

6. Hospital Management System

Program :

```
from abc import ABC, abstractmethod
```

```
# Abstraction
```

```
class Patient(ABC):
```

```
    def __init__(self):
```

```
        pass
```

```
    @abstractmethod
```

```
    def calculate_bill(self):
```

```
        pass
```

```
# Inheritance
```

```
class InPatient(Patient):
```

```
    def __init__(self):
```

```
        super().__init__()
```

```
        self.room_charge = 15000
```

```
        self.treatment_charge = 5000
```

```
# Polymorphism (Overriding)
```

```
    def calculate_bill(self):
```

```
        return self.room_charge + self.treatment_charge
```

```
# ---- Main Program ----
```

```
patient_type = input("Enter Patient Type (InPatient): ")
```

```
if patient_type.lower() == "inpatient":
```

```
    p = InPatient()
```

```
else:
```

```
    print("Invalid Patient Type")
```

```
    exit()
```

```
print("Total Bill:", p.calculate_bill())
```

Output :

Enter Patient Type (InPatient): InPatient

Total Bill: 20000