CS 2: Introduction to Programming Methods

Diagnostic: Recursion (due Wednesday, February 1)

Name:

E-mail:

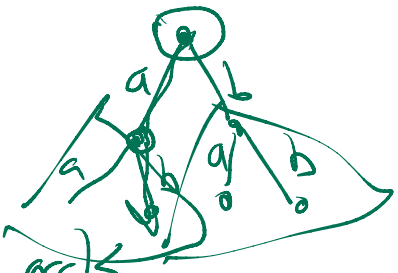
0. More Recursion

Write a method `printStrings` which prints all the strings made up of a's and b's of length n. For example:

- `printStrings(0)` $\mapsto$ `""`
- `printStrings(1)` $\mapsto$ `"a", "b"`
- `printStrings(2)` $\mapsto$ `"aa", "ab", "ba", "bb"`

Solve in C12

```
public class Recursion {
   public static void printStrings(int n) {
      PS(n, "")
   }
   private static void PS(int n, String acc) {
      if (n == 0) {
         print(acc)
      } else {
         PS(n-1, acc+"a")   // "n-1 a"
         PS(n-1, acc+"b")   // "n-1 b"
      }
   }
}
```




```
for(char c = 'a'; c <= 'b'; c++)
   acc += c
   PS(n-1, acc);
   acc.removeLastIt;
```

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