

Post Lab 4
ENSF 409
William Ledingham
30046372
2020-02-25

Exercise 2

Output:

Adding Rectangle, Circle, and Prism objects to the list...

Showing information about objects added to the list:

Shape name: C1
Origin: X-coordinate: 13.0
Y-coordinate: 14.0
Green point
Radius: 15.0

Shape name: C2
Origin: X-coordinate: 33.0
Y-coordinate: 34.0
Yellow point
Radius: 35.0

Shape name: P1
Origin: X-coordinate: 43.0
Y-coordinate: 44.0
White point
Width: 46.0
Length: 45.0
Height: 47.0

Shape name: P2
Origin: X-coordinate: 53.0
Y-coordinate: 54.0
Gray point
Width: 56.0
Length: 55.0
Height: 57.0

Shape name: R1
Origin: X-coordinate: 3.0
Y-coordinate: 4.0
Black point
Width: 6.0
Length: 5.0

Shape name: R2
Origin: X-coordinate: 23.0

Y-coordinate: 24.0
Black point
Width: 26.0
Length: 25.0

Showing area, perimeter, and volume of objects in the list:
The area, perimeter, and volume of C1 are: 706.86, 94.25, 0.00
The area, perimeter, and volume of C2 are: 3848.45, 219.91, 0.00
The area, perimeter, and volume of P1 are: 12694.00, 182.00, 97290.00
The area, perimeter, and volume of P2 are: 18814.00, 222.00, 175560.00
The area, perimeter, and volume of R1 are: 30.00, 22.00, 0.00
The area, perimeter, and volume of R2 are: 650.00, 102.00, 0.00

Exercise 3

Sample Output:

Human Player

Please enter the name of the 'X' player: Will

What type of player is Will?

- 1: Human
- 2: Random Player
- 3: Blocking Player
- 4: Smart Player

Please enter a number in the range 1-4: 1

Please enter the name of the 'O' player: Matt

What type of player is Matt?

- 1: Human
- 2: Random Player
- 3: Blocking Player
- 4: Smart Player

Please enter a number in the range 1-4: 1

Referee started the game...

	col 0	col 1	col 2
row 0			
row 1			
row 2			

Will, what row should your next X be placed in?: 2

Will, what column should your next X be placed in?: 1

	col 0	col 1	col 2
row 0			
row 1			

row 2		X	

Matt, what row should your next 0 be placed in?: 1

Matt, what column should your next 0 be placed in?: 1

	col 0	col 1	col 2
row 0			
row 1		0	
row 2		X	

Will, what row should your next X be placed in?: 0

Will, what column should your next X be placed in?: 0

	col 0	col 1	col 2
row 0	X		
row 1		0	
row 2		X	

Matt, what row should your next 0 be placed in?: 0

Matt, what column should your next 0 be placed in?: 2

	col 0	col 1	col 2
row 0	X		0
row 1		0	

row 2				
		X		
	+-----+	+-----+	+-----+	

Will, what row should your next X be placed in?: 2

Will, what column should your next X be placed in?: 0

	col 0	col 1	col 2	
	+-----+	+-----+	+-----+	
row 0		X		0
	+-----+	+-----+	+-----+	
row 1			0	
	+-----+	+-----+	+-----+	
row 2		X	X	
	+-----+	+-----+	+-----+	

Matt, what row should your next 0 be placed in?: 1

Matt, what column should your next 0 be placed in?: 0

	col 0	col 1	col 2	
	+-----+	+-----+	+-----+	
row 0		X		0
	+-----+	+-----+	+-----+	
row 1		0	0	
	+-----+	+-----+	+-----+	
row 2		X	X	
	+-----+	+-----+	+-----+	

Will, what row should your next X be placed in?: 2

Will, what column should your next X be placed in?: 2

	col 0	col 1	col 2	
	+-----+	+-----+	+-----+	
row 0		X		0
	+-----+	+-----+	+-----+	
row 1		0	0	
	+-----+	+-----+	+-----+	
	+-----+	+-----+	+-----+	

```
row 2 |  X  |  X  |  X  |  
      |      |      |      |  
      +-----+-----+-----+  
Game Over. Will is the Winner!
```

Random Player

Please enter the name of the 'X' player: Will

What type of player is Will?

- 1: Human
- 2: Random Player
- 3: Blocking Player
- 4: Smart Player

Please enter a number in the range 1-4: 1

Please enter the name of the 'O' player: Matt

What type of player is Matt?

- 1: Human
- 2: Random Player
- 3: Blocking Player
- 4: Smart Player

Please enter a number in the range 1-4: 2

Referee started the game...

	col 0	col 1	col 2
row 0			
row 1			
row 2			

Will, what row should your next X be placed in?: 1

Will, what column should your next X be placed in?: 1

	col 0	col 1	col 2
row 0			
row 1		X	
row 2			

	col 0	col 1	col 2
row 0			0
row 1		X	
row 2			

Will, what row should your next X be placed in?: 0

Will, what column should your next X be placed in?: 1

	col 0	col 1	col 2
row 0		X	0
row 1		X	
row 2			

	col 0	col 1	col 2
row 0	0	X	0
row 1		X	
row 2			

Will, what row should your next X be placed in?: 2

Will, what column should your next X be placed in?: 1

	col 0	col 1	col 2

row 0		0		X		0	
row 1				X			
row 2				X			

Game Over. Will is the Winner!

Blocking Player

Please enter the name of the 'X' player: Will

What type of player is Will?

- 1: Human
- 2: Random Player
- 3: Blocking Player
- 4: Smart Player

Please enter a number in the range 1-4: 1

Please enter the name of the 'O' player: Matt

What type of player is Matt?

- 1: Human
- 2: Random Player
- 3: Blocking Player
- 4: Smart Player

Please enter a number in the range 1-4: 3

Referee started the game...

	col 0	col 1	col 2
row 0			
row 1			
row 2			

Will, what row should your next X be placed in?: 0

Will, what column should your next X be placed in?: 0

	col 0	col 1	col 2
row 0	X		
row 1			
row 2			

	col 0	col 1	col 2
row 0	X		
row 1			
row 2			0

Will, what row should your next X be placed in?: 1

Will, what column should your next X be placed in?: 1

	col 0	col 1	col 2
row 0	X		
row 1		X	
row 2			0

	col 0	col 1	col 2
row 0	X		
row 1		X	0
row 2			0

Will, what row should your next X be placed in?: 2

Will, what column should your next X be placed in?: 1

	col 0	col 1	col 2

row 0	X			
row 1		X	0	
row 2		X	0	

	col 0	col 1	col 2
row 0	X	0	
row 1		X	0
row 2		X	0

Will, what row should your next X be placed in?: 0

Will, what column should your next X be placed in?: 2

	col 0	col 1	col 2
row 0	X	0	X
row 1		X	0
row 2		X	0

	col 0	col 1	col 2
row 0	X	0	X
row 1		X	0

row 2		0		X		0	
	+-----+						

Will, what row should your next X be placed in?: 1

Will, what column should your next X be placed in?: 0

		col 0		col 1		col 2	
	+-----+						
row 0		X		0		X	
	+-----+						
row 1		X		X		0	
	+-----+						
row 2		0		X		0	
	+-----+						

Game Over. It is a Tie

Smart Player

Please enter the name of the 'X' player: Will

What type of player is Will?

- 1: Human
- 2: Random Player
- 3: Blocking Player
- 4: Smart Player

Please enter a number in the range 1-4: 1

Please enter the name of the 'O' player: Matt

What type of player is Matt?

- 1: Human
- 2: Random Player
- 3: Blocking Player
- 4: Smart Player

Please enter a number in the range 1-4: 4

Referee started the game...

	col 0	col 1	col 2
row 0			
row 1			
row 2			

Will, what row should your next X be placed in?: 2

Will, what column should your next X be placed in?: 0

	col 0	col 1	col 2
row 0			
row 1			
row 2	X		

	col 0	col 1	col 2
row 0		0	
row 1			
row 2	X		

Will, what row should your next X be placed in?: 1

Will, what column should your next X be placed in?: 0

	col 0	col 1	col 2
row 0		0	
row 1	X		
row 2	X		

	col 0	col 1	col 2
row 0	0	0	
row 1	X		
row 2	X		

Will, what row should your next X be placed in?: 1

Will, what column should your next X be placed in?: 1

	col 0	col 1	col 2

row 0	0	0		
row 1	X	X		
row 2	X			

	col 0	col 1	col 2	
row 0	0	0	0	
row 1	X	X		
row 2	X			

Game Over. Matt is the Winner!