Example #1 - Guessing Game

Attempt = 1

Guess = 0

while Attempt <= 3 and not int(Guess) == 9:

Guess = input("Guess: ")

Attempt += 1

if int(Guess) == 9:

print("You Win!")

else:

print("Sorry you failed!")

Example #2 - Guessing Game as shown in the video

secret\_number = 9

guess\_count = 0

guess\_limit = 3

while guess\_count < guess\_limit:

guess = int(input("Guess: "))

guess\_count += 1

if guess == secret\_number:

print("You won!")

break

else:

print("Sorry you failed!")

Example #3 - Car Game

command = " "

help\_command = "help"

start\_command = "start"

stop\_command = "stop"

quit\_command = "quit"

while not command == quit\_command:

command = (input("> "))

if command == help\_command:

print("start - to start the car")

print("stop - to stop the car")

print("quit - to exit")

elif command == start\_command:

print("Car started...Ready to go!")

elif command == stop\_command:

print("Car stopped.")

elif command == quit\_command:

break

else:

print("I don't understand that...")

Example #4 - Car game as shown in the video

command = ""

while True:

command = input("> ").lower()

if command == "help":

print("""start - to start the car

stop - to stop the car

quit - to exit""")

elif command == "start":

print("Car started...Ready to go!")

elif command == "stop":

print("Car stopped.")

elif command == "quit":

break

else:

print("I don't understand that...")

Example #5 - Advanced car game

command = ""

while True:

if command == "start":

command = input("> ").lower()

if command == "help":

print("""start - to start the car

stop - to stop the car

quit - to exit""")

elif command == "start":

print("The car has already been started!")

elif command == "stop":

print("Car stopped.")

elif command == "quit":

break

else:

print("I don't understand that...")

elif command == "stop":

command = input("> ").lower()

if command == "help":

print("""start - to start the car

stop - to stop the car

quit - to exit""")

elif command == "start":

print("Car started...Ready to go!")

elif command == "stop":

print("The car has already been stopped!")

elif command == "quit":

break

else:

print("I don't understand that...")

else:

command = input("> ").lower()

if command == "help":

print("""start - to start the car

stop - to stop the car

quit - to exit""")

elif command == "start":

print("Car started...Ready to go!")

elif command == "stop":

print("Car stopped.")

elif command == "quit":

break

else:

print("I don't understand that...")

Example #6 - Advanced car game as shown in the video

command = ""

started = False

while True:

command = input("> ").lower()

if command == "help":

print("""start - to start the car

stop - to stop the car

quit - to exit""")

elif command == "start":

if started:

print("Car is already started!")

else:

started = True

print("Car started...Ready to go!")

elif command == "stop":

if not started:

print("Car is already stopped!")

else:

started = False

print("Car stopped.")

elif command == "quit":

break

else:

print("I don't understand that...")

Example #7 - For loops

for item in "Python":

print(item)

Example #8 - For loops with a list of strings

for item in ["Mosh", "John", "Sarah"]:

print(item)

Example #9 - For loops with a list of numbers

for item in [1, 2, 3, 4]:

print(item)

Example #10 - Range function

for item in range(10):

print(item)

Example #11 - Range function starting position

for item in range(5, 10):

print(item)

Example #12 - Range function counting by twos with a starting position

for item in range(5, 10, 2):

print(item)

Example #13 For loops exercise

prices = [10, 20, 30]

total = 0

for price in prices:

print(price)

print("total: {total}".format(total=total))

Example #14 - Nested loops

for x in range(4):

for y in range(3):

print("({x}, {y})".format(x=x, y=y))

Example # 15 - Nested loops exercise

numbers = [5, 2, 5, 2, 2]

for item in numbers:

item = item \* "x"

print(item)

item = len(item)

Example #16 - Nested loops exercise as shown in the video

numbers = [5, 2, 5, 2, 2]

for x\_count in numbers:

output = ""

for count in range(x\_count):

output += "x"

print(output)

Example #17 - L challenge

numbers = [1, 1, 1, 1, 5]

for x\_count in numbers:

output = ""

for count in range(x\_count):

output += "x"

print(output)

Example #18 - Lists printed

names = ["John", "Bob", "Mosh", "Sarah", "Mary"]

print(names)

Example #19 - Printing an item in the list

names = ["John", "Bob", "Mosh", "Sarah", "Mary"]

print(names[0])

Example #20 - Printing a negative index from a list

names = ["John", "Bob", "Mosh", "Sarah", "Mary"]

print(names[-1])

Example #21 - Choosing where to start printing a list

names = ["John", "Bob", "Mosh", "Sarah", "Mary"]

print(names[2:])

Example #22 - Choosing an item to start not printing at

names = ["John", "Bob", "Mosh", "Sarah", "Mary"]

print(names[2:4])

Example #23 - Selecting items to print from the list does not change what it means

names = ["John", "Bob", "Mosh", "Sarah", "Mary"]

print(names[2:4])

print(names)

Example #24 - Updating a list

names = ["John", "Bob", "Mosh", "Sarah", "Mary"]

names[0] = "Jon"

print(names)

Example #25 - List exercise

numbers = [5, 20, 10, 15, 7]

max = numbers[0]

for number in numbers:

if number > max:

max = number

print(max)

Example #26 - 2D lists/Matrix

matrix = [

[1, 2, 3],

[4, 5, 6],

[7, 8, 9]

]

print(matrix[0][1])

Example #27 - Modifying a 2D list/Matrix

matrix = [

[1, 2, 3],

[4, 5, 6],

[7, 8, 9]

]

matrix[0][1] = 20

print(matrix[0][1])

Example #28 - 2D list/Matrix with a nested for loop

matrix = [

[1, 2, 3],

[4, 5, 6],

[7, 8, 9]

]

for row in matrix:

for item in row:

print(item)

Example #29 - Adding a number at the end of a list

numbers = [5, 2, 1, 7, 4]

numbers.append(20)

print(numbers)

Example #30 - Inserting a new item to the list

numbers = [5, 2, 1, 7, 4]

numbers.insert(0, 10)

print(numbers)

Example #31 - Removing a number from the list

numbers = [5, 2, 1, 7, 4]

numbers.remove(5)

print(numbers)

Example #32 - Emptying a list

numbers = [5, 2, 1, 7, 4]

numbers.clear()

print(numbers)

Example #33 - Removing the last item in the list

numbers = [5, 2, 1, 7, 4]

numbers.pop()

print(numbers)

Example #34 - Finding a number in a list

numbers = [5, 2, 1, 7, 4]

print(numbers.index(5))

Example #35 - Checking if an item is in a list

numbers = [5, 2, 1, 7, 4]

print(50 in numbers)

Example #36 - Counting the occurrences of a number

numbers = [5, 2, 1, 5, 7, 4]

print(numbers.count(5))

Example #37 - Sort method

numbers = [5, 2, 1, 5, 7, 4]

print(numbers.sort())

Example #38 - Sort method printed

numbers = [5, 2, 1, 5, 7, 4]

numbers.sort()

print(numbers)

Example #39 - Reverse method

numbers = [5, 2, 1, 5, 7, 4]

numbers.sort()

numbers.reverse()

print(numbers)

Example #40 - Copying lists

numbers = [5, 2, 1, 5, 7, 4]

numbers2 = numbers.copy()

numbers.append(10)

print(numbers2)

Example #41 - List methods exercise

numbers = [2, 2, 4, 6, 3, 4, 6, 1]

uniques = []

for number in numbers:

if number not in uniques:

uniques.append(number)

print(uniques)

Example #42 - Tuples(Unchangeable/immutable lists)

numbers = (1, 2, 3)

print(numbers[0])

Example #43 - Trying to change a tuple

numbers = (1, 2, 3)

numbers[0] = 10

print(numbers[0])

Example #44 - Storing lists in variables

coordinates = (1, 2, 3)

x = coordinates[0]

y = coordinates[1]

z = coordinates[2]

Example #45 - Storing lists in variables using unpacking

coordinates = (1, 2, 3)

x, y, z =coordinates

Example #46 - Unpacking lists

coordinates = [1, 2, 3]

x, y, z =coordinates

Example #47 - Dictionaries and keys

customer = {

"name": "John Smith",

"age": 30, #You cannot duplicate keys(variables in dictionaries)

"is\_verified": True

}

print(customer["name"])

Example #48 - Printing a key that does not exist

customer = {

"name": "John Smith",

"age": 30, #You cannot duplicate keys(variables in dictionaries)

"is\_verified": True

}

print(customer.get("Name"))

Example #49 - Adding a key to a dictionary

customer = {

"name": "John Smith",

"age": 30, #You cannot duplicate keys(variables in dictionaries)

"is\_verified": True

}

print(customer.get("birthdate", "Jan 1 1980"))

Example #50 - Updating a dictionary

customer = {

"name": "John Smith",

"age": 30, #You cannot duplicate keys(variables in dictionaries)

"is\_verified": True

}

customer["name"] = "Jack Smith"

print(customer["name"])

Example #51 - Adding a key to a dictionary

customer = {

"name": "John Smith",

"age": 30, #You cannot duplicate keys(variables in dictionaries)

"is\_verified": True

}

customer["birthdate"] = "Jan 1, 1980"

print(customer["birthdate"])

Example #52 - Dictionary exercise

phone = input("Phone: ")

digits\_mapping = {

"1": "one",

"2": "two",

"3": "three",

"4": "four",

"5": "five",

"6": "six",

"7": "seven",

"8": "eight",

"9": "nine",

"0": "zero"

}

output = ""

for ch in phone:

output += digits\_mapping.get(ch, "!") + " "

print(output)

Example #53 - Emoji converter

message = input("> ")

words = message.split(" ")

emojis = {

":)": "😀",

":(": "😭"

}

output = ""

for word in words:

output += emojis.get(word, word) + " "

print(output)