**PYTHON PROGRAMMING**

**1.** **Write a Python script to scrape data from a webpage using**

**BeautifulSoup.**

**import** **requests**

**from** **bs4** **import** BeautifulSoup

**import** **csv**

URL = &quot;http://www.values.com/inspirational-quotes&quot;

r = requests.get(URL)

soup = BeautifulSoup(r.content, 'html5lib')

quotes=[] *# a list to store quotes*

table = soup.find('div', attrs = {'id':'all\_quotes'})

**for** row **in** table.findAll('div',

attrs = {'class':'col-6 col-lg-3 text-center margin-30px-bottom sm-margin-30px-top'}):

quote = {}

quote['theme'] = row.h5.text

quote['url'] = row.a['href']

quote['img'] = row.img['src']

quote['lines'] = row.img['alt'].split(&quot; *#&quot;)[0]*

quote['author'] = row.img['alt'].split(&quot; *#&quot;)[1]*

quotes.append(quote)

filename = 'inspirational\_quotes.csv'

**with** open(filename, 'w', newline='') **as** f:

w = csv.DictWriter(f,['theme','url','img','lines','author'])

w.writeheader()

**for** quote **in** quotes:

w.writerow(quote)

2. Create a basic chatbot using conditional statements.

def chatbot():

print("Hello! I'm ChatBot 🤖. Type 'bye' to exit.")

while True:

user\_input = input("You: ").lower()

if user\_input == "hello" or user\_input == "hi":

print("Bot: Hello there! How can I help you?")

elif user\_input == "how are you":

print("Bot: I'm just code, but I'm functioning as expected!")

elif user\_input == "what is your name":

print("Bot: I'm a simple chatbot created using Python.")

elif user\_input == "help":

print("Bot: You can say hello, ask how I am, or ask my name.")

elif user\_input == "bye":

print("Bot: Goodbye! Have a great day! 👋")

break

else:

print("Bot: Sorry, I didn't understand that. Try saying 'help'.")

# Run the chatbot

chatbot()

3. Build a contact book app using Tkinter and store data in a CSV file.

import tkinter as tk

from tkinter import messagebox

import csv

import os

# File name for storing contacts

CONTACTS\_FILE = "contacts.csv"

# Save contact to CSV

def save\_contact():

name = entry\_name.get().strip()

phone = entry\_phone.get().strip()

email = entry\_email.get().strip()

if not name or not phone or not email:

messagebox.showwarning("Input Error", "All fields are required!")

return

file\_exists = os.path.isfile(CONTACTS\_FILE)

with open(CONTACTS\_FILE, mode='a', newline='') as file:

writer = csv.writer(file)

if not file\_exists:

writer.writerow(["Name", "Phone", "Email"]) # header

writer.writerow([name, phone, email])

messagebox.showinfo("Success", f"Contact '{name}' saved successfully!")

entry\_name.delete(0, tk.END)

entry\_phone.delete(0, tk.END)

entry\_email.delete(0, tk.END)

# GUI Setup

root = tk.Tk()

root.title("Contact Book")

root.geometry("300x250")

# Labels and Entry widgets

tk.Label(root, text="Contact Book", font=("Arial", 16)).pack(pady=10)

tk.Label(root, text="Name").pack()

entry\_name = tk.Entry(root)

entry\_name.pack()

tk.Label(root, text="Phone").pack()

entry\_phone = tk.Entry(root)

entry\_phone.pack()

tk.Label(root, text="Email").pack()

entry\_email = tk.Entry(root)

entry\_email.pack()

tk.Button(root, text="Save Contact", command=save\_contact, bg="green", fg="white").pack(pady=15)

# Start the GUI loop

root.mainloop()