

ABSTRACT

LOOOP (Learning Objects in Object Oriented Programming) is an Electronic Learning (E-Learning) system that is developed in an object-oriented programming based on Learning Objects approach for higher education students. It uses an informational type of Learning Objects technology. The motivation of the project is to provide an alternative system for learners in support learning, provides supportiveness for learners in finding and recording information, provides communication tool for learners as well as to give immediate feedback promptly to learners who need information. This system does not only provide user with learning contents, but also provides information searching using the Internet via Google.com. A LOOOP complete system is a client-server application that executes on the client's computer and retrieves its learning contents from server or from the client's computer itself. This system is developed to support learners who want to study in a new study environment that transforms normal study style into digital environment. To develop fully, linear sequential model is selected as LOOOP project methodology. Visual Basic is the programming language used in the project implementation. Besides a client-server application, ActiveX control and DLL file are also created in this project for reusability and interoperability purpose. In addition, LOOOP language, which is a similar XML standard language, is used for data passing within database and the system. As a conclusion, a depth defined and designed of LOOOP includes its input, output and methodology are required to perform at preliminary stage to ensure LOOOP is developed in the correct path.

APPRECIATION

The contribution of the following individual and organization in preparing this document was gratefully acknowledged:

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Friends and Family.

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LIST OF ABBREVIATIONS

ADL	Advanced Distributed Learning initiative
AICC	Aviation Industry Computer-Based Training Committee
API	Application Program Interface
CBT	Computer-Based Training
CD	Compact Disc
COM	Component Object Model
CPU	Central Processing Unit
DFD	Data Flow Diagram
ERD	Entity Relationship Diagram
ERP	Enterprise Resource Planning
GUI	Graphical User Interface
HTML	HyperText Markup Language
ICT	Information and Communication Technology
IMS	Instructional Management System
LMS	Learning Management System
LOOOP	Learning Object In Object-Oriented Programming
MIT	Massachusetts Institute of Technology
RAM	Random Access Memory
SCO	Sharable Content Object
SCORM	Sharable Content Object Reference Model
SDLC	Software Development Life Cycle
SQL	Structured Query Language
UAT	User Acceptance Testing
URL	Uniform Resource Locators
USA	United State Of America
XML	Extensible Markup Language