

11. We have gone through the following permutation code in the class:

```
void permute(char *s, int l, int r)
{
    int i;
    if (l == r)
        printf("%s\n", s);
    else
    {
        for (i = l; i <= r; i++)
        {
            swap(&s[l], &s[i]);
            permute(s, l+1, r);
            swap(&s[l], &s[i]); //swap
        }
    }
}
```

Draw the recursion tree and mark all the printed strings in the recursion tree after calling the function `permute("CAT", 0, 2)`. Follow the approach we have learned during the lecture. While drawing, you can write the function call in short form like `swap`  $\rightarrow$  `S()`, `Permute`  $\rightarrow$  `P()` to reduce the space required while drawing.

