PYTHON BASIC PROJECTS

1.To do list

SOURCE CODE :

class TaskManager:

def \_\_init\_\_(self):

self.tasks = []

def add\_task(self, task):

self.tasks.append(task)

print("Task '{}' added successfully!".format(task))

def complete\_task(self, task):

if task in self.tasks:

self.tasks.remove(task)

print("Task '{}' completed!".format(task))

else:

print("Task '{}' not found!".format(task))

def remove\_task(self, task):

if task in self.tasks:

self.tasks.remove(task)

print("Task '{}' removed successfully!".format(task))

else:

print("Task '{}' not found!".format(task))

def display\_tasks(self):

if self.tasks:

print("Tasks:")

for index, task in enumerate(self.tasks, start=1):

print("{}. {}".format(index, task))

else:

print("No tasks found!")

def main():

manager = TaskManager()

while True:

print("\nTask Manager")

print("1. Add Task")

print("2. Complete Task")

print("3. Remove Task")

print("4. Display Tasks")

print("5. Exit")

choice = input("Enter your choice: ")

if choice == '1':

task = input("Enter task: ")

manager.add\_task(task)

elif choice == '2':

task = input("Enter task to complete: ")

manager.complete\_task(task)

elif choice == '3':

task = input("Enter task to remove: ")

manager.remove\_task(task)

elif choice == '4':

manager.display\_tasks()

elif choice == '5':

print("Exiting...")

break

else:

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

if \_\_name\_\_ == "\_\_main\_\_":

main()

**2.NUMBER GUESS GAME:**

SOURCE CODE:

import random

def guessing\_game():

print("Welcome to the Guessing Game!")

print("I have chosen a number between 1 and 100. Try to guess it!")

# Generate a random number between 1 and 100

secret\_number = random.randint(1, 100)

attempts = 0

while True:

guess = input("Enter your guess (or 'exit' to quit): ")

# Check if the user wants to exit the game

if guess.lower() == 'exit':

print("Exiting game...")

break

# Check if the input is a valid number

if not guess.isdigit():

print("Please enter a valid number.")

continue

guess = int(guess)

# Increment the number of attempts

attempts += 1

# Provide hints to the user

if guess < secret\_number:

print("Too low! Try a higher number.")

elif guess > secret\_number:

print("Too high! Try a lower number.")

else:

print("Congratulations! You've guessed the number {} in {} attempts!".format(secret\_number, attempts))

break

if \_\_name\_\_ == "\_\_main\_\_":

guessing\_game()

**3.PASSWORD GENERATOR**

import string

import secrets

def generate\_password(length=12):

alphabet = string.ascii\_letters + string.digits + string.punctuation

password = ''.join(secrets.choice(alphabet) for i in range(length))

return password

# Generate a password with default length of 12 characters

password = generate\_password()

print("Generated password:", password)