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CIS 2830-02
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CIS 2830: Python Project

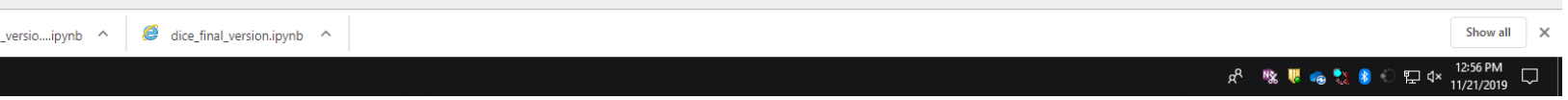
The purpose of this dice simulator is to use the following Python concepts: integers, print statements, while loops, and the use of random.randint() function in a game of rolling the dice. We created a dice game than can randomize repeatable numbers from 1 to 6. This simulation will engage with the player by asking these questions. We utilized the random function by generating numbers from 1 to 6. The randomization module uses the random.randint() function to set this dice game at the range from 1 to 6. We set the input variable to provide the player a question asking if the dice can be rolled. Our dice game contains a while loop with a condition that it starts to check if the input is “n” or not. Then, it starts to check if the input is “y” or not. The input function also works when the player types the answers “y” which means roll the dice or “n” which means that the game has finished and at the end will display “Thank you for playing. Goodbye!”. We also added another condition of “else” in which the condition that if the player types another letter other than “y” or “n”, the output will provide the instruction that the response is invalid and will ask the player to type “y” or “n” again.

1. **Dice code**

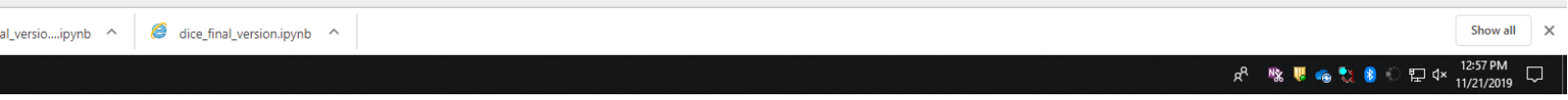
```
#Import random module
import random

#Set input variable to execute dice coding
question = input ('Would you like to roll the dice [y/n]?\n')

#Use while loop to infinitely play dice game and determines input is "n" or not.
#if input is "n", stop while loop and print finish string.
#if input is not "n", it goes to if condition
while question !='n':

#if input is "y" go to variable 'dice'
   if question == 'y':

#using the random module and randint function to generate numbers from 1 to 6.
      dice = random.randint (1, 6)

#print random dice between from 1 to 6
      print("You rolled dice at", dice)

#repeat question input variable to execute dice coding again. "y" goes to if condition and play dice again
#if input is "n" goes to finish and print
      question = input ('Would you like to roll the dice [y/n]?\n')

#Using "else" to detect input errors when a player types a letter that is neither "y" nor "n".
   else:

#display input instruction that "y" and "n"
      print('invalid response. Please type "y" or "n".')

#the question can be repeat it when the player types error
      question = input ('Would you like to roll the dice [y/n]?\n')

#When the player type "n", the output will be that the dice game has finished and then prints 'goodbye string'
print ("Thank you for playing. Goodbye!")
```

2. Screenshot

```
#Import random module
import random

#Set input variable to excute dice coding
question = input ('Would you like to roll the dice [y/n]?₩n')

#Use while loop to infinitly play dice gamge and determines input is "n" or not.
#if input is "n", stop while loop and print finish string.
#if input is not "n", it goes to if condition
while question !='n':
#if input is "y" go to variable 'dice'
    if question == 'y':
#using the random module and randint function to generarte numbers from 1 to 6.
        dice = random.randint (1, 6)
```




```
#using the random module and randint function to generarte numbers from 1 to 6.
        dice = random.randint (1, 6)
#print random dice between from 1 to 6
        print("You rolled dice at", dice)
#repeat question input variable to excute dice coding again. "y" goes to if condition
#if input is "n" goes to finish and print
        question = input ('Would you like to roll the dice [y/n]?₩n')

#Using "else" to detect input errors when a player types a letter that is neither "y"
    else:
#display input instruction that "y" and "n"
        print('invalid response. Please type "y" or "n".')
#the question can be repeat it when the player types error
        question = input ('Would you like to roll the dice [y/n]?₩n')
```



```
#the question can be repeat it when the player types error
        question = input ('Would you like to roll the dice [y/n]?₩n')

#When the player type "n", the output will be that the dice game has finished and then
print ("Thank you for playing. Goodbye!")
```

```
Would you like to roll the dice [y/n]?
y
You rolled dice at 5
Would you like to roll the dice [y/n]?
y
You rolled dice at 3
Would you like to roll the dice [y/n]?
f
invalid response. Please type "y" or "n".
```


```
Would you like to roll the dice [y/n]?
y
You rolled dice at 5
Would you like to roll the dice [y/n]?
y
You rolled dice at 3
Would you like to roll the dice [y/n]?
f
invalid response. Please type "y" or "n".
Would you like to roll the dice [y/n]?

invalid response. Please type "y" or "n".
Would you like to roll the dice [y/n]?
n
Thank you for playing. Goodbye!
```