# INTEGRATION OF STUDENT INFORMATION DATA

# USING XML



UNIVERSITI UTARA MALAYSIA

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# INTEGRATION OF STUDENT INFORMATION DATA

# USING XML

**A thesis submitted to the**
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## ABSTRAK (BAHASA MELAYU)

Sekolah-sekolah di Malaysia telah dibekalkan dengan beberapa sistem untuk meningkatkan lagi keupayaan pengurusan data pelajar di dalam persekitaran sekolah. Sistem-sistem berkenan telah banyak memudahkan kerja-kerja para guru yang sentiasa dibebani dengan kerja-kerja di sekolah. Kajian ini dibuat bagi menghasilkan model integrasi data bagi semua sistem maklumat yang berkaitan dengan pelajar dengan menggunakan XML. Tiga fasa utama dalam kajian ini ialah analisa dan pemodelan, pembangunan prototaip dan pengujian. Model integrasi data tersebut berjaya dihasilkan. Prototaip telah dibangunkan berasaskan model tersebut. Akhirnya prototaip tersebut telah menjalani pengujian dan keputusannya sangat memberangsangkan. Beberapa cadangan telah disyorkan untuk kajian yang lebih lanjut pada masa akan datang.

## ABSTRACT

Schools in Malaysia have been provided with few systems to increase their capabilities to manage student data in the schools environment. With so many workloads that teachers have to face, those systems really give a relief to the teachers. This study was carried out to formulate the integration model of student information data using XML. There are three main phases involved in the study which are analysis and modeling, prototype development and testing. Upon completion, models of data integration were formulated and prototype was developed based on the model. Finally the prototypes were tested and the results are promising. There are some recommendations also for future work.

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## LIST OF ABBREVIATIONS

| | |
|---|---|
| DTD | Document Type Definition |
| HTML | HyperText Markup Language |
| IC | Identity Card |
| IE | Internet Explorer |
| IT | Information Technology |
| LAN | Local Area Network |
| MOE | Ministry of Education |
| PC | Personal Computer |
| SSDM | Sistem Sahsiah Disiplin Pelajar |
| SISTEK | Sistem Pinjaman Buku Teks |
| SMM | Sistem Maklumat Murid |
| USM | Universiti Sains Malaysia |
| VBA | Visual Basic Application |
| W3C | World Wide Web Consortium |
| XML | Extended Markup Language |
| XSL | Extended Stylesheet Language |
| XSLT | Extended Stylesheet Language Transformation |

## LIST OF APPENDICES

# CHAPTER ONE

# INTRODUCTION

Information Technology is really helping teachers nowadays in their routine works. It makes things easier, faster and systematic. So teachers nowadays have to increase their knowledge in Information Communication technology (ICT) literacy to improve their teaching in class and also in managing student information system.

In Malaysia, managing student information has changed significantly. Previously teachers have to record all students' data in 101 card and 102 card manually. Lots of writing processes were involved to fill in both the cards. Now teachers only need to key in the data in the 'Sistem Maklumat Murid' (SMM), print out and keep them in the students files. SMM is a student information system developed by Mr.Md Yusoff Alaudin and Mr. Amat Sazali Abu Hassan from the Penang Education Department. This system has been accepted by Ministry Of Education to use by all schools in Malaysia since 2003.

In the process of borrowing text books, previously teachers need to fill in G Form with students names, tick the books they had borrowed and sign the form. Now with Sistem Pinjaman Buku Teks (SISTEK), using bar code reader, all the books need to be scanned and the system will record the books borrowed by the students. So the process becomes faster and more effective then before. SISTEK was developed by the Textbook Division under MOE. This system has been tested for the first time in

The contents of the thesis is for internal user only

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