

## 5. Online Payment System

Program :

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

```
# Abstraction
```

```
class Payment(ABC):
```

```
    def __init__(self, amount):
```

```
        self.amount = amount
```

```
    @abstractmethod
```

```
    def pay(self):
```

```
        pass
```

```
# Inheritance
```

```
class UPI(Payment):
```

```
    def __init__(self, amount):
```

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

```
# Polymorphism
```

```
    def pay(self):
```

```
        print(f"Paid ₹{self.amount} using UPI")
```

```
class Card(Payment):
```

```
def __init__(self, amount):  
    super().__init__(amount)
```

```
# Polymorphism
```

```
def pay(self):  
    print(f"Paid ₹{self.amount} using Card")
```

```
class Cash(Payment):
```

```
def __init__(self, amount):  
    super().__init__(amount)
```

```
# Polymorphism
```

```
def pay(self):  
    print(f"Paid ₹{self.amount} using Cash")
```

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

```
mode = input("Enter Payment Mode (UPI/Card/Cash): ")
```

```
amount = float(input("Enter Amount: "))
```

```
if mode.lower() == "upi":
```

```
    payment = UPI(amount)
```

```
elif mode.lower() == "card":
```

```
    payment = Card(amount)
```

```
elif mode.lower() == "cash":
```

```
    payment = Cash(amount)
```

else:

```
print("Invalid Payment Mode")
```

```
exit()
```

```
payment.pay()
```

Output :

Enter Payment Mode (UPI/Card/Cash): UPI

Enter Amount: 100

Paid ₹100.0 using UPI

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