

| Source   | Implementation Smell | Package Name          | File Name               | Class Name                      | Method Name               | Cause of Smell  | Resolved | Remarks  |
|--|----------------------|-----------------------|-------------------------|---------------------------------|---------------------------|---|----------|--|
| code quality integration report in CI/CD pipelines | Complex Method       | account/views/github  | config.py               | GitHubConfigurationView         | get                       | Function 'get' has a Cognitive Complexity of 15 (exceeds 5 allowed).  | TRUE     | The Function was refactored and modularized to reduce the complexity.  |
| code quality integration report in CI/CD pipelines | Complex Method       | account/views/github  | config.py               | GitHubConfigurationView         | post                      | Function 'post' has a Cognitive Complexity of 15 (exceeds 5 allowed).   | TRUE     | The Function was refactored and modularized to reduce the complexity.  |
| code quality integration report in CI/CD pipelines | Complex Method       | account/proxies       | dashboard_fetch.py      | DashBoardFetch                  | get_pull_requests_status  | Function 'get_pull_requests_status' has a Cognitive Complexity of 24 (exceeds 5 allowed).                             | TRUE     | The Function was refactored and modularized to reduce the complexity.  |
| code quality integration report in CI/CD pipelines | Complex Method       | service/models/github | refactor.py             | GithubRefactorService           | refactor_change_code      | Function 'refactor_change_code' has a Cognitive Complexity of 7 (exceeds 5 allowed).                                  | FALSE    | The Cognitive complexity of 7 is manageable. Hence not refactored.   |
| code quality integration report in CI/CD pipelines | Complex Method       | account/views/github  | config.py               | GitHubConfigurationView         | configure_target_branches | Function 'configure_target_branches' has a Cognitive Complexity of 6 (exceeds 5 allowed).                             | FALSE    | The Cognitive complexity of 6 is manageable. Hence not refactored.   |
| code quality integration report in CI/CD pipelines | Long Parameter List  | core/utlis/           | requests.py             |                                 | fetch                     | Function 'fetch' has 8 arguments (exceeds 4 allowed)  | FALSE    | All the parameters are required for the function and cannot be simplified further. 8 parameters is manageable. |
| code quality integration report in CI/CD pipelines | Complex Method       | core/utlis/           | requests.py             |                                 | fetch                     | Function 'fetch' has a Cognitive Complexity of 13 (exceeds 5 allowed).  | FALSE    | The function is not very complex. Hence not refactored   |
| code quality integration report in CI/CD pipelines | Complex Method       | account/views/github  | config.py               | GitHubConfigurationView         | process_target_branches   | Function 'process_target_branches' has a Cognitive Complexity of 6 (exceeds 5 allowed).                               | FALSE    | The Cognitive complexity of 6 is manageable. Hence not refactored.   |
| code quality integration report in CI/CD pipelines | Complex Method       | service/models/github | bot.py                  | GitHubBot                       | validate_configurations   | Function 'validate_configurations' has a Cognitive Complexity of 10 (exceeds 5 allowed).                              | FALSE    | The function is not very complex. Hence not refactored   |
| Sonarqube code analysis                            | Duplicate Code       | service/test          | test_bot.py             | BotTestCase                     |                           | 'Second Repository' and 'https://github.com/username/repo2' are used in multiple places.                              | TRUE     | A variable is declared to hold these values. Code refactored.  |
| Sonarqube code analysis                            | Unnecessary          | account/views/github  | config.py               | GitHubConfigurationView         | get                       | repo instance variable is declared but not used.  | TRUE     | The variabls is removed. Code refactored.  |
| Sonarqube code analysis                            | Complex Conditional  | account/views/github  | config.py               | GitHubConfigurationView         | validate_configuration    | if not max_lines > 0 has unnecessary operations. its complex.   | TRUE     | Converted to if max_lines <= 0 and if commit_interval <= 0 respectively. Code refactored.                      |
| Sonarqube code analysis                            | Duplicate Code       | account/test          | test_authorization.py   | GitHubAccountTest               |                           | "test@test.com" and "Test Co" are used in multiple places.  | TRUE     | Variables are declared to hold these values. Code refactored.  |
| Sonarqube code analysis                            | Unnecessary          | account/test          | test_branch.py          | BranchTestCase                  | test_cleanup              | Variables branch1 and branch2 are declared but not used.  | TRUE     | The unused variables are removed. Code refactored.   |
| Sonarqube code analysis                            | Unnecessary          | account/test          | test_config.py          | GitHubConfigurationViewTestCase |                           | Variables user_conf,source_config1,source_config2 and target_config are declared but not used.                        | TRUE     | The unused variables are removed. Code refactored.   |
| Sonarqube code analysis                            | Duplicate Code       | account/test          | test_dashboard_fetch.py | DashBoardFetchTests             |                           | "Test Pull Request", "Commit message", "2023-01-01T00:00:00Z", and "test_user/test_repo" are used in multiple places. | TRUE     | Variables are declared to hold these values. Code refactored.  |
| Sonarqube code analysis                            | Duplicate Code       | account/test          | test_pull_details.py    | PullDetailsTestCase             |                           | "Sample Pull Request" is used in multiple places.   | TRUE     | A variable is declared to hold these values. Code refactored.  |

| Smells              | Explanation  |
|---------------------|--|
| Complex Method      | This smell arises when an inheritance hierarchy is "too" wide indicating that intermediate types may be missing. |
| Long Parameter List | This smell arises when an abstraction has more than one responsibility assigned to it.                           |
| Duplicate Code      | This smell occurs when same code structure is duplicated to multiple places within a software system.            |
| Unnecessary         | This smell occurs when a variable is declared but not used anywhere.   |