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Evolving Large Scale Healthcare Applications using Open Standards

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Running Title: Healthcare Applications for India

Abstract: Electronic Health Records (EHRs) are becoming more prevalent in health care. Worldwide exchange of healthcare data demands adherence to semantic interoperable standards to overcome the language and platform barriers. Various healthcare organizations in developing countries such as, India adopt their own independent information systems without adhering to standard guidelines. Thus, this tends to sacrifice interoperability. This affects permanent persistence of longitudinal health records for future reference and research purpose. Current research implements a standard based clinical application to be used for healthcare domain in India. The study has been done for enhancing the data quality through standardization. It aims at providing a generic permanent persistence to track life-long interoperable health records of patients. This is the first effort for exploring its adoption for various regional languages in India. The user interfaces have been generated for various Indian languages for testing on a sample set of archetypes. The clinical application deployed in 'Hindi' language can be easily deployed for other people in 'Tamil' language, while maintaining semantic interoperability. The persistence will also be maintained, with the same meaning (of data) for both the regions. Implementing these standard based healthcare applications helps in reducing the costs while enhancing patient care. Thus, this study aims to