<!doctype html>

<html>

<head>

<meta charset="utf-8">

<title>CMPS 260: Module 2 Programming Project</title>

<style>\* { font-family: monospace; }</style>

<script>

// NOTE: You must implement the data structures using the prototype approach.

// This is not what the book uses, so you have to convert it.

// See also: https://it.pointpark.edu/tutorials/no-prototype-vs-prototype/

// NOTE: Please review the following links regularly:

// https://it.pointpark.edu/tutorials/arrays-vs-objects/

// https://it.pointpark.edu/tutorials/no-prototype-vs-prototype/

// https://it.pointpark.edu/tutorials/implementation-vs-interface/

//---------//

// Project //

//---------//

console.log("Project");

// 1. Implement the stack data structure using the prototype.

// 2. It is possible to use a stack to check if the number of parentheses in a

// string is balanced, meaning there are as many opening parentheses as

// closing ones. In addition, we can also make sure that each opening

// parenthesis precedes a closing parenthesis. Implement this algorithm.

// HINT: When encountering '(' push to the stack and when encountering ')'

// pop from the stack.

function isBalanced(str) {

// check the parentheses in str

}

// 3. Write a simple test program that shows your implementation in the

// previous question works.

// 4. Implement the queue data structure using the prototype.

// 5. Create a queue that stores edibles, that can be either fruits or

// vegetables. Use the constructor below to create the edible and store a

// few of each kind in the queue (at least 3 of each).

function Edible(name, isFruit) {

this.name = name;

this.isFruit = isFruit; // if not fruit, it must be a vegetable

this.toString = function() {

return "Edible: " + this.name + " Fruit: " + this.isFruit;

};

}

// ... put your code here ...

// 6. Create two more queues: one for fruits and one for vegetables. For this

// question, only create them (and leave them empty).

// 7. Dequeue all the elements from the edible queue and enqueue them in the

// appropriate queue, either for fruits or vegetables.

// 8. Print the final contents to the console, showing that your code works.

</script>

</head>

<body>

See console!

</body>

</html>