Draw the resulting BPT after deleting "01000" from the original diagram.

|files|

↳

QUESTION 6.3 | POINTS | ✖ Delete Question

Delete 0000 | 10

PROBLEM | Insert Images | Insert Field

Draw the resulting BPT after deleting "0000" from the original diagram.

|files|

↳Add **Question 6.4**

✚ Add **Question 7**

Save

Q1 Search Cost

5 Points

For a standard Trie with an alphabet containing T characters, the cost of search is

- ○ the number of stored strings
- ○ $\log_T($ the number of stored strings $)$
- ◉ the length of the longest string
- ○ $\log_T($ the length of the longest string $)$

Q2 Nodes in Tries vs. Patricia Tries

5 Points

A Patricia Trie will always have fewer nodes than the corresponding standard Trie.

- ○ True
- ◉ False

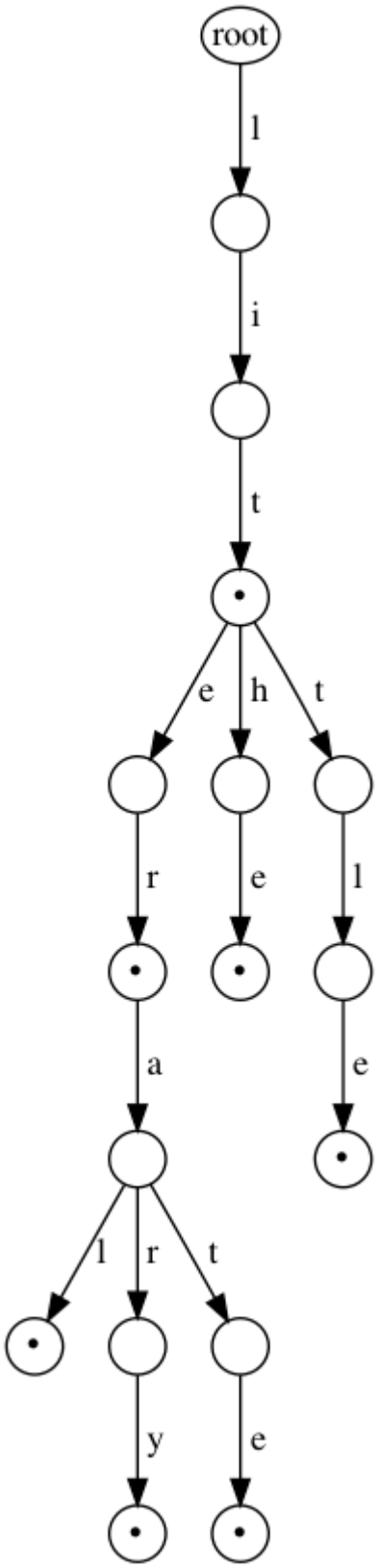
Q3 Stored Strings

20 Points

Q3.1 Trie

10 Points

Which strings are stored in this Trie?

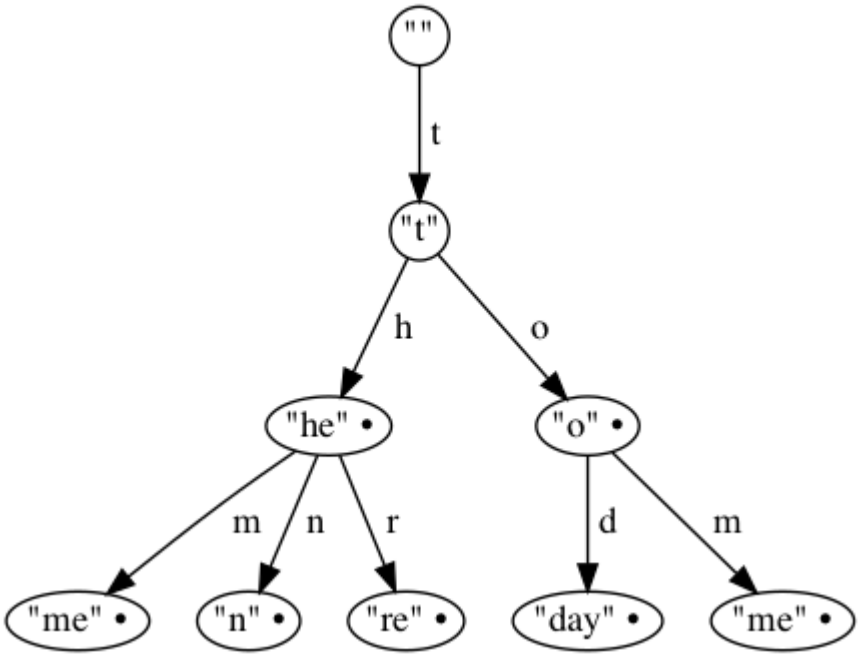

root
l
i
t
e
h
t
r
e
l
a
e
l
r
t
y
e

- [ ] ate
- [x] lit
- [ ] lite
- [x] liter
- [x] literal
- [x] literary
- [x] literate
- [ ] lith
- [x] lithe
- [x] little
- [ ] the
- [ ] rat
- [ ] rate

Q3.2 Patricia Trie

10 Points

Which strings are stored in this Patricia Trie?


""
t
"t"
h
o
"he" •
"o" •
m
n
r
d
m
"me" •
"n" •
"re" •
"day" •
"me" •

- [ ] day
- [ ] he
- [ ] hen
- [ ] here
- [ ] me
- [x] the
- [ ] them
- [x] theme
- [x] then
- [x] there
- [x] to
- [x] today
- [ ] tom
- [x] tome

Q4 Constructing Standard Tries

20 Points

Draw the standard Trie that stores the following strings:

- ask
- asks
- asked
- askew

- bold
- boll
- bolt
- bole

No files uploaded

Q5 Constructing Patricia Tries

20 Points

Draw the Patricia Trie that stores the following strings:

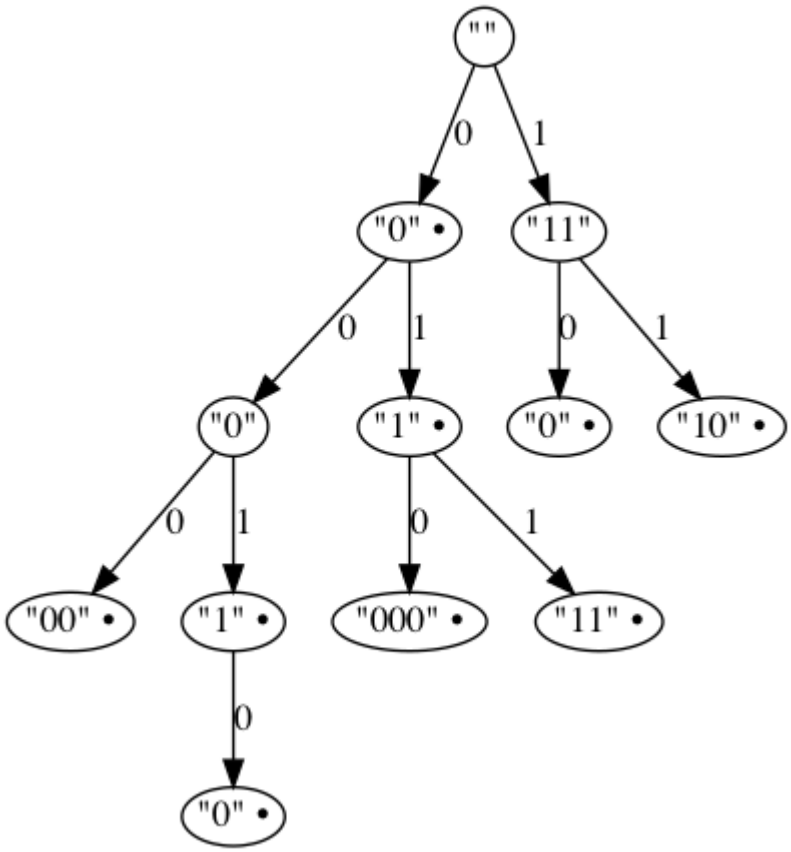
- slick
- slid
- slide
- slim
- slime
- slimy
- slip

No files uploaded

Q6 Patricia Trie Deletion

30 Points

Starting with the following Binary Patricia Trie (BPT):



Q6.1 Delete 0

10 Points

Draw the resulting BPT after deleting "0" from the original diagram.

No files uploaded

Q6.2 Delete 01000

10 Points

Draw the resulting BPT after deleting "01000" from the original diagram.

No files uploaded

Q6.3 Delete 0000

10 Points

Draw the resulting BPT after deleting "0000" from the original diagram.

No files uploaded