## Code [Task 01]:

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| *#Task 1: Dictionary Operations*  capitals = {      'Pakistan': 'Islamabad',      'India': 'New Delhi',      'UAE': 'Abu Dhabi',      'Afghanistan': 'Kabul'  }  *#print(capitals)*  capitals['France'] = 'Paris'  *#print(capitals)*  if 'France' in capitals:      print("France exists in the dictionary")  else:      print("France does not exist in the dictionary")  del capitals['France']  if 'France' in capitals:      print("France exists in the dictionary")  else:      print("France does not exist in the dictionary") |

## Output:

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## Code [Task 02]:

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| *#Task 2: Comparison Operators, Logical Operators, and If/Else*  user\_input = int(input("Enter a number to check"))  if user\_input % 2 == 0:      print("The number is an even number")  else:      print("The number is not an even number") |

## Output:

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## Code:

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| user\_input = int(input("Enter your age"))  age = user\_input  user\_input = float(input("Enter your GPA"))  gpa = user\_input  criteria = {      'Age' : 20,      'GPA' : 3.00  }  print(f"The criteria for admission is minimum age {criteria['Age']} and minimum GPA {criteria['GPA']}")  print(f"Your entered age {age}, and GPA {gpa}")  if age < 20 and gpa <3.00 :      print("Not eligible for admission")  elif age >= 20 and gpa >= 3.00 and gpa <= 4.00:      print("Eligible for admission")  elif gpa > 4.00:      print(f"Invalid GPA :{gpa}")  else:      print("Not eligible for admission") |

## Output:

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## Code [Task 03]:

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| *#Task 3: Advanced Data Types*  fruit\_set\_01 = {'Apple', 'Banana', 'Orange', 'Grapes'}  fruit\_set\_02 = {'Apple', 'Banana',}  print(f"Fruit Set 01 : {fruit\_set\_01}")  print(f"Fruit Set 02 : {fruit\_set\_02}")  union\_set = fruit\_set\_01 | fruit\_set\_02  print(f"Union Set : {union\_set}")  intersection\_set = fruit\_set\_01 & fruit\_set\_02  print(f"intersection Set : {intersection\_set}")  difference\_set = fruit\_set\_01 - fruit\_set\_02  print(f"difference Set : {difference\_set}")  print(f"Is Fruit Set 02 a subset of Fruit Set 01 ? : {fruit\_set\_02.issubset(fruit\_set\_01)}")  print(f"Is Fruit Set 01 a subset of Fruit Set 02 ? : {fruit\_set\_01.issubset(fruit\_set\_02)}") |

## Output:

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## Code [Task 04]:

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| *#Task 4: Strings Manipulation*  user\_input = input("Enter something............. : ")  print(f"Length of the string you entered : {len(user\_input)}")  print(f"Your string uppercased : {user\_input.upper()}")  print(f"Your string uppercased : {user\_input.lower()}")  print(f"Replacing the vowels with a # : {user\_input.replace('a', '#')}")  print(f"Substring of your input : {user\_input[2::2]}")  print(f"Your string sperated/broken into sperate letters : ", *end* = " ")  list = []  for i in user\_input:      list.append(i)  print(list) |

## Output:

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