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1  """import random is used in the population_random(random_num) function in
2  order to generate a random number between 7 and 322875650."""
3  import random
4
5  """COP 1500 - Integration Project"""
6  __author__ = "Alyssa McCurdy"
7
8  """I will be writing my integration project over ADHD because I find it
9  interesting and an important subject to talk about. A lot of people will get
10 distracted more than usual and then say they have ADHD/ADD without actually
11 going in for a proper test. It puts out a bad stigma around and it makes
12 people believe it is not as bad as it seems. For this project I want to
13 explain how ADHD affects the brain and society as a whole"""
14
15 """I broke up different sections of work with lines so it would be easier to
16 read the code and not feel overwhelmed."""
17
18 """I am going to be attaching a document to all the websites I used as well
19 as labeling in the code. All works cited comments will be in parentheses"""
20
21
22 def population_random(random_num):
23     """
24     This function calls to the import random to generate a random number
25     between 7 and 332785650. The function also asks the user to input an
26     integer between 1 and 100 for a percentage with the variable
27     percent_input. The variable percent_as_percent moves the decimal of the
28     integer to the left two times so the number is equivalent to a
29     mathematical percentage. The function then displays both numbers picked
30     and divides the randomly generated number by the now-changed integer
31     picked by the user. It then displays that number and if the number is
32     bigger than the variable population_05, it prints a message.
33     :param random_num:
34     """
35     percent_input = int(input("Please enter an integer between 1 and 100 "
36                               "for the percentage: "))
37     percent_as_percent = percent_input / 100
38     print(" ")
39     print("The number you picked was " + str(percent_as_percent))
40     print("The number the machine choose was " + str(random_num))
41     print(" ")
42     random_people = random_num / percent_as_percent
43     print("That means that " + str(format(random_people, '.0f'))) +
44           " people would have ADHD!")
45     # (Population USA) for 332785650
46     population_05 = (332785650 * .05)
47     population_05 += 1
48     population_05 = int(population_05)
49     while True:
50         if random_people > population_05:
51             print("Wow! That's even more than before!")
52             break
53
54
55 # (BetterHelp) for the .txt file
56 def adhd_function_list7():
57     """
58     This function acts to open up the .txt file SevenTypesOfADHD and
59     display it as a list, numbering it from 1 to 7 without spaces in between
60     the lines.
61     ."""
62     adhd_list7 = open('SevenTypesOfADHD.txt')
63     for index in range(1, 8):
64         adhd_L7 = adhd_list7.readline()

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65         print(str(index) + " ", adhd_L7.rstrip())
66
67
68 # (HealthLine) for the .txt file
69 def adhd_function_list3():
70     """
71     adhd_function_list3 opens us the .txt file ThreeTypesOfADHD and also
72     numbers, but using 1 to 3, and lists it without spaces in between the
73     lines.
74     """
75     adhd_list3 = open('ThreeTypesOfADHD.txt')
76     for index in range(1, 4):
77         adhd_L3 = adhd_list3.readline()
78         print(str(index) + " ", adhd_L3.rstrip())
79
80
81 def main():
82     """
83     def main() refers to the main part of the program and puts everything
84     into a function to be called back to.
85     """
86     print("Hello User!")
87     name = input("What is your name?: ")
88
89     """The next line is just to add a line between sections of work for a
90     better look when the program is ran."""
91     print(" ")
92     print(
93         "Hello, " + name + "! Welcome to Alyssa McCurdy's Integration Project
94
95         "for COP 1500! Please maximize the screen for a "
96         "better experience!")
97     print("Today, we will be learning about ADHD, its effects, and how "
98         "occurring it is in today's society.")
99     print(" ")
100    print("DISCLAIMER: The creator of this program is in no way, shape, "
101        "or form a licensed psychiatrist, but instead educates about "
102        "ADHD from a "
103        "personal experience and with in-depth research.")
104    print(" ")
105    print("Before we start off, it is important to note that ADHD and ADD are
106
107        "the same condition.")
108    print("The only difference is that one includes "
109        "hyperactivity (adHd) while the other does not (add).")
110    print("Now that we have that out of the way, let's talk about how many "
111        "people in the USA are affected by ADHD!")
112    print(" ")
113
114    """input that allows the user to continue on with the program and not be
115    overwhelmed with information and text"""
116    while True:
117        Yes_no = input("Are you ready to learn about ADHD/ADD? (Yes/No): ")
118        if Yes_no == "yes" or Yes_no == "Yes":
119            print("Awesome! Let's go!")
120            break
121        if Yes_no == "no" or Yes_no == "No":
122            print("Too bad! The show must go on!")
123            break
124        else:
125            print("What?")
126
127    print(" ")
128    # (Next line: Population USA = 332,785,650 / CBS News = 4-5%)

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127 print("In the year 2020, the USA had a population of roughly 332,785,650 "
128       "people. ADHD affects a MINIMUM of 4-5% of people in America.")
129
130 # (Population USA)
131 population_04 = 332785650 * .04
132 population_05 = (332785650 * .05)
133
134 """The previous two lines are taking 4% and 5% of the 2020 USA population
135 for the next lines of code to show how many in the USA have ADHD"""
136 population_05 += 1
137 population_05 = int(population_05)
138
139 """Previous lines make it so the number can be 'rounded up' to the next
140 number so that the 'int' function can act as a way of rounding it back
141 down to what its supposed to be rounded to."""
142
143 population_04_string = str(population_04)
144 population_05_string = str(population_05)
145 print("That is a minimum of " + population_04_string + " to "
146       + population_05_string + " people in the United States that have "
147       "ADHD.")
148
149 population_96 = 332785650 - population_04
150 population_95 = 332785650 - population_05
151 population96_as_string = str(population_96)
152 population95_as_string = str(population_95)
153
154 print("That leaves roughly " + population95_as_string + " to "
155       + population96_as_string + " people without ADHD.")
156
157 # (Next line: CBS News)
158 print("Of the adults out of the group who do have ADHD, 90% of "
159       "them go undiagnosed and unmedicated.")
160 print("Many wonder how this is possible, but it is quite a simple answer
161 , "
162       + name + ". For starters, ADHD comes in different levels "
163       "of intensity.")
164 print("Some may have low functioning ADHD and not even realized it.")
165 print("Another reason is because having ADHD does not mean you just get "
166       "easily distracted.")
167 print("There are actually a couple different types of ADHD that all "
168       "affect people differently.")
169 print(" ")
170
171 # (MedicalNewsToday & HealthLine) for the sources saying 3 types
172 # (CBS News & BetterHelp) for the sources saying 7 types
173 print("ADHD and ADD are often referred to as having 'types', 'forms', or "
174       "'subtypes'.")
175 print("This is debated amongst scientist "
176       "because while some may say ADHD/ADD does have types, "
177       "others say referring to ADHD/ADD as having 'types'")
178 print(" is just a way to group symptoms that appear together.")
179 print("There is also a debate on the number of types of ADHD/ADD. "
180       "Some say 3 while others say - well, why dont you guess!")
181 print(" ")
182 while True:
183     adhd_guess = input("Can you guess how many types some say there are?"
184                       " (I'll give you a hint!: " + "ADHD " * 7 + "): ")
185     if adhd_guess == "7" or adhd_guess == "seven" or adhd_guess == "Seven"
186 :
187         break
188     if not adhd_guess == "7" or adhd_guess == "seven" \
189        or adhd_guess == "Seven":

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189         print("No, that's not right! Try again! :)")
190
191     """The previous lines are to add a little bit of 'fun' to the project
192     experience!"""
193     print(" ")
194
195     # (BetterHelp & ADDitudeMag)
196     print("Correct, Some say there are 7 types of ADHD!")
197     print("This includes Classic ADHD, Inattentive ADD, Overfocused ADHD, "
198           "Temporal Lobe ADHD, Limbic ADHD, Ring of Fire ADHD, and lastly, "
199           "Anxious ADHD.")
200     print(" ")
201
202     """calling back to def adhdFunctionList()
203     function to display the list of ADHD types"""
204     adhd_function_list7()
205     print(" ")
206
207     print("One single person can have only one type of these ADHDs, "
208           "but it is also possible to have multiple (or all) types of ADHD.")
209     print(" ")
210
211     """The upcoming lines are for some math fun just to see what the numbers
212     would look like if each type of ADHD could only affect a certain amount
213     of people."""
214     print("Now let's have some fun with these numbers!")
215
216     while True:
217         continue_on = input("Type GO to do some fun math!: ")
218         if continue_on == "go" or continue_on == "Go" or continue_on == "GO":
219             break
220         if continue_on != "go" or continue_on != "Go" or continue_on != "GO":
221             print("That's not how you spell GO, " + name + "! Try again!")
222     print(" ")
223
224     print("Theoretically, let's say you could only have one type of ADHD "
225           "and the number of people with that type "
226           "of ADHD is equal to the rest.")
227     print("How many people would have each type of ADHD? Well, " + name +
228           ", let's see!")
229     print("16,639,283 // 7 = ", 16639283 // 7)
230
231     adhd_pop = 16639283 // 7
232     adhd_pop_string = str(adhd_pop)
233     adhd_pop_left = 16639283 % 7
234     pop_left_string = str(adhd_pop_left)
235
236     print("That would make it so one type of ADHD would affect "
237           + adhd_pop_string + " people with a remainder of " + pop_left_string
238           + " people left to be categorized with those")
239     print("that do not have ADHD.")
240     print(" ")
241     print("Now let's say that EVERYONE had ADHD! How many people "
242           "would be in each group now, " + name + "?")
243     print("Let's do some more math to figure it out!")
244     print("332,785,650 / 7 = ", 332785650 / 7)
245     print("That would make it roughly 47,540,808 people with "
246           "each type of ADHD! That's crazy!")
247     print(" ")
248     print("Now let's say the population in the United States was magically "
249           "squared over night! How many people would have ADHD then?")
250
251     pop_squared_ADHD = 332785650 ** 2 // 7
252     pop_squared_string = str(pop_squared_ADHD)

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253
254 print("(332,785,650 ** 2) // 7 = ", pop_squared_string)
255 print("Woah! That would be about " + pop_squared_string + " people for "
256       "each type of ADHD!")
257 print(" ")
258
259 print("Now let's try something new! We are going to let the program "
260       "randomly decide on a number between 7 and 332875650 for the "
261       "population")
262 print("      and you, " + name + ", can pick a number to represent "
263       "the percentage of that randomly generated number that have ADHD!")
264 print(" ")
265
266 """generates the random number between the two numbers shown"""
267 random_num = random.randint(7, 332785651)
268 """calls back to the function to display the random number section of
269 the code"""
270 population_random(random_num)
271 print(" ")
272
273 print("I think we can both agree that both are a lot of people!")
274 print(" ")
275
276 print("BUT we can't forget about those who say there are only 3 forms "
277       "of ADHD/ADD.")
278 print("These three groups break down ADHD/ADD into a much simpler terms "
279       "as far as descriptions.")
280 print(" ")
281 print("The 3 types are known as: ")
282
283 """Call back to function to display the list of the three types of ADHD
284 to the user"""
285 adhd_function_list3()
286 print(" ")
287
288 print("Inattentive ADHD include the symptoms listed previously such "
289       "as lack of attention, distractibility, and forgetfulness.")
290 print("Hyperactive-impulsive ADHD is said to be the least common type "
291       "and comes with the symptoms found in the name (hyperactivity "
292       "and impulsive behavior).")
293 print("Combined ADHD is the most common type out of these three. "
294       "As the name implies, it is a combination between Inattentive and "
295       "Hyperactive-impulsive")
296 print("      ADHD. This form of ADHD comes with all the previously listed "
297       "symptoms.")
298 print(" ")
299
300 print("Let's review this one more time.")
301
302 """another break/input in the program to help the user remember the two
303 different numbers and to also allow the user not to become overwhelmed
304 with text. It also acts as a good transition from one section of
305 information to another"""
306 while True:
307     three_types = input("What is the lower number of 'types' of ADHD/ADD
? "
308                        "(Please use an integer): ")
309     seven_types = input(
310         "What's the higher amount? (Please use an integer): ")
311     if three_types == "3" and seven_types == "7":
312         print("That is correct! The discussing is between 3 and 7 types!")
313         break
314     else:
315         print("No, that's not right.")

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316     print(" ")
317
318     print("New research and information about ADHD/ADD is slow surfacing, "
319           "but it is still important to educate yourself about the existing "
320           "information")
321     print("        to help better understand those around you!")
322
323     print("Thank you, " + name + ", for using our program to learn more "
324           "about ADHD/ADD! I hope this program has inspired you to learn more
325           "about the illness ")
326     print("        and to help educate others as well!")
327     print(" ")
328
329     """Asks the user if they would like to continue on to the works cited to
330     view the websites used to back this program."""
331     while True:
332         redirect = input("Would you like to be directed to the "
333                           "Works Cited? (Yes/No): ")
334         if redirect == "No" or redirect == "no":
335             break
336         if redirect == "Yes" or redirect == "yes":
337             print(" ")
338             print("    Works Cited:")
339             print(" ")
340             print("        Do You Have ADHD--Or Are You Just Easily "
341                   "Distracted? | CBS News")
342             print("        - https://www.cbsnews.com/news/do-you-
343                   "-have-adhd-or-are-you-just-easily-distracted/")
344             print(" ")
345             print("        What Are The 7 Types Of ADHD? | Betterhelp")
346             print("        - https://www.betterhelp.com/advice/
347                   "adhd/what-are-the-7-types-of-adhd/")
348             print(" ")
349             print("        What is Inattentive ADHD? ADD Symptoms, Causes, "
350                   "Treatment | ADDitudemag")
351             print("        - https://www.additudemag.com/slideshows"
352                   "/symptoms-of-inattentive-adhd/")
353             print(" ")
354             print("        3 types of ADHD: What are the differences? | "
355                   "MedicalNewsToday")
356             print("        - https://www.medicalnewstoday.com/"
357                   "articles/317815")
358             print(" ")
359             print("        What Are the Three Types of ADHD? | HealthLine")
360             print("        - https://www.healthline.com/health/"
361                   "adhd/three-types-adhd")
362             print(" ")
363             print("        Population of USA 2021 | USAPopulation")
364             print("        - https://www.usapopulation.org/#:~:"
365                   "text=US%20Population%202021%20United%20States%20of%20"
366                   "America%20\(U.S.A.\),largest%20country%20with%20size%20"
367                   "of%209.834%20million%20km%C2%B2."")
368             break
369         else:
370             print(" ")
371
372
373     """calls to the main() function to display it to the user."""
374     main()
375

```

- 1 .) Classic ADHD is one of the more known types of ADHD. This type of ADHD comes with disorganization, hyperactivity, distractibility, and restlessness.
- 2 .) Inattentive ADHD is the second more known type of ADHD. The symptoms include inattentiveness (lack of attention), little motivation, procrastination tendencies, and forgetfulness. People with this form of ADHD are more likely to make careless mistakes and have a hard time following simple instructions.
- 3 .) Those with Overfocused ADHD tend to exhibit symptoms of ADHD, but they also tend to get bored with something rather quickly or get stuck on something for a long period of time. They also experience thought loops and can become obsessive, oppositional, or anxious.
- 4 .) Temporal Lobe ADHD include symptoms such as irritability, aggression, paranoia, and mood instability. Children with this form of ADHD can experience memory issues and may hear or see things that do not exist. Dark thoughts are heightened with this form of ADHD along with Overfocused ADHD. Quick light and sound changes can also result in headaches due to where this form is found in the brain
- 5 .) Limbic ADHD comes paired with a low-functioning form of depression (although it is not referred to as depression) along with low energy, and low self-esteem.
- 6 .) Ring of Fire ADHD is a type of ADHD that exhibits extreme emotions. These emotions are primarily emotions connected to irritability and anger. They can also experience mood swings and, similar to Temporal Lobe ADHD, can be highly sensitive to lights, noises, touch, and clothes. This ADHD occurs because there is too much going on in the brain at once and the person becomes overwhelmed.
- 7 .) Anxious ADHD treads on ground where both ADHD and anxiety inhibit. This ADHD can cause someone to experience mental and physical symptoms of stress such as headaches and stomachaches. This ADHD can also disrupt how an adult or child reacts to certain situations and circumstances because of high stress levels.

- 1 .) Inattentive
- 2 .) Hyperactive-impulsive
- 3 .) Combination

1 Works Cited:

2

3 Do You Have ADHD--Or Are You Just Easily Distracted? | CBS News

4 - <https://www.cbsnews.com/news/do-you-have-adhd-or-are-you-just-easily-distracted/>

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6

7 What Are The 7 Types Of ADHD? | Betterhelp

8 - <https://www.betterhelp.com/advice/adhd/what-are-the-7-types-of-adhd/>

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10

11 What is Inattentive ADHD? ADD Symptoms, Causes, Treatment | ADDitudemag

12 - <https://www.additudemag.com/slideshows/symptoms-of-inattentive-adhd/>

13

14

15 3 types of ADHD: What are the differences? | MedicalNewsToday

16 - <https://www.medicalnewstoday.com/articles/317815>

17

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19 What Are the Three Types of ADHD? | HealthLine

20 - <https://www.healthline.com/health/adhd/three-types-adhd>")

21

22

23 Population of USA 2021 | USAPopulation

24 - [https://www.usapopulation.org/#:~:text=US%20Population%202021%20United%20States%20of%20America%20\(U.S.A.\),largest%20country%20with%20size%20of%209.834%20million%20km%C2%B2.](https://www.usapopulation.org/#:~:text=US%20Population%202021%20United%20States%20of%20America%20(U.S.A.),largest%20country%20with%20size%20of%209.834%20million%20km%C2%B2.)