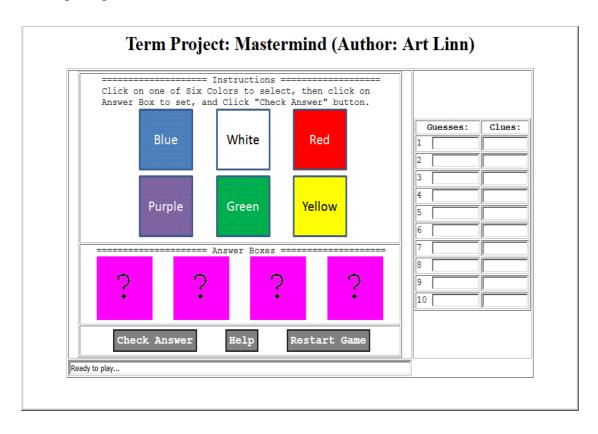Term Project Specifications.

We will be building the game of Mastermind using Javascripting.
Here is the opening web window:

Details about the term project:

Create an HTML w/JS file that performs the following:

Window Title: Term Project - Plays Mastermind

Examine the resource: TermProject - Output Window Sample
Run Mastermind.exe to see how game should perform.

DO:

Create an external "js" file which the HTML file would include. It needs to:
Ensure each function has at least one comment describing what's happening.
Ensure the browser display's images. If not, warn user with informational message below.
Ensure you write a win or loss message in a status area at bottom of form.
Ensure you have a Help button which opens a new window and displays the
resource userhelp.htm (the window should have width=300 heigth=400 with scrollbars)
Ensure you use the resource's GIF files to display the six colors and the Answer box
colors.
Ensure you check a previous guess - if matches current guess - tell user.
Ensure you have a Restart which restarts the game.
Ensure the win/loss messages are something like:
"You Lost. Your logic skills need practice. Keep playing game. Answer was "
Turn 1: "You won: WOW! You are lucky. Take me to Las Vegas when you go. Answer was "
Turn 2: "You won: Excellent! You are extremely lucky. Answer was "
Turn 3: "You won: Superior! You are very lucky. Answer was "
Turn 4: "You won: Extremely Good! Your logic skills are great. Answer was "
Turn 5: "You won: Very Good! Your logic skills are very good. Answer was "
Turn 6: "You won: Good! Your logic skills are good. Answer was "
Turn 7: "You won: Nicely Done! Your logic skills are developing very well. Answer was "
Turn 8: "You won: Smile! Your logic skills are doing well. Answer was "
Turn 9: "You won: Got it! Your logic skills are starting to show up. Answer was "
Turn 10: "You won: Right! Your logic skills are adequate. Answer was "
Ensure you display informational messages something like:
"Game Over. Must hit ReStart to start a new game!"
"All Answer Boxes must be filled with a Color prior to Check Answer."
"This browser doesn't support images. Page will not work properly. Upgrade your
browser."

 1) Variables and arrays that you need to keep track of game information.
 2) The various functions required.
    I created these functions: initialize, selectedcolor, pastecolor, checkanswer,
    showwin, showloss, showhelp and optionally: newgame, savegame, and restoregame.
 3) Need to use Math.random to pick the four colors.
 4) In the pastecolor function - need to put the correct color into the Answer Box.
 5) In the check answer function - need to set up the clues for that guess and show them
to the viewer. If viewer won - show them the "won" "turn message" with the correct
answer. If number of try's is 10, then show them the "lost" message with the correct
answer. If entering previous answer, warn them and don't continue.

See Sample HTML below - need to finish it up
 1) Use a <FORM>.

2) Create 3 buttons: "Check Answer", "Help", "Restart Game".
3) In the form use a Table. A sample is at the end of this document.
4) Six Color images are used for the colors. Ensure each one has an onClick event pointing to selectedcolor with a parameter for that particular color.
5) Four Color images are used for the answer boxes. Ensure each one has an onClick event pointing to pastecolor with a parameter for that particular answer box.
6) Use img to display the colors. The default one should be questionrectangle.gif
The fully qualified name (URL) can be found in Canvas.
7) Required to use a cookie that holds the status of the game so that you know when game is over.
8) It took me about 20 hours develop this. And another 30 hours to add restore feature.

Optional (up to +10 extra credit points) for using localStorage and JSON to save and/or restore the game from previously not completing if closing the window.

Sample HTML:

```
<HTML>
<HEAD>
<TITLE>
Term Project - Plays Mastermind
</TITLE>
<BODY onload=???YourInitialize???();>
<FORM name="myForm" >
<style>
.button {
  color: black;
  padding: 5px 5px;
  text-decoration: none;
  margin: 4px 2px;
  cursor: pointer;
  font-family: "Courier New";
  font-size: 120%;
  font-weight: bold;
  border-style: solid;
  border-width: 2px;
  border-color: black;
}
h1 {
  text-align: center;
  }
</style>
<H1>Term Project - Mastermind (Author ????your name????)</H1>
<SCRIPT src="YourScriptFileName.js"></SCRIPT>
<FONT face="courier new" size="12">
<B>
<table align=center id="big" border="1">
 <tr>
  <td>
   <table align=center id="colors" border="1" >
    <tr>
     <td>
```

```
      
    ================= Instructions ==================<BR>
      
    Click on one of Six Colors to select, then click on<BR>
      
    Answer Box to set, and Click "Check Answer" button.<BR>

   </td>
  </tr>
  <tr>
  <td>

     
   ================= Answer Boxes =================
   <BR>   

   </td>
  </tr>
  <tr>
  <td><BR>
          
   <INPUT type="button" onClick="checkanswer();" name="check" value="Check Answer">

    <!-- other buttons here -->

   </td>
  </tr>
 </table>
 </td>
 <td>
 <table align=center id="results" border="1" >
  <tr>
   <th align=center><b>Guesses:</b></th>
   <th align=center><b>Clues:</b></th>
  </tr>
  <tr>
   <td>1  <INPUT type=text size=10 name=Data1 readonly="readonly"></td>
   <td><INPUT type=text size=10 name=Clue1 readonly="readonly"></td>
  </tr>
  <!-- other tr td's here for each Data and Clue; 10 in all -->

 </table>
 </td>
</tr>
 <tr><td><B><input type=text size=100 name=sInfo readonly="readonly"></B></td></tr>
</table>
</FONT>
</FORM>
</BODY>
</HTML>
```