CP1295
Advanced JavaScript
Final Exam SCOPE (30%) v1

TIME: 3 Hour Test

The quiz consists of

Part (A) 35 multiple choice questions worth 1 mark. Section Total 35 marks

Part (B) 5 Practical problems worth 7 marks each. Section Total 35 Marks

Total marks for final exam: 70 Marks.

Final Exam is worth 30% of term grade.

The test password will be released at the start of the test.

Contents

A. Exam Rollout

(A) On Line Quiz component is the first component of the test. Password for this component will be release at start of Final Exam. Complete the online quiz. When Quiz has been submitted Part B will be available. There are 35 questions.

(B) Practical component of the final exam can be downloaded form Drop Box. There are 5 questions. Each question will have starter code for each of the five parts.

Questions can be set up using Visual Code Studio. All provided code is error free and will work prior to applying the require modification to complete each question's directives.

Each of the required directives (no more than 3 per question) will fall in the following categories:

a. Missing Code Section that is outlined with a red rectangle on the test and with comments in the code section. The number of lines that are required will be indicated on the test and in the code section.

b. Line(s) of Code that needs to be corrected or completed. These line(s) will be identified by a rectangle on the test and with comments in the code. The number of lines that are required to complete the requirements will be indicated with comments in the code and on the test.

Note: Lines of code required to complete the question are based on the answer key. The answer key does not use composite code and will parallel the code used in the lecture notes and instructor's demonstration code.

Procedure for recording your response to the five practical problems.

You will be required to create a word document. Page 1 will contain your Name, Student number and Course Number. "CP1295".

For each question you will allocate 1 page.

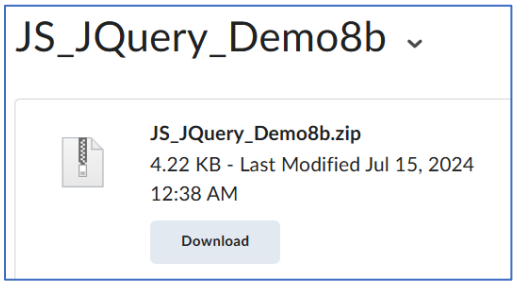
DO NOT use ANY ZIP compression.

Follow the instructions for each question on what information will be required in your Final Exam Word Document.

Once you have completed all requirements for all questions upload your word document to the D2L drop box.

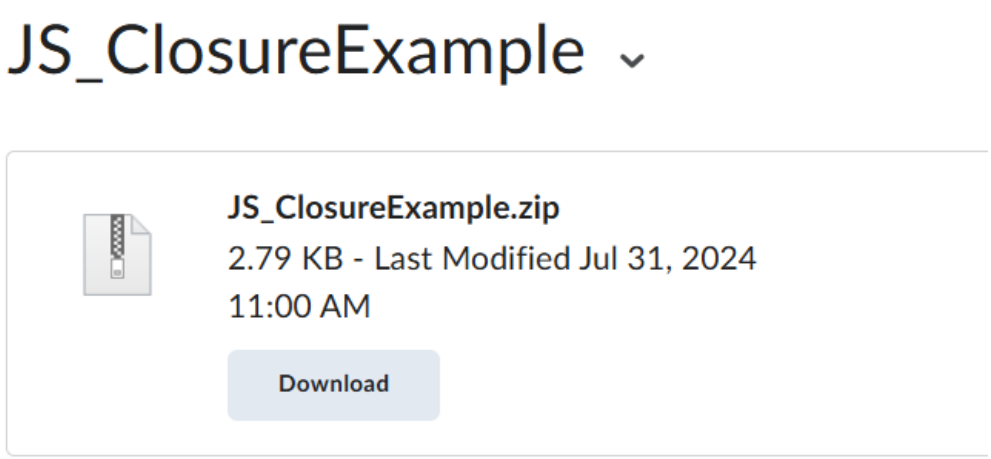
You will complete the questions using Visual Studio. The exercise questions will be submitted to a drop box on D2L.

Prior to the day of the test, ensure that NODE.JS is working on your computer. Use Demo08b to test your system. You can find it under ‘Content’, ‘Class Demo Code’.



Failure to have this working prior to the test will cost you significant time. No time will be added as this should already be working. (Exceptions for problems that are outside of the student’s control)

2 Other important code samples to study.



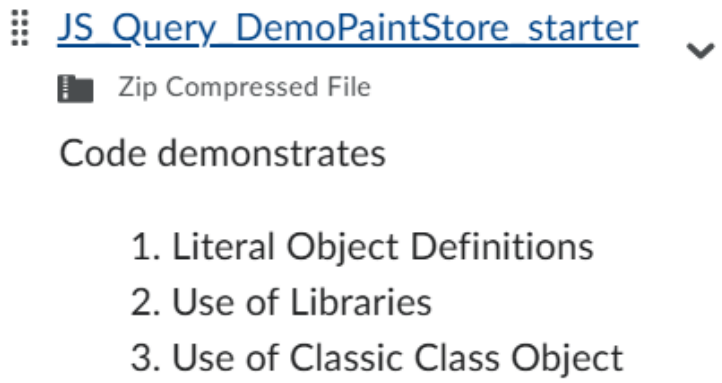
Model was not included in Lecture 14 but is based on this lecture set and was posted separately. It is a fully functional model.

BE SURE TO PRESS "ENCLOSURE" button FIRST when you are running the demo model.

The Enclosure code is required otherwise you will encounter the following errors.

```
Uncaught TypeError TypeError: topSecretVar.getSecret is not a function paintS.js:19
    at <anonymous> (j:\temp\JS_ClosureExample\paintS.js:19:33)
    at dispatch (code.jquery.com/jquery-3.4.1.min.js:2:42571)
    at v.handle (code.jquery.com/jquery-3.4.1.min.js:2:40572)
```

The last key demonstration code is:



Lecture Set L13 shows all the update requirements to achieve the three objectives shown here.

Practice them for the Final Exam.

B. Test Construction and Question Selection

CP1295 FINAL EXAM				
PLAN	35	35	Points	70
	1	7	Value	70
	35	5	Questions	

By CHAPTER	Lecture Support	MC	Prog
4	L03	2	0
5	L04	2	0
6	L05 L06	2	0
8	L06	3	0
9	L07	1	0
10	L07	2	0
12	L08	3	0
13	L09	3	1
14	L10	4	1
15	L11	4	1
16	L12 L13	4	1
17	L14 L15	3	1
19	L51	2	0

MC – Multiple Choice with single selection – No Short Answers.

Prog – Practical Problem Questions.

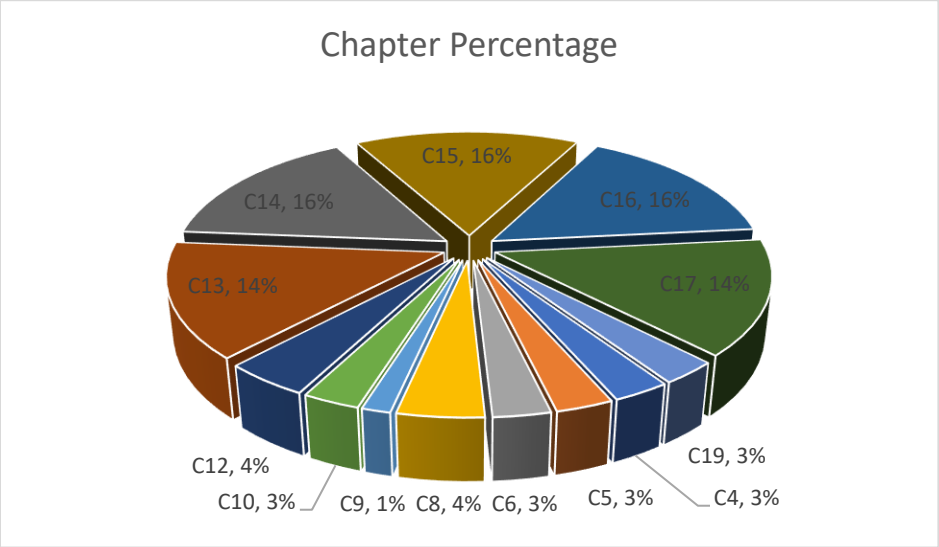
Prog problems are limited to max of three requirements. Requirements can be as simple as 1 line adjustment or up to 5 lines in one identified rectangle area. Number of lines to be added / modified will be indicated. This number is based on solution key that used code consistent with lecture notes and instructor presented demonstration code. Students are not allowed to modify any code that is outside of a red rectangle or marked area. This will void the question.

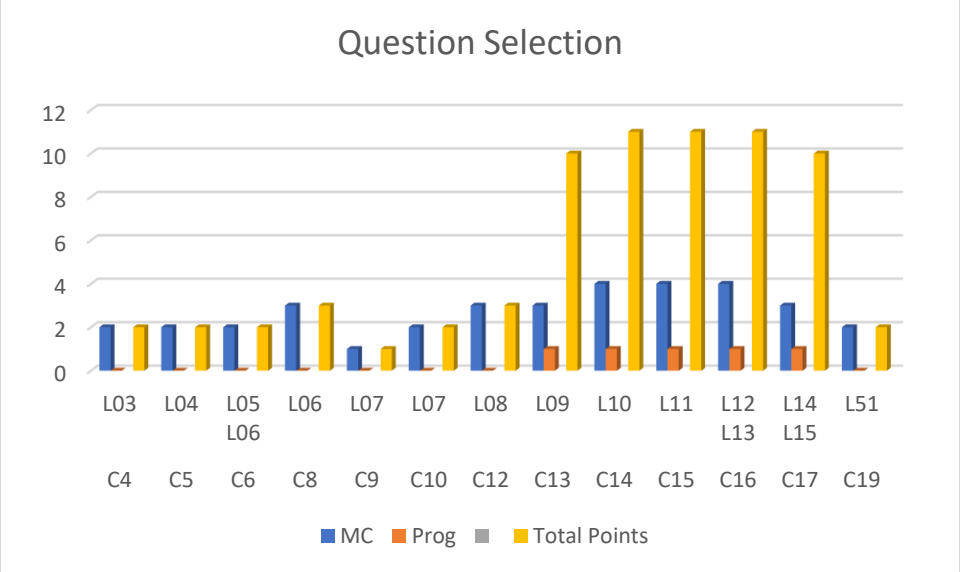
Most questions were (1) Selected from Lecture Notes and had corresponding entries in Text Book.

Questions were validated with Course Outline to ensure that they were within course scope.

Each question is directly or indirectly related to one or more course scope objectives.

C. Test Question Selection Percentages





These charts may help you design a study plan to maximize your study material.

D. Practical Component.

There are 5 Practical Questions. Each one will have up to 3 objectives.

Objectives are:

(a) Fill in the missing code.

(b) Correct the identified code to complete the objective.

No more that 5 lines of contiguous code will be involved in any single objective. Areas of involved will be outlined with a red square on the test sheet and with comments in the code. Any modification to code that is not identified in this manner will void the question that you are working on.

To assist you in your study I am providing you with a draft of each of the 5 practical questions before I generate the solution keys. They are currently only in a design stage.

Starter code will be provided in the Word Document as copy / paste text to be added into your IDE. The CSS will be the same for all questions.

Submission Requirements.

Generate a Word document. (NO ZIP or other compression).

First Page – Your Name, Student Number, Course Number “CP1295”

For each of the practical problems.

Follow directives for each of the required objectives.

Copy the code with labeling instructions that will be provided with each question.

D1. Practical Problem 01

Practical Problem 01

Based on

Lecture 09

Chapter13

Using Forms

Regular Expressions

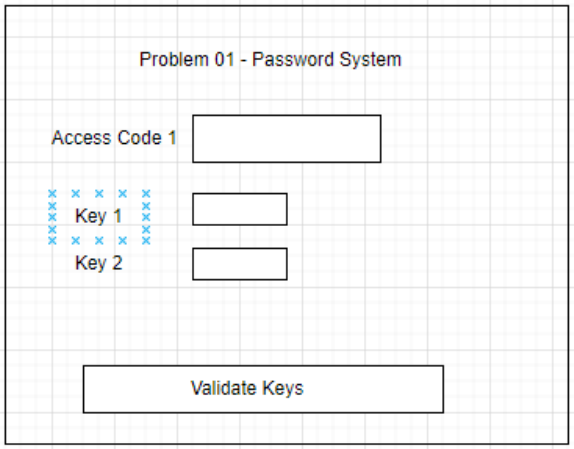
Range Testing

Try / Catch

Problems will be limited to
(1) Range Testing
(2) Regular Expression Testing
All else will be functional

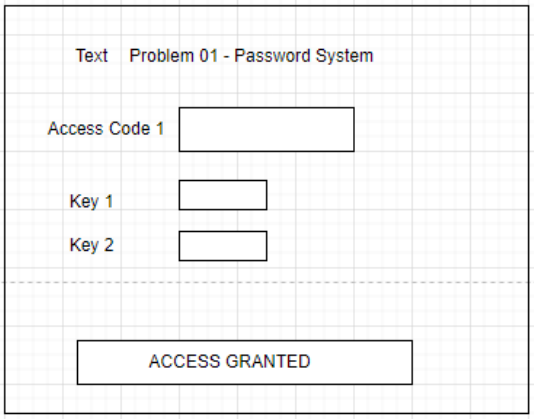
Areas of concern will be indicated
in the code AND in the test instructions

Draft Sketch



Access Code not entered - While
Yellow - Access Code Correct - Keys Invalid
Green - Access Code Correct and Keys are Valid

After Code Secret Code

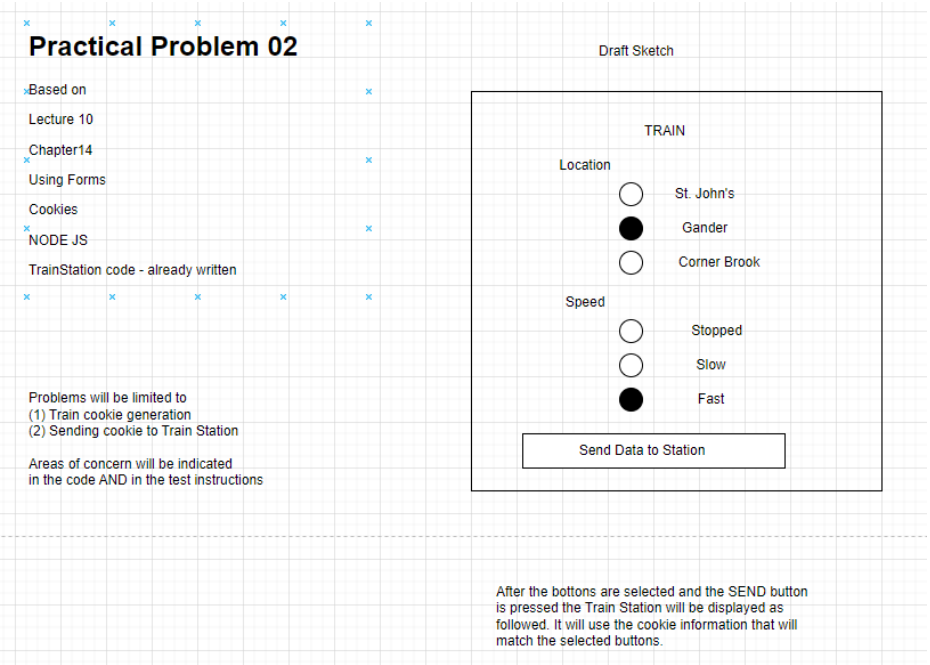


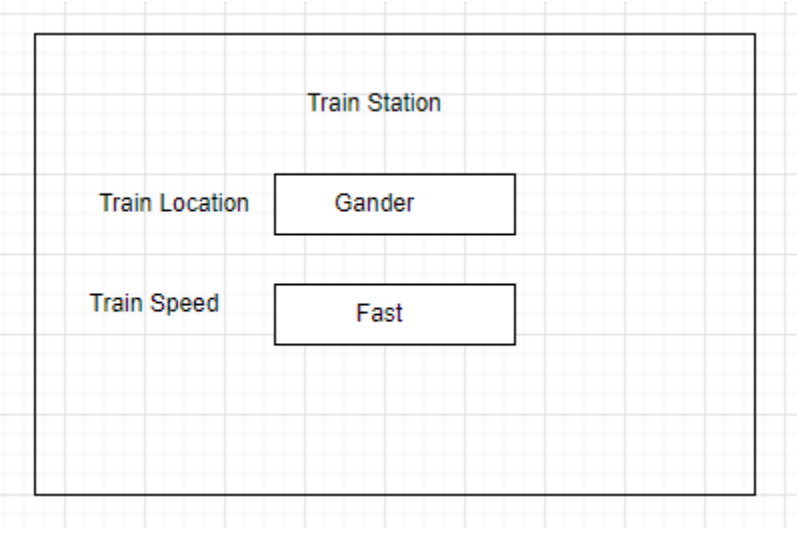
Message Updated and all fields are locked. End of Practical 01

D2. Practical Problem 02

This code will require a working NODE.JS

And knowledge on how to use it correctly.





D2. Practical Problem 03

Practical Problem 03

Based on

Lecture 11

Chapter15

Array map reduce function

All the code except the map reduce function

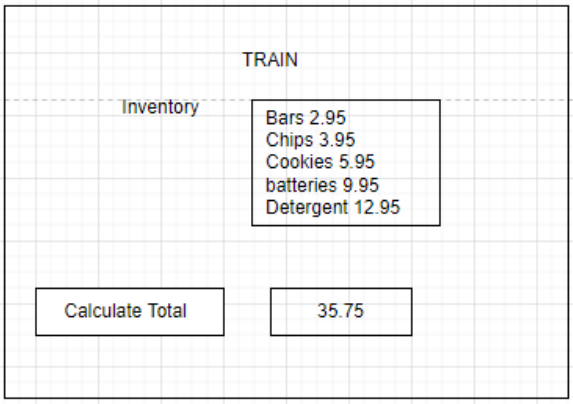
will be created. You will have to fill in the missing code

NO data entry will be required.

Problems will be limited to
(1) generating code to add up the
total of a provided numeric array
using map reduce function

Areas of concern will be indicated
in the code AND in the test instructions

Draft Sketch



D3. Practical Problem 04

Practical Problem 04

Based on

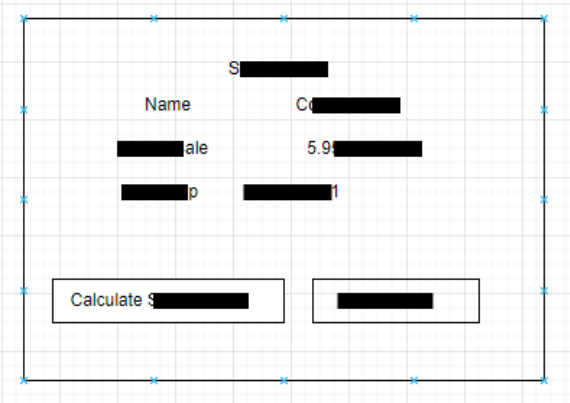
Lecture 12

Chapter16

Use of literal class, or Classic Class will be required.

You will have to fill in the missing code.

NO data entry will be required. It will be hard coded



The problem will be a trivial one to understand. The focus will be on using the required version of generating an Object to solve the objective. In this question there will be the following objectives.

a. comment out the existing variable(s) that are used for the calculations.

b. create (or complete) the code to generate the object

c. modify the message line to use the object

The object will be limited to two variables and one function.

D5. Practical Problem 05

Practical Problem 05

Based on

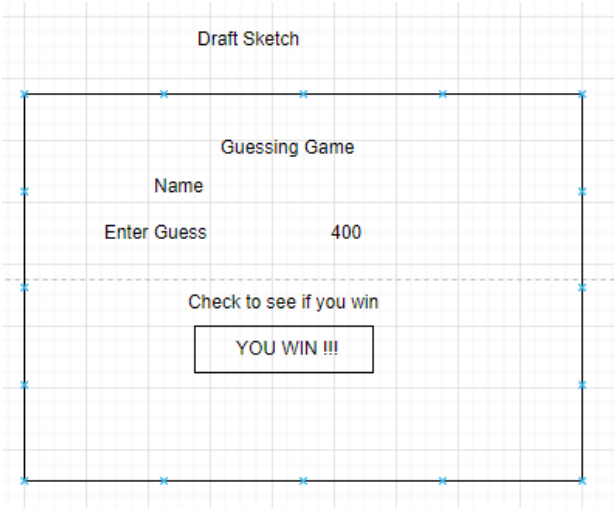
Lecture 14, Lecture 15

Chapter 15

Enclosure Example Provided

- D2L Downloaded Code

JS_ClosureExample



Problems will be limited to
Generating code to
(1) Complete the Enclosure

Objective will be limited to

a. creating the enclosure code

b. connecting to the enclosure code.

E. SCOPE RULES

Inclusions

(1) Code must be based on code demonstrated in this course or its pre-requisite course(s)

Course Text Book

Course Notes

Course Handouts

(2) DOM element selection techniques:

i. document.querySelector(sel)

ii. document.querySelectorAll(sel)

iii. for jQuery $( )

(3) jQuery can be used to add existing elements created by document.createElement

i. but cannot be used to create elements such as “li” and “ul”

(4) All elements have to be created using document.createElement()

Exclusions

(1) Code must follow the following exclusion rule(s)

a. Note: getElementByTag, innerHTML, outerHTML are not permitted in this test.

b. Use of jQuery for element processing is restricted

i. jQuery cannot be used to create elements (directly or indirectly)

Submission Rules

(1) Word Document that contains the following

a. Your name and student number.

b. Shots (if any) as indicated in the instructions for each question.

c. JavaScript must be copied and pasted into Word Document as TEXT. DO NOT USE Screen shots of your java code. This will void the test as the test cannot be graded from screen shots of JavaScript code.

End of Test