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## Screenshot:

```
main.hs
1  -- | The 'mainAction' function prompts the user for a list input.
2  -- It then calls 'swapElements' to swap the first occurrences of '(' and ')' in the user's input.
3  main :: IO ()
4  main = do
5      -- Prompt the user for a list.
6      putStrLn "Provide a list: "
7      -- Read the user's input.
8      userInput <- getLine
9      -- Swap the first occurrences of '(' and ')' in the user's input.
10     let modifiedList = swapElements '(' ')' userInput
11     -- Display the modified list.
12     print modifiedList
13
14 -- | The 'swapElements' function takes two elements and a list.
15 -- It swaps the first occurrences of the two given elements in the list.
16 swapElements :: Eq a => a -> a -> [a] -> [a]
17 swapElements firstElem secondElem list =
18     case list of
19         -- If the list is empty, return an empty list.
20         [] -> []
21         -- If the head of the list matches 'firstElem', replace it with 'secondElem'.
22         y : ys | y == firstElem -> swapElements firstElem secondElem ys ++ [secondElem]
23         -- If the head of the list matches 'secondElem', replace it with 'firstElem'.
24         y : ys | y == secondElem -> swapElements firstElem secondElem ys ++ [firstElem]
25         -- If the head of the list doesn't match either element, keep it unchanged.
26         y : ys -> swapElements firstElem secondElem ys ++ [y]
27
input
[1 of 1] Compiling Main          ( main.hs, main.o )
Linking a.out ...
Provide a list:
(A (B (C D) E))
"((E (D C) B) A)"
```

## Compiler:

[https://www.onlinegdb.com/online\\_haskell\\_compiler](https://www.onlinegdb.com/online_haskell_compiler)

Language Used: Haskell