DEVELOPMENT OF CUSTOMER RELATIONSHIP MANAGEMENT APPLICATION WITH SERVICE ORIENTED ARCHITECTURE IN JAVA USING APACHE OPEN FOR BUSINESS

Name  : Arini Rusda
NRP   : 5107 100 160
Major  : Informatics Engineering, FTIf-ITS
Advisor I : Prof. Drs.Ec. Ir. Rianarto Sarno, M.Sc, Ph.D
Advisor II: Dwi Sunaryono, S.Kom

ABSTRACT

Customer Relationship Management (CRM) is required by company to provide service to customer in real time by maintain relationship with customer through the use of information about the customer. Based on knowledge about their customers, company can make variations of how they act towards customers in sales, marketing, and services. Basic principle of CRM is taking customer profile data as an input then making this input to be a valuable information for the company such as customer history, market demands, and another issues about the market’s growth. So developing a customer relationship management application could help company keep customer’s information, and records all contacts that occurs between the company and the customer.

How to develop CRM application from an existing open source framework so that it could handle business processes in CRM and integration issues with another functional domain which uses different framework using service oriented architecture is the main problem that raised in this final project. This final project is developed by using open source project called Apache Open For Business(OFBiz).
Implementation of service oriented architecture in this final project was designed with service oriented analysis and design which result is mapped to OFBiz model-view-controller architecture in 5-tiers based on the analysis and design and solved the framework integration issues.

The development of the open source project is done to case and helpdesk management, trends and forecasting, and customer profiling. In sales trends and forecasting feature, sales data is plotted and use the plot as observation for doing forecasts for company revenue in the future. In customer profiling there is report that contains customer buying/request history and revenue by specified customer.

Reports generated in this application are trends and forecasting analysis report, customer buying history report, revenue by customer report, case by customer report, and monthly case reported report. From the testing phase, the application for this final project was successfully handles business process in CRM and integrated with other functional domain: Sales, Inventory, and Business Intelligence, which use Java Server Faces and Pentaho framework in their development.

**Keywords**: CRM, Apache OFBiz, ERP, web service, SOAP