10th feb Assignment

February 12, 2025

[16]:
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"""1.create an array of Employee with salary and display the employees whose␣
 ↪salary is less than 50000"""
import numpy as np
salary = np.array([100000,60000,12000,30000,15000,20000])
name = np.array(["Aryan","Harshil","Himanshu","Vansh","Vicky","Gaurang"])
#The data was given in array form thats why we converted it to list to use to␣
 ↪zip function.
L1= salary.tolist()
L2 = name.tolist()
dic = dict(zip(L2,L1))
print(dic)
#displaying the salaries more than 50000
print("Salaries more than 50000:")
for key, val in dic.items():
    if val > 50000:
        print(f'{key} : {val}')
```

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{'Aryan': 100000, 'Harshil': 60000, 'Himanshu': 12000, 'Vansh': 30000, 'Vicky':
15000, 'Gaurang': 20000}
Salaries more than 50000:
Aryan : 100000
Harshil : 60000
```

[18]:
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"""2. Suppose you have a dataset containing daily temperature readings for a␣
 ↪city, and you want to identify days with extreme temperature conditions.␣
 ↪Find days
where the temperature either exceeded 35 degrees Celsius (hot day) or dropped␣
 ↪below 5 degrees Celsius (cold day). """

temperatures = np.array([32.5, 34.2, 36.8, 29.3, 31.0, 38.7, 23.1, 18.5, 22.8,␣
 ↪37.2,4,25,12,-4,-12])
print(f'The hot day teperatures are: {temperatures[temperatures > 35]}')
print(f'The cold day teperatures are: {temperatures[temperatures < 5]}')
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The hot day teperatures are: [36.8 38.7 37.2]
The cold day teperatures are: [  4.  -4. -12.]
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[ ]:
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"""3. Suppose you have a dataset containing monthly sales data for a company,
 and you want to split this data into quarterly reports for analysis and␣
 ↪reporting purposes. """
monthly_sales = np.array([120, 135, 148, 165, 180, 155, 168, 190, 205, 198,␣
 ↪210, 225])
#dividing the data into quartars
report = monthly_sales.reshape(4,3)
print("The quarter are: ")
print(report)
add = report.sum(axis = 1)
print("Quarterly Sales Data:")
print(add)
```

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The quarter are:
[[120 135 148]
 [165 180 155]
 [168 190 205]
 [198 210 225]]
The sum of each quartar is:
[403 500 563 633]
```