

Task 3:Calculate the Bill Amount

Problem:

A power company calculates the monthly electricity bill based on the following rules:

Inputs

units_consumed (int)

is_senior_citizen (bool)

has_solar_panel (bool)

payment_mode (str - 'online' or 'offline')

Billing Rules

1. Base charge per unit

First 100 units - ₹3 per unit

Next 200 units (101-300) . ₹5 per unit

Above 300 units - ₹8 per unit

2. Senior citizen discount

If is_senior_citizen == True . 10% discount

on total bill

3. Solar panel benefit

. If has_solar_panel == True AND units s

250 - 7500 flat discount

. If has_solar_panel == True AND units >

250 - ₹300 flat discount

4. Payment mode surcharge

. If payment_mode == 'offline' AND total

bill < 71000 - 750 surcharge

. If payment_mode == 'offline' AND total

bill ≥ 71000 - 7100 surcharge

. No surcharge for "online"

5. Minimum payable amount

Final bill cannot be less than 200

Solution:

```
units=int(input("Enter Unit:"))
```

```
is_senior=bool(input("Enter he/she is citizen:"))
```

```
has_solar=bool(input("Enter he/she has solar panel:"))
```

```
payment_mode=input("Enter Online or Offline:").lower()
```

```
bill = 0
```

```
if units <= 100:
```

```
    bill = units * 3
```

```
elif units <= 300:
```

```
    bill = (100 * 3) + ((units - 100) * 5)
```

```
else:
```

```
bill = (100 * 3) + (200 * 5) + ((units - 300) * 8)
```

```
if is_senior:
```

```
    bill *= 0.9
```

```
if has_solar:
```

```
    if units <= 250:
```

```
        bill -= 500
```

```
    else:
```

```
        bill -= 300
```

```
if payment_mode == "offline":
```

```
    if bill < 1000:
```

```
        bill += 50
```

```
    else:
```

```
        bill += 100
```

```
if bill < 200:
```

```
bill = 200
```

```
print("Final Amount:", int(bill))
```

Output:

Enter Unit: 150

Enter he/she is citizen: true

Enter he/she has solar panel: true

Enter Online or Offline: offline

Final Amount: 200