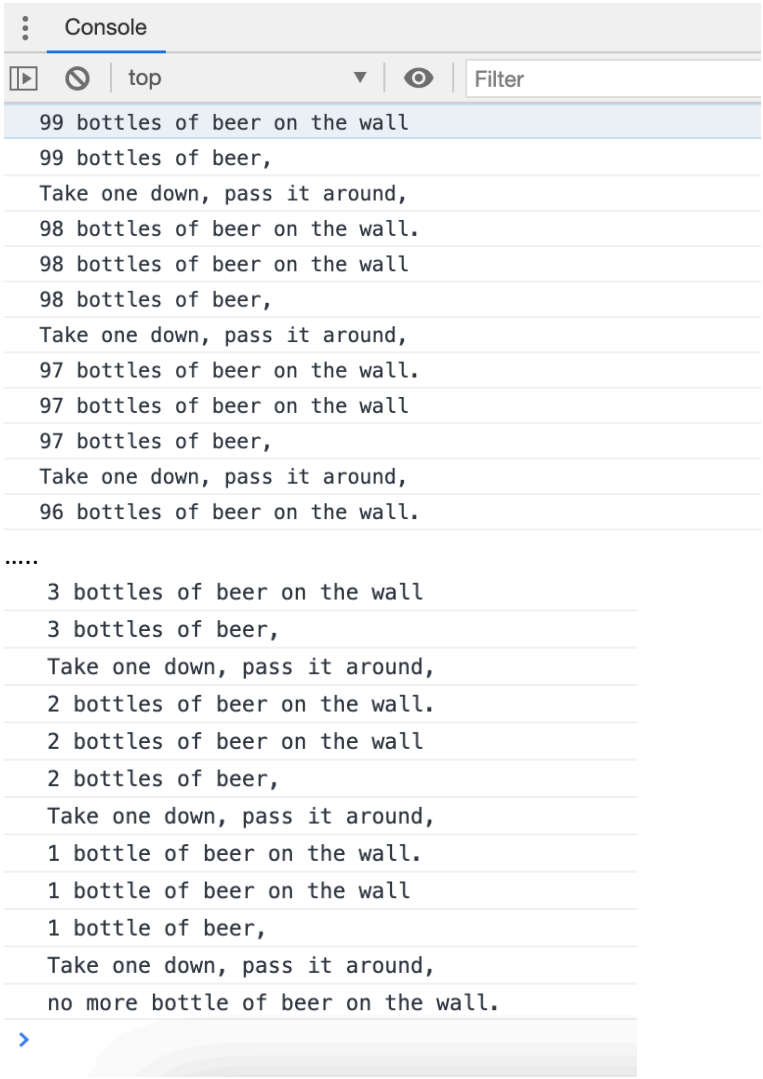
5.1 Open **99BottleChallenge.html**.

5.2 Make the document's title **"99 Bottles Challenge".**

5.3 Add the JS code in the <script> tag that acts the following:

5.3.1 Use a **while loop** to create the lyrics to the 99 bottles of beer song in the JS console. Here are the song and its lyric.

5.3.2 The examples of the output are as follows:



5.3.3 The final output should say "1 bottle of beer on the wall" when the number of bottles is equal to 1 rather than "1 bottles of beer on the wall" and when the number of bottles is equal to 0, you can make the output "No more bottles of beer on the wall" instead of 0 bottles of beer on the wall".

5.4 Save the file as **Q5.html** and submit it to MS Teams.