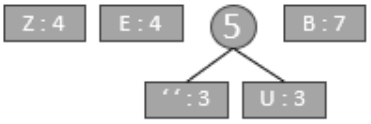
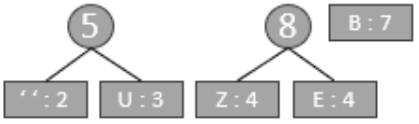
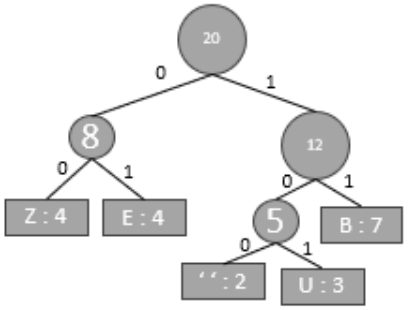
Week 8 ADA Exercise

1. Dynamic programming is a form of programming where the problem is broken up into smaller subproblems and solved.
2. Greedy algorithm is an search method that achieves local maximum or minimum by picking which route gives the highest or lowest local option.
3. The difference of dynamic programming and greedy algorithm is that dynamic programming looks at the whole problem which would make it more complex while greedy just picks the lowest or highest current option making it easier and simpler to implement at the cost of efficiency.
4. Greedy: 15, Dynamic: 20
5. Answer:







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Z	4	10	8
U	3	011	9
‘ ‘	2	010	6
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ASCII/Original Size = 20 * 8
= 160
Compressed Size = 45

Comp. Ratio = Compressed / Original
= 45 / 160
= 0.28