**Smartscan\_registration\_module.py**

import pyqrcode

from PIL import Image

from pyzbar.pyzbar import decode

from json import loads, dumps

user\_list = [

    {"id": 1, "name": "John", "email": "john@doe.gmail.com", "age": 30},

    {"id": 2, "name": "Jane", "email": "jane@doe.gmail.com", "age": 25},

    {

        "id": 3,

        "name": "Bob",

        "email": "bob@gmail.com",

        "age": 40,

    },

    {

        "id": 4,

        "name": "Sally",

        "email": "sally@gmail.com",

        "age": 35,

    },

]

create\_user = lambda id, name, email, age: {

    "id": id,

    "name": name,

    "email": email,

    "age": age,

}

add\_user = lambda record: user\_list.append(record)

get\_user\_by\_id = lambda id: next((user for user in user\_list if user["id"] == id), None)

fetch\_all\_users = lambda length: user\_list[:]

def generate\_smartscan(user\_data: dict, filename: str):

    data = dumps(user\_data)

    qr\_code = pyqrcode.create(data)

    qr\_code.png(filename, scale=8)

def decode\_smartscan(image\_path: str):

    image = Image.open(image\_path)

    decoded\_objects = decode(image)

    if not decoded\_objects:

        return None

    return decoded\_objects[0].data.decode("utf-8")

def register\_user\_from\_smart\_scan(path: str):

    user\_data = decode\_smartscan(path)

    if user\_data is None:

        return None

    data = loads(user\_data)

    user = create\_user(\*\*data)

    add\_user(user)

    print(fetch\_all\_users(10))

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

*# Add a new user*

    add\_user(create\_user(5, "Sam", "sam@gmail.com", 22))

*# Find a user*

    print(get\_user\_by\_id(5))

*# List all users*

    print(fetch\_all\_users(5))

    name = "John Doe"

    email = "john.doe@gmail.com"

    filename = "smartscan.png"

    generate\_smartscan(create\_user(7, name, email, 38), filename)

    image\_path = r"smartscan.png"

    decoded\_data = decode\_smartscan(image\_path)

    print(decoded\_data)

    register\_user\_from\_smart\_scan(image\_path)

**main.py**

from random import randint

from smartscan\_registration\_module import \*

name = input("Enter the user's name:")

email = input("Enter email ID:")

age\_str = input("Enter the age:")

try:

    age = int(age\_str)

except ValueError:

    print("Invalid age")

else:

    id = randint(1, 100)

    generate\_smartscan(create\_user(id, name, email, age), "smartscan.png")

register\_user\_from\_smart\_scan("smartscan.png")

Output:



