VIT UNIVERSITY
(Estd. u/s 3 of UGC Act 1956)

Lab Cycle Sheet 2 – Java Script

Course Name: Internet and Web Programming | **Course Code: CSE3002**
Semester: Winter 2020 – 21 | **Max Marks: 10**
Class Number: VL2020210504598/ VL2020210504600 | **Slot: L21+L22 / L55+L56**
Due Date: 16 – Apr – 2021

Common Instructions:

1. Should create only one program for every questions and subdivisions are included in the single program.
2. Recommended editor is basic notepad or notepad++
3. Copy the code after completion of programs and paste it in a word file. Take screen shots of output (which must be clear to see in normal view) and paste it in a word file. Use snipping tool or print screen to take the screen shots. Finally convert the file into pdf and upload it in VTOP.
4. Due date is the maximum time limit only, you can upload before that also. Later submissions not possible.
5. The document must contain your register number and other details of the course.
6. Also the line space of the document is **single line spacing.**

Questions:

1. Write a script to take three numbers from the user and display the greatest number out of three.
2. Complete the following function called count that takes an array of integers and the size of the array, and return the number of items in the array that is greater than 13 and less than 29.
3. Write a program that reads number of miles, cost of a gallon of gas, and car gas consumption (miles per gallon) and then determines the cost of a specific trip. The output should be displayed using document.writeln
4. According to Wikipedia a happy number is defined by the following process : "Starting with any positive integer, replace the number by the sum of the squares of its digits, and repeat the process until the number equals 1 (where it will stay), or it loops endlessly in a cycle which does not include 1. Those numbers for which this process ends in 1 are happy numbers, while those that do not end in 1 are unhappy numbers (or sad numbers).Write a JavaScript program to find and print the first 5 happy numbers.

5. Develop an Online Greetings Designer using Javascript and CSS. Add options to

   i) change the image
   ii) Position the image (left, background, right)
   iii) Edit text
   iv) Change font size
   v) Change font color

6. A parking garage charges a $2.00 minimum fee to park for up to three hours. The garage charges an additional $0.50 per hour for each hour or part thereof in excess of three hours. The maximum charge for any given 24-hour period is $10.00. Assume that no car parks for longer than 24 hours at a time. Write a script that calculates and displays the parking charges for each customer who parked a car in this garage yesterday. You should input from the user the hours parked for each customer. The program should display the charge for the current customer and should calculate and display the running total of yesterday's receipts. The program should use the function calculate-Charges to determine the charge for each customer. Use a text input field to obtain the input from the user.

7. Develop a word decoder challenge game using HTML, CSS and JavaScript. Present the player with a set of scrambled word & hint and challenge him to unscramble them. For each attempt randomly select a word, refresh the browser window dynamically and display the scrambled word in red. Once the player thinks the word has been properly decoded, he clicks on the Check Answer button to see the results. If the answer is correct, the player is notified via a success message displayed in a popup dialog window or displays a failure message.

8. Develop a JavaScript program that will determine whether a department-store customer has exceeded the credit limit on a charge account. For each customer, the following facts are available:

   i) Account number
   ii) Balance at the beginning of the month
   iii) Total of all items charged by this customer this month
   iv) Total of all credits applied to this customer's account this month
   v) Allowed credit limit

The program should input each of these facts from a prompt dialog as an integer, calculate the new balance (= beginning balance + charges – credits), display the new balance and determine whether the new balance exceeds the customer's credit limit. For customers whose credit limit is exceeded, the program should output HTML text that displays the message “Credit limit exceeded.”

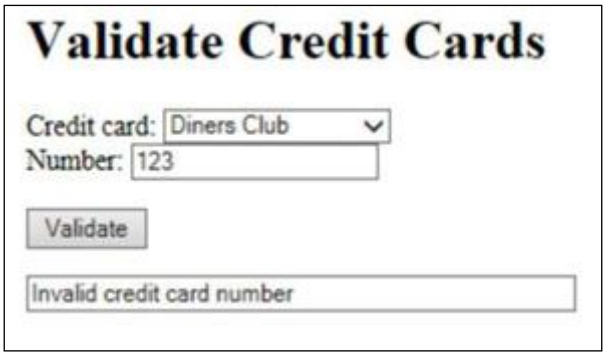
```
Account number: 123
Credit limit: 2500
Beginning balance: 1200
Total Expenditures: 200
Total Credit Payments: 300
New Balance: 1100

Account number: 124
Credit limit: 500
Beginning balance: 300
Total Expenditures: 200
Total Credit Payments: 150
New Balance: 350
```

9. Implement an online quiz application. The timer is set for each question .If timer elapses the next question is automatically displayed .Going back to previous question is disabled and going to next question before time should also be possible. The app should display the results of the user at the end of quiz.

10. Create a script that uses regular expressions to validate credit card numbers. Major credit card numbers must be in the following formats:

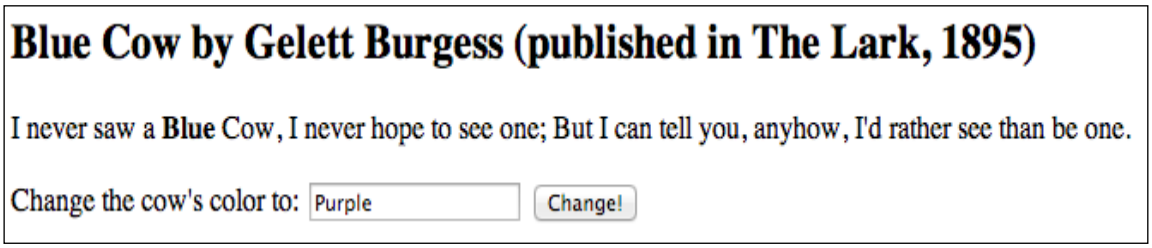
- American Express—Numbers start with 34 or 37 and consist of 15 digits.
- Diners Club—Numbers begin with 300 through 305, or 36 and 38 and consists of 14 digits .
- Discover—Numbers begin with 6011 or 65 and consist of 16 digits.
- JCB—Numbers beginning with 2131 or 1800 consist of 15 digits, while numbers beginning with 35 consist of 16 digits.
- MasterCard—Numbers start with the numbers 51 through 55 and consist of 16 digits.
- Visa—Numbers start with a 4; new cards consist of 16 digits and old cards consist of 13 digits.



11. Design a table in the format given below using HTML and Jquery selectors. Apply different background for odd and even rows of the table. Apply different CSS for table header using jquery selector.

First Name	Last Name	City	State
Mannix	Bolton	Merizo	Michigan
Suki	King	Fairmont	Oklahoma
Shelby	English	Durham	Arkansas
Portia	Burns	Princeton	Rhode Island
Dacey	Young	Covina	South Carolina
Clark	Reyes	Grand Rapids	New Jersey
Maris	Decker	Sierra Madre	Georgia

12. Design the following web page and write the Jquery code to do the following:



The desired behaviour of the above page is when the button is clicked, all occurrences of the word **Blue** should be changed to the text specified in the input field. Example - The input field currently has the world **Purple**.