1. Write a Python program to find sum of elements in list?
2. Write a Python program to Multiply all numbers in the list?
3. Write a Python program to find smallest number in a list?
4. Write a Python program to find largest number in a list?
5. Write a Python program to find second largest number in a list?
6. Write a Python program to find N largest elements from a list?
7. Write a Python program to print even numbers in a list?
8. Write a Python program to print odd numbers in a List?
9. Write a Python program to Remove empty List from List?
10. Write a Python program to Cloning or Copying a list?
11. Write a Python program to Count occurrences of an element in a list?

Solution-:

1. **1.Write a Python Program to find sum of elements in a list ?**
2. In [1]:
3. **def** sumofList():
4. in\_ele **=** int(input('Enter the No of Entries in a List: '))
5. in\_list **=** []
6. **for** itr **in** range(in\_ele):
7. in\_list**.**append(int(input('Enter a element: ')))
8. print(f'Sum of Elements: {sum(in\_list)}')
9. sumofList()
10. Enter the No of Entries in a List: 5
11. Enter a element: 1
12. Enter a element: 2
13. Enter a element: 3
14. Enter a element: 4
15. Enter a element: 5
16. Sum of Elements: 15
17. **2.Write a Python Program to multiply all numbers in the list ?**
18. In [2]:
19. **def** mulofList():
20. in\_ele **=** int(input('Enter the No of Entries in a List: '))
21. in\_list **=** []
22. mul **=** 1
23. **for** itr **in** range(in\_ele):
24. in\_list**.**append(int(input('Enter a element: ')))
25. **for** ele **in** in\_list:
26. mul **=** mul **\*** ele
27. print(mul)
28. mulofList()
29. Enter the No of Entries in a List: 5
30. Enter a element: 1
31. Enter a element: 2
32. Enter a element: 3
33. Enter a element: 4
34. Enter a element: 5
35. 120
36. **3.Write a Python Program to find smallest number in the list ?**
37. In [3]:
38. **def** smallEleInList():
39. in\_ele **=** int(input('Enter the No of elements in a list: '))
40. in\_list **=** []
41. **for** ele **in** range(in\_ele):
42. in\_list**.**append(int(input('Enter a Element: ')))
43. print(f'The Smallest Element in {in\_list} is {sorted(in\_list)[0]}')
44. smallEleInList()
45. Enter the No of elements in a list: 5
46. Enter a Element: 34
47. Enter a Element: 56
48. Enter a Element: 67
49. Enter a Element: 87
50. Enter a Element: 12
51. The Smallest Element in [34, 56, 67, 87, 12] is 12
52. **4.Write a Python Program to find largest number in the list ?**
53. In [4]:
54. **def** largestEleInList():
55. in\_ele **=** int(input('Enter the No of elements in a list: '))
56. in\_list **=** []
57. **for** ele **in** range(in\_ele):
58. in\_list**.**append(int(input('Enter a Element: ')))
59. print(f'The Largest Element in {in\_list} is {sorted(in\_list, reverse**=True**)[0]}')
60. largestEleInList()
61. Enter the No of elements in a list: 12
62. Enter a Element: 10
63. Enter a Element: 98
64. Enter a Element: 12
65. Enter a Element: 14
66. Enter a Element: 15
67. Enter a Element: 65
68. Enter a Element: 76
69. Enter a Element: 87
70. Enter a Element: 34
71. Enter a Element: 56
72. Enter a Element: 87
73. Enter a Element: 34
74. The Largest Element in [10, 98, 12, 14, 15, 65, 76, 87, 34, 56, 87, 34] is 98
75. **5.Write a Python Program to find second largest number in the list ?**
76. In [5]:
77. **def** secondLargestEleInList():
78. in\_ele **=** int(input('Enter the No of elements in a list: '))
79. in\_list **=** []
80. **for** ele **in** range(in\_ele):
81. in\_list**.**append(int(input('Enter a Element: ')))
82. print(f'The Second Largest Element in {in\_list} is {sorted(in\_list, reverse**=True**)[1]}')
83. secondLargestEleInList()
84. Enter the No of elements in a list: 5
85. Enter a Element: 12
86. Enter a Element: 13
87. Enter a Element: 14
88. Enter a Element: 15
89. Enter a Element: 16
90. The Second Largest Element in [12, 13, 14, 15, 16] is 15
91. **6.Write a Python Program to find N largest elements in the list ?**
92. In [6]:
93. **def** nLargestEleInList(k):
94. in\_ele **=** int(input('Enter the No of elements in a list: '))
95. in\_list **=** []
96. **for** ele **in** range(in\_ele):
97. in\_list**.**append(int(input('Enter a Element: ')))
98. print(f'The {k} Largest Element in {in\_list} is {sorted(in\_list, reverse**=True**)[0:k]}')
99. nLargestEleInList(4)
100. Enter the No of elements in a list: 10
101. Enter a Element: 1
102. Enter a Element: 2
103. Enter a Element: 3
104. Enter a Element: 4
105. Enter a Element: 5
106. Enter a Element: 6
107. Enter a Element: 7
108. Enter a Element: 8
109. Enter a Element: 9
110. Enter a Element: 10
111. The 4 Largest Element in [1, 2, 3, 4, 5, 6, 7, 8, 9, 10] is [10, 9, 8, 7]
112. **7.Write a Python Program to find even numbers in the list ?**
113. In [7]:
114. **def** evenNoInList():
115. in\_ele **=** int(input('Enter the No of elements in a list: '))
116. in\_list **=** []
117. even\_list **=** []
118. **for** ele **in** range(in\_ele):
119. in\_list**.**append(int(input('Enter a Element: ')))
120. **for** ele **in** in\_list:
121. **if** ele**%2** == 0:
122. even\_list**.**append(ele)
123. print(f'The Even Elements in {in\_list} are {even\_list}')
124. evenNoInList()
125. Enter the No of elements in a list: 6
126. Enter a Element: 1
127. Enter a Element: 2
128. Enter a Element: 3
129. Enter a Element: 4
130. Enter a Element: 5
131. Enter a Element: 6
132. The Even Elements in [1, 2, 3, 4, 5, 6] are [2, 4, 6]
133. **8.Write a Python Program to find odd numbers in the list ?**
134. In [8]:
135. **def** oddNoInList():
136. in\_ele **=** int(input('Enter the No of elements in a list: '))
137. in\_list **=** []
138. odd\_list **=** []
139. **for** ele **in** range(in\_ele):
140. in\_list**.**append(int(input('Enter a Element: ')))
141. **for** ele **in** in\_list:
142. **if** ele**%2** != 0:
143. odd\_list**.**append(ele)
144. print(f'The Even Elements in {in\_list} are {odd\_list}')
145. oddNoInList()
146. Enter the No of elements in a list: 6
147. Enter a Element: 1
148. Enter a Element: 2
149. Enter a Element: 3
150. Enter a Element: 4
151. Enter a Element: 5
152. Enter a Element: 6
153. The Even Elements in [1, 2, 3, 4, 5, 6] are [1, 3, 5]
154. **9.Write a Python Program to remove empty list from list ?**
155. In [9]:
156. **def** checkEmptyList():
157. in\_list **=** eval(input('Enter all elements of the list: '))
158. **if** [] **in** in\_list:
159. print(f'There is an Empty list in {in\_list} at Position {in\_list**.**index([])}')
160. in\_list**.**remove([])
161. print(f'The List after removing [] is {in\_list}')
162. **else**:
163. print(f'There is no [] List in the list {in\_list}')
165. checkEmptyList()
166. Enter all elements of the list: [1,2,3,4,5,[],6,7,8,9,0]
167. There is an Empty list in [1, 2, 3, 4, 5, [], 6, 7, 8, 9, 0] at Position 5
168. The List after removing [] is [1, 2, 3, 4, 5, 6, 7, 8, 9, 0]
169. **10.Write a Python Program to Cloning or Copying a list ?**
170. In [10]:
171. **import** copy
172. **def** cloneList():
173. in\_list **=** eval(input('Enter a list'))
174. print(in\_list, id(in\_list))
175. cloned\_list **=** in\_list**.**copy()
176. print(cloned\_list, id(cloned\_list))
177. cloneList()
178. Enter a list[1,2,3,4,5,6,7,8,9,0]
179. [1, 2, 3, 4, 5, 6, 7, 8, 9, 0] 1804715913280
180. [1, 2, 3, 4, 5, 6, 7, 8, 9, 0] 1804715963072
181. **11.Write a Python Program to count occurences of an element in a list ?**
182. In [11]:
183. **def** checkOccurence():
184. in\_list **=** eval(input('Enter the elements of the list: '))
185. in\_num **=** eval(input('Enter the element to find: '))
186. count **=** 0
187. **if** in\_num **in** in\_list:
188. **for** ele **in** in\_list:
189. **if** ele **==** in\_num:
190. count **=** count**+**1
191. print(f'There are {count} occurences of {in\_num} in {in\_list}')
193. checkOccurence()
194. Enter the elements of the list: [1,2,3,1,2,3,1,2,3,4,5,6,4,5,6]
195. Enter the element to find: 6
196. There are 2 occurences of 6 in [1, 2, 3, 1, 2, 3, 1, 2, 3, 4, 5, 6, 4, 5, 6]