

# DSA0414 – FDS

## LAB : DAY – 2 [ 04.02.2026 ]

### EXP - 3

```
Untitled2.ipynb
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[1] 0s
import numpy as np

house_data = np.array([
    [3, 1500, 500000],
    [5, 2500, 800000],
    [4, 1800, 600000],
    [6, 3000, 1000000]
])

# Select houses with more than 4 bedrooms
filtered_prices = house_data[house_data[:, 0] > 4, 2]

# Calculate average sale price
average_price = np.mean(filtered_prices)

print("Average sale price :", average_price)

Average sale price : 900000.0
```

### EXP – 4

```
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[2] 0s
import numpy as np

sales_data = np.array([200000, 250000, 300000, 400000])

# Total sales
total_sales = np.sum(sales_data)

# Percentage increase from Q1 to Q4
percentage_increase = ((sales_data[3] - sales_data[0]) / sales_data[0]) * 100

print("Total sales :", total_sales)
print("Percentage Increase :", percentage_increase, "%")

Total sales : 1150000
Percentage Increase : 100.0 %
```

### EXP – 5

```
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[3] 0s
import numpy as np

fuel_efficiency = np.array([20, 25, 30, 35])

# Average fuel efficiency
average_efficiency = np.mean(fuel_efficiency)

# Percentage improvement from first to last model
percentage_improvement = ((fuel_efficiency[3] - fuel_efficiency[0]) / fuel_efficiency[0]) * 100

print("Average fuel efficiency :", average_efficiency)
print("Percentage improvement :", percentage_improvement, "%")

... Average fuel efficiency : 27.5
Percentage improvement : 75.0 %
```