ABSTRACT

One programming technique that popular nowadays is Object-Oriented programming which encapsulates attributes and operations into single unit called object. In this programming technique, we might find crosscutting concern, which is a functionality that can not be encapsulated into an object. Crosscutting concern can cause problems in evolution and maintenance of the software. Unfortunately, Object-Oriented programming does not provide any special mechanism to handle these problems.

This final project applied Aspect-Oriented programming as a way to wrap crosscutting concerns so they become easier to handle. Software development began with Object-Oriented analysis and design. Then the class diagram was expanded to model the aspects which was added in software. Implementation with Aspect-Oriented Programming was done based on the design which had been extended with aspects modeling. As case study, this final project used administration software at Clinic of Obstetric and Gynecology UMMI Bengkulu. From the analysis, it had been concluded that Aspect-Oriented Programming can improve reusability, efficiency (in term of the size of the code), and also make it easier for program to evolve and maintain.

The program was written in Java with AspectJ as extended library for Aspect-Oriented programming in Java. Modeling was made in UML by using Rational Rose.

Keywords :   object, aspect, aspectj, java, crosscutting concern