Analysis of the method changePatties().

```
164  public void changePatties(String pattyType) {
165     if ((pattyType.equals("Beef")) || (pattyType.equals("Chicken")) ||
166                     (pattyType.equals("Veggie"))) {
167           MyStack<String> temp = new MyStack<String>();
168           while (!myBurgerStack.isEmpty()) {
169               if (!isPatty(myBurgerStack.peek())) {
170                     temp.push(myBurgerStack.pop());
171               } else {
172                     temp.push(pattyType + " Patty");
173                     myBurgerStack.pop();
174               }
175           }
176
177           while (!temp.isEmpty()) {
178                myBurgerStack.push(temp.pop());
179           }
180      }
181  }
```

Line 164: Declaration, eO(1)

Line 165-166: Call to pattyType() method which runs through the Stack and finds the layer containing the patty. Worst case would be the entire stack would have to be searched. O(n) + O(n) + O(n) = 3O(n) => eO(n).

Line 167: Declaration of a new Stack, eO(1).

Line 168: While loop. Continues till stack is empty, so eO(n).

Line 169: if Boolean check. Runs eO(1).

Line 170: Operation. Removes one item from stack, adds item to different stack. eO(1).

Line 171: if Boolean check. Runs eO(1).

Line 172: Operation. Adds an item to temp Stack. eO(1).

Line 173: Operation. Removes one item from Stack. eO(1).

Line 174-176: Closing brackets.

Line 177: While Loop. Continues till stack is empty so eO(n).

Line 178: Operation. Remove one item from a stack and push to another. eO(1).

Line 179-181. Closing Brackets.

Total: (O(1) + O(1) + O(1) + O(1) + O(1) + O(1) + O(1) + (O(n) + (O(n) + (O(n) + (O(n)) => 8xO(1) + 3xO(n) => c + O(n).

Final Analysis: the method runs in eO(n).