

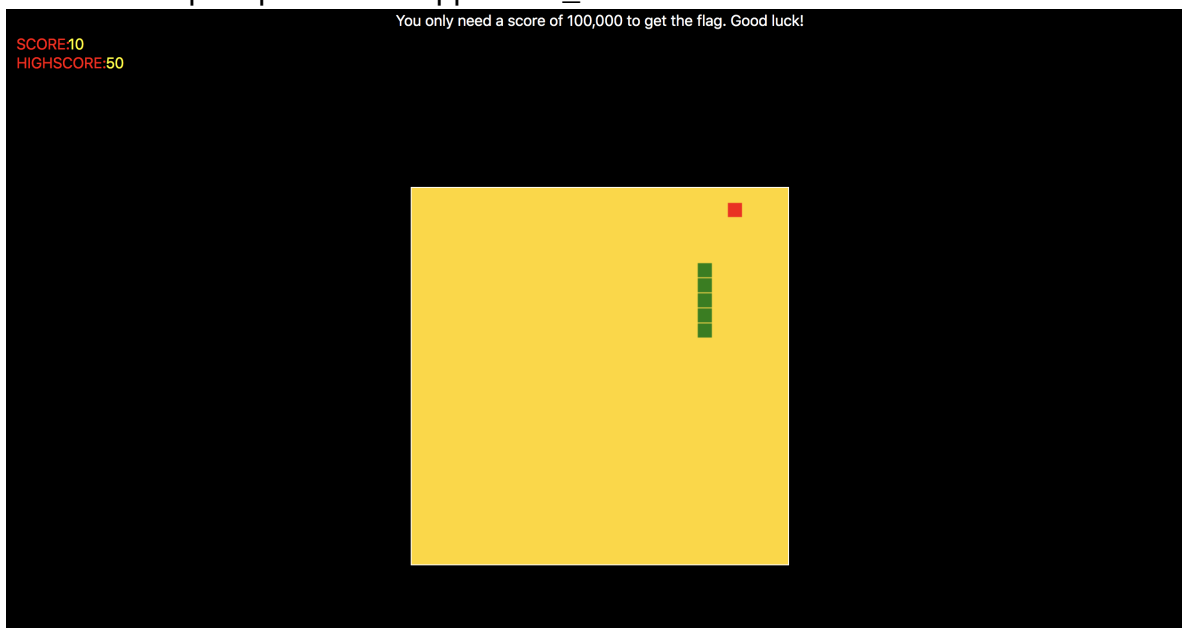
Arena Snake Teacher Workout Instructions

Introduction

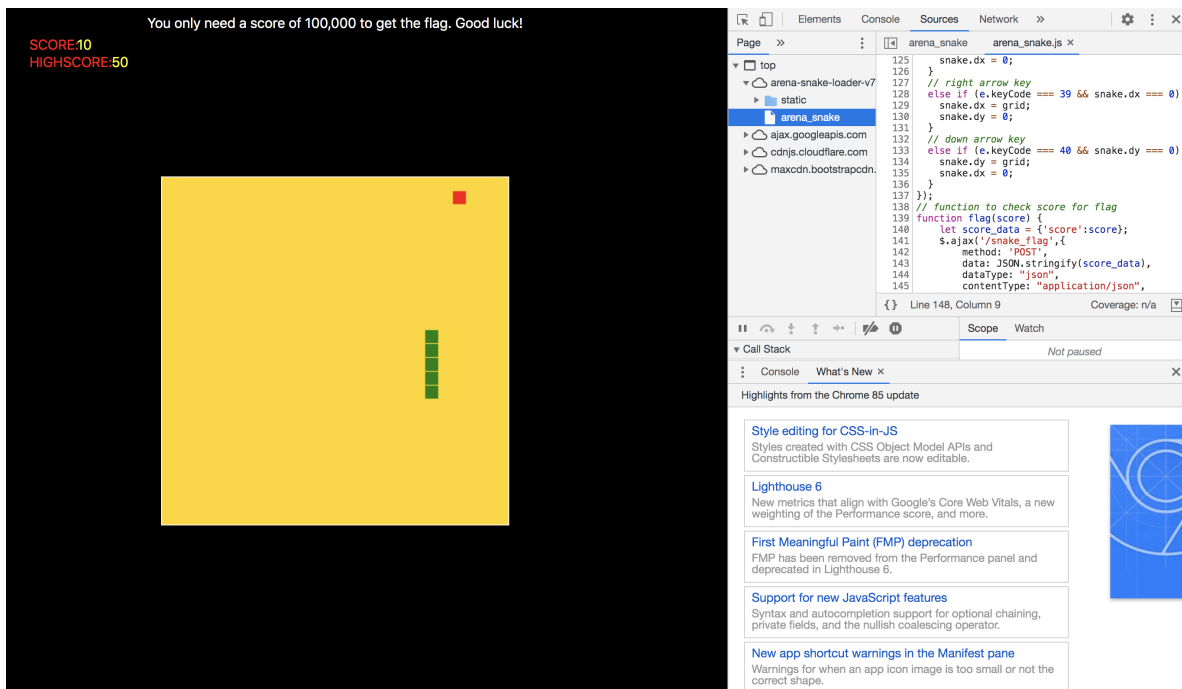
In this workout, students will use the developer tools for their browsers to interact with data from the web server's back-end in order to beat an impossible game.

The Mission

The students will first need to navigate to the snake game at https://arena-snake-loader-v7k2apwaqa-uc.a.run.app/arena_snake.



The original goal of this game is to reach a score of 100,000 and each apple awards 10 points. Also, the snake grows and changes based on the score. This makes the game impossible and requires the student to change the JavaScript code in order to beat the game. To change the code, they first need to open the developer tools (inspect element) by right-clicking anywhere on the page.



From here the students can view the JavaScript, HTML, and CSS code that the webserver is using to serve the Arena Snake game. As students explore the files, they may come across the function that checks the score for the flag.

```

138 // function to check score for flag
139 function flag(score) {
140     let score_data = {'score':score};
141     $.ajax('/snake_flag',{
142         method: 'POST',
143         data: JSON.stringify(score_data),
144         dataType: "json",
145         contentType: "application/json",
146     }).done(function(flag_data){
147         $("#flag").html(flag_data.flag);
148     })
149 }
150 // game start
151 requestAnimationFrame(loop);

```

That should give the students the idea that the variable **score** is the variable being checked for the flag. The variable **score** can be changed to give yourself a higher score and if made above 100,000 can also give you the flag. The students can do this by navigating to the console tab within the developer tools and enter the code.

```
score = 100000;
```

Once the student correctly enters the code, the score will be updated after eating an apple. If the score is above 100,000, the flag will also appear.



There are other ways of completing this workout and the students are encouraged to explore and find new ways to beat the game.