

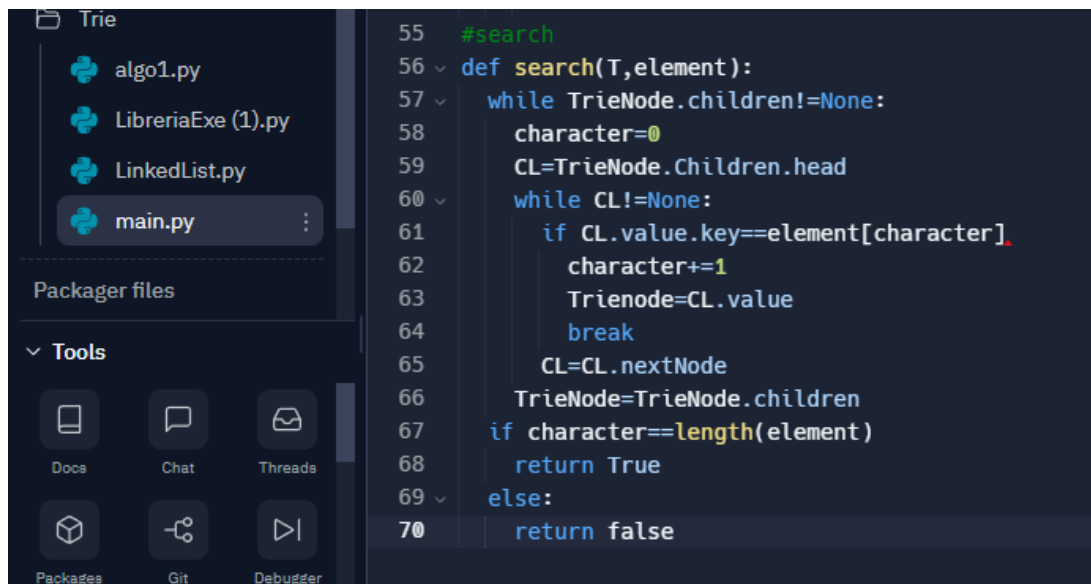
Algoritmos II

Trabajo Practico arboles N°arios-Trie

1) a) Insert:

```
15 def SearchCharacter(level,element):
16     for i in range(0,length(element)-1):
17         if i==(level-1):
18             c=element[i]
19             break
20     return c
21 #insert
22 def insert(T,element):
23     level=1
24     if TrieNode.children==None:
25         TrieNode.children=LinkedList()
26         CL=LinkedList()
27         CL=None
28         T=TrieNode()
29         T.key=SearchCharacter(level,element)
30         add(TrieNode.children,T)
31         CL=TrieNode.children.head
32         level+=1
33     else:
34         CL=TrieNode.children.head
35         while CL!=None:
36             if CL.value.key==c:
37                 TrieNode=CL.value
38                 CL.head=TrieNode
39                 break
40                 CL=CL.nextNode
41             if CL==None:
42                 T=TrieNode()
43                 T.key=SearchCharacter(level,element)
44                 add(TrieNode.children,T)
45                 CL=TrieNode.children.head
46                 level+=1
47             for i in range (1,length(element)-1):
48                 T=TrieNode()
49                 T.key=SearchCharacter(level,element)
50                 insert(CL,T,i)
51                 T.parent=searchCurrent(CL, element[i-1])
52             if i==(length(element)-1):
53                 T.isEndOfWord=True
```

B) Search:



The image shows a code editor with a dark theme. On the left, a file explorer shows a folder named 'Trie' containing files 'algo1.py', 'LibreriaExe (1).py', 'LinkedList.py', and 'main.py'. Below the file explorer is a 'Tools' panel with icons for Docs, Chat, Threads, Packages, Git, and Debugger. The main editor area displays Python code for a search function. The code is as follows:

```
55 #search
56 def search(T,element):
57     while TrieNode.children!=None:
58         character=0
59         CL=TrieNode.Children.head
60         while CL!=None:
61             if CL.value.key==element[character]:
62                 character+=1
63                 Trienode=CL.value
64                 break
65             CL=CL.nextNode
66         TrieNode=TrieNode.children
67     if character==length(element)
68         return True
69     else:
70         return false
```