

K.RAMAKRISHNAN
COLLEGE OF TECHNOLOGY
(AN AUTONOMOUS INSTITUTION)
SAMAYAPURAM, TRICHY-621 112

COURSE: Python Programming - I Year - II Sem - Project Module

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NAME: RAGHAVAN V
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Practical Record Note

Name : RAGHAVAN V
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Programme :

**K.RAMAKRISHNAN
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CodeTantra

Semester in **Python Programming - I Year - II Sem - Project Module** Laboratory during the academic year 2023-2024

His/Her University Register Number is **2303811710421125**

Staff Incharge

Head of the Department

Submitted for the Practical exam held on:

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Internal Examiner
Date:

External Examiner
Date:

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Aim:

Project Module.

Program:

CTP28132.py

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```

class PatientInfo:
    def __init__(self, patient_id, name, age, gender):
        self.patient_id = patient_id
        self.name = name
        self.age = age
        self.gender = gender

    def display_info(self):
        print(f"Patient ID: {self.patient_id}")
        print(f"Name: {self.name}")
        print(f"Age: {self.age}")
        print(f"Gender: {self.gender}")

class Billing:
    def __init__(self, patient_id, charges):
        self.patient_id = patient_id
        self.charges = charges

    def display_billing(self):
        print(f"Patient ID: {self.patient_id}")
        print(f"Total Charges: ${self.charges:.2f}")

class Appointment:
    def __init__(self, patient_id, appointment_date, doctor_name):
        self.patient_id = patient_id
        self.appointment_date = appointment_date
        self.doctor_name = doctor_name

    def display_appointment(self):
        print(f"Patient ID: {self.patient_id}")
        print(f"Appointment Date: {self.appointment_date}")
        print(f"Doctor: {self.doctor_name}")

class HospitalManagementSystem:
    def __init__(self):
        self.patients = {}
        self.billings = {}
        self.appointments = {}

    def add_patient(self, patient_id, name, age, gender):
        patient = PatientInfo(patient_id, name, age, gender)
        self.patients[patient_id] = patient

    def add_billing(self, patient_id, charges):
        billing = Billing(patient_id, charges)
        self.billings[patient_id] = billing

    def add_appointment(self, patient_id, appointment_date, doctor_name,
                        doctor_name):
        appointment = Appointment(patient_id, appointment_date,
                                  doctor_name)
        self.appointments[patient_id] = appointment

    def display_patient_details(self, patient_id):
        if patient_id in self.patients:

```

```

        self.patients[patient_id].display_info()
        if patient_id in self.billings:
            self.billings[patient_id].display_billing()
        if patient_id in self.appointments:
            self.appointments[patient_id].display_appointment()
        else:
            print("Patient not found!")

    def exit(self):
        print("Exiting the Hospital Management System.")

def main():
    hms = HospitalManagementSystem()

    while True:
        print("\nHospital Management System")
        print("1. Add Patient")
        print("2. Add Billing")
        print("3. Add Appointment")
        print("4. Display Patient Details")
        print("5. Exit")

        choice = input("Enter your choice: ")

        if choice == '1':
            patient_id = input("Enter Patient ID: ")
            name = input("Enter Patient Name: ")
            age = int(input("Enter Patient Age: "))
            gender = input("Enter Patient Gender: ")
            hms.add_patient(patient_id, name, age, gender)

        elif choice == '2':
            patient_id = input("Enter Patient ID: ")
            charges = float(input("Enter Total Charges: "))
            hms.add_billing(patient_id, charges)

        elif choice == '3':
            patient_id = input("Enter Patient ID: ")
            appointment_date = input("Enter Appointment Date (YYYY-MM-DD): ")
            doctor_name = input("Enter Doctor's Name: ")
            hms.add_appointment(patient_id, appointment_date, doctor_name)

        elif choice == '4':
            patient_id = input("Enter Patient ID to display details: ")
            hms.display_patient_details(patient_id)

        elif choice == '5':
            hms.exit()
            break

        else:
            print("Invalid choice! Please try again.")

```

```
if __name__ == "__main__":
    main()
```

Output:

Test case - 1
User Output
Hello World
Hello World

Result:

Thus the above program is executed successfully and the output has been verified

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