#1

```
# Dictionary-Assignment
#   1. Access the Name and Position of Employee with ID 103.
# Given the employee dictionary: # Task: Retrieve the name and position of the employee with ID
103.
employees = {
    101: {"name": "John Doe", "position": "Software Engineer", "salary": 80000},
    102: {"name": "Jane Smith", "position": "Product Manager", "salary": 95000},
    103: {"name": "Sam Brown", "position": "Data Scientist", "salary": 90000}
}
print(employees[103]['name'],employees[103]['position'])
```

output :-

```
KeyError:  position
 PS C:\Lavanya_Code\Pyton_Lectures> python Dictionary_assignment.py
 Sam Brown Data Scientist
 PS C:\Lavanya_Code\Pyton_Lectures> ^C
```

#2

```
3    #   2. Check if an Employee with ID 106 Exists. If Not, Print "Employee not found."
4    #   Given dictionary
5    employees = {
6        101: {"name": "John Doe", "position": "Software Engineer", "salary": 80000},
7        102: {"name": "Jane Smith", "position": "Product Manager", "salary": 95000},
8        103: {"name": "Sam Brown", "position": "Data Scientist", "salary": 90000}
9    }
0
1    if employees.get(106)==None:
2        print("Employee not found")
3
```

Output:-

```
PROBLEMS  1   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS

PS C:\Lavanya_Code\Pyton_Lectures> python Dictionary_assignment.py
Employee not found
```

#3

```
#   3. Update the Salary of Employee 101 to 85000.

# Task: Update the salary of employee 101 to 85000.
#   Given dictionary
employees = {
    101: {"name": "John Doe", "position": "Software Engineer", "salary": 80000},
    102: {"name": "Jane Smith", "position": "Product Manager", "salary": 95000},
    103: {"name": "Sam Brown", "position": "Data Scientist", "salary": 90000}
}
employees[101]['salary']=85000
print(employees[101])
```

output :-

```
PS C:\Lavanya_Code\Pyton_Lectures> python Dictionary_assignment.py
{'name': 'John Doe', 'position': 'Software Engineer', 'salary': 85000}
PS C:\Lavanya_Code\Pyton_Lectures>
```

#4

```
37
38    #  4. Add a New Employee with ID 106. The Employee Has the Name "Lisa Green", Position "UX Designer", and Salary 78000.
39    #  Given dictionary
40    employees = {
41        101: {"name": "John Doe", "position": "Software Engineer", "salary": 80000},
42        102: {"name": "Jane Smith", "position": "Product Manager", "salary": 95000},
43        103: {"name": "Sam Brown", "position": "Data Scientist", "salary": 90000}
44    }
45    employees[106]={'name':"Lisa Green","Position":"UX Designer","Salary":78000}
46    print(employees[106])
47
48
49
50
51
52
```

PROBLEMS 1   OUTPUT   DEBUG CONSOLE   **TERMINAL**   PORTS

```
PS C:\Lavanya_Code\Pyton_Lectures> python Dictionary_assignment.py
{'name': 'Lisa Green', 'Position': 'UX Designer', 'Salary': 78000}
```

#5

```
60    #  5. Remove Employee 104 from the Employee Data.
61
62    #  Given dictionary
63    employees = {
64        101: {"name": "John Doe", "position": "Software Engineer", "salary": 80000},
65        102: {"name": "Jane Smith", "position": "Product Manager", "salary": 95000},
66        103: {"name": "Sam Brown", "position": "Data Scientist", "salary": 90000}
67    }
68    employees.pop(104)
69
70    print(employees)
71
72
73
```

PROBLEMS 1   OUTPUT   DEBUG CONSOLE   **TERMINAL**   PORTS

```
PS C:\Lavanya_Code\Pyton_Lectures> python Dictionary_assignment.py
Traceback (most recent call last):
  File "C:\Lavanya_Code\Pyton_Lectures\Dictionary_assignment.py", line 68, in <module>
    employees.pop(104)
    ~~~~~~~~~~~~~~^^^^^
KeyError: 104
PS C:\Lavanya_Code\Pyton_Lectures> python lecture_05_12.py
```

#6

```
5    #  6. Retrieve All the Names of Employees Using keys().
6
7    #  Given dictionary
8    employees = {
9        101: {"name": "John Doe", "position": "Software Engineer", "salary": 80000},
0        102: {"name": "Jane Smith", "position": "Product Manager", "salary": 95000},
1        103: {"name": "Sam Brown", "position": "Data Scientist", "salary": 90000}
2    }
3    print(employees.keys())
4
5
6
7
8    #  7. Get All the Positions of Employees Using values().
```

BLEMS 1   OUTPUT   DEBUG CONSOLE   **TERMINAL**   PORTS

```
C:\Lavanya_Code\Pyton_Lectures> python Dictionary_assignment.py
ct_keys([101, 102, 103])
C:\Lavanya_Code\Pyton_Lectures> █
```

#7

```
87
88    #  7. Get All the Positions of Employees Using values().
89
90    #  Given dictionary
91    employees = {
92        101: {"name": "John Doe", "position": "Software Engineer", "salary": 80000},
93        102: {"name": "Jane Smith", "position": "Product Manager", "salary": 95000},
94        103: {"name": "Sam Brown", "position": "Data Scientist", "salary": 90000}
95    }
96    print(employees.values())
97
98
99
100
```

PROBLEMS 1   OUTPUT   DEBUG CONSOLE   **TERMINAL**   PORTS   powershell + ∨ ⊞ 🗑 ⋯ ∧

```
PS C:\Lavanya_Code\Pyton_Lectures> python Dictionary_assignment.py
dict_values([{'name': 'John Doe', 'position': 'Software Engineer', 'salary': 80000}, {'name': 'Jane Smith', 'position': 'Product Manager', 'salary': 95000}, {'name': '
Sam Brown', 'position': 'Data Scientist', 'salary': 90000}])
PS C:\Lavanya_Code\Pyton_Lectures> █
```

#8

```
103
104    #  8. List All Employee ID and Name Pairs Using items().
105
106    #  Given dictionary
107    employees = {
108        101: {"name": "John Doe", "position": "Software Engineer", "salary": 80000},
109        102: {"name": "Jane Smith", "position": "Product Manager", "salary": 95000},
110        103: {"name": "Sam Brown", "position": "Data Scientist", "salary": 90000}
111    }
112    print(employees.items())
113
114
115    #  9. Find the Highest Salary Among All Employees and Print It.
116
117    #  Given dictionary
```

PROBLEMS 1   OUTPUT   DEBUG CONSOLE   **TERMINAL**   PORTS   powershell

```
PS C:\Lavanya_Code\Pyton_Lectures> python Dictionary_assignment.py
dict_items([(101, {'name': 'John Doe', 'position': 'Software Engineer', 'salary': 80000}), (102, {'name': 'Jane Smith', 'position': 'Product Manager', 'sala
), (103, {'name': 'Sam Brown', 'position': 'Data Scientist', 'salary': 90000})])
PS C:\Lavanya_Code\Pyton_Lectures> █
```

#9

```
114
115    #  9. Find the Highest Salary Among All Employees and Print It.
116
117    #  Given dictionary
118    employees = {
119        101: {"name": "John Doe", "position": "Software Engineer", "salary": 80000},
120        102: {"name": "Jane Smith", "position": "Product Manager", "salary": 95000},
121        103: {"name": "Sam Brown", "position": "Data Scientist", "salary": 90000}
122    }
123    if employees[101]['salary']>employees[102]['salary']:
124        if employees[101]['salary']>employees[103]['salary']:
125            print(employees[101]['salary'])
126        else:
127            print(employees[103]['salary'])
128    else:
```

PROBLEMS 1   OUTPUT   DEBUG CONSOLE   **TERMINAL**   PORTS

PS C:\Lavanya_Code\Pyton_Lectures> python Dictionary_assignment.py
95000
PS C:\Lavanya_Code\Pyton_Lectures>

#10

```
134
135    #  10. Check if Any Employee Has a Position "Software Engineer". If So, Print Their Name.
136
137    #  Given dictionary
138    employees = {
139        101: {"name": "John Doe", "position": "Software Engineer", "salary": 80000},
140        102: {"name": "Jane Smith", "position": "Product Manager", "salary": 95000},
141        103: {"name": "Sam Brown", "position": "Data Scientist", "salary": 90000}
142    }
143
144    if employees[101]['position']=="Software Engineer":
145        print(employees[101]['name'])
146    elif employees[102]['position']=="Software Engineer":
147        print(employees[102]['name'])
148    elif employees[103]['position']=="Software Engineer":
149        print(employees[103]['name'])
150
```

PROBLEMS 1   OUTPUT   DEBUG CONSOLE   **TERMINAL**   PORTS

PS C:\Lavanya_Code\Pyton_Lectures> python Dictionary_assignment.py
John Doe
PS C:\Lavanya_Code\Pyton_Lectures>

#11

```python
 171
 172    #  11. Using if elif else, Print a Message About an Employee's Salary Range:
 173    # - If salary is more than 90,000, print "High Salary."
 174    # - If salary is between 75,000 and 90,000, print "Medium Salary."
 175    # - If salary is less than 75,000, print "Low Salary."
 176    # Task: For each employee, use if elif else to print the salary range.
 177    #  Given dictionary
 178    employees = {
 179        101: {"name": "John Doe", "position": "Software Engineer", "salary": 80000},
 180        102: {"name": "Jane Smith", "position": "Product Manager", "salary": 95000},
 181        103: {"name": "Sam Brown", "position": "Data Scientist", "salary": 90000}
 182    }
 183    if employees[101]['salary']>90000:
 184        print(employees[101]['name'], 'Higher Salary')
 185    elif employees[101]['salary']>75000 and employees[101]['salary']<=90000:
 186        print(employees[101]['name'], 'Medium Salary')
 187    elif employees[101]['salary']<75000:
 188        print(employees[101]['name'], 'Low Salary')
 189
 190    if employees[102]['salary']>90000:
 191        print(employees[102]['name'], 'Higher Salary')
 192    elif employees[102]['salary']>75000 and employees[102]['salary']<=90000:
 193        print(employees[102]['name'], 'Medium Salary')
 194    elif employees[102]['salary']<75000:
 195        print(employees[102]['name'], 'Low Salary')
 196
 197    if employees[103]['salary']>90000:
 198        print(employees[103]['name'], 'Higher Salary')
 199    elif employees[103]['salary']>75000 and employees[103]['salary']<=90000:
 200        print(employees[103]['name'], 'Medium Salary')
 201    elif employees[103]['salary']<75000:
 202        print(employees[103]['name'], 'Low Salary')
 203
```

PROBLEMS 1   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS

```
PS C:\Lavanya_Code\Pyton_Lectures> python Dictionary_assignment.py
John Doe Medium Salary
Jane Smith Higher Salary
Sam Brown Medium Salary
PS C:\Lavanya_Code\Pyton_Lectures>
```

#12

```
204
205    #  12. Slice the Employee Dictionary to Retrieve the First 3 Employees.
206    # Task: Slice the dictionary to get the first 3 employees based on their employee IDs.
207    #  Given dictionary
208  ∨ employees = {
209        101: {"name": "John Doe", "position": "Software Engineer", "salary": 80000},
210        102: {"name": "Jane Smith", "position": "Product Manager", "salary": 95000},
211        103: {"name": "Sam Brown", "position": "Data Scientist", "salary": 90000},
212        104: {"name": "Emily White", "position": "HR Manager", "salary": 75000},
213        105: {"name": "David Clark", "position": "Marketing Director", "salary": 105000}
214    }
215    print(employees[101],employees[102],employees[103])
216
217
218
```

PROBLEMS `1`   OUTPUT   DEBUG CONSOLE   **TERMINAL**   PORTS

```
PS C:\Lavanya_Code\Pyton_Lectures> python Dictionary_assignment.py
{'name': 'John Doe', 'position': 'Software Engineer', 'salary': 80000} {'name': 'Jane Smith', 'position': 'Product Manager', 'salary': 95000} {'name': 'Sam Brown', 'po
sition': 'Data Scientist', 'salary': 90000}
PS C:\Lavanya_Code\Pyton_Lectures>
```