If else | Loop | Function

**Ex 1: Recap Input, Variable, and Concat or fstring**

# brand name generator basic Concat:

print("Welcome to the band name generator.")

city = input("Which city did you grow up in? \n")

pet = input("What is the name of your pet? \n")

print("Your band name coud be " + city.capitalize() + " " + pet.capitalize())

# change to f string:  
print(f"Your band name coud be {city.capitalize()} {pet.capitalize()}")

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**Ex 1: Recap Input, Variable, Concat, fstring and Wrapping into function**

# make it to a reusable by create a function:

def generate\_brand\_name():

    print("Let's create a unique brand name!")

    industry = input("What industry is your brand in? ")

    product = input("What is your main product or service? ")

    adjective = input("The most exiciting/elegant way when thinking of your brand: ")

    brand\_name = (

        f"{adjective.capitalize()} {product.capitalize()} {industry.capitalize()}"

    )

    return brand\_name

brand\_name = generate\_brand\_name()

print("Your brand name is:", brand\_name)

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**Ex2: for loop**

# A countdown app

import time

my\_time = int(input("Enter the time in seconds: "))

# version 1

for sec in range(0, my\_time):

    print(sec)

    time.sleep(1)

# version 2

for sec in range(my\_time, 0, -1):

    print(sec)

    time.sleep(1)

# version 3

for sec in range(my\_time, 0, -1):

    seconds = sec % 60

    print(f"00:00:{seconds:02}")

    time.sleep(1)

# version 4

for sec in range(my\_time, 0, -3):

    seconds = sec % 60

    minutes = int(sec / 60) % 60

    print(f"00:{minutes: 02}:{seconds:02}")

    time.sleep(1)

print("Time's Up!")

**Ex3: if else, function**

# to calculate ticket price:

def gig\_ticket\_price\_calculator(age, is\_student=False):

if is\_student and age > 5:

return 15.00

if age <= 5:

return 0.00

elif age <= 18 or age > 65:

return 20.00

else:

return 30.00

# Example usage

print("Gig Ticket price for age 65 is", gig\_ticket\_price\_calculator(65))

print("Gig Ticket price for age 50 is", gig\_ticket\_price\_calculator(50))

print("Gig Ticket price for age 50 (student) is", gig\_ticket\_price\_calculator(50, True))

print("Gig Ticket price for age 5 is", gig\_ticket\_price\_calculator(5))

print("Gig Ticket price for age 15 is", gig\_ticket\_price\_calculator(15))

**Ex4: random, for loop and function**

# to generate an email using function and loop:

import random

def generate\_band\_name():

    adjectives = ["Electric", "Mystic", "Groovy", "Dazzling", "Epic"]

    genres = ["Rock", "Funk", "Pop", "Jazz", "Blues"]

    return f"The {random.choice(adjectives)} {random.choice(genres)}"

def band\_notice(member, band\_name):

    BLUE = "\033[34m"

    RESET = "\033[0m"

    text = f"""Dear {BLUE}{member}{RESET},

We are thrilled to announce that our band, "{band\_name},"

will be performing live on {BLUE}Saturday, 15 October 2023{RESET},

at the Grand Music Hall (123 Main Street, Your City).

The show will start at {BLUE}8:00 PM{RESET}.

Don't miss the chance to experience an unforgettable night of music and entertainment.

Invite your friends and family for an incredible musical journey!

See you at the show!

Best regards,

{band\_name}

"""

    return text

guest\_list = ["Graham", "Alex", "Karen", "Van"]

for member in guest\_list:

    current\_band\_name = generate\_band\_name()

    print(band\_notice(member, current\_band\_name))

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**Ex5: if else, function, random**

# to add random in ticket seat number:

import random

def ticket\_price\_calculator(age, f\_student=False):

    if f\_student and age > 5:

        return 15.00

    elif age <= 5:

        return 0.00

    elif age <= 18 or age > 65:

        return 20.00

    else:

        return 30.00

def generate\_random\_seat():

    return random.randint(1, 100)

def buy\_tickets():

    print("Welcome to the Ticket Booth!")

    total\_price = 0.00

    while True:

        name = input("Enter your name (type 'exit' to stop): ")

        if name.lower() == "exit":

            break

        age = int(input("Enter your age: "))

        is\_student = input("Are you a student? (yes/no): ").lower() == "yes"

        ticket\_price = ticket\_price\_calculator(age, is\_student)

        seat\_number = generate\_random\_seat()

        print(f"\nTicket for {name}:")

        print(f"Ticket Price: ${ticket\_price:.2f}")

        print(f"Seat Number: {seat\_number}")

        total\_price += ticket\_price

        print(f"\nTotal Price so far: ${total\_price:.2f}")

        more\_tickets = input("Do you want to buy more tickets? (yes/no): ").lower()

        if more\_tickets != "yes":

            break

    print(f"\nTotal Price for all tickets: ${total\_price:.2f}")

buy\_tickets()

**Ex6 Snack:**

store = [

    {"name": "Tea", "price": 4.00},

    {"name": "Coffee", "price": 5.00},

    {"name": "Juice", "price": 6.50},

    {"name": "Smoothie", "price": 7.00},

    {"name": "Cocktail", "price": 9.00},

    {"name": "Chips", "price": 3.50},

]

def display\_menu():

    print("\nAvailable Products:")

    for product in store:

        print(f"{product['name']} - ${product['price']:.2f}")

def calculate\_total\_price(product\_name, quantity):

    for product in store:

        if product["name"].lower() == product\_name:

            return product["price"] \* quantity

    return 0.00

total\_price = 0.00

while True:

    display\_menu()

    product\_name = input("Enter the product name (type 'x' to chcekout): ")

    if product\_name.lower() == "x":

        break

    quantity = int(input("Enter the quantity: "))

    product\_price = calculate\_total\_price(product\_name, quantity)

    if product\_price > 0.00:

        total\_price += product\_price

        print(f"Total price for {quantity} {product\_name}(s): ${product\_price:.2f}")

    else:

        print(

            "Product not found in our shop. Please choose from the available products."

        )

print(f"\nTotal price for all purchases: ${total\_price:.2f}")

**Ex7 To do list:**

todo\_list = []

def get\_task():

task = input("Enter a new task: ")

return {"task": task, "completed": False}

def display\_menu():

print("\nOptions:")

print("1. Add Task")

print("2. Mark Task as Completed")

print("3. View To-Do List")

print("4. Punishment Game")

print("5. Quit")

def display\_todo\_list():

print("\nTo-Do List:")

for index, task in enumerate(todo\_list):

print(f"{index + 1}. {task['task']} - {'Completed' if task['completed'] else 'Incomplete'}")

def select\_random\_exercise():

exercises = [

"10 push-ups",

"20 jumping jacks",

"15 squats",

"30-second plank",

"10 burpees",

"5-minute brisk walk",

]

return random.choice(exercises)

def punishment\_game():

exercise = select\_random\_exercise()

print(f"\nPunishment Game: You must perform the following exercise: {exercise}")

complete\_exercise = input("Did you complete the exercise? (yes/no): ").lower()

if complete\_exercise == 'yes':

print("Exercise completed! Good job!")

else:

print("Exercise not completed. Better luck next time!")

def main():

print("Welcome to the To-Do List Manager!")

while True:

display\_menu()

choice = input("Enter your choice (1-5): ")

if choice == '1':

new\_task = get\_task()

todo\_list.append(new\_task)

print("Task added successfully!")

elif choice == '2':

display\_todo\_list()

task\_number = int(input("Enter the number of the task to mark as completed: "))

if 1 <= task\_number <= len(todo\_list):

todo\_list[task\_number - 1]['completed'] = True

print("Task marked as completed!")

else:

print("Invalid task number.")

elif choice == '3':

display\_todo\_list()

elif choice == '4':

punishment\_game()

elif choice == '5':

print("Goodbye!")

break

else:

print("Invalid choice. Please enter a number between 1 and 5.")

main()