# **FULL STACK JAVASCRIPT DELIVERABLE 2**

## **MINI-GOLF**

Congratulations! You've made it to the JavaScript portion of Unit 1, a major component of understanding how to code is effectively applying your problem-solving logic. You will be implementing conditions and user input to solve the exercise.

Similar disclaimer as deliverable 1: A large part of being a developer is researching and understanding new mechanics and concepts of coding. Every developer, even a seasoned veteran, needs to look up and research coding concepts. As such, for this exercise, you may need to research conditions and prompts with JavaScript.

#### Here are a few hints:

- For any programming language, Google and Stack Overflow will be your go-to sites for learning about code.
- Google is good at answering common questions, Stack Overflow is good for troubleshooting and reading issues other programmers have encountered.
- Just like you used CodePen in your learning modules, you can use it to tinker with and break new code in isolation before you add it into your project. JSBin or Plnkr are also great places to play with code.
- This program seems like a lot but it breaks down into small chunks. There are multiple steps to this program; work on one problem at a time, try it out, and when it's working move on to the next step. The Build Specifications and Grading Rubric can help you decide how to break this down step-by-step.We'll
- Adding or subtracting a percentage:
  - To increase a number by a certain percent, multiply by 1 plus the decimal of the percent--so to increase by 10%, multiple by 1.1 (10% = .1)
  - To decrease a number by a certain percent, multiply by 1 minus the decimal of the percent--so to decrease by 10%, multiply by .8 (20% = .2)

Create a new project folder. Please name your folder as [lastName]-part-two.

#### The folder should contain:

- index.html
- a folder named js that will contain the script file named script.js
  - The script.js file must be linked within the <body> element of your index.html.
  - The **script.js** file will contain all of the code required to complete the challenge.

Put this project in its own repo on GitHub and submit the GitHub link in the Turn In Deliverable 2 spot in the LMS.

## **MINI-GOLF**

**Task:** Build a JavaScript program that tallies up your mini-round of golf and logs a message at the end with your total par.

## **Build Specifications:**

- Prompt the user for their name.
- Next, prompt the user if they would like to play 3 or 6 holes of mini-golf.
- Finally, prompt the user either 3 times or 6 times (depending on their input for the second prompt) for each "hole of golf" asking for the number of putts for that specific hole.
- Keep track of their cumulative score (total number of putts) and at the end, compare that to the total course par (9 if they chose 3 holes, 18 if they chose 6 par is 3 for every hole) to calculate the golfer's total par for the round.
- After the last hole, one of three messages is logged to the console depending on if the user was over, under or on par for the round:
  - o If over par, the message should read "Nice try, (name)... Your total par was: +(par)." [be sure to include the plus symbol here to denote over par].
  - o If under par, the message should read "Great job, (name)! Your total par was: -(par)." [include the minus symbol]
  - o If even with par, the message should read "Good game, (name). Your total par was: 0."

### Example run 1 (user input in bold):

```
(prompt) Welcome to GC mini-golf! What is your name?

Tiger

(prompt) Hi, Tiger! Would you like to play 3 or 6 holes?

6

(prompt) How many putts for hole 1? (par: 3)

1

(prompt) How many putts for hole 2? (par: 3)

1

(prompt) How many putts for hole 3? (par: 3)

6

(prompt) How many putts for hole 4? (par: 3)

2

(prompt) How many putts for hole 5? (par: 3)

4

(prompt) How many putts for hole 6? (par: 3)
```

#### **Explanation:**

• The course par is 18 (3 for each of the 6 holes)

(console) Great job, Tiger! Your total par was: -3.

- The user's score starts at 0.
- The user got a hole-in-one on the first hole with just one putt, bringing their score to 1.
- The user also got a hole-in-one on the second hole. Score is now 2.
- The user putted 6 times on the third hole, bringing their score to 8.
- The user putted twice on the fourth hole, bringing their score to 10.
- The user putted four times on the fifth hole, bringing their score to 14.
- The user ended with another hole-in-one on the last and sixth hole, totaling their score at 15.
- The difference between the course par (18) and the user's score (15) is 3, meaning they hit 3 less putts than expected for the course, so the user's total par is -3.

## **Example Run 2:**

(prompt) Welcome to GC mini-golf! What is your name?

#### Christa

(prompt) Hi, Christa! Would you like to play 3 or 6 holes?

#### Christa

(prompt) How many putts for hole 1? (par: 3)

4

(prompt) How many putts for hole 2? (par: 3)

2

(prompt) How many putts for hole 3? (par: 3)

3

(console) Good game, Christa. Your total par was: 0.

#### **Explanation:**

- The course par is 9 (3 for each of the 3 holes).
- The user's score starts at 0.
- The user hit 4 putts on the first hole, bringing their score to 4.
- The user hit 2 putts on the second hole, bringing their score to 6.
- The user putted 3 times on the last hole, bringing their total score to 9.
- The course par (9) minus the user's score (9) is 0, meaning their total score was no more or less than the course par, making the user's total par 0.

**Grading Rubric:** This is graded out of 10 points. You must score 8 or more points on each deliverable in Lab 1 to pass. Credit will be granted for any points that are written correctly themselves, but don't run correctly because of a problem elsewhere in the program.

**1 point each**. No partial credit is allowed on an individual point.

- 1. Prompts the user for their name.
- 2. Prompts the user if they would like to play 3 or 6 holes of golf.
- 3. Prompts the user three or six times (depending on their answer for #2) for the number of putts for each hole.

- 4. Each prompt for the score displays the specific hole they are on "(hole 1", "hole 2" or "hole 3").
- 5. A console log is made on completion of the 4 total prompts.
- 6. The console log displays the user's name.
- 7. The console log includes the correct number for the par calculation.
- 8. If even with par, the console log reads: "Good game, (user's name). Your total par was: 0"
- 9. If under par, the console log reads: "Great job, (user's name)! Your total par was: -(par)" (don't forget the minus (-) symbol!
- 10. If over par, the console log reads: "Nice try, (user's name)... Your total par was: +(par)" (don't forget the plus (+) symbol!

## **Grading Scale:**

8 or above: Passing Below 8: Not Passing