

# PERFORMANCE TEST 3



## COSMIC FOR PITSOP



For the estimation, the sprint where 2 requirements were added was considered

### PASSWORD RESET



The administrator and user will be able to reset their passwords using their entered email address.

### APP SETTINGS



The user should have access to the account settings, where they can decide how they will receive notifications from the system in their inbox

## PHASES



### MEASUREMENT STRATEGY

In this phase, objectives and scope were set for both requirements, focusing on specific components. For instance, for "Password reset," the goal was to measure the functionality of the human operator users' layer. Similarly, for "App settings," the focus was on determining the functional size of the system, particularly the application configuration component for human operator users.



### MAPPING

Here, the detailed functions of the requirements were outlined, describing the processes and subprocesses involved, including the password recovery from the login screen and the application settings from the account settings screen.

### MEASUREMENT

Based on the COSMIC methodology, one COSMIC Functional Point was assigned to each subprocess (Input, Output, Read, or Write). This is based on the principle that COSMIC assigns one point to each data movement, resulting in a total of 33 COSMIC Functional Points for both requirements.



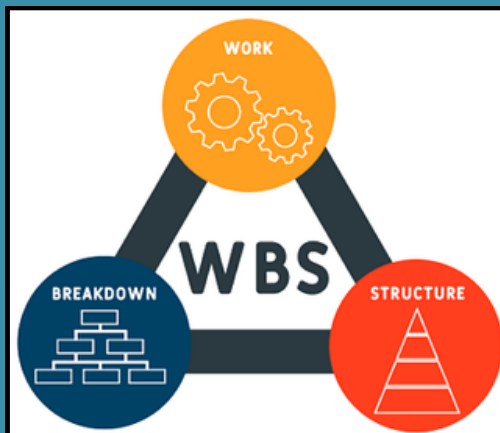
The effort required for implementation was 132 hours. The cost per function point was set at \$15,454.54, with a total cost of \$509,999.82. This cost was broken down for specific components such as FR-03 and FR-07, with individual costs of \$216,363.56 and \$293,636.26, respectively. The cost of the sprint duration was \$254,999.91. The project duration, based on COSMIC Function Points per month, was estimated at 1.5 months to implement both requirements.



## WBS



To carry out the WBS, the data obtained in the estimation that was carried out with the COSMIC method was taken as a reference, where the sprint was divided into the two requirements that were worked on during it, and which in turn was divided into the work that was carried out to complete that requirement and that it can be shown to the Product Owner, in such a way that the time it took to complete each of the tasks and how much each one cost can be seen.



## GANTT DIAGRAM



And in our Gantt Diagram you can see which tasks each person on the team completed and how long it took each person to finish it and how long it took us to finish the two requirements during the sprint, as well as when a task was started and when it was finished.

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## MC.CALL VS BOEHM

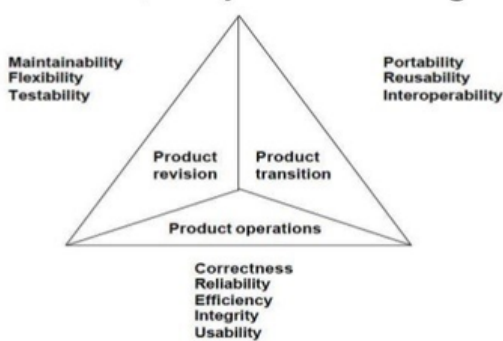
Which is better? Which one can we use? That's why we decided to compare them and see which one suits us best for our project.

The McCall and Boehm quality models are frameworks for evaluating software quality. Some essential features of McCall's model include operation, maintainability, and flexibility, while Boehm's model focuses on accuracy, reliability, and efficiency. For a software development project, the choice will depend on specific priorities.

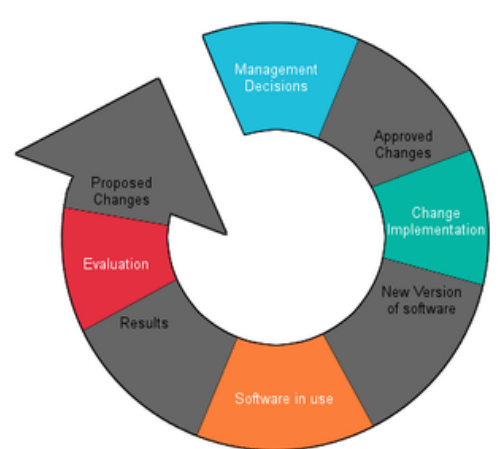
So we made this comparison to find out which is the best for our project, using the following points: Operation, Maintainability and Flexibility

Also known as

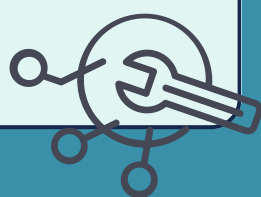
### McCall's Quality Model Triangle



### Boehm's Model



## SOFTWARE CONFIGURATION MANAGEMENT AUDIT.



During the progress of the project, the development team generated artifacts and configuration management of them to monitor their versions. Therefore, the team created a new baseline version per delivery to optimally represent the changes that the software system went through, so in total 3 approved versions of each configuration item were generated. Each version went through a monitoring and approval process by the development team, as well as the product owner in order to corroborate that the changes projected in each artifact reflect the characteristics of the system.

