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JUDUL: BIRD'S LIFE FOR KIDS

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DECLARATION

I hereby declare that this project report entitled
BIRD'S LIFE FOR KIDS

is written by me and is my own effort and that no part has been plagiarized without
citations.

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DEDICATION

I dedicate this thesis to my parents. Without their patience, understanding, support and most of all love, the completion of this work would not have been possible.

ACKNOWLEDGEMENTS

IN THE NAME OF ALLAH (AL MIGHTY), THE GRACIOUS, THE MOST MERCIFUL.

Peace and blessings of Allah Al Mighty be our beloved, final Prophet and Messenger of Allah, his relatives and all his companions and those who have followed. Alhamdulillah, all praise and thankfulness to Allah S.W.T, the most Glorious and Omnipotent, with His willing has allowed me to complete this Projek Sarjana Muda I.

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ABSTRACT

This project is about Bird's Life for Kids. This Project has to build to expose bird's life to children. Scope for this project is a kid's kindergarten. Function of this system are to display information about each birds, play video about birds and have 3D animation about life of bird. Technique are used to collect data are an observation and interview. Hopefully this project will make kids learned about bird at this world. This project will built with Macromedia Flash MX 2004 Professional, Adobe Photoshop, Adobe Premiere and 3D Max 6

ABSTRAK

Projek ini adalah berkenaan Kehidupan Burung untuk Kanak-kanak. Projek ini dibangunkan untuk mendedahkan kehidupan burung kepada kanak-kanak. Projek ini akan digunakan oleh kanak-kanak yang berumur 4 hingga 6 tahun. Antara fungsi sistem ini ialah memaparkan penerangan setiap burung, mempunyai video burung dan mempunyai video 3D animasi tentang kehidupan burung tersebut. Beberapa teknik telah digunakan bagi menganalisis keperluan projek seperti kaedah pemerhatian dan temuduga. Di harap agar projek ini dapat memudahkan kanak-kanak mengenal serba sedikit jenis burung yang terdapat di dunia ini. Projek ini dibangunkan dengan menggunakan Macromedia Flash MX 2004 Professional, Adobe Photoshop, Adobe Premiere dan 3D MAX 6.

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LIST OF ABBERRIATIONS**ABBERRIATIONS****MEANING**

KUTKM	Kolej Universiti Teknikal Kebangsaan Malaysia
PSM	Projek Sarjana Muda
CD	Compact Disk
3D	3 Dimension
MPEG	Moving Pictures Experts Group
AVI	Audio Video Interleaved
GIF	Graphics Interchange Format
PC	Personal Computer
CPU	Central Processing Unit
HTML	Hyperlink Markup Language

CHAPTER I

INTRODUCTION

1.1 Project Background

Bird's Life for kids had been chosen for *Projek Sarjana Muda (PSM)*. Despite the growth in information and communication technology in this new century, there are many ways to teach kids about how many types of birds in this world. Using multimedia elements such as audio, video, text, animation and graphic will make this product more interactive and can attract kids to see it.

This project is built to expose kids about life of birds. Beside that with this CD kids can more excited to learn about bird. Compare to current CD at market, it not suitable because not user friendly. Another factor to build this project is kids at town did not know about bird so with his project will help them.

The main purpose of this project is can help kids in knowing birds. Beside that, it will help teacher or parent in teaching their kids.

1.2 Problem Statement

This project will be developing for kid's kindergarten so this product must be used right color to attract them. It is because kids can more interest something adorable.

Compare to current system such as CD at the market, the system does not user friendly so kids have problem to use that product. Another current system is a program TV like National Geographic. The program not suitable for kids because it very difficult to understand.

This system can help kids at town to learn about birds. It is because they cannot see with their own eyes birds at town. If they want to see it they must go to Bird's Garden. So with this project can solve that problem.

1.3 Objectives

There are objectives for this project :-

- To teach or expose kids about bird.
From this product kids will know and learn about birds in this world. They will know the type of bird, color of the bird and sound of birds according their type. Besides that kids know how to spell the bird's name.
- Easier to parents or teachers
By using this product, parents and teacher can more easily to tech kids about birds because this project contain images, description and video about birds.

- To help kids at town

By using this product, they cannot to go to bird's garden just to see the birds. So it will save the time and money to go there.

- To reduce paper usage

By using this product will reduce paper usage. It is because it takes more paper to draw each type of bird if use paper. So with this CD it can reduce paper and keep the money.

1.4 Scopes

The end of this product will be in CD interactive, so this CD will be bringing anywhere. This product stands alone so it cannot depend on other system.

User of this product is a kid between 4 until 7 years old. This product will use minimum requirement such as :-

- Personal Computer
 - 256 MB of RAM
 - Speaker
 - Monitor
 - CD-Rom
- Software
 - Macromedia Flash MX 2004 Professional
 - Flash Player – Plug in
- Operating System
 - Microsoft Windows XP

1.5 Project Significance

From this product it will make easier for teachers to teach kids. This product can reduce paper usage if use old ways to teach them. Beside that, to make they sit down and hear it must have something different for their learning. So this product can help because this product so interactive and use instructional design for kids. So they cannot feel bored and enjoy with their lesson.

1.6 Expected Output

Hopefully this product will have all the multimedia element such as audio, video, graphic, text and animation. This project will help kids to know about birds and how their lives.

This project may be having two main functions, which is a type of birds and 3D animation. In type of birds it contains description and video about that bird. In 3D animation it will contain life of bird using 3D max.

1.7 Conclusion

As a conclusion for this chapter, developer will develop Bird's Life for Kids which is the end product in CD interactive. So that it will make more attraction for kids to learn about that animal.

CHAPTER II

LITERATURE REVIEW AND PROJECT METHODOLOGY

2.1 Introduction

To develop this bird's life for kids in interactive CD, developer has to find information about bird's life and how to develop good interactive CD. This to ensure that developer will understand the meaning of Compact Disc Interactive. There are many methods that can be used to get information such as finding it via internet and reading reference books and magazine.

2.2 Fact and Finding (based on topic)

To develop this project, all fact connected with the title must find to make sure this project are successful. To find the fact, searching, collecting, analyzing and drawing conclusion from all debates and issues raised in relevant body of literature.

2.2.1 What is a child?

a) According to Sylva, K. and I. Lunt (1982). *Child Development A First Course*. Oxford, Blackwell. <http://www.chici.org/> [Access 15 April 2005]

It is common to identify children and place them into groups according to their chronological age. Some writers consider that childhood begins after infancy, around the age of two, whereas others see infancy as part of childhood. The age at which childhood is defined as ending has similar variations; with some texts citing adolescence as the end of childhood, whilst for many purposes (significantly for legal reasons) childhood ends at 16 or 18. Child development theories focus on the five features of children that change with age; these being physical development, social development, emotional development, intellectual development, and language development.

b) Piaget, J. (1970). *Science of Education and the psychology of the child*. New York, Orion Press. <http://www.chici.org/> [Access 15 April 2005]

According to Jean (Piaget 1970) identified five stages of cognitive development that can be useful to classify the key changes in intellectual and language development and can also furnish a definition for a child in terms of age and cognitive ability.

Stage	Ages	Key points for interactive product design
Sensorimotor	Birth to 2 years	Children rely on what their senses perceive – they will be unable to interact with products
Preconceptual thought	2 - 4	Brief attention span, can only hold one thing in their memory at a time. Unable to read, but can understand simple instructions! May need sound on an interface.
Intuitive thought	4 – 7 years	Children can use symbols and words. Children can distinguish reality from fantasy. In the

		latter part they can take into account the viewpoint of others.
Concrete operations	7 – 11 years	Children can classify things; understand the notion of reversibility and conservation. Can think logically but not abstract
Formal operations	11 years on	Thinking is about ideas, they can consider various solutions without having to act them all out – can deal with hypothetical situations

Table 2.1: Piagetian Stages of Child Development

2.2.2 3Ds Studio Max 7.0

Latest Version of Acclaimed 3D Modeling, Animation and Rendering Software Will Equip Customers to Meet the Evolving and Complex Production Demands of Growing Game Development, Character Animation, Film & Television Visual Effects, and Design Industries

Montro, Quoc, August 2nd, 2004. Discreet, a division of Autodesk, Inc. (NASDAQ: ADSK) and a leader in digital content creation, management, and distribution tools, today announced 3ds max 7, the newest version of its acclaimed 3D modeling, animation, and rendering software. 3ds max 7 software will be shown for the first time publicly at the international SIGGRAPH Exhibition in Los Angeles, CA (August 10th -12th). With over 280,000 registered users worldwide, and a 19% increase in sales revenues in the last year, 3ds max is clearly the most popular professional 3D modeling and animation application available today.

Responding to the ever-increasing industry need for powerful yet approachable

non-linear animation tools, Discreet is integrating its award-winning advanced character motion toolset character studio, into the core feature set of 3ds max 7. With a unique constraint-based non-linear animation mixer, highly scalable behavioral crowd simulation capabilities, and extensive motion capture filtering and editing facilities, character studio brings industry leading price/performance capabilities to the existing 3ds max character toolset. The result of the integration of character studio and 3ds max is the democratization of character animation functionality, which up until now has been found in solutions costing two to three times more than 3ds max (*U. S. Department of Education, 1993*).

3ds max 7 also offers a wide range of newly developed core functionality including industry-first Normal Mapping, a workflow accelerator for gaming; and Edit Poly Modifier, designed to improve ease of use and speed of animation (a more comprehensive feature list is included below). Such groundbreaking features as Normal Mapping continue Discreet legacy of cross-pollinating innovative technologies between market segments, where features originally designed for one market segment such as games can have a significant impact on other segments such as film or design visualization (*Natriello, McDill, and Pallas, 1990*).

"NVIDIA and Discreet have worked together for years to deliver the highest performance graphics creation solutions for professional 3D animation artists" (*Jeff Brown, 1974, Eckert and Marshall, 1938; Katz, 1971*). With Discreet acute focus on high-end real-time shading in 3ds max 7, it takes a powerful professional graphics solution with true 128-bit floating point frame buffers and Shader Model 3.0 support like the NVIDIA Quadro. An FX workstation graphics solution is to unleash its full potential. Together, Discreet and NVIDIA have ensured that the full power and feature sets of our respective products give 3D game developers and visual effects artists a sophisticated, but approachable hardware and software duo that optimizes productivity (*Anderson, 1988; Alvarez, 1986; Noley, 1994*).

3ds max 7 is designed to deliver the optimized performance required for the large

data sets of today's increasingly complex 3D production environments (*Marc Petit, 1989*). Discreet Major innovations in 3ds max 7 focus on delivering the most productive and customizable workflow to date, support for next-generation PC/console and mobile platforms, as well as powerful new creative tools. Furthermore, the integration of advanced character animation capabilities as a part of the core functionality of 3ds max will provide fast, efficient, and intuitive character tools for the benefit of all 3ds max 7 users.

We're always excited to be part of discreet development process. With 3ds max 7, we are seeing some great improvements in performance. The character animation advancements have reaffirmed our commitment to 3ds max 7 as our core development platform. Discreet advancements for improved visual feedback have paid off in a significant way, giving us the ability to handle larger amounts of polygons as well as more objects than ever before (*Greg Zeschuk, 1979*). "As we are in the home stretch for bringing Jade Empire that already an award winner at E3, we will definitely be utilizing all of the features of 3ds max, both to ensure Jade Empire is visually stunning and also to help us get the artwork done quickly and efficiently; we're confident that Jade Empire will be BioWare's best game yet (*Ray Muzyka, 1976*).

Additional major new features in 3ds max 7 include;

Normal Mapping - industry first revolutionary workflow developed for gaming adds extreme detail to low-polygon models with high resolution maps and with complete rendering support normal mapping brings great time-saving benefits to film production and cinematic visualizations. **Mental ray 3.3** - enhanced integration in 3ds max with accelerated performance and better memory efficiency. **Improved Global Illumination** - new support for Render to Texture and Normal Mapping, and Sub-Surface Scattering that disperses light for amazingly realistic skin and dense translucent object rendering. **Parameter Collector** - a new, unified interface that improves efficiency when animating multiple parameters for any character setup. **Parameter Editor** - an enhanced, more powerful version of the Custom Attributes feature with new data types and functionality. **Edit Poly Modifier** - significantly increases the rapidity and ease at