Learning Media Of Prehistory And Ancient Man Indonesian Base In Android

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Abstract — **Android smart phone are very popular in Indonesia. There are many application of android can downloaded easily. In other side Indonesian youth awareness to visit museum decrease instantly. This condition make youth no longer knowing their pre-history ancestor. Android application can use as a bridge to introduce Indonesian pre-history age to the youth and encourage awareness to visit the museum.**

Key words – Android, Prehistory, Ancient Man Indonesian

I. INTRODUCTION

Android is very popular among Indonesian smart phone users and becoming the fastest growing product. Indonesia is the largest market of Android. Many reason people using the smart phone. One of the most important function to explore the internet to find various kind of information. Now the android smart phone becoming one of the most important need in daily life.

In fact people are more comfortable searching for information on the Internet using their smart phones, rather than reading a book or print media. This opens up opportunities for software developers to create a wide variety of applications. Android is an open source, Google allow all parties legally to develop applications using the Android operating system.

On the other hand the rapid advances in technology, education of elementary school and Junior High School prehistory and early human lesson had begun in disregard of the other subjects, but by learning we can know the ancestors Indonesian humans evolution. The results are many students less or even not have knowledge of Indonesian prehistoric. Now days the prehistoric museum becomes less attractive place to visit. Because the children more interesting in playing with their games and gadgets.

Seeing the decline of interest the younger generation to learn and know the prehistoric times, the author tries to do research under the title Learning Media of Age Prehistory and Ancient Man Indonesian Base in Android. This application is made with the intention Indonesian peoples, especially the elementary school students and junior high school students are interested in studying subjects' prehistory and early humans. These applications were made including the periodicity, the type of early man, prehistoric life style and culture results. Hopefully, by the application as learning media the students know what the first prehistoric relics which have not known any posts.

A. Problem Formulation

Based on the background of the problems that have been outlined above, the authors attempt to provide a solution to the problem is. How to make an Android application for the students to studies prehistory and early humans in Indonesia?

B. Research Objective

1). To develop learning system prehistory and ancient man based android.
2). Designing learning media of prehistory and early human for students elementary school to high school students
3). Packing information prehistory and early humans in the form of interest so as to make students love to learn.

C. Research Method

Before this research was made, the author uses paper "Ancient Human History-Based Applications Android Version 2.3.3 (Gingerbread)", which was written by the Rahmat Hidayat as a reference. In such applications is used as a learning media of early humans only. there has been no discussion about prehistoric times.

The author tries to make android based application that is used as a learning medium prehistoric times and early humans in Indonesia.

This research using a spiral system development life cycle models written by Satzinger from the book System Analysis And Design A Changing World In 2009.
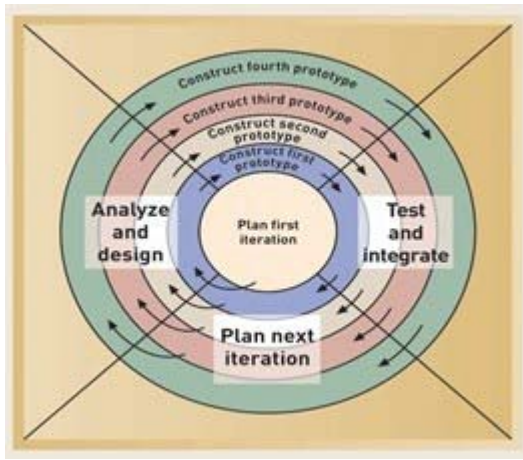
Fig1. A Spiral System Development Life Cycle Models

II. DESIGN SYSTEM

A.Design UML

1). Use Case Diagram: Use Case Diagram is a diagram illustrating the interaction between systems with external systems and users.

Use case in this aplication include:

a. Prehistoric times consist of definition, Arkeologi times and galley
b. Ancient Man consist of definition and galery
c. Location of prehistory moseum
d. About
e. Help

2). Activity Diagram: According to Jeffery L. Whitten et al (2004), Activity Diagrams are used to describe the range of activities flows both business process or use case.

Activity Diagram created in this research include: Arkaekum times, Paleozoikum, Mesozoikum, Neozoikum, Tersier, Kuarter, Pleistosen, Holosen, big stone, metals, copper, bronze, Gallery Menu of prehistoric times, The ancient man definition, Megantrhropus, Phitecanthropus, Phitecanthropus Mojokertensis, Phitecanthropus Soloensis, Phitecanthropus erectus, homosapiens, and Gallery of ancient man.

This is sample of activity diagram:
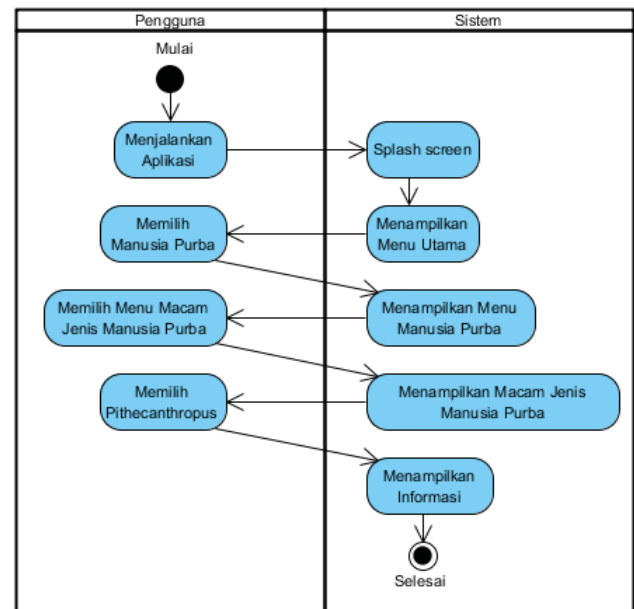
Fig2. Activity Diagram Pithecanthopus Menu

3). Sequence Diagram

According to Jeffery L. Whitten et al (2004) Sequence diagrams illustrate how objects interact with each other through messages on the execution of a use case or operation.
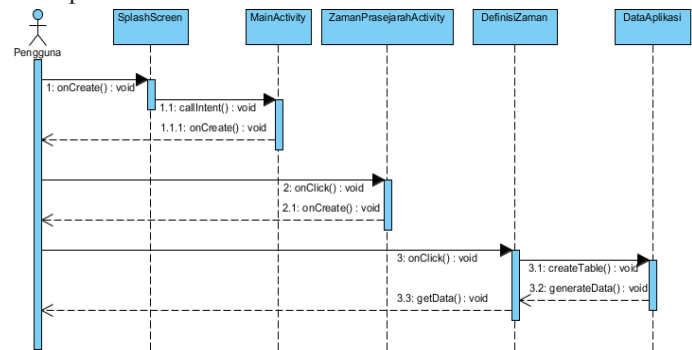
Fig3. Sequence Diagram Definition Menu of Prehistoric Times

III. IMPLEMENTATION

A.Implementation Interface

1). Main Menu

Fig4. Display of application's main menu

2). Gallery Prehistoric Period
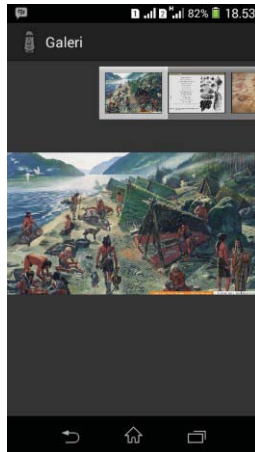
Fig5 Display of prehistory gallery

3). Display Menu of Ancient Man
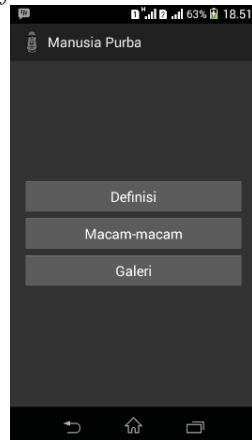
Fig6 Display Menu of Ancient Man

4). Display Menu Location Museum of Prehistory in Indonesia

Fig7. Display the location of the museum of ancient human

B. Testing System

1)White Box Testing

White Box Testing in Instructional Learning Media of Age Prehistory and Ancient Man Indonesian Base in Android the result in the Flow Graph as follows:

a. ManusiaPurbaActivity.java

Fig8. White Box Testing

ManusiaPurbaActivity.java
Line 1 = 1-2-3-4

b. MacamZamanGeologi.java

```
protected void tampilMenu(String pilihan) {
    // TODO Auto-generated method stub
    try {
        Intent in = null;
        if (pilihan.equals("1.Zaman Arkaekum")){
        in = new Intent(this,InformasiZaman.class);
        Bundle bd= new  Bundle();
        bd.putString("keyid", "6");
        in.putExtras(bd);
        setResult(RESULT_OK, in);
        }
        else if (pilihan.equals("2.Zaman Paleozoikum")) {
            in = new Intent(this,InformasiZaman.class);
            Bundle bd= new  Bundle();
            bd.putString("keyid", "7");
            in.putExtras(bd);
            setResult(RESULT_OK, in);
        }
        else if (pilihan.equals("3.Zaman Mesozoikum")) {
            in = new Intent(this,InformasiZaman.class);
            Bundle bd= new  Bundle();
            bd.putString("keyid", "8");
            in.putExtras(bd);
            setResult(RESULT_OK, in);
        }
        else if (pilihan.equals("4.Zaman Neozoikum")) {
            in = new Intent(this,InformasiZaman.class);
            Bundle bd= new  Bundle();
            bd.putString("keyid", "9");
            in.putExtras(bd);
            setResult(RESULT_OK, in);
        }
        else if (pilihan.equals("  a.Zaman Tersier")) {
            in = new Intent(this,InformasiZaman.class);
            Bundle bd= new  Bundle();
            bd.putString("keyid", "10");
            in.putExtras(bd);
            setResult(RESULT_OK, in);
        }
        else if (pilihan.equals("  b.Zaman Kuarter")) {
            in = new Intent(this,InformasiZaman.class);
            Bundle bd= new  Bundle();
            bd.putString("keyid", "11");
            in.putExtras(bd);
            setResult(RESULT_OK, in);
        }
        else if (pilihan.equals("    1)Kala Pleistosen")) {
            in = new Intent(this,InformasiZaman.class);
            Bundle bd= new  Bundle();
            bd.putString("keyid", "12");
            in.putExtras(bd);
            setResult(RESULT_OK, in);
        }
        else if (pilihan.equals("    2)Kala Holosen")) {
            in = new Intent(this,InformasiZaman.class);
            Bundle bd= new  Bundle();
            bd.putString("keyid", "13");
            in.putExtras(bd);
            setResult(RESULT_OK, in);
        }
        startActivity(in);
    } catch (Exception e) {
        // TODO: handle exception
    }
}
```

Fig9. White Box Testing

MacamZamanGeologi.java
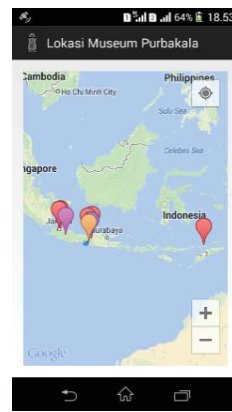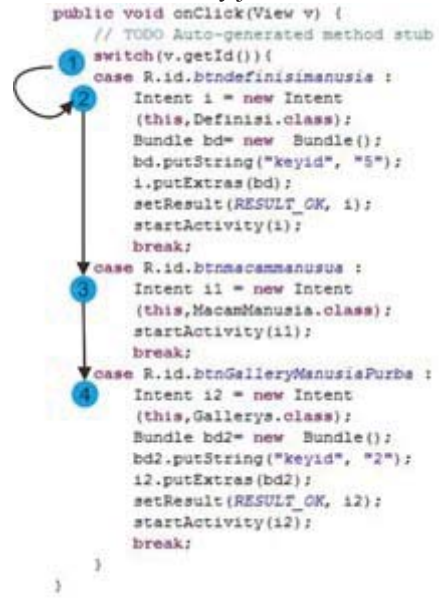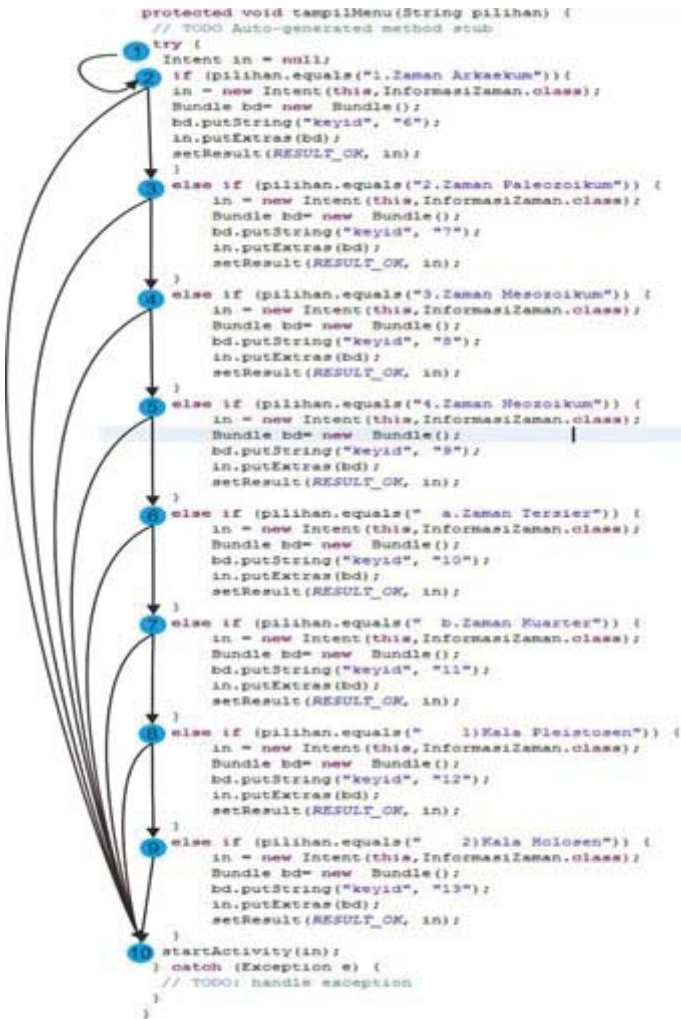Line 1 = 1-2-10
Line 2 = 1-2-3-10
Lane 3 = 1-2-3-4-10
Line 4 = 1-2-3-4-5-10
Lane 5 = 1-2-3-4-5-6-10
Lane 6 = 1-2-3-4-5-6-7-10
Line 7 = 1-2-3-4-5-6-7-8-10
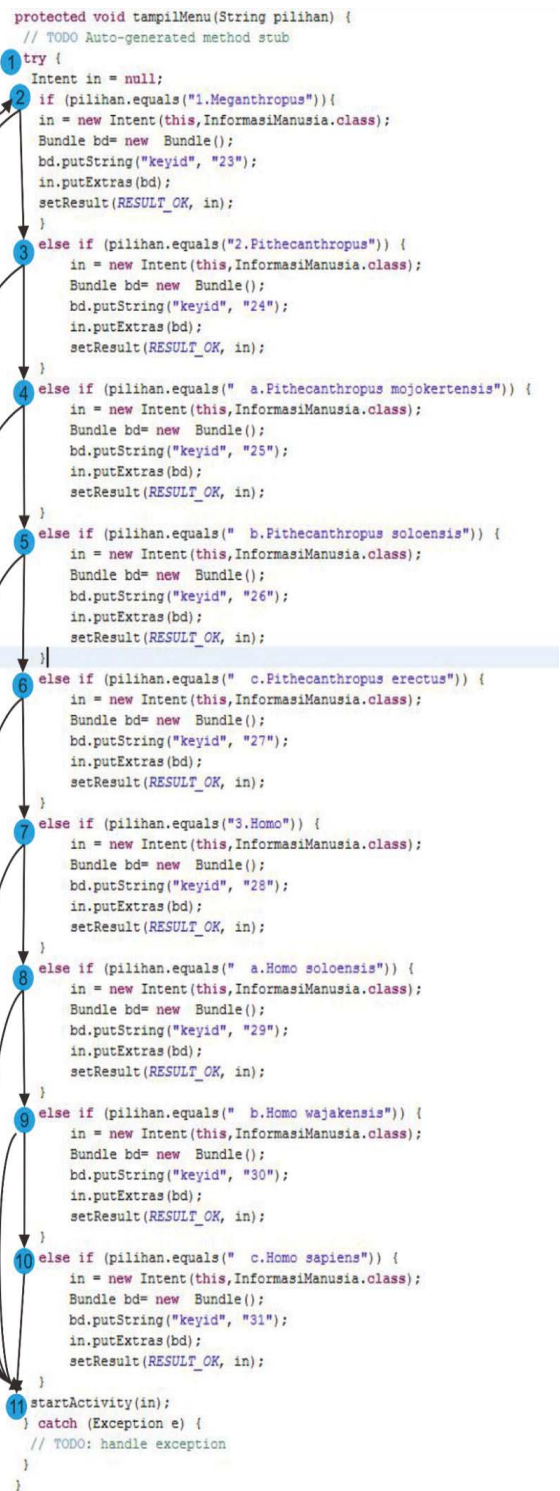Lane 8 = 1-2-3-4-5-6-7-8-9-10

c. MacamZamanArkeologi.java


```
protected void tampilMenu(String pilihan) {
    // TODO Auto-generated method stub
    try {
        Intent in = null;
        if (pilihan.equals("1.Meganthropus")){
        in = new Intent(this,InformasiManusia.class);
        Bundle bd= new  Bundle();
        bd.putString("keyid", "23");
        in.putExtras(bd);
        setResult(RESULT_OK, in);
        }
        else if (pilihan.equals("2.Pithecanthropus")) {
            in = new Intent(this,InformasiManusia.class);
            Bundle bd= new  Bundle();
            bd.putString("keyid", "24");
            in.putExtras(bd);
            setResult(RESULT_OK, in);
        }
        else if (pilihan.equals("  a.Pithecanthropus mojokertensis")) {
            in = new Intent(this,InformasiManusia.class);
            Bundle bd= new  Bundle();
            bd.putString("keyid", "25");
            in.putExtras(bd);
            setResult(RESULT_OK, in);
        }
        else if (pilihan.equals("  b.Pithecanthropus soloensis")) {
            in = new Intent(this,InformasiManusia.class);
            Bundle bd= new  Bundle();
            bd.putString("keyid", "26");
            in.putExtras(bd);
            setResult(RESULT_OK, in);
        }
        else if (pilihan.equals("  c.Pithecanthropus erectus")) {
            in = new Intent(this,InformasiManusia.class);
            Bundle bd= new  Bundle();
            bd.putString("keyid", "27");
            in.putExtras(bd);
            setResult(RESULT_OK, in);
        }
        else if (pilihan.equals("3.Homo")) {
            in = new Intent(this,InformasiManusia.class);
            Bundle bd= new  Bundle();
            bd.putString("keyid", "28");
            in.putExtras(bd);
            setResult(RESULT_OK, in);
        }
        else if (pilihan.equals("  a.Homo soloensis")) {
            in = new Intent(this,InformasiManusia.class);
            Bundle bd= new  Bundle();
            bd.putString("keyid", "29");
            in.putExtras(bd);
            setResult(RESULT_OK, in);
        }
        else if (pilihan.equals("  b.Homo wajakensis")) {
            in = new Intent(this,InformasiManusia.class);
            Bundle bd= new  Bundle();
            bd.putString("keyid", "30");
            in.putExtras(bd);
            setResult(RESULT_OK, in);
        }
        else if (pilihan.equals("  c.Homo sapiens")) {
            in = new Intent(this,InformasiManusia.class);
            Bundle bd= new  Bundle();
            bd.putString("keyid", "31");
            in.putExtras(bd);
            setResult(RESULT_OK, in);
        }
        startActivity(in);
    } catch (Exception e) {
        // TODO: handle exception
    }
}
```

Fig9. White Box Testing

MacamZamanArkeologi.java
Line 1 = 1-2-11
Line 2 = 1-2-3-11
Lane 3 = 1-2-3-4-11
Line 4 = 1-2-3-4-5-11
Lane 5 = 1-2-3-4-5-6-11
Lane 6 = 1-2-3-4-5-6-7-11

Line 7 = 1-2-3-4-5-6-7-8-11
Lane 8 = 1-2-3-4-5-6-7-8-9-11
Line 9 = 1-2-3-4-5-6-7-8-9-10-11

c.Black box testing

Black Box Testing is testing to see if all the functions that the software is running properly in accordance with the functional requirements that have been defined.

After the Black Box Testing on the application of Learning Media Age Prehistory and Ancient Man In Indonesia it can result in the following:

Table1. Black Box Testing

No	Menu	explanation
1	Display Main Menu	Success
2	Display Prehistory Menu, Ancient Man, location of prehistory moseum, about, help and exit	Success
3.	Display menu of geology definition, arkeologi definition, gallery	Success
4.	Display menu of definition, gallery the ancien man	Success

V. CONCLUSIONS

Based on the descriptions that have been the author described in previous chapters, the design and implementation of applications "Learning Media Age Prehistory and Ancient Man in Indonesia" is based on the formulation of the problem can be concluded as follows:

1. This research has built a mobile application such as a medium of learning about the Age of Prehistory and Ancient Man in Indonesia. The function information pack prehistory and early humans into a form that is quite interesting.

2. This application has information in the form of text, image and location of prehistoric museum in Indonesia.

3. The application is connected to the Google Maps API and GPS so the user can tell the location of the historic museum and make the trip.

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