Assignment 2: JavaScript Objects, Object Oriented Concepts and HTML5 javaScript API (Application programming interface) (25%)

Due:

The purpose of this exercise is to test your knowledge of changing objects using its prototypes and prototypal inheritance. You will be enhancing the Dynamic Task list that you have created in Assignment 1 with custom JavaScript object and extend the functionality of your application by adding methods for tasks and using HTML5 local storage functionality. The user interface will also be enhanced using JavaScript drag and drop, mouse over and css.

Instructions

1) **Creating prototypal inheritance:** In assignment 1, you have created generic custom object for task that had a number of attributes (task name, description etc). For this assignment, you will demonstrate your knowledge of protypal inheritance by creating a top level task object and different types of tasks based on category. For example, you may have a task category of Grocery that will have different attributes than a task category of Education. However, both types of tasks will need to inherit some generic attributes and methods from the parent task object.

2) **Dynamically change the user interface for task creation:** Change the user interface to allow users to choose the category/type of task to be created and dynamically change the data entry from so that only fields relevant to the type of tasks being entered are shown to the user. In addition, when the task is being shown provide visual distinguishing features to different types of tasks being created.

3) **Enhance reordering of task by using HTML5 drag-and-drop:** In assignment 1, you have allowed users to reorder the tasks without drag and drop. For assignment 1, enhance the recording functionally by allowing users to drag and drop tasks and reorder them.

4) **Save information into local storage:** Provide the user to save the tasks and related information to be saved to the HTML5 local storage. Test this by close your browser and going to your page again and ensuring that the information remains in the local storage. Enhance the “Clear tasks” functionality from assignment 1 to clear the local storage.

Requirements

1. Package your HTML and JavaScript code as a zip file and submit on D2L dropbox for assignment 2 .

Evaluation

This assessment is graded out of 20 points and will be evaluated using the following rubric.

Assessments that are not acceptable or not received will receive a grade of zero.

Criteria	Does Not Meet Expectations	Partially Meets Expectations	Meets Expectations	Max Points
Creating prototypal inheritance	Only one task object is created. No separate objects for different categories of tasks are created and no evidence of prototypal inheritance is shown. (1 point)	Parent task object is created and objects for different categories of tasks created but does not fully show prototypal inheritance (4 points)	Parent task object is created and child object (different categories of tasks) inherit from the parent object clearly showing prototypal inheritance (7 points)	7
Dynamically change the user interface for task creation	Only one of the following features are implemented: 1) Task entry interface is dynamically changed based on type of task entered. 2) Task edit interface is dynamically changed based on type of task being edited. 3) Different tasks are visually distinguished when displayed. (0 points)	Only two of the following features are implemented: 4) Task entry interface is dynamically changed based on type of task entered. 5) Task edit interface is dynamically changed based on type of task being edited. 6) Different tasks are visually distinguished when displayed. (4 points)	All three features are implemented 7) Task entry interface is dynamically changed based on type of task entered. 8) Task edit interface is dynamically changed based on type of task being edited. 9) Different tasks are visually distinguished when displayed. (7 points)	7

Criteria	Does Not Meet Expectations	Partially Meets Expectations	Meets Expectations	Max Points
Enhance reordering of task by using HTML5 drag-and-drop	User it not able to reorder the tasks using drag and drop. (0 points)	User is able to reorder the tasks using drag and drop and but order for the tasks are not changed in the array and object (just a visual reordering) (3 points)	User is able to reorder the tasks using drag and drop and the order for the tasks are changed in the array and object (not just a visual reordering) (6 points)	6
Save information into local storage	No task information is saved to the local storage (0 points)	Some (not all) task information is saved to the local storage (3 points)	All task information is fully saved (including task ordering information) in local storage (5 points)	5