COMP 1073 - Winter 2020

MODULE THREE PROJECT
- AN ADVENTURE WITH OBJECTS

Module Three was all about objects. From object literal syntax to constructor functions, inheritance and prototypes and even some new classy JS, we had quite the journey using this object-based language in an object-oriented way.

Your Task:

Using your knowledge of JavaScript object basics, constructor functions, inheritance and prototypes, create a vacation property booking application (check out airbnb for some inspiration) **with a colleague** (no more than 2 students per group, you may work individually if you prefer) that achieves the following requirements.

Instructions :

1. Create an object template that represents a vacation rental property. Your object template should include the following properties : name, price, rating, location, rooms, availability and features
2. Create a method to display a description of the property and a method that checks availability. Both methods should be able to be inherited (hint hint - use the prototype property).
3. Create an object instance for 2 different vacation rental properties
4. Create an object template for special rate properties that inherits from the property object previously created but includes a type property that is set to special rate (- 20% of the regular price) and a method to calculate and show the reduced rate
5. Instantiate one instance of the special rate property

6. Create an object template for super host properties that inherits from the main property object previously created but sets the type to superhost and includes a method to display the super host rating
7. Instantiate one instance of the super host property
8. Find an interesting way to display the information regarding the six different properties in the browser.
9. Create a screencast in which you review and explain your code and explain one challenge you faced, one success and one way that you would like to improve your application in the future
10. Ensure that all your HTML, CSS, and JS is well-commented, formatted, and organized.
11. Publish your page on a web server (AWS, Github pages or your own web server)

TAKE IT FURTHER:

Use class syntax, add extra functionality… etc!

HELPFUL RESOURCES:

https://developer.mozilla.org/en-US/docs/Learn/JavaScript/Objects/Object-oriented_JS
https://developer.mozilla.org/en-US/docs/Learn/JavaScript/Objects/Object_prototypes
https://developer.mozilla.org/en-US/docs/Learn/JavaScript/Objects/Inheritance

Project Objectives:

- demonstrate an understanding of basic OOJS concepts
- demonstrate an ability to create object templates and instantiate object instances
- demonstrate an ability to apply prototypes and inheritance

Project Assessment:

You will be assessed on the following:

	Missing Something	Getting There	Great Work	Awesomesauce
JavaScript **(5 marks)**	Developer used JS that is not valid, properly structured, formatted and commented. Variables, arrays, functions, loops, and conditional structures that are not valid or appropriate to the functional requirements. (0 - 0.5 marks)	Developer used JS that is somewhat valid, properly structured, formatted and commented. Variables, arrays, functions, loops, and conditional structures are somewhat valid and appropriate to the functional requirements. (1 - 1.5 marks)	Developer used JS that is mostly valid, properly structured, formatted and commented. Variables, arrays, functions, loops, and conditional structures are mostly valid and appropriate to the functional requirements. (2 - 3 marks)	Developer used valid, properly structured, formatted and commented JS. The JavaScript includes properly-built variables, arrays, functions, loops, and conditional structures as appropriate to the functional requirements. (4 - 5 marks)

Functionality (10 marks)	Developer does not successfully use classes or constructor functions to create object templates and is not to instantiate new instances of the object. (0 - 1 mark)	Developer uses classes or constructor functions to create object templates and instantiates new instances of the object with few errors. (2 - 4 marks)	Developer successfully uses classes or constructor functions to create object templates and instantiates new instances of the object with few errors. (5 - 7 marks)	Developer successfully uses classes or constructor functions to create object templates and instantiates new instances of the object with no errors. (8- 10 marks)
Prototypes & Inheritance **(5 marks)**	Developer does not demonstrate understanding of prototypes and inheritance. Concepts are not applied. (0 - 0.5 marks)	Developer demonstrates solid understanding of prototypes and inheritance and applies these concepts with some errors. (1 - 1.5 marks)	Developer demonstrates solid understanding of prototypes and inheritance and applies these concepts with few errors. (2 - 3 marks)	Developer demonstrates excellent understanding of prototypes and inheritance and applies these concepts with no errors. (4 - 5 marks)

Code Review (4 marks)	Developer does not code Challenges, success and future improvements are noted are not discussed. (0 marks)	Developer accurately and effectively reviews code with little detail. Challenges, success and future improvements are noted are somewhat discussed. (2 marks)	Developer accurately and effectively reviews code with some detail. Challenges, success and future improvements are noted are somewhat discussed. (3 marks)	Developer accurately and effectively reviews code. Challenges, success and future improvements are noted. (4 marks)

Project Due Date:

Monday March 16th, 2020 @ 11:59pm

Project Weight:

12% of final grade

Submission Details:

Each group member must submit all all code files as a zipped folder on Blackboard (D2L for Lakehead students) , a valid link to your published page and a link to your screencast video.

!important

Please ensure that any work you submit is your own unique work. Work submitted that is found to be not your own unique will be subjected to a grade of 0 and considered to be academic misconduct.