

# CS 297

Deliverable 1  
Drag-and-drop in JQuery  
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# JQuery Drag

- Need JQuery UI Draggable plugin (can be downloaded from <http://jqueryui.com/download>. Make sure to choose the Draggable Interactions section).
- Easy to use! To make an element becomes draggable by mouse, just do: `$(element).draggable();`

Example: to make element `#obj` becomes draggable: `$('#obj').draggable();`

- JQuery UI Draggable plugin API is available at <http://docs.jquery.com/UI/API/1.8/Draggable>

# jQuery Drop

- Need jQuery UI Droppable plugin (can be downloaded from <http://jqueryui.com/download>. Make sure to choose the Droppable Interactions section).
- Will make selected elements become droppable. (They accept being dropped on by draggables). We can specify which kind of draggables that is acceptable.
- To make an element becomes droppable: `$(element).droppable( { event-name: callback function(event, ui) { ... } });` event – original browser event, ui – prepared ui object.

Example: `$('#obj').droppable( { drop: function(event, ui) { alert(ui.draggable.attr('id')); } });` - Will make element #obj becomes droppable. Whenever a draggable is dropped on #obj, the browser will alert the draggable id

# JQuery Drop...

- JQuery UI Droppable plugin API is available at <http://docs.jquery.com/UI/API/1.8/Droppable>

# Deliverable 1

- Goal: To create a simple Web application that utilizes JQuery Drag-and-drop capability.
- Specifications: Application should allow user to create objects and to drag the objects across the screen.
- Extra: Application will allow user to drag and drop objects to an droppable element and to delete the objects. (Simple simulation of Recycle bin in Windows OS)
- Application will be developed by using HTML, CSS, JavaScript, and JQuery JavaScript framework.

# Deliverable 1...

## Files

- dragdrop.html – The main html file
- dragdrop.css – The stylesheet file
- dragdrop.js – The JavaScript file
- jquery-1.4.1.js – The core JQuery JavaScript file
- jquery-ui.js – The JQuery UI plugin JavaScript file

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How does it work?

- When user clicks on 'Create new object' button, a simple form will appear on screen. User can specify the color and the inner text of the object. Clicking on the 'Create' button will add a new div element with user's specified color and inner text.
- The application will keep track of the next object id to be used. This object id will be used for the new div id.
- Use `$(element).bind(event type, function(event) { ... });` to associate each button's on-click event with an action.
- `$(document).ready(function() { ... });` => Will invoke this function whenever the document is ready to be manipulated.

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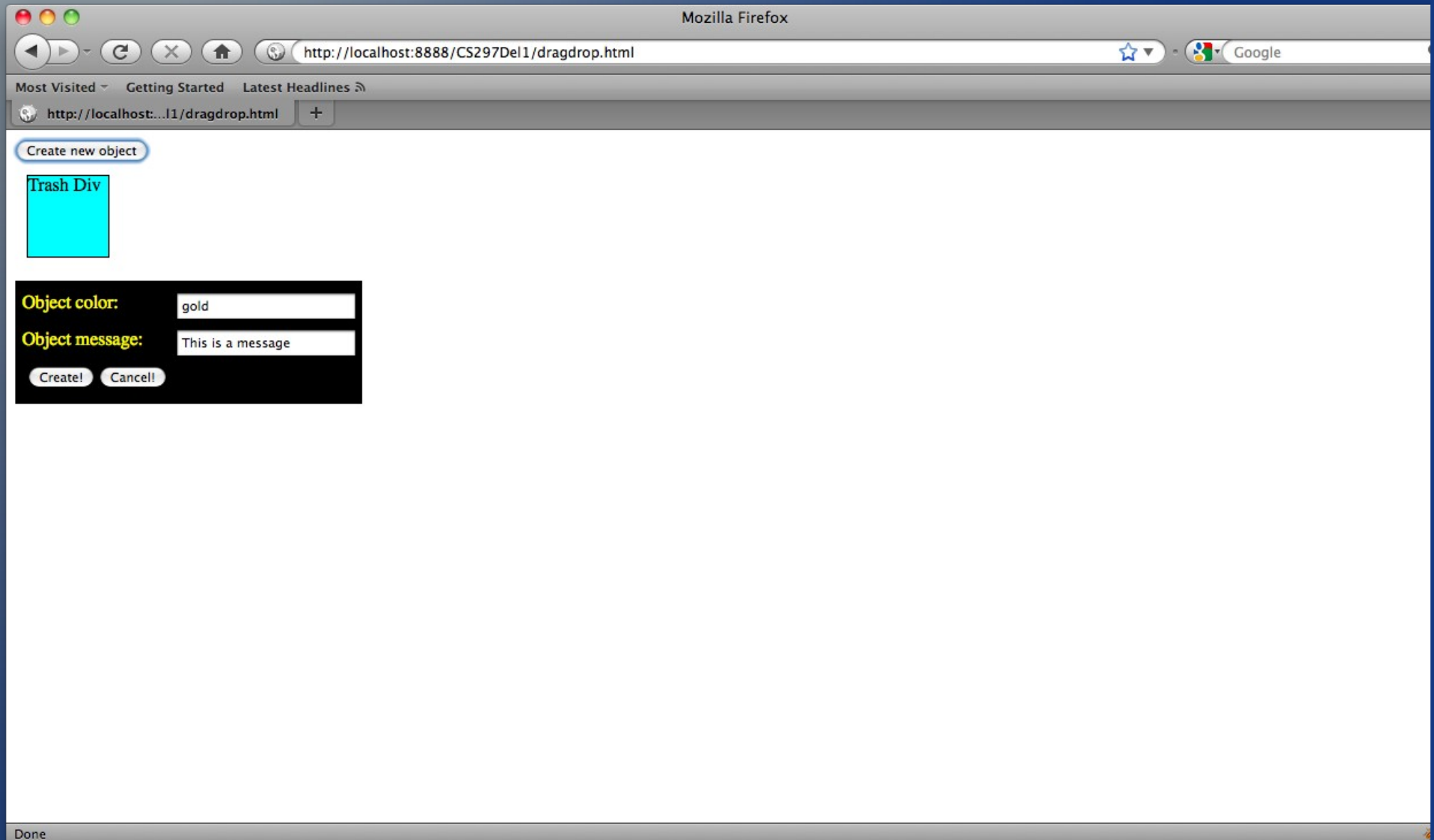
- function add\_new\_obj(obj\_color, obj\_msg)

This function will add the new object to the div  
#draggable\_area

- \$('#draggable\_area').append(new\_obj\_div);
- Once the new object is added, we make the object  
draggable within the HTML document
- \$('#'+new\_obj\_id).draggable({ containment:  
'document' });
- }



# Screenshot 1



# Deliverable 1...

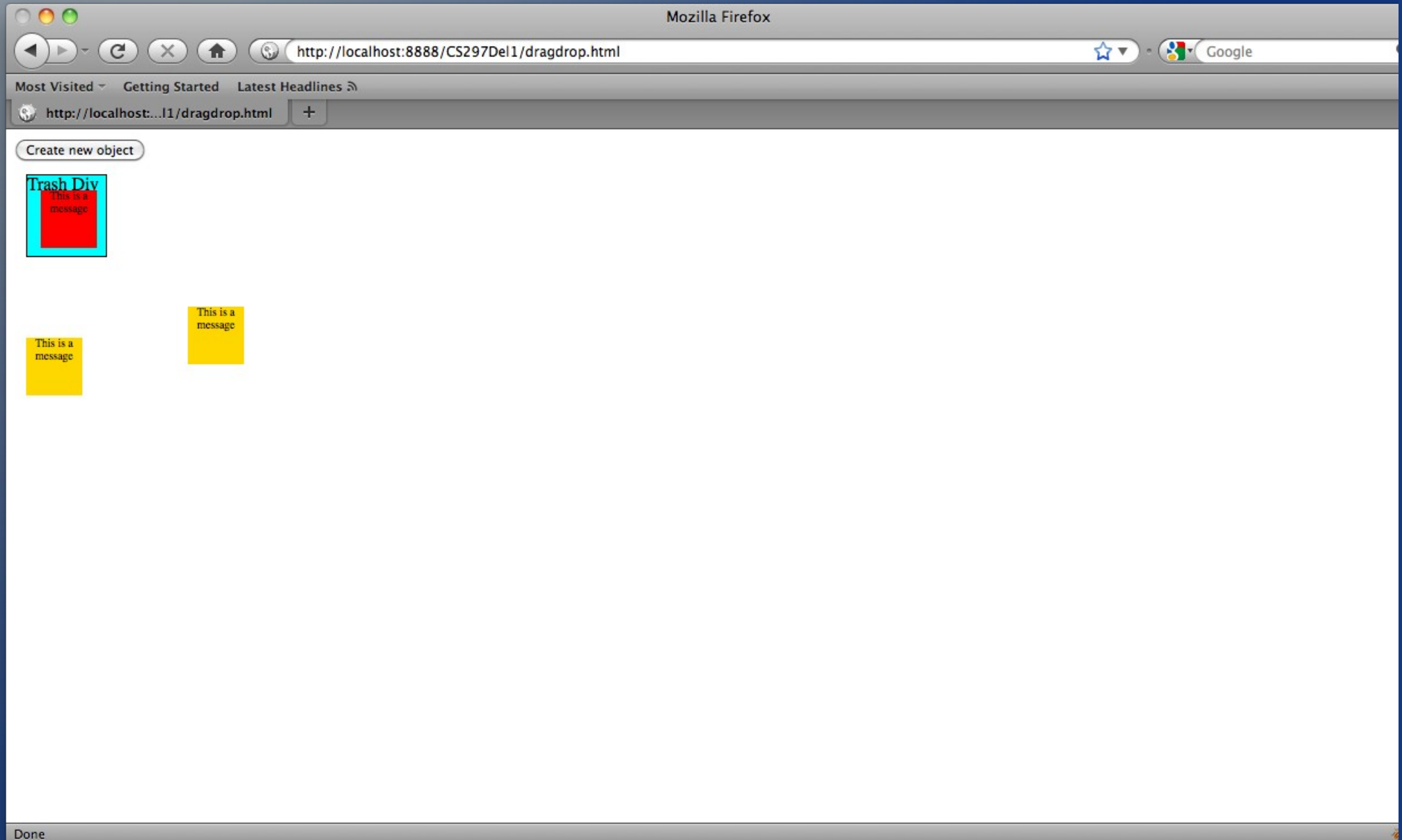
- When user drag the object to Trash Div, a drop event on the droppable element will happen.
- User can elect to delete the object or keep it.
- If user elects to delete the object, the div object will be removed from the parent div. `$(element).remove();`
- If user elects to keep the object, the div object will be moved out from the trash div by incrementing the top coordinate of the div object. (There might be a better way to accomplish this).

```
var current_top = $('#'+obj_id).offset().top;
```

```
var current_left = $('#'+obj_id).offset().left;
```

```
$('#'+obj_id).offset( { top: current_top + 70, left: current_left } );
```

# Screenshot 2



# References

- <http://jqueryui.com/demos/draggable/> - Draggable demo
- <http://jqueryui.com/demos/droppable/> - Droppable demo
- <http://docs.jquery.com/UI/Draggable> - UI Draggable API
- <http://docs.jquery.com/UI/Droppable> - UI Droppable API