i. TITLE OF THE PROJECT

Market Analysis Distribution

ii. INTRODUCTION AND OBJECTIVES OF THE PROJECT

Introduction:

The Market Analysis Distribution (MAD) is an online application which distributes stock, currency, mutual funds, debentures and other market research and analysis data. Basically MAD works like a market-place application, any analyst whether it is an individual or a company both can upload there market research data on the application and they can also decide whether it is free of cost or it should be a paid data and if it is a paid data then they can decide the price for that data to display to clients (customers). And any registered client (customer) can purchase that market analysis data by paying the amount of that data price via **paypal**. An analyst can get registered to site simple by purchasing a simple membership plan. The MAD also have clients (customers) and analyst interaction program where any client can contact to any analyst using private message functionality and they can ask any question related to that analysis, but this facility has some conditions that I will describe below in the project.

Objectives:

Objectives of this application are as following: -

- Sharing market research data for stock, currency, mutual funds, debentures and IPO etc.
- Analyst can provide worldwide services with few simple steps and he can gain commission.
- Let clients avail the services of analyst so that client can earn major profit.
- Earning commission on each research data sale.
- Create a big network of investors, so that we can provide more service in future on the same application.

iii. PROJECT CATEGORY

Categories:

Market-place, Knowledge Sharing, Business Network

iv. TOOLS/PLATFORM HARDWARE & SOFTWARE REQUIREMENT SPECIFICATION

Hardware Configuration for server:

Processor: - Minimum Dual-core
Random Access Memory: - Minimum 2 GB
Hard Disk Drive: - Minimum 80 GB

Network Configuration for server:

Internet Protocol: - One static IP for configuring web application to that IP
Internet: - Bandwidth minimum up to 2Mbps

Tools/Platform Software Configuration for server:

Operating System: - Should be any server operating system. Ubuntu (Linux) preferred.
Server: - Apache 2.4 +
Database: - Mysql 5 +
Script: - php 5.3 +

(**Note:** - If we are using dedicated server so we need the above minimal requirement.)

v. PROBLEM DEFINITION & REQUIREMENT SPECIFICATION PROJECT PLANNING AND SCHEDULING

Problem Definition:

Here is the list of problems definition: -

- How to provide an online system such as market-place where a stock, currency and other market analyst can provide their analysis services, so that a custom can buy their data and can earn maximum profit from the market. And amount that is being paid for the analysis services will be distributed between web application owner and the analyst.
- How can we make it a transparent web application so that an analyst and the client (customer, who buys the analysis data) can communicate each other using a private message queue?

Requirement Specification:

Below is the list of project goal & requirement specification: -

Visitor Features

- One can register on the site or he can login directly if he is an existing user.
- One can see all the news feeds related to market information.
- One can subscribe to news feeds related to market information, so that he/she will receive news feeds on mail.
- One can see the latest analysis data.
- One can see the list of analyst who is associated with the website.
- One can select a data and he can buy that particular data for some price.
- One can give the star rating, reviews and comments to the analysis data.
- One can see the list of analyst and he can visit to any analyst profile page where he can see all the analysis of that analyst and also he can see the star rating of each analysis data right to that particular data row.
- One can see all his history orders in a special user menu.

Analyst Features

- Analyst can register on the site or he can login directly if he is an existing user.
- Analyst can purchase a membership plan to get enable data posting options and other paid options.

- Analyst can post any analysis and he can also add video link, graph images and data.
- Analyst can manage their data via CRUD business operations.
- Analyst can see the list of his client (customer) and he can see profile of any customer via just clicking on his profile name.
- Analyst can message to any of his client via a special message management system on the website.
- Analyst can post news feed also and he can manage his news feed via CRUD business operations.
- Analyst can see all the orders which placed for his/her analysis data only.

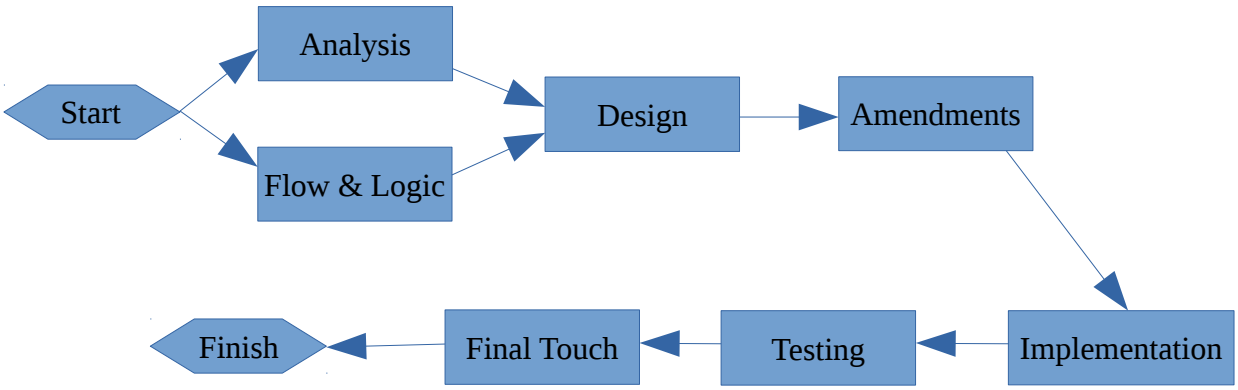
Admin Features

- Admin will be in-build user so that no one can directly registered on the site become an admin user.
- Admin can manage everything. He can perform all the operations which analyst or visitor can do.
- Admin can manage (CRUD) each user from a special admin menu.
- Admin can manage all content from a special admin menu.
- Admin can manage term, categories, types and tag names from admin menu.
- Admin can create and manage (CRUD) membership plans from admin menu.
- Admin can configure all the settings from admin menu.
- Admin can manage all orders and paid data from admin menu.
- Admin can see all the messages between any analyst and any client.
- Admin can change the theme layout configuration from admin menu.
- Admin can change site information from admin menu.

Gantt Chart:

Chart Data			Chart				
ID	Tast Name	Time	Nov 2014	Dec 2014	Jan 2015	Feb 2015	Mar 2015
1	Requirement Analysis	15 Days					
2	Prepare a flow and logic	15 Days					
3	Prepare a design for app.	30 Days					
4	Design amendments	10 Days					
5	Beta Implementation	45 Days					
6	Testing	7 Days					
7	Final Implementation	10 Days					

Pert Chart:



vi. SCOPE OF THE SOLUTION

Process:

Currently our industry uses old method of on peper data analysis which takes a lot of paper to store information and many person to manage those paper. But on this online system we can process our documents online so no need to maintain large number of papers.

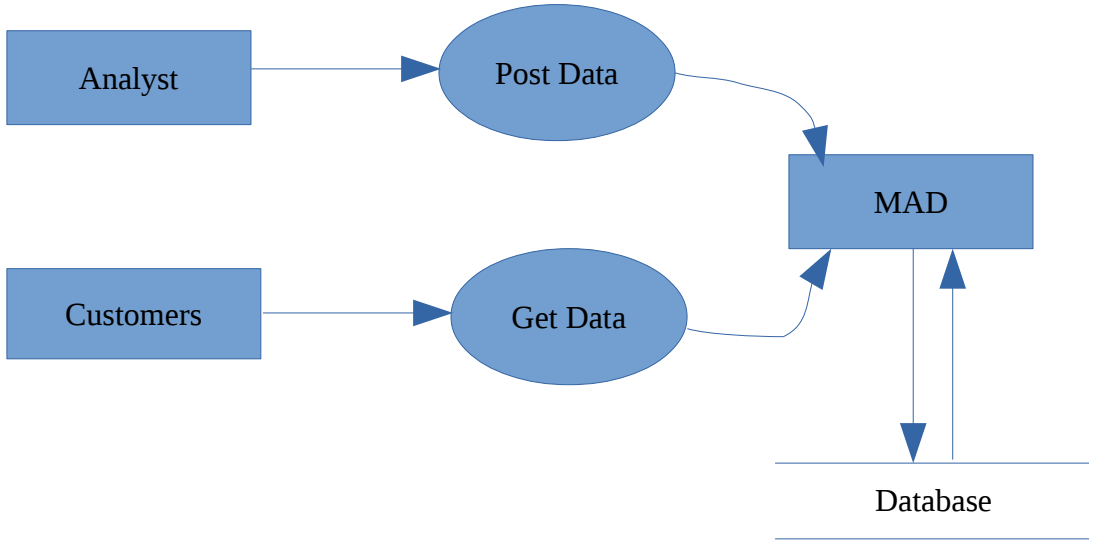
Peoples:

In our current system a customer have to go to a analyst to make analysis of any equity or asset to make some conclusion for any decision on that. But now using this system they can buy any analysis data for any equity online from any analyst. So there is no boundation for hiring any analyst for one month or two. They can pay for that what and they do not have to pay for any other.

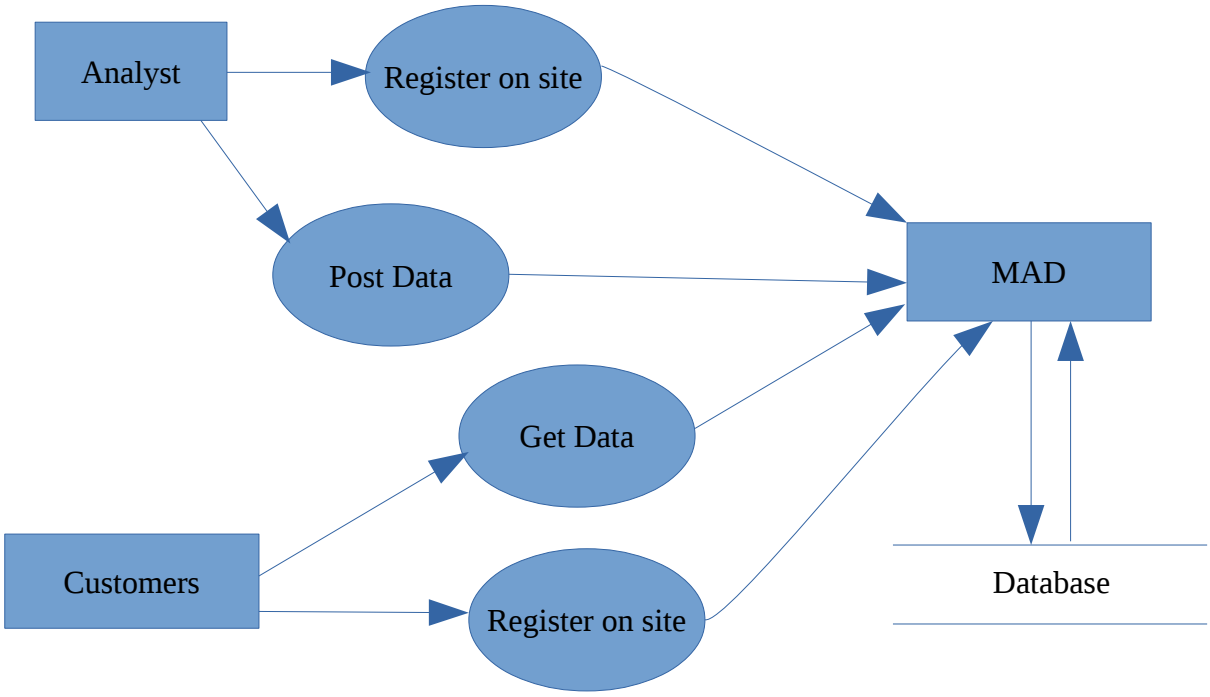
vii. ANALYSIS

Data Flow Diagram:

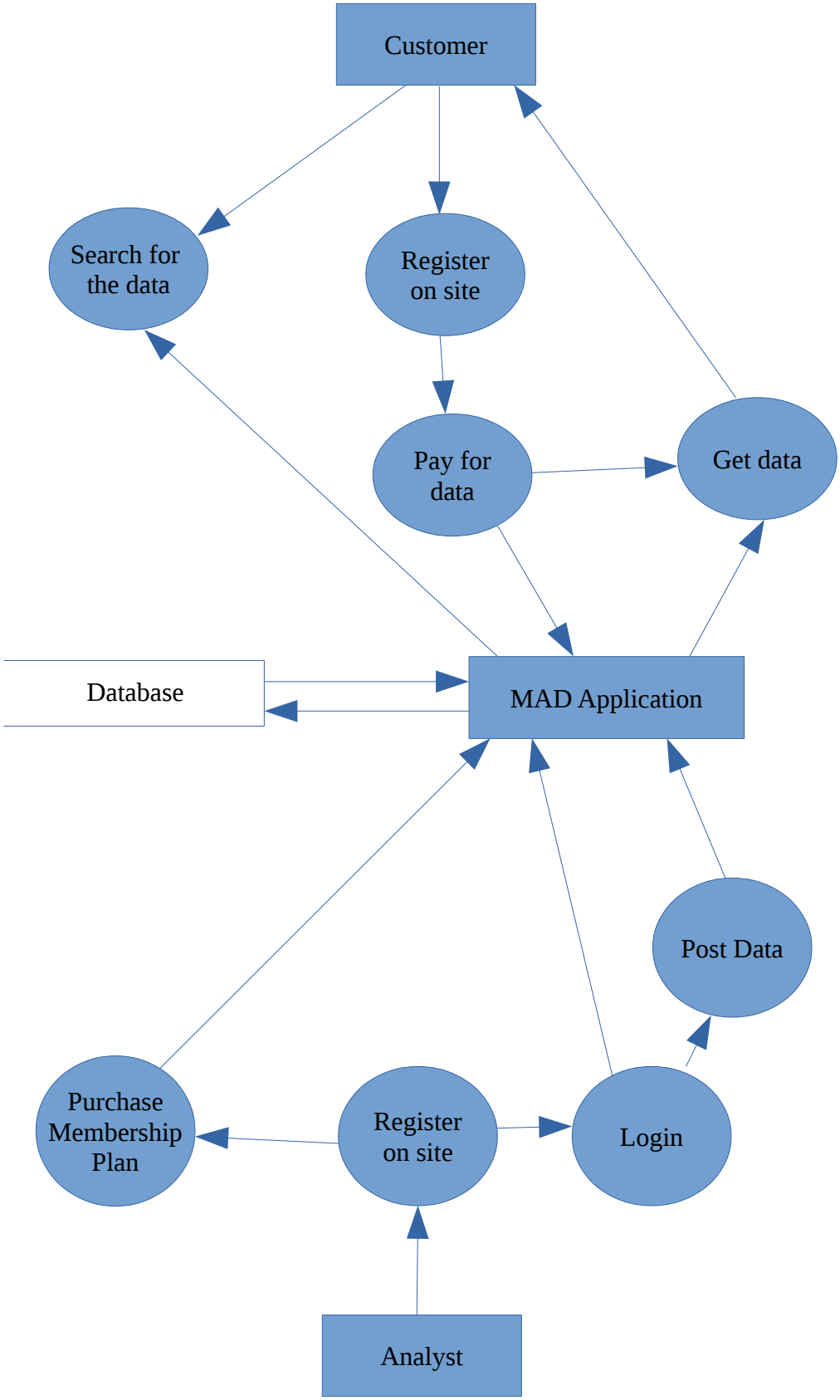
Level 0



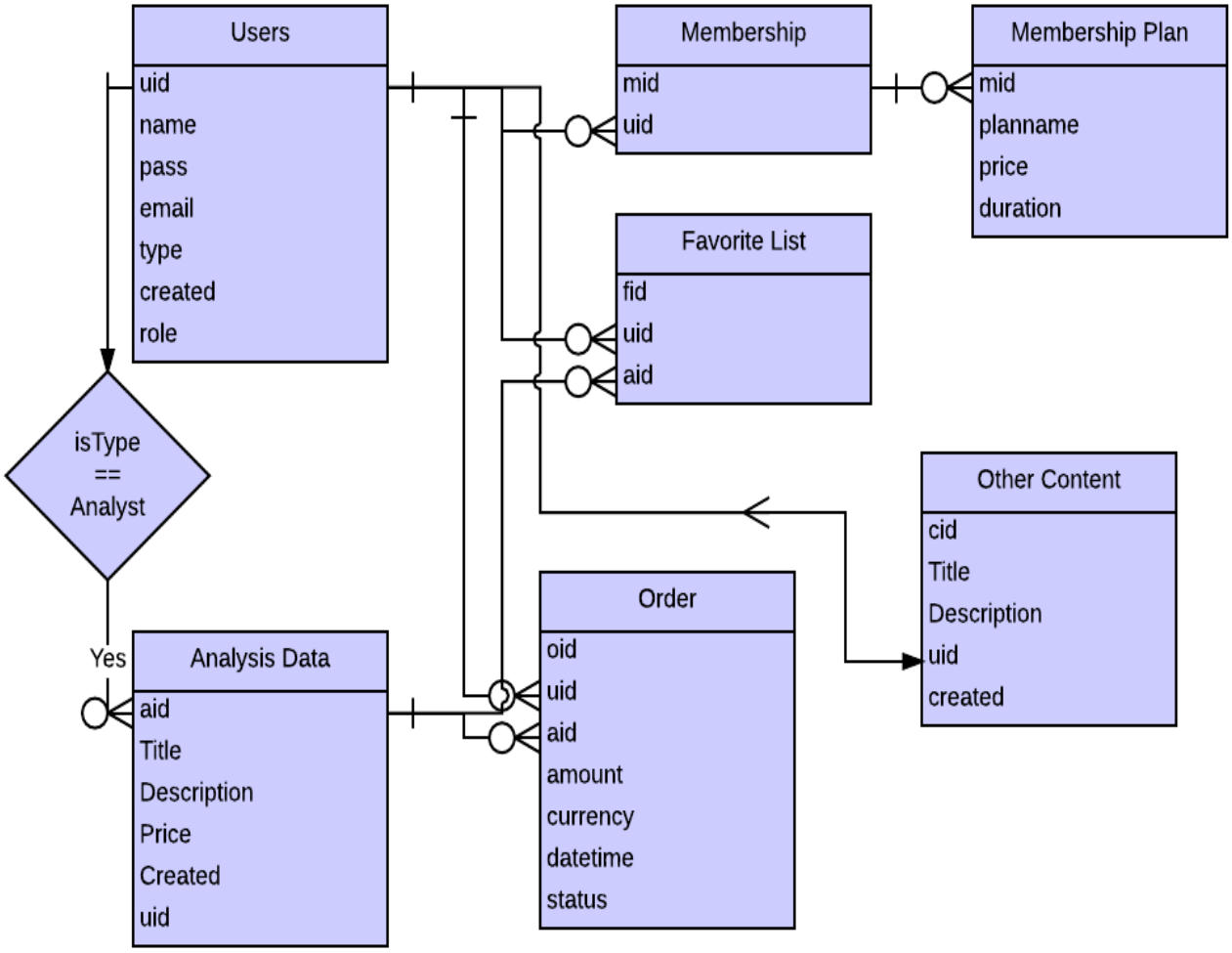
Level 1



Level 2


Customer
Search for the data
Register on site
Pay for data
Get data
Database
MAD Application
Post Data
Purchase Membership Plan
Register on site
Login
Analyst

ER Diagram:


Users
uid
name
pass
email
type
created
role
Membership
mid
uid
Membership Plan
mid
planname
price
duration
Favorite List
fid
uid
aid
isType
==
Analyst
Other Content
cid
Title
Description
uid
created
Order
oid
uid
aid
amount
currency
datetime
status
Yes
Analysis Data
aid
Title
Description
Price
Created
uid

viii. A COMPLETE DATABASE AND TABLES DETAIL WITH PRIMARY AND FOREIGN KEYS AND PROPER CONSTRAINTS IN THE FIELD

User Table & Index:

Table

Column	Type	Null	Default	Comments
uid	int(10)	No	0	Primary Key: Unique user ID.
name	varchar(60)	No		Unique user name.
pass	varchar(128)	No		User’s password (hashed).
mail	varchar(254)	Yes		User’s e-mail address.
theme	varchar(255)	No		User’s default theme.
signature	varchar(255)	No		User’s signature.
signature_format	varchar(255)	Yes	*NULL*	The filter_format.format of the signature.
created	int(11)	No	0	Timestamp for when user was created.
access	int(11)	No	0	Timestamp for previous time user accessed the site.
login	int(11)	No	0	Timestamp for user’s last login.
status	tinyint(4)	No	0	Whether the user is active(1) or blocked(0).
timezone	varchar(32)	Yes	*NULL*	User’s time zone.
language	varchar(12)	No		User’s default language.
picture	int(11)	No	0	Foreign key: file_managed.fid of user’s picture.
init	varchar(254)	Yes		E-mail address used for initial account creation.
data	longblob	Yes	*NULL*	A serialized array of name value pairs that are related to the user. Any form values posted during user edit are stored and are loaded into the $user object during user_load(). Use of this field is discouraged and it will likely disappear in a future...

Index

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	uid	2	A	No	
name	BTREE	Yes	No	name	2	A	No	
access	BTREE	No	No	access	2	A	No	
created	BTREE	No	No	created	2	A	No	
mail	BTREE	No	No	mail	2	A	Yes	
picture	BTREE	No	No	picture	2	A	No	

Content & Analysis Table and Index:

Table

Column	Type	Null	Default	Comments
nid	int(10)	No		The primary identifier for a node.
vid	int(10)	Yes	*NULL*	The current node_revision.vid version identifier.
type	varchar(32)	No		The node_type.type of this node.
language	varchar(12)	No		The languages.language of this node.
title	varchar(255)	No		The title of this node, always treated as non-markup plain text.
uid	int(11)	No	0	The users.uid that owns this node; initially, this is the user that created it.
status	int(11)	No	1	Boolean indicating whether the node is published (visible to non-administrators).
created	int(11)	No	0	The Unix timestamp when the node was created.
changed	int(11)	No	0	The Unix timestamp when the node was most recently saved.
comment	int(11)	No	0	Whether comments are allowed on this node: 0 = no, 1 = closed (read only), 2 = open (read/write).
promote	int(11)	No	0	Boolean indicating whether the node should be displayed on the front page.
sticky	int(11)	No	0	Boolean indicating whether the node should be displayed at the top of lists in which it appears.
tnid	int(10)	No	0	The translation set id for this node, which equals the node id of the source post in each set.
translate	int(11)	No	0	A boolean indicating whether this translation page needs to be updated.

Index

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	nid	2	A	No	
vid	BTREE	Yes	No	vid	2	A	Yes	
node_changed	BTREE	No	No	changed	2	A	No	
node_created	BTREE	No	No	created	2	A	No	
node_frontpage	BTREE	No	No	promote	2	A	No	
				status	2	A	No	
				sticky	2	A	No	
				created	2	A	No	
node_status_type	BTREE	No	No	status	2	A	No	
				type	2	A	No	
				nid	2	A	No	

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
node_title_type	BTREE	No	No	title	2	A	No	
				type (4)	2	A	No	
node_type	BTREE	No	No	type (4)	2	A	No	
uid	BTREE	No	No	uid	2	A	No	
tnid	BTREE	No	No	tnid	2	A	No	
translate	BTREE	No	No	translate	2	A	No	
language	BTREE	No	No	language	2	A	No	

Order Table & Index:

Table

Column	Type	Null	Default	Comments
order_id	int(10)	No		Primary key: the order ID.
uid	int(10)	No	0	The user.uid of the customer that placed the order.
order_status	varchar(32)	No		The uc_order_statuses.order_status_id indicating the order status.
order_total	decimal(16,5)	No	0.00000	The total amount to be paid for the order.
product_count	int(10)	No	0	The total product quantity of the order.
primary_email	varchar(96)	No		The email address of the customer.
delivery_first_name	varchar(255)	No		The first name of the person receiving shipment.
delivery_last_name	varchar(255)	No		The last name of the person receiving shipment.
delivery_phone	varchar(255)	No		The phone number at the delivery location.
delivery_company	varchar(255)	N		The company at the delivery location.
delivery_street1	varchar(255)	No		The street address of the delivery location.
delivery_street2	varchar(255)	No		The second line of the street address.
delivery_city	varchar(255)	No		The city of the delivery location.
delivery_zone	mediumint(8)	No	0	The state/zone/province id of the delivery location.
delivery_postal_code	varchar(255)	No		The postal code of the delivery location.
delivery_country	mediumint(8)	No	0	The country ID of the delivery location.
billing_first_name	varchar(255)	No		The first name of the person paying for the order.
billing_last_name	varchar(255)	No		The last name of the person paying for the order.
billing_phone	varchar(255)	No		The phone number for the billing

Column	Type	Null	Default	Comments
				address.
billing_company	varchar(255)	No		The company of the billing address.
billing_street1	varchar(255)	No		The street address where the bill will be sent.
billing_street2	varchar(255)	No		The second line of the street address.
billing_city	varchar(255)	No		The city where the bill will be sent.
billing_zone	mediumint(8)	No	0	The state/zone/province ID where the bill will be sent.
billing_postal_code	varchar(255)	No		The postal code where the bill will be sent.
billing_country	mediumint(8)	No	0	The country ID where the bill will be sent.
payment_method	varchar(32)	No		The method of payment.
data	text	Yes	*NULL*	A serialized array of extra data.
created	int(11)	No	0	The Unix timestamp indicating when the order was created.
modified	int(11)	No	0	The Unix timestamp indicating when the order was last modified.
host	varchar(255)	No		Host IP address of the person paying for the order.
currency	char(3)	No		The ISO currency code for the order.

Index

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	order_id	5	A	No	
uid	BTREE	No	No	uid	2	A	No	
order_status	BTREE	No	No	order_status	5	A	No	

Flag (Favorite) Table & Index:

Table

Column	Type	Null	Default	Comments
fid	smallint(5)	No		The unique ID for this particular flag.
entity_type	varchar(128)	No		The flag type, such as one of "node", "comment", or "user".
name	varchar(32)	Yes		The machine-name for this flag.
title	varchar(255)	Yes		The human-readable title for this flag.
global	tinyint(4)	Yes	0	Whether this flag state should act as a single toggle to all users across the site.
options	text	Yes	*NULL*	The options and configuration of this flag.

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Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	fid	0	A	No	
name	BTREE	Yes	No	name	0	A	Yes	

(Note: - There are some other tables available in the database and some of those are as following.)

Block Table & Index:

Table

Column	Type	Null	Default	Comments
bid	int(11)	No		Primary Key: Unique block ID.
module	varchar(64)	No		The module from which the block originates; for example, 'user' for the Who's Online block, and 'block' for any custom blocks.
delta	varchar(32)	No	0	Unique ID for block within a module.
theme	varchar(64)	No		The theme under which the block settings apply.
status	tinyint(4)	No	0	Block enabled status. (1 = enabled, 0 = disabled)
weight	int(11)	No	0	Block weight within region.
region	varchar(64)	No		Theme region within which the block is set.
custom	tinyint(4)	No	0	Flag to indicate how users may control visibility of the block. (0 = Users cannot control, 1 = On by default, but can be hidden, 2 = Hidden by default, but can be shown)
visibility	tinyint(4)	No	0	Flag to indicate how to show blocks on pages. (0 = Show on all pages except listed pages, 1 = Show only on listed pages, 2 = Use custom PHP code to determine visibility)
pages	text	No		Contents of the "Pages" block; contains either a list of paths on which to include/exclude the block or PHP code, depending on "visibility" setting.
title	varchar(64)	No		Custom title for the block. (Empty string will use block default title, <none> will remove the title, text will cause block to use specified title.)
cache	tinyint(4)	No	1	Binary flag to indicate block cache mode. (-2: Custom cache, -1: Do not cache, 1: Cache per role, 2: Cache per user, 4: Cache per page, 8: Block cache global) See DRUPAL_CACHE_* constants in ../includes/common.inc for more detailed information.

Index

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	bid	30	A	No	
tmd	BTREE	Yes	No	theme	4	A	No	
				module	30	A	No	

Session Table & Index:

Table

Column	Type	Null	Default	Comments
uid	int(10)	No		The users.uid corresponding to a session, or 0 for anonymous user.
sid	varchar(128)	No		A session ID. The value is generated by Drupal's session handlers.
ssid	varchar(128)	No		Secure session ID. The value is generated by Drupal's session handlers.
hostname	varchar(128)	No		The IP address that last used this session ID (sid).
timestamp	int(11)	No	0	The Unix timestamp when this session last requested a page. Old records are purged by PHP automatically.
cache	int(11)	No	0	The time of this user's last post. This is used when the site has specified a minimum_cache_lifetime. See cache_get().
session	longblob	Yes	*NULL*	The serialized contents of $_SESSION, an array of name/value pairs that persists across page requests by this session ID. Drupal loads $_SESSION from here at the start of each request and saves it at the end.

Index

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	sid	1	A	No	
				ssid	1	A	No	
timestamp	BTREE	No	No	timestamp	1	A	No	
uid	BTREE	No	No	uid	1	A	No	
ssid	BTREE	No	No	ssid	1	A	No	

Session Table & Index:

Table

Column	Type	Null	Default	Comments
name	varchar(128)	No		The name of the variable.
value	longblob	No		The value of the variable.

Index

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	name	84	A	No	

ix. COMPLETE STRUCTURE

Registration & Login Module:

Any visitor can register on the site, simple by feeling a form with some mandatory fields. After submitting the form, he/she will receive a confirmation email on his/her mail ID. User just needs to click on confirmation link and he/she will be able to login on the site. Here is some mandatory field list: -

- Username
- Password (with Confirm Password)
- Email

Now there are some more field, but those are not mandatory so he can feel that field either in registration form or in profile editing form. An administrator can simple manage the list of users including analyst or simple customer from a special user administration menu.

News Feed Module:

Any visitor can see the news list and he/she can read full news by just clicking on the news title. And there will be a subscribe block which will have 2 form elements one is email and another is subscribe button. If any visitor wants the news feed in his/her email then he can simple put his/her email to the subscription form and subscribe for news feed. An administrator can manage all news and subscriber list.

Membership Module:

Any registered user can buy a membership plan, if he/she wants to add his/her analysis data on the site. In this manner he/she will be called an **Analyst.** After the buying a membership plan he/she will be assigned analyst role, where he/she can add data with that role permissions. An administrator can manage the membership plans from a special membership administration menu.

Analysis & Content Module:

Any analyst can manage his/her analysis data & news report from a special analyst menu link. And he/she can also add new analysis data & news report. So this analysis data & news report will be listed with his/her name as author. Any visitor can see the list of all the content and analysis data. But if and only if he/she can see the full analysis data, which he/she has been purchased. An administrator can manage all the content and analysis data from a special administrator menu.

Rating & Review Module:

Any registered user can give his/her rating for a particular analysis and review so that other can see that information and if that is useful for them so they can use that.

Analyst Profile Module:

Any visitor can visit to a particular analyst profile and he/she can see the list of content and analysis data that is added by that particular analyst. Visitor can also see the rating of that analyst and any registered user can give rating for a particular analyst.

Orders Module:

Any registered user can see all the orders which were entered by him/her. For this the user just need to go to his/her profile and then click on order list and there will be a detail list option from where he can see a particular order in detail.

Customer Profile Module:

Any registered user can give his/her rating for a particular analysis and review so that other can see that information and if that is useful for them so they can use that. And a Customer can see list of his/her own history orders.

x. SECURITY MECHANISMS

Password Protection:

All user passwords will be saved after conversion to MD5 and SH1 both. First it will convert the password to MD5 and then it will convert it to SH1 so it will be dual protected.

Injection Protection:

I have used PDO as an object oriented database library. So basically it prevents any SQL injection which occurs by any drone or human.

Captcha Protection:

I have used captcha protection on few critical forms. So that there will not be any drone entry on the site.

xi. FUTURE SCOPE & ENHANCEMENT

Future Scope:

In future, it may need some more additional functionality as following: -

- Training Institutions registration, so that they can provide relevant trainings online.
- Discount and Coupon code requirement on few analysis data.
- Blog & Forum implementation for socialization.
- Chatting system between users and group chat or public chat system.

Future Enhancement:

I will develop such a code where can enhance the application in the future by simply adding modules of extra functionality. And that will not affect on current functionality. So it will be very easy for future development and maintained to keep all the code standardized.