MESA DAY CONTEST RULES
2023-2024
(DRAFT)

Coding Solutions (Online)

LEVEL: Middle School (MS)

DIVISION(S): Novice: No prior Coding Solutions competition participation, and Experienced: Prior Coding Solutions competition participation

COMPOSITION OF TEAM: 1-2 student(s) per team

NUMBER OF TEAMS: Preliminary – Determined by your local MESA center
Regional – # of teams per division at the discretion of each region (Northern/Central, LA/Central Coast, and Southern)

SPONSORS: UC Santa Barbara MESA College Prep
UC Riverside MESA College Prep

OVERVIEW: Congratulations! Thanks to your outstanding participation with the MESA Program. You have been invited to a virtual interview for a software company to obtain an internship. As part of the interview process they would like to test your knowledge virtually on programming fundamentals and problem solving using JavaScript. Students should be familiar with basic mathematics and elementary Algebra topics. Participation logistics and limits may vary by host site. Advisors and students are responsible for verifying this information with their local MESA center. This competition will be virtual for 2023-2024 but can also be hosted in-person, dependent upon the host center.

MATERIALS:
  ▪ An internet connected device with a keyboard is recommended.
  ▪ Students must create their own account on Code HS (see Regional links on page 3).

GENERAL RULES:
1) The challenge is suggested to take place within a 60 minute period for all participants at the same time and date. Participants must make sure they are on time and have the resources they need before the competition.
2) Students must have their full name(s), grades, school, and MESA center commented at the top within each of the programs. A 20% penalty will be assessed for failing to properly label.
3) This competition will be held during a 60-minute window.
   a. Novice level will have two challenges: 1 Debug Challenge, 1 Technical Challenge
   b. Experienced level will have three challenges: 2 Debug Challenges, 1 Technical Challenge
4) Division entry will be determined by participation in prior year Coding Solutions competitions; If one team member is experienced, then the entire team will compete in the Experienced division.
5) **The Debug challenges must be completed in order to receive a score for the Technical Challenge.**

6) **Challenge Descriptions**
   a. A debug challenge is a type of programming challenge that requires you to find and fix errors in code. Each challenge will have 5 errors ranging in complexity.
   b. A technical challenge is a type of programming challenge that requires you to code a solution from scratch to create the desired outputs based on the prompt provided.

7) To be eligible to compete in this competition, **ALL team members must complete one week prior to the contest date** at least 60% of assignments for Novice or 100% of assignments for Experienced.
   a. The assignments are on the MESA Day JavaScript Course on the **specified CodeHS course** (see “Enrollment Links” attachment/appendix).

8) Participants **MUST** follow the naming convention for their accounts; if not adhered to, team will be disqualified (see Page 4 for visual example).
   a. First name field: Abbreviated MESA Center and School Name
   b. Last name field: Students' First and Last Name

**JUDGING:**

1) Teams will have 60-minutes to complete the challenges.

2) **One team member,** on behalf of the team, will login, enroll and complete the specified competition “Course.” If both team members' accounts are present for the MESA Day Challenge Course, that team **will not** be eligible for an award.

3) Challenges start and end at times and dates specified by the hosting Center.

4) Students will have 60 minutes to complete the Challenges.

5) Teams may submit their completed programs as soon as they like or make revisions within the time.

6) The timestamp of the last submission for each challenge will be used to determine the winners.

7) The final submission will be the last project that was submitted before time runs out.

8) Winners will be determined based on the following order:
   a. The first individual or team based on timestamp to
      i. Successfully submitted and completed all challenges.
      ii. Successfully submit the most completed debug challenges.

9) **TIEBREAKER:** Team that submitted the last completed challenge first wins.

10) If no teams are successful, no awards will be given.

11) All testing of code will occur within CodeHS.

**AWARDS:**
- Medals will be awarded for 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> place based on the Grand Total **for each division.**
- Please check with your MESA center to determine the number of teams that advance to Regional MESA Day.

**ATTACHMENTS/APPENDIX:**
- Topics Student(s) Need to Know
- Resources
- Enrollment Links
- Specification and Score Sheet for Coding Solutions
Topics Student Need to Know

- Math operators
- User input/output
- Control and conditional statements
- Loops, iterations and nesting
- Boolean Algebra
- Functions

Mathematical Topics (Students should aim to have a fundamental understanding of)

- Arithmetic
- Order of operations
- Properties of equalities and inequalities
- Evaluating Expressions and equations

Resources

- https://www.sololearn.com/learn/courses/javascript-introduction
- https://www.w3schools.com/js/default.asp
- https://learnjavascript.online/
ENROLLMENT LINKS

When enrolling in CodeHS, please include your MESA CENTER and SCHOOL in your registration. See below for example:

Courses have been created to match the MESA region your host center is affiliated with. Please register for your appropriate course:

**Northern/Central California:** For students affiliated with Ukiah, RISE, CSU East Bay, San Jose State, University of the Pacific, UC Davis, UCSF, Fresno State, UCSC

  Northern/Central Region: to be announced
  Enrollment Code: to be announced

**Los Angeles / Central Coast:** For students affiliated with USC, UCSB, UCLA, CSULB, CSULA

  LA/Central Coast Region: to be announced
  Enrollment Code: to be announced

**Southern California:** For students affiliated with UCI, UCR, Imperial Valley, San Diego State University

  South Region: to be announced
  Enrollment Code: to be announced

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**SPECIFICATION AND SCORE SHEET FOR CODING SOLUTIONS**

**Middle School**

**MESA Center:** __________________________  **Student 1:** ____________________________  **Grade:** ____

**School:** ____________________________  **Student 2:** ____________________________  **Grade:** ____

**Division:**  □ Novice  □ Experienced

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### Specification

- □ 2023-2024 rules were followed
- □ Each Program is properly labeled and commented within coding project with team members’ names, grade level, school, and MESA center:
  - (20% penalty for each program if not properly labeled)
- □ All team members completed at least 60% (Novice) or 100% (Experienced) of MESA Day course assignments
- □ Account name follows naming convention. If not, ineligible for award consideration.
- □ Program submission will be under the following team member’s account:

  □ ____________________________

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### Judging Criteria

| Project 
Submission: | Debugging #1 | Debugging #2 | Technical 
Challenge |
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<thead>
<tr>
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<tbody>
<tr>
<td>Time of final Submission:</td>
<td>: :</td>
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<td>Case #4</td>
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<td>Case #5</td>
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<thead>
<tr>
<th>Total Pass:</th>
<th>Total Pass:</th>
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| Total # of Ps X 10 = | Debug Subscore: | Technical Subscore: | Labeling Penalty |

| Grand Total | | | |

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