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Majmaah University  
Ministry of Higher Education  
College of Science Al Zulfi



المملكة العربية السعودية  
جامعة المجمعة  
كلية العلوم بالزلفي  
قسم علوم الحاسب والمعلومات

# English Guide for Kids

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Department of Computer Science and Information

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## **Abstract**

Many children have a difficult in learning English when they are beginning to learn the basic English language skills. Our project will prepare an application to help the children in learning the alphabetic, numbers, colors and shapes in English using the Tablets. This application will concerns the things of KSA' environment such as animals, birds, fruits vegetables and etc. This application will be simple and kindly using for all future generations.

## **Acknowledgement**

I would like to thank my supervisor of this project Dr.Wael Khedr, for his guidance and assistance in completing this project. I would also like to thank the project-based committee for their clear effort in helping and guiding students.

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# Chapter 1

## ***1-1 introduction***

The English language is a secondary language in our country so a lot of kids have difficulty to learn it, that's why my project will prepare the child to learn English.

## **1-2 Problem definition**

A lot of student in the schools have difficulty to learn English and gain the necessary skills

## ***1-3 Project goals***

Preparing the child to learn the English language for his study stages:

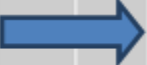
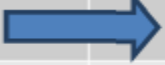
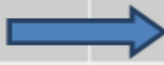
- 1 Letters.
- 2 Numbers.
- 3 Forms.
- 4 Colors.

### 1-4 Feasibility study

I did a survey on my idea and presented it to 99 people and this is the result

|   |                                                                               | <b>Strongly agree</b> | <b>agree</b> | <b>neutral</b> | <b>disagree</b> | <b>Strongly disagree</b> |
|---|-------------------------------------------------------------------------------|-----------------------|--------------|----------------|-----------------|--------------------------|
| 1 | Do you think the kid need a program to help him prepare for English language? | 67.09%                | 25.32%       | 2.53%          | 5.06%           | 0%                       |
| 2 | Do you think the program will benefit the society?                            | 60%                   | 36.25%       | 3.75%          | 0%              | 0%                       |
| 3 | Do you think the program has a future?                                        | 51.25%                | 41.25%       | 7.5%           | 0%              | 0%                       |
| 4 | Do you think the people will use it?                                          | 40%                   | 40%          | 17.5%          | 1.25%           | 1.25%                    |
| 5 | Will the program help the kid to learn English?                               | 63.75%                | 26.25%       | 8.75%          | 0%              | 1.25%                    |
| 6 | Will you let your kid use software?                                           | 57.5%                 | 31.25%       | 8.75%          | 1.25%           | 1.25%                    |
| 7 | Do you think the idea of the software is good?                                | 58.75%                | 31.25%       | 7.5%           | 1.25%           | 1.25%                    |

### 1-5 Project Timeline

| ID | NEMA               | W1                                                                                  | W2 | W3                                                                                  | W4                                                                                  | W5                                                                                  | W6 | W7                                                                                   | W8 | W9                                                                                    | W10                                                                                   | W11 |
|----|--------------------|-------------------------------------------------------------------------------------|----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|--------------------------------------------------------------------------------------|----|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----|
| 1  | Feasibility study  |  |    |                                                                                     |                                                                                     |                                                                                     |    |                                                                                      |    |                                                                                       |                                                                                       |     |
| 2  | Search information |                                                                                     |    |  |                                                                                     |                                                                                     |    |                                                                                      |    |                                                                                       |                                                                                       |     |
| 3  | Requirements       |                                                                                     |    |                                                                                     |  |                                                                                     |    |                                                                                      |    |                                                                                       |                                                                                       |     |
| 4  | Presentation 1     |                                                                                     |    |                                                                                     |                                                                                     |  |    |                                                                                      |    |                                                                                       |                                                                                       |     |
| 5  | Gather more inf    |                                                                                     |    |                                                                                     |                                                                                     |                                                                                     |    |  |    |                                                                                       |                                                                                       |     |
| 6  | Design diagrams    |                                                                                     |    |                                                                                     |                                                                                     |                                                                                     |    |                                                                                      |    |  |                                                                                       |     |
| 7  | Presentation 2     |                                                                                     |    |                                                                                     |                                                                                     |                                                                                     |    |                                                                                      |    |                                                                                       |  |     |

### ***1-6 Critical success factor***

The software will focus on the environment of the Saudi child to simplify the learning process.

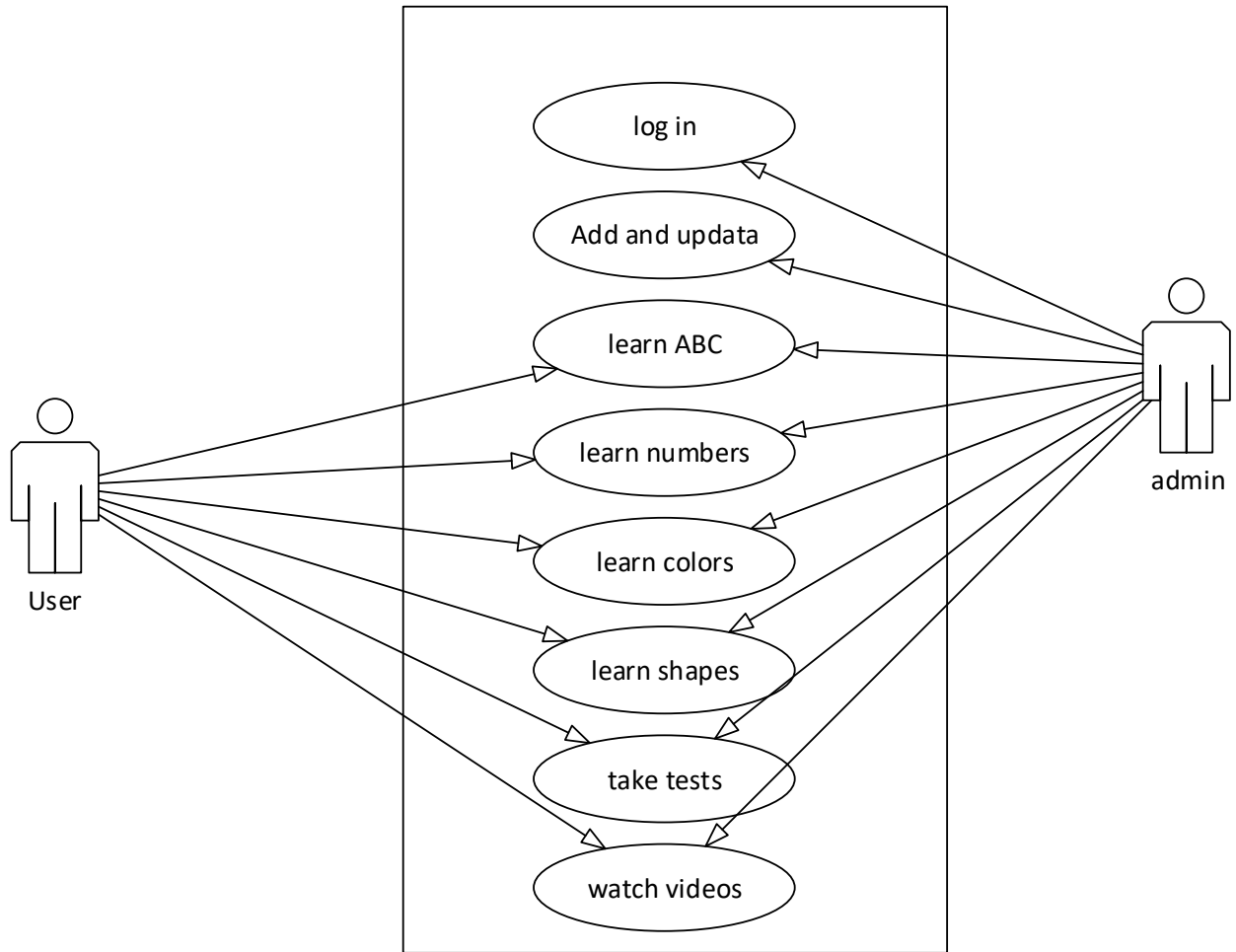
## **Chapter 2 Overall Description**

## **1-1 Use case diagram**

### **What is use case diagram?**

In software and systems engineering, a **use case** is a list of actions or event steps typically defining the interactions between a role (known in the Unified Modeling Language (UML) as an *actor*) and a system to achieve a goal. The actor can be a human or other external system. In systems engineering, use cases are used at a higher level than within software engineering, often representing missions or stakeholder goals. The detailed requirements may then be captured in the Systems Modeling Language (SysML) or as contractual statements.

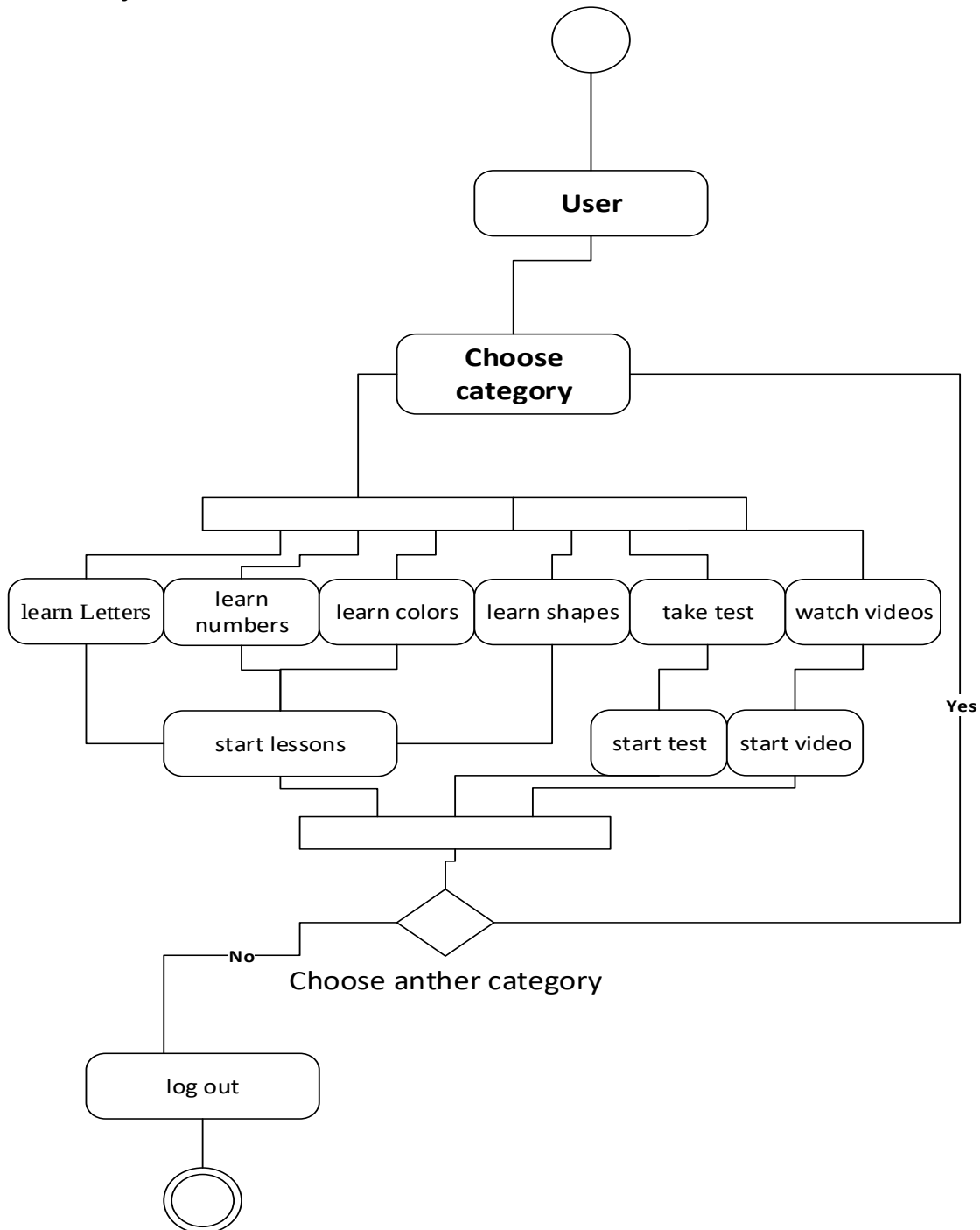
Use case analysis is an important and valuable requirement analysis technique that has been widely used in modern software engineering since its formal introduction by Ivar Jacobson in 1992. Use case driven development is a key characteristic of many process models and frameworks such as ICONIX, the Unified Process (UP), the IBM Rational Unified Process (RUP), and the Oracle Unified Method (OUM). With its inherent iterative, incremental and evolutionary nature, use case also fits well for agile development.



## 1-2 **activity diagram**

what is activity diagram?

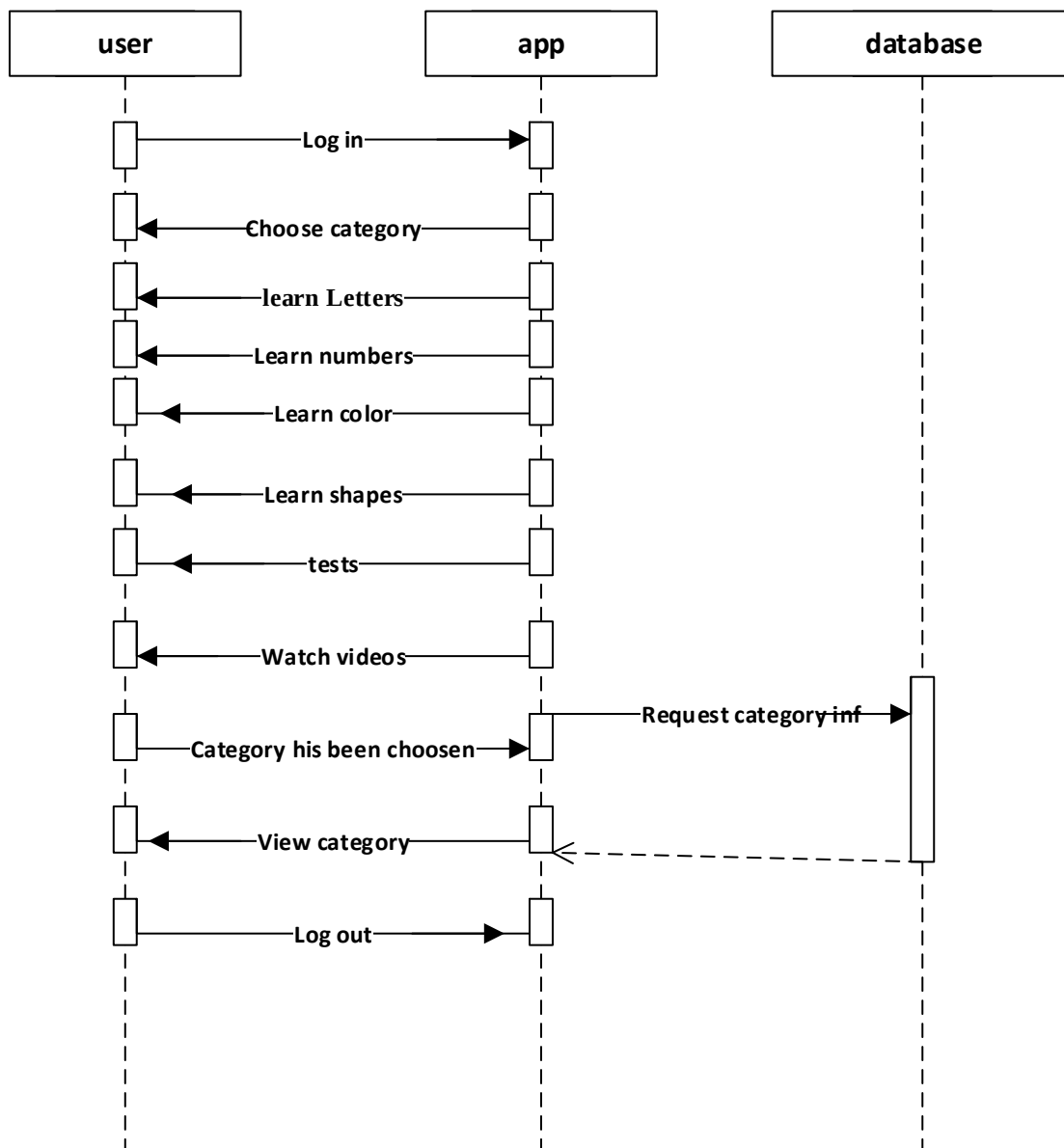
Activity diagram is another important behavioral diagram in UML diagram to describe dynamic aspects of the system. Activity diagram is essentially an advanced version of flow chart that modeling the flow from one activity to another activity.



### 1-3 Sequence diagram

what is sequence diagram?

Sequence diagrams describe interactions among classes in terms of an exchange of messages over time. They're also called event diagrams. A sequence diagram is a good way to visualize and validate various runtime scenarios. These can help to predict how a system will behave and to discover responsibilities a class may need to have in the process of modeling a new system.

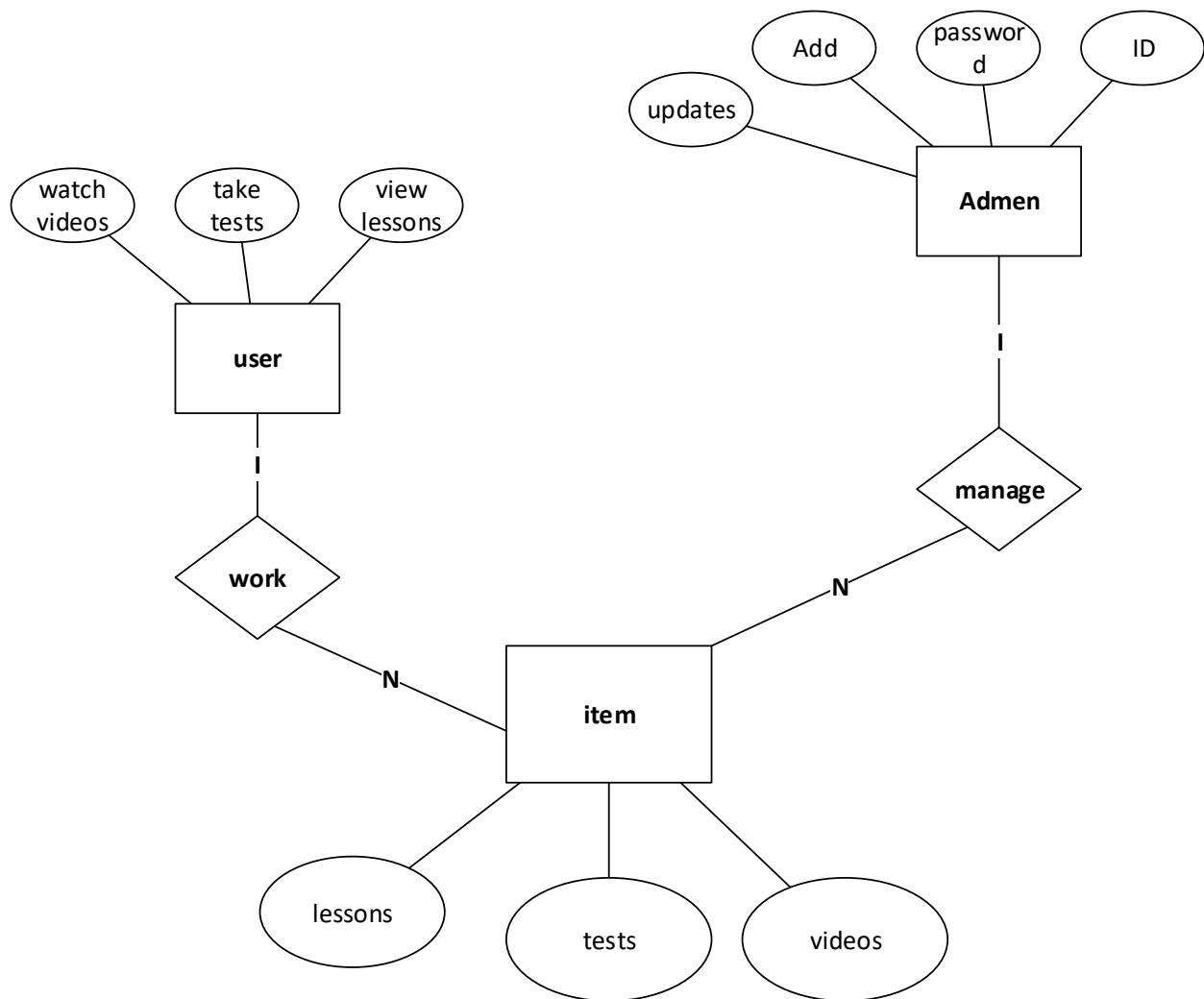


## 1-4 entity-relationship diagram (ERD)

what is entity-relationship diagram (ERD)?

An **entity-relationship model** (ER model for short) describes interrelated things of interest in a specific domain of knowledge. A basic ER model is composed of entity types (which classify the things of interest) and specifies relationships that can exist between entities (instances of those entity types). In software engineering, an ER model is commonly formed to represent things a business needs to remember in order to perform business processes. Consequently, the ER model becomes an abstract data model, that defines a data or information structure which can be implemented in a database, typically a relational database.

Entity-relationship modeling was developed for database design by Peter Chen and published in a 1976 paper. However, variants of the idea existed previously. Some ER models show super and subtype entities connected by generalization-specialization relationships, and an ER model can be used also in the specification of domain-specific ontologies.



# Chapter 3

## 2-1 Android Studio

is the official integrated development environment (IDE) for Google's Android operating system, built on JetBrains' IntelliJ IDEA software and designed specifically for Android development. It is available for download on Windows, macOS and Linux based operating systems. It is a replacement for the Eclipse Android Development Tools (ADT) as the primary IDE for native Android application development.

Android Studio was announced on May 16, 2013 at the Google I/O conference. It was in early access preview stage starting from version 0.1 in May 2013, then entered beta stage starting from version 0.8 which was released in June 2014. The first stable build was released in December 2014, starting from version 1.0. The current stable version is 3.3, which was released in January 2019

## 2-2 java

is an island of Indonesia, bordered by the Indian Ocean on the south and the Java Sea on the north. With a population of over 141 million (Java only) or 145 million (including the inhabitants of its surrounding islands), Java is the home to 56.7 percent of the Indonesian population and is the world's most populous island. The Indonesian capital city, Jakarta, is located on its northwestern coast. Much of Indonesian history took place on Java. It was the center of powerful Hindu-Buddhist empires, the Islamic sultanates, and the core of the colonial Dutch East Indies. Java was also the center of the Indonesian struggle for independence during the 1930s and 1940s. Java dominates Indonesia politically, economically and culturally. Four of Indonesia's eight UNESCO world heritage sites are located in Java: Ujung Kulon National Park, Borobudur Temple, Prambanan Temple, and Sangiran Early Man Site.

Formed mostly as the result of volcanic eruptions from geologic subduction between Sunda Plate and Australian Plate, Java is the 13th largest island in the world and the fifth largest in Indonesia by landmass at about 138,800 square kilometers (53,600 sq. mi). A chain of volcanic mountains forms an east–west spine along the island. Three main languages are spoken on the island: Javanese, Sundanese, and Madurese, where Javanese is the most spoken; it is the native language of about 60 million Javanese people in Indonesia, most of whom live on Java. Furthermore, most residents are bilingual, speaking Indonesian (the official language of Indonesia) as their first or second language. While the majority of the people of Java are Muslim, Java's population comprises people of diverse religious beliefs, ethnicities, and cultures.

Java is divided into four administrative provinces, West Java, Central Java, East Java, and Banten, and two special regions, Jakarta and Yogyakarta.

## 2-3 HTML

**Hypertext Markup Language (HTML)** is the standard markup language for creating web pages and web applications. With Cascading Style Sheets (CSS) and JavaScript, it forms a triad of cornerstone technologies for the World Wide Web.<sup>[4]</sup>

Web browsers receive HTML documents from a web server or from local storage and render the documents into multimedia web pages. HTML describes the structure of a web page semantically and originally included cues for the appearance of the document.

HTML elements are the building blocks of HTML pages. With HTML constructs, images and other objects such as interactive forms may be embedded into the rendered page. HTML provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes and other items. HTML elements are delineated by *tags*, written using angle brackets. Tags such as `<img />` and `<input />` directly introduce content into the page. Other tags such as `<p>` surround and provide information about document text and may include other tags as sub-elements. Browsers do not display the HTML tags, but use them to interpret the content of the page.

HTML can embed programs written in a scripting language such as JavaScript, which affects the behavior and content of web pages. Inclusion of CSS defines the look and layout of content. The World Wide Web Consortium (W3C), maintainer of both the HTML and the CSS standards, has encouraged the use of CSS over explicit presentational HTML since 1997.

## 2-4 MySQL

is an open source relational database management system (RDBMS). Its name is a combination of "My", the name of co-founder Michael Widenius's daughter, and "SQL", the abbreviation for Structured Query Language.

MySQL is free and open-source software under the terms of the GNU General Public License, and is also available under a variety of proprietary licenses. MySQL was owned and sponsored by the Swedish company MySQL AB, which was bought by Sun Microsystems (now Oracle Corporation). In 2010, when Oracle acquired Sun, Widenius forked the open-source MySQL project to create MariaDB.

MySQL is a component of the LAMP web application software stack (and others), which is an acronym for *Linux, Apache, MySQL, Perl/PHP/Python*. MySQL is used by many database-driven web applications, including Drupal, Joomla, phpBB, and WordPress. MySQL is also used by many popular websites, including Google<sup>[9][10]</sup> (though not for searches), Facebook, Twitter, Flickr, and YouTube.

## 2-5 MMDB

A **Multimedia database (MMDB)** is a collection of related multimedia data. The multimedia data include one or more primary media data types such as text, images, graphic objects (including drawings, sketches and illustrations) animation sequences, audio and video.

A **Multimedia Database Management System (MMDBMS)** is a framework that manages different types of data potentially represented in a wide diversity of formats on a wide array of media sources. It provides support for multimedia data types, and facilitate for creation, storage, access, query and control of a multimedia database

### References

[https://en.wikipedia.org/wiki/Android\\_Studio](https://en.wikipedia.org/wiki/Android_Studio)

<https://en.wikipedia.org/wiki/Java>

<https://en.wikipedia.org/wiki/HTML>

<https://en.wikipedia.org/wiki/MySQL>

[https://en.wikipedia.org/wiki/Multimedia\\_database](https://en.wikipedia.org/wiki/Multimedia_database)

[https://en.wikipedia.org/wiki/Use\\_case](https://en.wikipedia.org/wiki/Use_case)

[https://en.wikipedia.org/wiki/Entity%E2%80%93relationship\\_model](https://en.wikipedia.org/wiki/Entity%E2%80%93relationship_model)

**MAJMAAH UNIVERSITY,  
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**(CERTIFICATE BY STUDENT)**

This is to certify that the project titled “**English Guide for Kids**” submitted by me  
(**Ahmed Mohammed ALHuqayl, 362105151**) under the supervision of **Dr. Wael Khedr** for  
award of Bachelor degree of the Majmaah University carried out during the Semester 1, 2018-19  
embodies my original work.

Signature in full: -----

Name in block letters: **Ahmed Mohammed ALHuqayl**

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Date: 3/4/2019