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EECS 368

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EECS 368 Assignment 1

JavaScript Source Code:

console.log("Exercise 2.1: Looping a Triangle") //This line shows the name of Exercise 2.1.

for (let i = "o"; i.length <= 9; i+="o") //This line defines the for loop, which will run until the length of the the string is less than or equal to 9.

{

  console.log(i) //This line will print the triangle.

}

console.log("\n") //This line creates a new line.

console.log("Exercise 2.2: FizzBuzz") //This line shows the name of Exercise 2.2.

for (let i = 1; i <= 100; i++) //This line defines the for loop, which runs from 1 to 100.

{

  if (i % 21 == 0) //This line shows the if statement that works if the remainder of i and 21 is 0.

  {

    console.log("Divisible by both 3 and 7") //This line will print this statement if the condition's true.

  }

  else if (i % 3 == 0) //This line shows the else-if statement that works if the remainder of i and 3 is 0.

  {

    console.log("Divisible by 3") //This line will print this statement if the condition's true.

  }

  else if (i % 7 == 0) //This line shows the else-if statement that works if the remainder of i and 7 is 0.

  {

    console.log("Divisible by 7, but not 3") //This line will print this statement if the condition's true.

  }

  else //This line shows the else statement that works if the other statements are false.

  {

    console.log(i) //This line will print the numbers, not the statements.

  }

}

console.log("\n") //This line creates a new line.

console.log("Exercise 2.3: N-by-N Grid") //This line shows the name of Exercise 2.3.

let size = 6 //This line shows that a variable is already defined for the first size of the grid.

let size\_2 = 12 //This line shows that a variable is already defined for the second size of the grid.

let grid = " " //This line shows that the variable is defined for the empty grid.

let grid\_2 = " "//This line shows that the variable is defined for the second empty grid.

for(let i = 0; i < size; i++) //This line defines the nested for loop, and the first loop runs from 0 to size.

{

  for(let j = 0; j < size; j++) //This line defines the second for loop that is inside the first for loop, which runs from 0 to size.

  {

    ((i+j) % 2 == 0 ? grid+= " ": grid += "\*") //This line shows the conditional operator. If the remainder of the sum of i and j and 2 is 0, then it picks the empty space. If not, then it picks the asterisk.

  }

  grid+= "\n" //This line will create new lines for the grid until i is less than the size.

}

console.log(grid) //This line will print the n-by-n grid for the first size variable.

for(let i = 0; i < size\_2; i++) //This line defines the nested for loop, and the first loop runs from 0 to size\_2.

{

  for(let j = 0; j < size\_2; j++) //This line defines the second for loop that is inside the first for loop, which runs from 0 to size\_2.

  {

    ((i+j) % 2 == 0 ? grid\_2+= " ": grid\_2 += "\*") //This line shows the conditional operator. If the remainder of the sum of i and j and 2 is 0, then it picks the empty space. If not, then it picks the asterisk.

  }

  grid\_2+= "\n" //This line will create new lines for the second grid until i is less than the size\_2.

}

console.log(grid\_2) //This line will print the n-by-n grid for the second size variable.

JavaScript Outputs:

Exercise 2.1: Looping a Triangle

o

oo

ooo

oooo

ooooo

oooooo

ooooooo

oooooooo

ooooooooo

Exercise 2.2: FizzBuzz

1

2

Divisible by 3

4

5

Divisible by 3

Divisible by 7, but not 3

8

Divisible by 3

10

11

Divisible by 3

13

Divisible by 7, but not 3

Divisible by 3

16

17

Divisible by 3

19

20

Divisible by both 3 and 7

22

23

Divisible by 3

25

26

Divisible by 3

Divisible by 7, but not 3

29

Divisible by 3

31

32

Divisible by 3

34

Divisible by 7, but not 3

Divisible by 3

37

38

Divisible by 3

40

41

Divisible by both 3 and 7

43

44

Divisible by 3

46

47

Divisible by 3

Divisible by 7, but not 3

50

Divisible by 3

52

53

Divisible by 3

55

Divisible by 7, but not 3

Divisible by 3

58

59

Divisible by 3

61

62

Divisible by both 3 and 7

64

65

Divisible by 3

67

68

Divisible by 3

Divisible by 7, but not 3

71

Divisible by 3

73

74

Divisible by 3

76

Divisible by 7, but not 3

Divisible by 3

79

80

Divisible by 3

82

83

Divisible by both 3 and 7

85

86

Divisible by 3

88

89

Divisible by 3

Divisible by 7, but not 3

92

Divisible by 3

94

95

Divisible by 3

97

Divisible by 7, but not 3

Divisible by 3

100

Exercise 2.3: N-by-N Grid

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