Week 4 - Take Home

1) What's wrong with this code?

Each snippet of code contains one error; find the error and circle it. How can the code be fixed?

1a)

```
1.  num_apples_on_tree = 26
2.  while input("Do you want to pick an apple?") == "yes"
3.    num_apples_on_tree -= 1
4.    print("There are", num_apples_on_tree, "apples remaining.")
```

1b)

```
1.  my_fav_fruit = "strawberries"
2.  users_fav_fruit = input("What's your favorite fruit?")
3.
4.  while users_fav_fruit != my_fav_fruit:
5.    users_fav_fruit == input("Are you sure about that? Pick something better.")
6.
7.  print("Hey! That's my favorite too!")
```

1c)

```
1.  num_hot_dogs_eaten = 0
2.
3.  while input("Would you like to eat a hot dog?") == "yes":
4.    num_hot_dogs_eaten + 1
5.
6.    if num_hot_dogs_eaten > 5:
7.      print("Wow, you must be hungry!")
8.
9.    if num_hot_dogs_eaten > 9:
10.     print("You are a sick person")
```

2) What does this code do?

Look at the following function definition and write the output below when it is called.

```
 1.  def print_vacation_itinerary( destination, vacation_length ):
 2.    print("Day 0 - depart for", destination, "!!")
 3.    day_counter = 1
 4.
 5.    while day_counter < vacation_length:
 6.      print("Day", day_counter, "- VACATIONING! Woohoo!")
 7.      day_counter += 1
 8.
 9.    print("Day", vacation_length, "- back to real life :(")
10.
```

print_vacation_itinerary("New Orleans", 5)

Output:

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print_vacation_itinerary("Montreal", 1)

Output:

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3) Finish the code

The New York Marathon needs some new software for printing its runners' times as they cross the finish line. There are 100 runners total.

You can use the 'datetime' module to get the current time. Make sure to put 'import datetime' at the top of your program.

```
import datetime

cur_time = datetime.datetime.now().time()
print("The current time is ", cur_time)
```

=> 13:51:56.8677

Using the datetime code above, write a program that waits for the user to hit enter. Every time they hit enter it represents a runner crossing the finish line and it should print out "The #1 runner crossed the finish line at 13:45:23" (replacing '1' with the current runner, and '13:45:23' with the current time).

After all 100 runners have passed print out "Race finished!"

Finish the code below!

```
import datetime

total_runners = 100
finished _runners = 0

while finished_runners < total_runners:
    input("Press enter when a runner crosses the finish line.")
    # your code here
```