

A SOFTWARE ARCHITECTURE FOR IMPLEMENTATION OF ERP IN HIGHER EDUCATION INSTITUTION

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ABSTRACT

Enterprise Resource Planning (ERP) is an integrated ICT based system which manages enterprise resources. It is also an application and software architecture which facilitates information flows between various business functions of an enterprise. ERP has been used for decades in many enterprises. However, it is seldom that ERP is implemented in higher education (HE) institutions, because the institutions are not considered as an 'enterprise' when running their HE businesses. Furthermore, usually HE institutions in Indonesia already has an integrated or unintegrated information system running. In HE institution with an unintegrated information system, sharing data between and within functional areas is hard. This leads to difficulties in resource planning, decision making, and difficulties in serving the institution's stakeholders effectively and efficiently. This paper discusses a study regarding the development of application software architecture for implementation of ERP in HE institutions in which many unintegrated information systems already running. The study focuses on one aspect of the ERP, i.e. education program planning. The study is performed in two phases. The first phase identifies the business process related with the education program planning. The second phase constructs a software architecture based on this business process. The study takes Politeknik Negeri Bandung (Bandung State Polytechnic) as a case study. But, due to its generic nature, the results could be implemented in other institutions as well.

KEYWORDS: HE Institution, ERP, Software Architecture