

PROGRAM 3.4:

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In [2]: #AMIT CHAUHAN
#RA2311004010332

numbers =[10,15,20,25,30,35]
even_numbers = []
for num in numbers :
    if num%2==0:
        even_numbers.append(num)
print("Even Numbers:",even_numbers)

Even Numbers: [10, 20, 30]
```

PROGRAM 3.5:

```
In [1]: #AMIT CHAUHAN
#RA2311004010332

#Fuel cost calculation
distances =[50,100,150,200,250]
mileage =15 #km/L
fuel_price=1.20 #$/l

In [2]: #Calculate costs
costs= [(distance/mileage)*fuel_price for distance in distances]

In [3]: #Display table
print("Distance(km) | Cost ($)")
for distance, cost in zip(distances,costs):
    print(f"distance:<14> | {round(cost,2)}")

Distance(km) | Cost ($)
50           | 4.0
100          | 8.0
150          | 12.0
200          | 16.0
250          | 20.0
```

PROGRAM 3.6:

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In [5]: #AMIT CHAUHAN
#RA2311004010332

#Monthly electricity usage (in units)
usages= [80,150,220,300,120]

In [6]: #Function to calculate the electricity bill
def calculate_bill(units):
    if units<= 100:
        return units*0.12
    elif units<=200:
        return (100*0.12) + ((units-100)*0.15)
    else:
        return (100*0.12)+(100*0.15)+ ((units-200)*0.20)

In [7]: #Calculate bills
bills =[round(calculate_bill(units),2) for units in usages]

In [8]: #display table
print("Usage (units)| Bills($)")
for usage ,bill in zip(usages,bills ):
    print(f"usage:<14>| {bill}")

Usage (units)| Bills($)
80           | 9.6
150          | 19.5
220          | 31.0
300          | 47.0
120          | 15.0
```