CO202 – Software Engineering – Algorithms
Radix Search - Solutions

Draw the DST that results when you insert the following keys in that order into an initially empty tree

E A S Y Q U T I O N

E	00101
A	00001
S	10011
Y	11001
Q	10001
U	10101
T	10100
I	01001
O	01111
N	01110

Exercise 1: Digital Search Trees

Draw the DST that results when you insert the following keys in that order into an initially empty tree
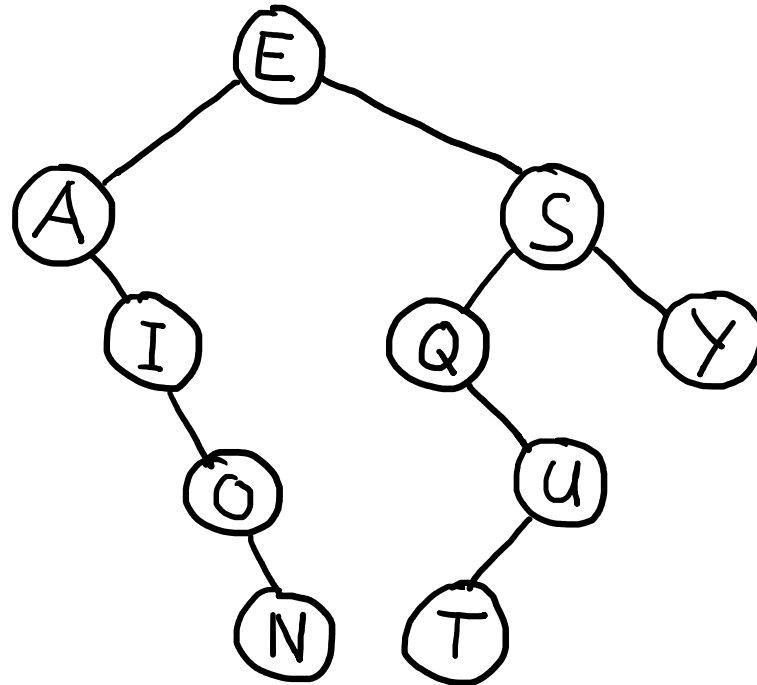
E A S Y Q U T I O N

E	00101
A	00001
S	10011
Y	11001
Q	10001
U	10101
T	10100
I	01001
O	01111
N	01110

Draw the binary trie that results when you insert the following keys in that order into an initially empty trie

E A S Y Q U T I O N

E	00101
A	00001
S	10011
Y	11001
Q	10001
U	10101
T	10100
I	01001
O	01111
N	01110

Draw the binary trie that results when you insert the following keys in that order into an initially empty trie

E A S Y Q U T I O N

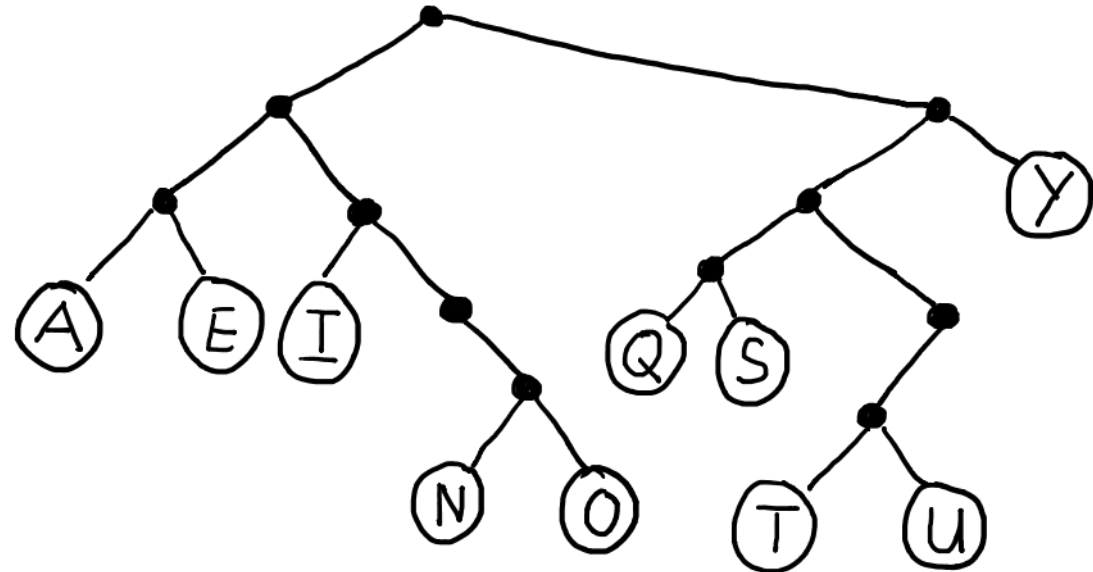|	
E	00101
A	00001
S	10011
Y	11001
Q	10001
U	10101
T	10100
I	01001
O	01111
N	01110

Draw the Patricia trie that results when you insert the following keys in that order into an initially empty trie

E A S Y Q U T I O N

E	00101
A	00001
S	10011
Y	11001
Q	10001
U	10101
T	10100
I	01001
O	01111
N	01110

Exercise 3: Patricia Tries

Draw the Patricia trie that results when you insert the following keys in that order into an initially empty trie

E   A   S   Y   Q   U   ~~T   I   O   N~~

E	00101
A	00001
S	10011
Y	11001
Q	10001
U	10101
T	10100
I	01001
O	01111
N	01110

Draw the Patricia trie that results when you insert the following keys in that order into an initially empty trie

E A S Y Q U ~~T~~ ~~I~~ ~~O~~ ~~N~~

E	00101
A	00001
S	10011
Y	11001
Q	10001
U	10101
T	10100
I	01001
O	01111
N	01110