Unit 2 (Missions 6-8) Python Code By Mission

Mission 6 - Heartbeat	

Infinite while loop	`while True:`
	`    # Indent code to loop`
	`    display.show(pics.HEART)`
	`    sleep(delay)`

Break out of a loop *Can be any button*	`if buttons.was_pressed(BTN_A):` `    break`
Increment *With if statement*	`if buttons.was_pressed(BTN_A):` `    delay = delay + 0.2`
Decrement *With if statement*	`if buttons.was_pressed(BTN_A):` `    delay = delay + 0.2`
Mission 6 Remix	
Play a tone	`audio.pitch(my_sound, 0.5)` `audio.pitch(520, delay)`
Mission 7 - Personal Billboard	
Compare a variable to a specific value	`if choice == 0:` `    # do something`

List index wrap around (end back to beginning)	`if buttons.was_pressed(BTN_L):`
	`    choice = choice - 1`
	`    if choice < 0:`
	`    choice = LAST_INDEX`

List index wrap around (beginning back to end)	`if buttons.was_pressed(BTN_R):`
	`    choice = choice + 1`
	`    if choice > LAST_INDEX:`
	`    choice = 0`

Define (create) a list	`my_list = [pics.HAPPY, pics.SAD, pics.SURPRISED, pics.ASLEEP]` `my_list = [pics.HAPPY, pics.SAD, pics.SURPRISED, pics.ASLEEP]`

Access an item from the list	`index = 3`
	`my_item = my_list[index]`
	`my_item = my_list[2]`

Last index	`LAST_INDEX = len(my_list) - 1`

Get the data type of a variable (can also use console panel)	`>>> type(7)`
	`<class 'int'>`
	`>>> type(1.15)`
	`my_type = type(7)`
	`if type(my_item) == tuple`

Mission 7 Remix	
Print on multiple lines	Use "\n" and display.print() display.print("Hello \nthere") will print hello there
Turn on/off LED above button A/B	`leds.set(LED_A, True)` `leds.set(LED_B, False)`
Mission 8 - Answer Bot	
Import random module	`import random`
Generate a random integer	`number = random.randrange(10)` gives a number between 0 and 9 `number = random.randrange(1, 6)` gives a number between 1 and 5 ** default starting value is 0 unless specifically stated. Integers will go from the starting value to one less than the ending value.
Change the size of text	`display.print(number, scale=3)` scale adjusts the size of the text. If the scale is too big, the text will appear as gibberish or shapes on the display screen. scale=1 is the default size.
Select a random number from a list	`color = random.choice(COLOR_LIST)` `my_choice = random.choice(answers)`

Mission 8 - Optional Lesson - Adding JPG images	

Displaying a JPG image	`display.draw_jpg("pics/teacherBear.jpg")`
	`x = "pics/teacherBear.jpg"`
	`display.draw_jpg(x)`
	`my_images = ["pics/teacherBear.jpg",`
	`"pics/doggie.jpg",`
	`"pics/goldfish.jpg"]`
	`display.draw_jpg(random.choice(my_images))`