

ABSTRAK

PENGUKURAN *OBJECT ORIENTED CONCEPTS* PADA APLIKASI MOVIE DB MENGGUNAKAN *CK METRICS SUITE*

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Pembuatan atau pengembangan perangkat lunak memiliki salah satu tujuan yaitu menciptakan perangkat lunak berkualitas. Saat ini, pengembang perangkat lunak lebih cenderung menggunakan konsep *Object Oriented Programming* (OOP) yang mempermudah pembangunan perangkat lunak. Perkembangan teknologi perangkat lunak yang terstruktur juga berpengaruh pada pengembangan penelitian di bidang metrik perangkat lunak berorientasi objek. Chidamber dan Kemerer mengusulkan enam metrik yang dapat digunakan dalam konteks berorientasi objek, seperti *Weight Methods per Class* (WMC), *Depth of Inheritance Tree* (DIT), *Number of Children* (NOC), *Coupling Between Object* (CBO), *Response for a Class* (RFC), dan *Lack of Cohesion in Methods* (LCOM).

Dalam penelitian ini, *source code* setiap *class* Java dalam Aplikasi Movie DB dianalisis, dan dilakukan perhitungan metrik berorientasi objek terhadap semua *class* dalam Aplikasi Movie DB menggunakan *CK-Metrics Suite*. Selanjutnya, nilai metrik Chidamber & Kemerer pada setiap *class* dibandingkan dengan indikator metrik untuk menentukan kualitas konsep berorientasi objek yang terdapat dalam kode perangkat lunak tersebut.

Hasil penelitian menunjukkan bahwa konsep berorientasi objek dalam Aplikasi Movie DB memiliki tingkat kaidah-kaidah yang baik dalam hal *maintainability*, *usability*, *reusability*, *understandability*, *modifiability*, dan *testability*.

Kata Kunci: *CK Metrics Suite*, Faktor Kualitas, Metrik Chidamber & Kemerer, *Object Oriented Metrics*.

ABSTRACT

MEASUREMENT OF OBJECT ORIENTED CONCEPTS IN MOVIE DB APPLICATION USING CK METRICS SUITE

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The creation or development of software has one of its goals, which is to create high-quality software. Currently, software developers tend to use the Object-Oriented Programming (OOP) concept, which facilitates software development. The structured development of software technology also influences research in the field of object-oriented software metrics. Chidamber and Kemerer proposed six metrics that can be used in the context of object-oriented programming, such as Weight Methods per Class (WMC), Depth of Inheritance Tree (DIT), Number of Children (NOC), Coupling Between Objects (CBO), Response for a Class (RFC), and Lack of Cohesion in Methods (LCOM).

In this study, the source code of each Java class in Movie DB Application is analyzed, and object-oriented metrics are calculated for all classes in Movie DB Application using the CK-Metrics Suite. Subsequently, the Chidamber & Kemerer metrics values for each class are compared with metric indicators to determine the quality of the object-oriented concepts present in the software code.

The research results indicate that the object-oriented concepts in Movie DB Application adhere well to the principles of maintainability, usability, reusability, understandability, modifiability, and testability.

Keywords: *CK Metrics Suite, Quality Factor, Chidamber & Kemerer Metrics, Object Oriented Metrics.*