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**Riverside Majestic Hotel
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Nuclear Medicine Information System (NMIS)

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Abstract

The medical information system plays an important role for either the flow of business transaction or record medication histories. In the Department of Nuclear Medicine of Sarawak General Hospital, the officers and doctors handle the patient information manually during registration and diagnosis process. Unfortunately, this manual documented system has led to severity of the problems such as medication history error, misplacement of drug particulars, delay release of reports and insecurity to the patient's record. Thus, there is a demand for a web-based information system so that the doctors and officers are able to seize the benefits of the accuracy, confidentiality and integrity of the data. The proposed project is to develop the Nuclear Medicine Information System (NMIS) to integrate the spatial information such as the patients' medical report and their diagnosis scan report. All the information such as patient, appointment, diagnosis, cancer and user is able to manipulate in accordance to the authorization level of the user. Meanwhile, the temporary user (officers from different department and UNIMAS medical students) is able to utilize the NMIS to conduct data analysis in detecting the connective tissue tumour pathology. Numerous of similar existing nuclear medicine information systems have been reviewed and compared. The methodology used to develop the new system is rapid prototyping model approach. Moreover, the new system is visualized using Unified Modelling Language (UML) modelling in the design phase. The NMIS is implemented using website programming languages such as HTML, CSS, MySQLi, PHP, JavaScript and AJAX in the Windows platform. Then, the functionality testing and usability testing has carried out to verify and validate its functionality, efficiency and usability.

Keywords: Web-based information system, rapid prototyping model, medical information.