The Synopsis of Project Entitled

On

E-Learning System

Submitted To BBKDAV college for women for the partial fulfilment of the Requirements for Degree of Bachelor of vocation (Software Development).

Submitted To: **Submitted By:**

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Project Title: Stepping Stone

Introduction:

Stepping Stone website is a service which teaches and helps students improve in education skills. This is normally used by students to learn from home or from any other place. E-learning is a learning environment which uses information and communication technologies as a platform for teaching and learning activities. E-learning unites two main areas, learning and technology. Learning is a cognitive process for achieving knowledge, and technology is an enabler of the learning process, meaning that technology is used like any other tool in the education.

 Stepping Stone is   an online learning platform. Stepping Stone provides a platform for create courses which can be offered to the public. Stepping Stone provides tools which enable admin to create a courses on topics of their choosing. Using course development tools they can upload video PDFs, audio, zip files to create courses.

The most engaging Stepping Stone courses use a combination of different teaching styles and formats and incorporate real world examples, and projects. These courses incorporate the instructor's personality, the skills taught, and the structure of the curriculum itself. Sample material: when a student visits our website, he/she can see sample material including notes, PDFs, videos, Etc. related to particular topic.

Courses are including IT courses like programming, web designing and graphic designing. Stepping Stone offers paid Courses.

This website   enables the end-users to register online, select the subject, read the course and appear for the quiz online. It is a quiz with four options, 10 question will appear one by one. The results of the quiz are also declared just after taking the test. The correct answers for the questions are displayed in database.

Objectives:

E-Learning represents an innovative shift in the field of learning, providing rapid access to specific knowledge and information. It offers online instruction that can be delivered anytime and anywhere through a wide range of electronic learning solutions such as Web-based courseware. E-Learning can provide such just-in-time training in a cost-effective way.

Features:

The Stepping Stone will hopefully serve as a centralized database of syllabus for the it courses offered to students to view them. The system will allow students to accessing information and other resources anytime, anywhere.

Here are some features of the project:

- Students to download the videos and assignments.
- It Represents a great way to study many fields and boost the level of self-Motivation..
- By studying online you choose your own environment that works best for your needs.

- Students can also find study material in format like: images, PDF, text files etc.

Modules:

Modules can be conceptualized keeping three ends in mind i.e. Admin which are discussed as below:

Admin
ADMIN END:

Once admin logins, it controls the all working of the site and other module .Everything is under the control of admin. This module takes the username and password from the admin and actually acts as an entry point to the admin panel. It allows the admin to login to manage website. the Admin also Manages and coordinates all the activities of the system and Provides resources be used by the student he /She is responsible for keeping online education program active and up to date.

Manage Activities:

- ➢ Manages Categories
- ➢ Add courses
- ➢ Upload Videos of course.
- ➢ Add Study material
- ➢ Add Articles

Student
STUDENT END:

Students Able to gain quality education at home .They Accesses the system for learning

Once Student logins, he/she can:

- Search course.
- Enrol the course.
- Make Payment
- Watch the videos of course.
- Download the video and related study material
- Review the course.
- Ask queries
- Take a quiz
- Express Reviews

Frontend and Backend:

FRONT END:

HTML5 is the latest version of Hypertext Mark- up Language, the code that describes web pages. It's actually three kinds of code: HTML, which provides the structure; Cascading Style Sheets (CSS), which take care of presentation; and JavaScript, which makes things happen.

HTML5 introduces elements and attributes that reflect typical usage on modern websites. Some of them are semantic replacements for common uses of generic block (<div>) and inline (<span>) elements, for example <nav > (website navigation block), <footer> (usually referring to bottom of web page or to last lines of HTML code), or <audio> and <video> instead of <object>. Some deprecated elements from HTML 4.01 have been dropped, including purely presentational elements such as <font> and <centre>, whose effects have long been superseded by the more capable Cascading Style Sheets.[41] There is also a renewed emphasis on the importance of DOM scripting(e.g., JavaScript) in Web behavior.

Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a mark-up language. Although most often used to set the visual style of web pages and user interfaces written in HTML and XHTML, the language can be applied to any XML document, including plain XML, SVG and XUL, and is applicable to rendering in speech, or on other media. Along with HTML and JavaScript, CSS is a cornerstone technology used by most websites to create visually engaging webpages, user interfaces for web applications, and user interfaces for many mobile applications.

CSS is designed primarily to enable the separation of presentation and content, including aspects such as the layout, colours, and fonts. This separation can improve content accessibility, provide more flexibility and control in the specification of presentation characteristics, enable multiple HTML pages to share formatting by specifying the relevant CSS in a separate .cuss file, and reduce complexity and repetition in the structural content.

JavaScript often abbreviated as JS, is a high-level, dynamic, weakly typed, prototype-based, multi-paradigm, and interpreted programming language. Alongside HTML and CSS, JavaScript is one of the three core technologies of World Wide Web content production. It is used to make webpages interactive and provide online programs, including video games. The majority of websites employ it, and all modern web browsers support it without the need for plug-ins by means of a built-in JavaScript engine. Each of the many JavaScript engines represent a different implementation of JavaScript, all based on the ECMA Script specification, with some engines not supporting the spec fully, and with many engines supporting additional features beyond ECMA.

 As a multi-paradigm language, JavaScript supports event-driven, functional, and imperative (including object-oriented and prototype-based) programming styles. The language itself does not include any I/O, such as networking, storage, or graphics facilities, relying for these upon the host environment in which it is embedded.

Bootstrap is an open source toolkit for developing with HTML, CSS, and JS. Quickly prototype your ideas or build your entire app with our Sass variables and mixings, responsive grid system, extensive prebuilt components, and powerful plugins built on query. Bootstrap is a front-end library for designing websites and web applications It contains HTML- and CSS-based design templates for typography, forms, buttons, navigation and other interface components, as well as optional JavaScript extensions.

PHP stands for Hypertext Pre-processor, is widely- used open source general- purpose scripting language that is especially suited for wed development and can be embedded into HTML. PHP is a server-side scripting language designed for web development. It was originated by Ramus Leadoff in 1994, the PHP reference implementation is now produced by The PHP Group. While PHP originally stood for Personal Home Page.

PHP code may be embedded into HTML code, or it can be used in combination with various web template systems, web content management system and web frameworks. PHP code is usually processed by a PHP interpreter implemented as a module in the web server or as a Common Gateway Interface (CGI) executable. The web server combines the results of the interpreted and executed PHP code, which may be any type of data, including images, with the generated web page. PHP code may also be executed with a command-line interface (CLI) and can be used to implement standalone graphical applications.

Features of PHP

The main features of PHP are; it is open source scripting language so you can free download this and use. PHP is a server site scripting language. It is open source scripting language. It is widely used all over the world. It is faster than other scripting language. Some important features of PHP are given below:

1. Simple: It is very simple and easy to use, compare to other scripting language it is very simple and easy, this is widely used all over the world.
2. Interpreted: It is an interpreted language, i.e. there is no need for compilation.
3. Faster: It is faster than other scripting language e.g. asp and JSP.
4. Open Source: Open source means you no need to pay for use PHP, you can free download and use.
5. Platform Independent: PHP code will be run on every platform, Linux, UNIX, Mac OS X, Windows.
6. Case Sensitive: PHP is case sensitive scripting language at time of variable declaration. In PHP, all keywords (e.g. if, else, while, echo, etc.), classes, functions, and user-defined functions are NOT case-sensitive.
7. Loosely Typed Language: PHP supports variable usage without declaring its data type.
8. Free Of Cost: PHP is open source and is developed and updated by a community of developers from around the globe. Therefore, all its components are free to use and distribute.

Backend

MySQL is a fast, easy-to-use RDBMS being used for many small and big businesses. MySQL is developed, marketed, and supported by MySQL AB, which is a Swedish company. My SQL is also used in many high-profile, large-scale websites, including Google, Facebook, Twitter, Flickr and You tube. My SQL database include: TYPO3, MODIOX, JOOMLA, WORDPRESS, PHPBB, MYBB, Drupal and other software. MySQL is a freely available open source Relational Database Management System (RDBMS) that uses Structured Query Language (SQL).

MySQL runs on virtually all platforms, including Linux, UNIX, and Windows. Although it can be used in a wide range of applications, MySQL is most often associated with web-based applications and online publishing and is an important component of an open source enterprise stack called LAMP. LAMP is a Web development platform that uses Linux as the operating system, Apache as the Web server, and MySQL as the relational database management system and PHP as the object-oriented scripting language.

MySQL is written in C and C++. Its SQL parser is written in yuck, but it uses a home-brewed lexical analyser. The MySQL server software itself and the client libraries use dual-licensing distribution

MySQL is becoming so popular because of many good reasons:

• MySQL is released under an open-source license. So you have nothing to pay to use

• MySQL is a very powerful program in its own right. It handles a large subset of the functionality of the most expensive and powerful database packages.

• MySQL uses a standard form of the well-known SQL data language.

• MySQL works on many operating systems and with many languages including PHP, PERL, C, C++, JAVA, etc.

• MySQL works very quickly and works well even with large data sets.

Hardware and Software Requirements:

Hardware requirements:

1. Any PC processor

2. 2 GB Ram

3. Keyboard mouse

4. Internet Connection

Software Requirements:

1. Any operating system: **Windows 7 SP1**

2. Web Browser

3. Wimp Server 3.1.9

4. Brackets   (Text Editor)

5. PHP 7.1

Database Design

Table ▲	Action	Rows ❓
☐ admin	⭐ 🔲 Browse 🔧 Structure 🔍 Search ➕ Insert 🗑 Empty ⊖ Drop	0
☐ article	⭐ 🔲 Browse 🔧 Structure 🔍 Search ➕ Insert 🗑 Empty ⊖ Drop	0
☐ cart	⭐ 🔲 Browse 🔧 Structure 🔍 Search ➕ Insert 🗑 Empty ⊖ Drop	0
☐ course	⭐ 🔲 Browse 🔧 Structure 🔍 Search ➕ Insert 🗑 Empty ⊖ Drop	0
☐ course_category	⭐ 🔲 Browse 🔧 Structure 🔍 Search ➕ Insert 🗑 Empty ⊖ Drop	0
☐ payment	⭐ 🔲 Browse 🔧 Structure 🔍 Search ➕ Insert 🗑 Empty ⊖ Drop	0
☐ play_quiz	⭐ 🔲 Browse 🔧 Structure 🔍 Search ➕ Insert 🗑 Empty ⊖ Drop	0
☐ questions	⭐ 🔲 Browse 🔧 Structure 🔍 Search ➕ Insert 🗑 Empty ⊖ Drop	0
☐ review	⭐ 🔲 Browse 🔧 Structure 🔍 Search ➕ Insert 🗑 Empty ⊖ Drop	0
☐ student	⭐ 🔲 Browse 🔧 Structure 🔍 Search ➕ Insert 🗑 Empty ⊖ Drop	0
☐ study_material	⭐ 🔲 Browse 🔧 Structure 🔍 Search ➕ Insert 🗑 Empty ⊖ Drop	0
☐ video	⭐ 🔲 Browse 🔧 Structure 🔍 Search ➕ Insert 🗑 Empty ⊖ Drop	0
12 tables	Sum	0

Admin:

#	Name	Type	Collation	Attributes	Null	Default
☐ 1	Username	varchar(40)	latin1_swedish_ci		No	None
☐ 2	Password	varchar(20)	latin1_swedish_ci		No	None

Course_Category :

#	Name	Type	Collation	Attributes	Null	Default
1	Category 🔑	varchar(20)	latin1_swedish_ci		No	None
2	Image	varchar(200)	latin1_swedish_ci		No	None

Course:

#	Name	Type	Collation	Attributes	Null	Default
1	Course_id 🔑	int(11)			No	None
2	Title	varchar(200)	latin1_swedish_ci		No	None
3	Overview	varchar(1000)	latin1_swedish_ci		No	None
4	Language	varchar(12)	latin1_swedish_ci		No	None
5	Level	varchar(15)	latin1_swedish_ci		No	None
6	Outline	varchar(1000)	latin1_swedish_ci		No	None
7	Requirements	varchar(1000)	latin1_swedish_ci		No	None
8	fee	int(11)			No	None
9	Category	varchar(80)	latin1_swedish_ci		No	None
10	Status	varchar(12)	latin1_swedish_ci		No	None
11	Added_on	timestamp			No	CURRENT_TIMESTAMP

Cart:

#	Name	Type	Collation	Attributes	Null	Default
1	cartid 🔑	int(11)			No	None
2	userid	int(11)			No	None
3	aaded_on	int(11)			No	None
4	course_id	int(11)			No	None
5	status	varchar(10)	latin1_swedish_ci		No	cart
6	payment_id	int(11)			No	None

Payment:

#	Name	Type	Collation	Attributes	Null	Default
1	payment_id 🔑	int(11)			No	None
2	user_id	int(11)			No	None
3	payment_date	timestamp			No	CURRENT_TIMESTAMP
4	trans__no	varchar(32)	latin1_swedish_ci		No	None

Study_material:

#	Name	Type	Collation	Attributes	Null	Default
1	M-id 🔑	int(11)			No	None
2	File	varchar(150)	latin1_swedish_ci		No	None
3	Video_id	int(11)			No	None

Student:

#	Name	Type	Collation	Attributes	Null	Default
1	Sid 🔑	int(11)			No	None
2	Pno	varchar(13)	latin1_swedish_ci		No	None
3	Email	varchar(20)	latin1_swedish_ci		No	None
4	Img	int(200)			No	None
5	Pswrd	varchar(20)	latin1_swedish_ci		No	None
6	Regdate	datetime			No	CURRENT_TIMESTAMP
7	First Name	varchar(20)	latin1_swedish_ci		No	None
8	Last Name	varchar(20)	latin1_swedish_ci		No	None

Article:

#	Name	Type	Collation	Attributes	Null	Default
1	Post_id 🔑	int(11)			No	None
2	Title	varchar(200)	latin1_swedish_ci		No	None
3	Content	varchar(1000)	latin1_swedish_ci		No	None
4	Image	int(200)			No	None
5	Added-on	timestamp			No	CURRENT_TIMESTAMP
6	Category	varchar(200)	latin1_swedish_ci		No	None

Video:

#	Name	Type	Collation	Attributes	Null	Default
1	Video_id 🔑	int(11)			No	None
2	Title	varchar(200)	latin1_swedish_ci		No	None
3	Video	varchar(150)	latin1_swedish_ci		No	None
4	Duration	timestamp			No	CURRENT_TIMESTAMP
5	Course_id	int(11)			No	None
6	Added_on	timestamp			No	CURRENT_TIMESTAMP

Questions :

#	Name	Type	Collation	Attributes	Null	Default
1	ques_id 🔑	int(11)			No	None
2	question	varchar(500)	latin1_swedish_ci		No	None
3	option1	varchar(500)	latin1_swedish_ci		No	None
4	option2	varchar(500)	latin1_swedish_ci		No	None
5	option3	varchar(500)	latin1_swedish_ci		No	None
6	option4	varchar(500)	latin1_swedish_ci		No	None
7	answer	varchar(8)	latin1_swedish_ci		No	None
8	Course_id	int(11)			No	None

Play Quiz:

#	Name	Type	Collation	Attributes	Null	Default
1	quizid 🔑	int(11)			No	None
2	cid	int(11)			No	None
3	userid	int(11)			No	None
4	datetime	timestamp			No	None
5	correctAns	int(11)			No	None
6	wrongAns	int(11)			No	None

Review:

#	Name	Type	Collation	Attributes	Null	Default
1	review_id 🔑	int(11)			No	None
2	review	varchar(1000)	latin1_swedish_ci		No	None
3	review_by	int(11)			No	None
4	review_date	timestamp			No	CURRENT_TIMESTAMP

Data Flow Diagram (DFDs)

DFDs is a graphical representation of the "flow" of data through an information system, Modeling its process aspects. A **DFD** is often used as a preliminary step to create an overview of the system, which can later be elaborated. DFDs can also be used for the visualization of data processing (structured design). A DFD shows what kind of information will be input to and output from the system, where the data will come from and go to, and where the data will be stored.

DFD SYMBOLS

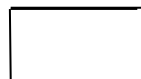1.   A **SQUARE** defines a source or destination of system data

2. An **ARROW** identifies dataflow or data in motion. It is pipeline through which information flows.
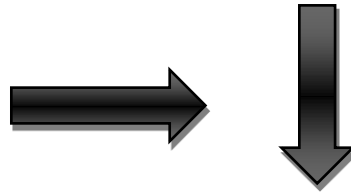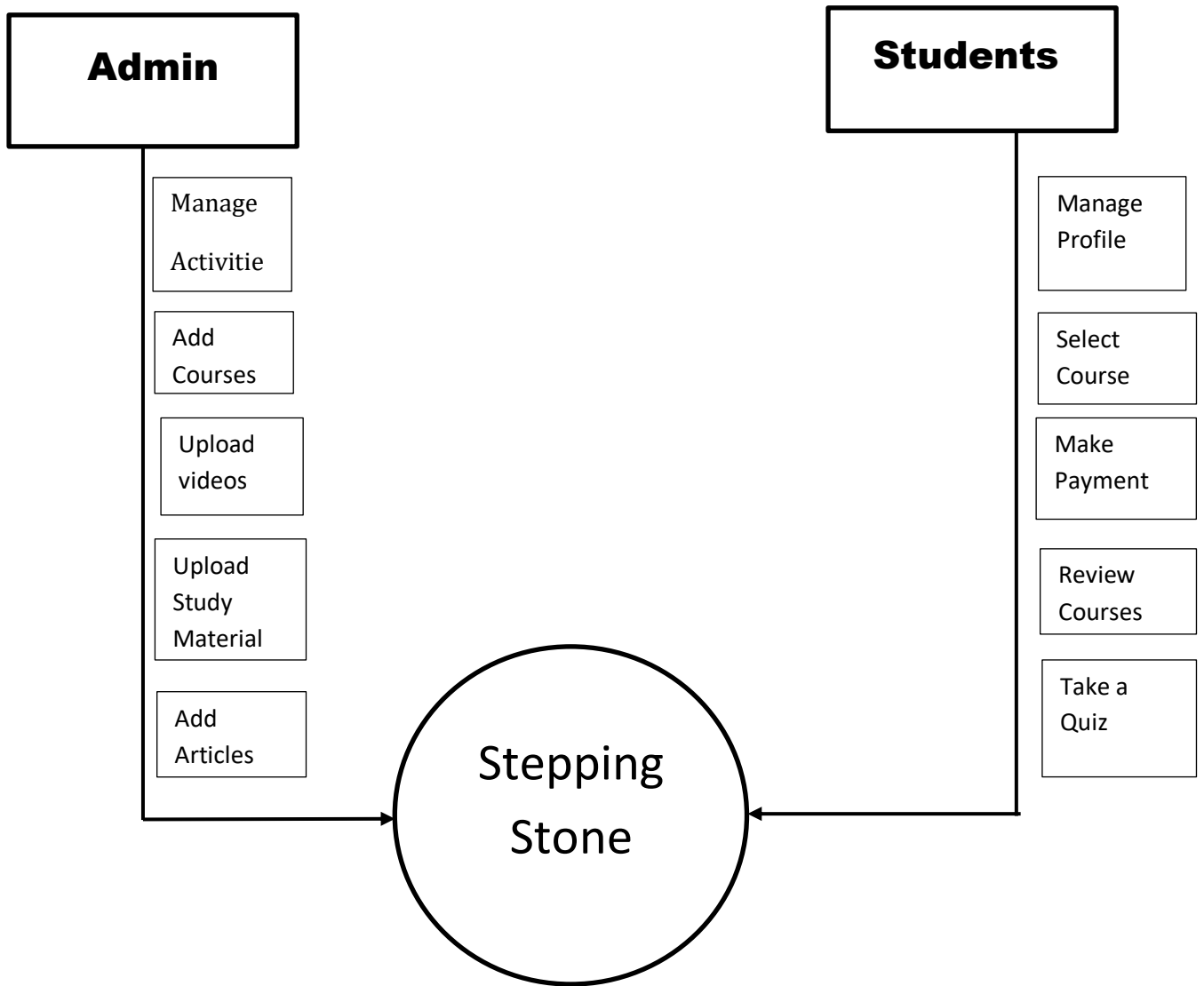
3. A **CIRCLE** or a bubble represents a process transform in coming dataflow into outgoing dataflow
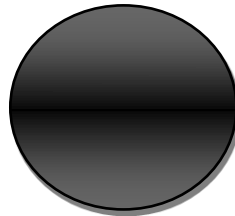
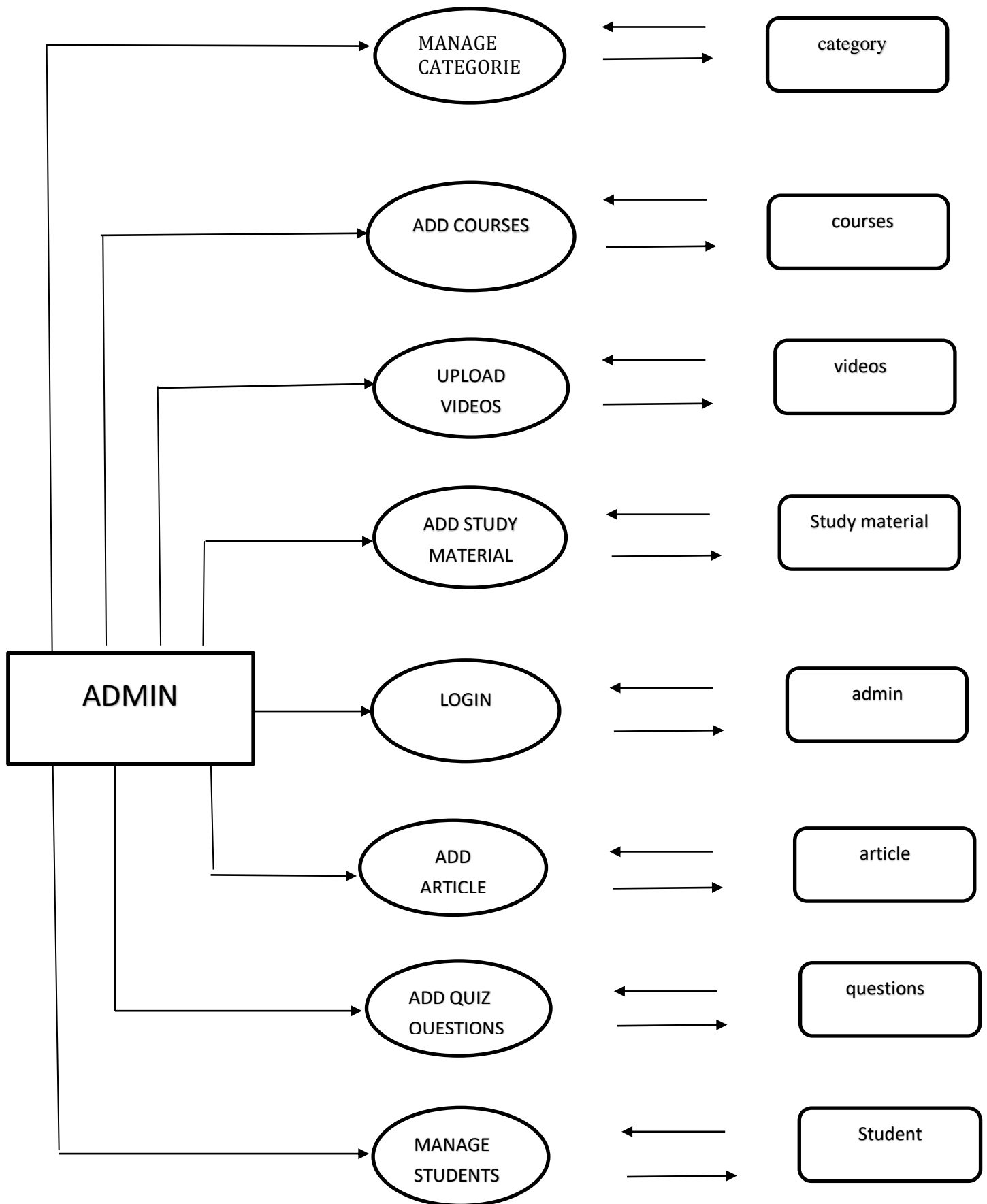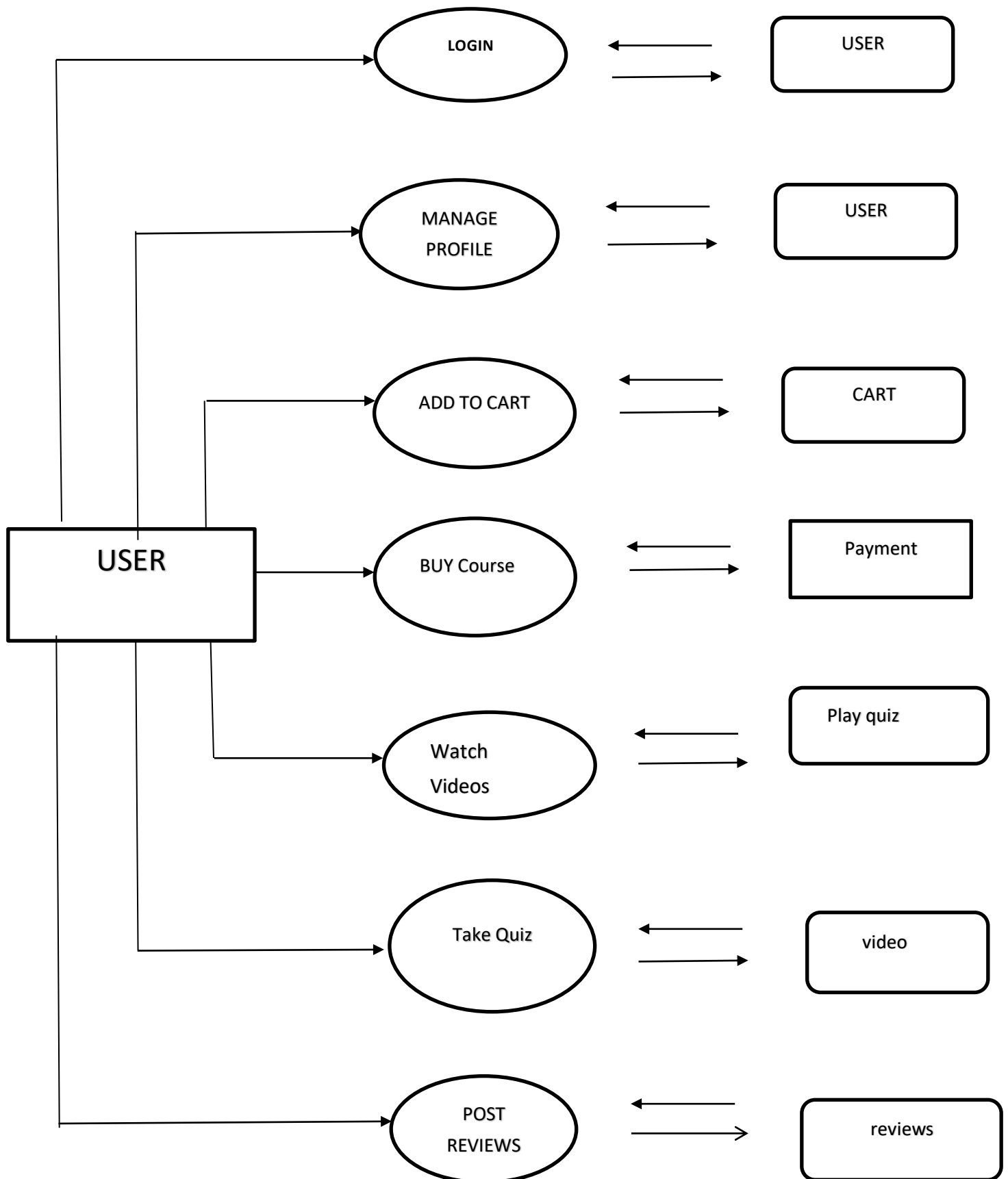4. AN **OPEN RECTANGLE**   is a data source or Data at rest.

DFD Level 0

Admin

Manage Activitie

Add Courses

Upload videos

Upload Study Material

Add Articles

Students

Manage Profile

Select Course

Make Payment

Review Courses

Take a Quiz

Stepping Stone

ADMIN DFD: LEVEL-1 DIAGRAM :

USER DFD: LEVEL-1 DIAGRAM
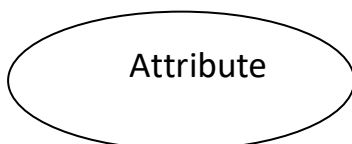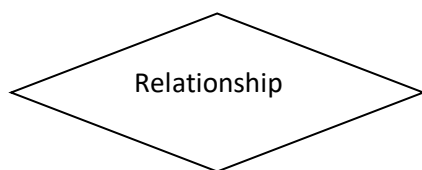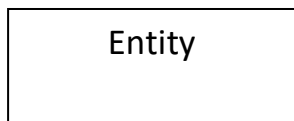
Entity Relationship Model

The Entity Relationship Model (ER Model) is a high level conceptual data model developed by P.P. Chen in 1976 to facilitate database design.

The ER-Model is shown diagrammatically using Entity-relationship (E-R) diagram which represents the elements of the conceptual model that shows the meanings and the relationships between those elements independent of any particular DBMS and implementation details.
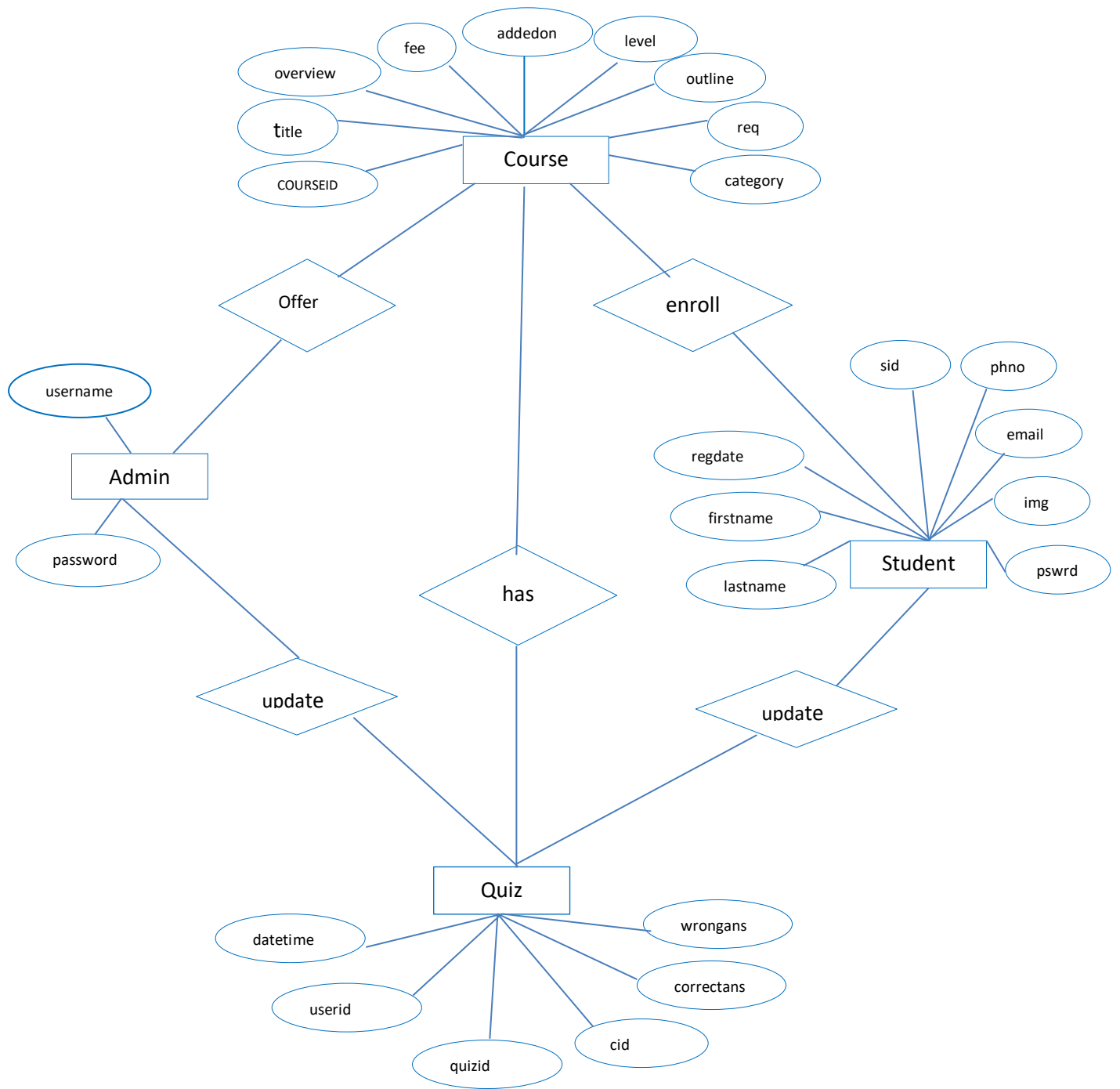
E-R Diagram

The structure of the database employing the E-R Model is shown pictorially using entity-relationship (E-R) diagram. The various entities and the relationship between them are shown with the help of following conventions.

The Various symbols for E-R Diagram:

Entity

Relationship

Attribute

Entity Relationship Diagram(ER)

Bibliography:

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- https://elearningindustry.com
- https://www.learnupon.com