

CSSE 376 Software Quality Assurance

Lab 8

Congnan Zheng CM 1464

1. "Number of parameters" is outside the optimal range. "TwitterClient" is the responsible method.
2. Don't set some of the fields when constructing, give them default value and make getters and setters for them, e.g., maxFollowIdsPerCredentials and maxTrackKeywordsPerCredentials.
3. Yes, the maximum in this project is 10.
4. Independent path: 3
Condition: backOffMillis == 0
Path: line 463 -> 464 -> end of method
Condition: backOffMillis != 0 and backOffMillis > capMillis
Path: line 463 -> 466 -> 467 -> 468 -> 469 -> 470 -> end of method
Condition: backOffMillis != 0 and backOffMillis <= capMillis
Path : line 463 -> 466 -> 467 -> 468 -> 469 -> end of method
5. Afferent coupling indicates a count of components that depend on a particular component, high afferent coupling means an object has too much responsibility. Efferent coupling indicate a count of components that a particular component depends on, high efferent coupling means the object isn't independent enough. These could be used to measure abstractness, dependency and stability between packages.
6. Top Level Design = $806 / (154 + 928) = 74.49\%$
7. Low Level Design = $761 / (154 + 927 + 948 - 806) = 62.22\%$
8. Overall = $(806 + 761 + 1144 + 346 + 267 + 76) / (154 + 928 + 948 + 1469 + 12 + 10 + 2) = 3400 / 3523 = 96.51\%$