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Development of Media Search Engine & its Optimization

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Abstract. The project entitled "MEDIA SEARCH ENGINE" is regarding to the development of a web search engine which would include information's of different videos, audios, images etc related to corporate, educational, political, social & entertainment sectors. It would enable the viewers to access huge collection of resources in a very fast and easy way. They will be also able to submit their own articles, videos, audios, pictures. Users can access information's stored in its database by just giving a keyword as input & within few moments all information's related to that key word would appear on the screen indexed according to their popularity. Through this project huge amount of useful information's can be store & retrieve easily.

Keywords: Engine, Media, Search.

1. Introduction:

1.1. Motivation:

Information is a very essential need for the peoples related to corporate, social, political, entertainment and educational sectors. It is quite difficult to get required information's in short time. By using internet resources we can get those information's but it is time consuming as we have search through various sites randomly as we can't say about the exact place where we can get the required information's. The development in various aspects of computer technology has reached beyond our imagination & expectations. Every now and then, new technologies are launched in the market to ease our daily works. This fact inspired me to develop a web search engine which will help in finding information's from internet very easily and in fast way. Users can access huge amount of information's in no time by just giving a keyword as input and within a moment all information's related to that keyword will be indexed on the screen according to their popularity.

1.2. Usage:

PHP is a general-purpose scripting language that is especially suited to server-side web advance where PHP usually runs on a web server. Any PHP code in a requested file is executed by the PHP runtime, usually to create dynamic web page content. It can also be used for command-line scripting and client-side GUI applications. PHP can be deployed on most web servers, many operating systems and platforms, and can be used with many relational database management systems (RDBMS). It is available free of charge, and the PHP Group provides the complete source code for users to build, customize and extend for their own use.

PHP primarily acts as a filter, taking input from a file or stream containing text and/or PHP instructions and outputs another stream of data; most commonly the output will be HTML. Since PHP 4, the PHP parser compiles input to produce bytecode for processing by the Zend Engine, giving improved performance over its interpreter predecessor.

Originally designed to create dynamic web pages, PHP now focuses mainly on server-side scripting and it is similar to other server-side scripting languages that provide dynamic content from a web server to a client, such as Microsoft's Asp.net, Sun Microsystems' JavaServer Pages and mod_perl. PHP has also attracted the development of many frameworks that provide building blocks and a design structure to promote rapid application development (RAD). Some of these include CakePHP, Symfony, CodeIgniter, and

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Zend Framework, offering features similar to other web application frameworks.

The LAMP architecture has become popular in the web industry as a way of deploying web applications. PHP is commonly used as the P in this bundle alongside Linux, Apache and MySQL, although the P may also refer to Python or Perl or some combination of the three. WAMP packages (Windows/ Apache/ MySQL / PHP) and MAMP packages (Macintosh / Apache / MySQL / PHP) are also available.

1.3. Platforms and interfaces

MySQL is written in C and C++. Its SQL parser is written in yacc, and a home-brewed lexical analyzer named sql_lex.cc. MySQL works on many different system platforms, including AIX, BSDi, FreeBSD, HP-UX, eComStation, i5/OS, IRIX, Linux, Mac OS X, Microsoft Windows, NetBSD, Novell NetWare, OpenBSD, OpenSolaris, OS/2 Warp, QNX, Solaris, Symbian, SunOS, SCO OpenServer, SCO UnixWare, Sanos and Tru64. A port of MySQL to OpenVMS also exists. Many programming languages with language-specific APIs include libraries for accessing MySQL databases. These include MySQL Connector/Net for integration with Microsoft's Visual Studio (languages such as C# and VB are most commonly used) and the ODBC driver for Java. In addition, an ODBC interface called MyODBC allows additional programming languages that support the ODBC interface to communicate with a MySQL database, such as ASP or ColdFusion. The HTSQL - URL based query method also ships with a MySQL adapter, allowing direct interaction between a MySQL database and any web client via structured URLs. The MySQL server and official libraries are mostly implemented in ANSI C/ANSI C++.

2. Methodology:

A software life cycle is a series of identifiable stages that a software product undergoes during its lifetime. A software life cycle model is a descriptive and diagrammatic representation of the software life cycle. A life cycle model maps the different activities performed on software product from its inception to retirement into a set of life cycle phases. Here we have used the iterative waterfall model.

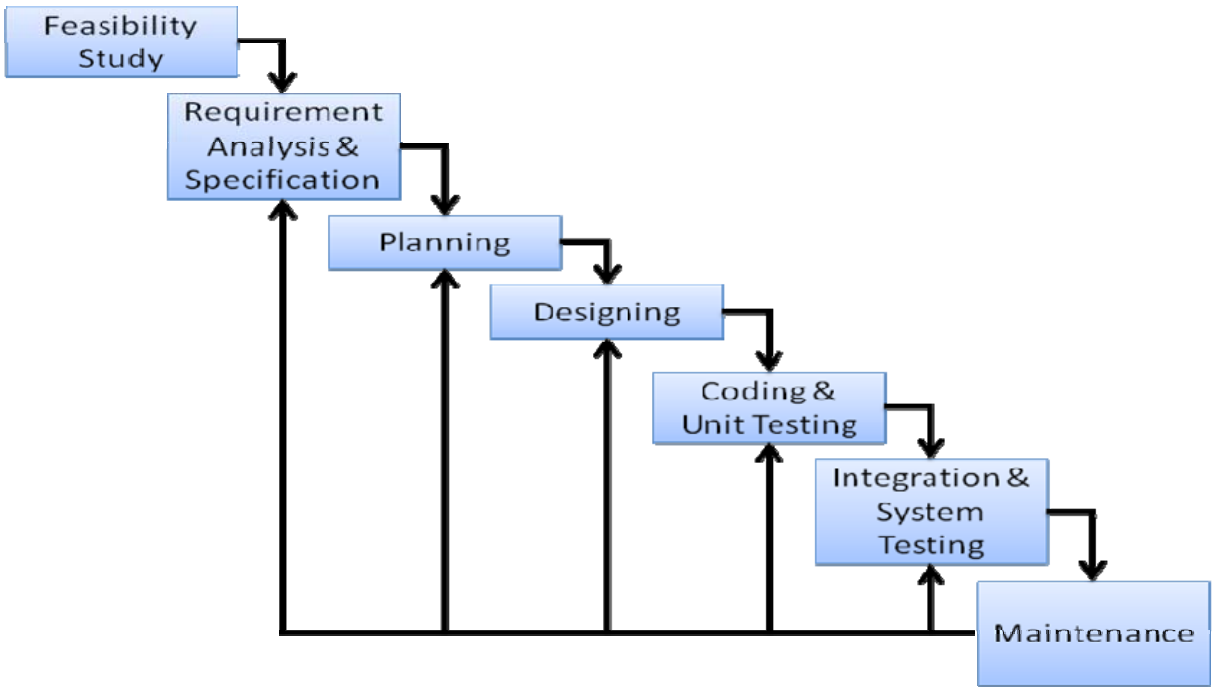

Figure1 (Iterative Water Fall Model)

2.1. Phase Analysis:

During the feasibility phase, first of all I tried to find out what are the requirements for my project, and come up with a solution that to build a search engine I require a database which would contain all the information's like images, audios and videos and an interface through which user can access those information's. So for making the database I require Wamp and for the interface I need PHP and HTML pages. Thus during the Requirement analysis & specification phase I collected all the data that would be stored to the database i.e. images, audios, videos.

At the designing phase I designed the database which contains designing of tables and setting up of the table fields, data types, required fields, primary keys etc. next I have designed the interface that contains designing of interface using HTML and PHP pages.

During the coding and unit testing phase we divided my system design into modules and start writing codes for those modules, after writing codes for each module, and tested each of them to check whether it is working correctly or not. During integration and system testing phase, Integration of different modules is undertaken once the different modules have been coded and unit tested in a planned manner. Though integrating all the modules is not done in one shot, during each integration step, previously planned modules are added to the partially integrated system and the resultant system is tested. After all the modules have been successfully integrated and tested, then we have carried out system testing to check whether the fully developed system conforms to its requirement specification or not in order to ensure that the final product is error free.

2.2. E-R Diagram:

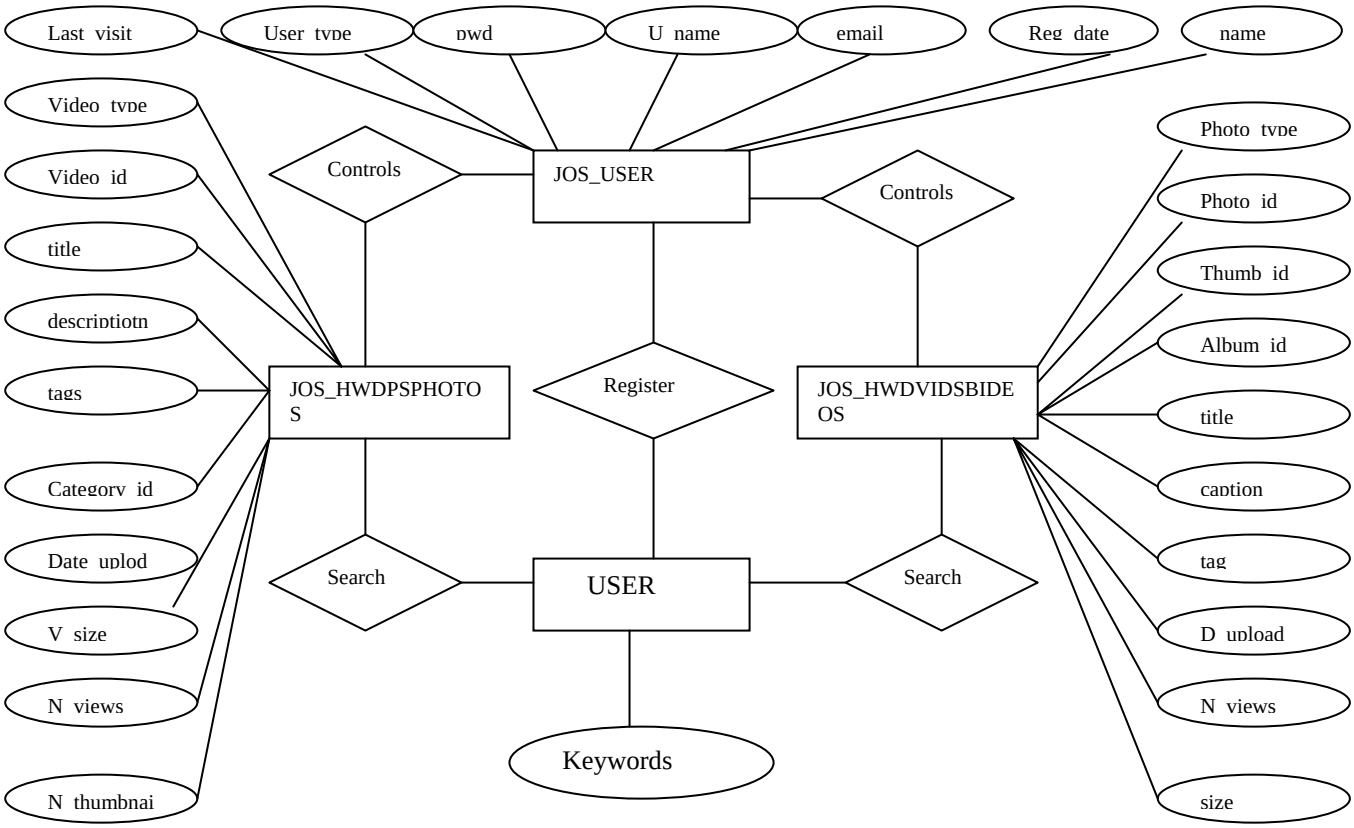

Figure2.ER Diagram

In the Fig: 2. Entity-Relationship (E-R) Diagram, the four entities are JOS_HWDPSPHOTOS, JOS_HWDVIDSVIDEOS, JOS_USER, USERS, the relationship between the JOS_USER and JOS_HWDVIDSVIDEOS, JOS_HWDPSPHOTOS is control of different information's. The JOS_USER

entity has seven attributes namely- last_visit, user_type, u_name, pwd, name, email, reg_date. Through username and password the administrator and registered users can log in to the system and can publish different information's. The attributes of JOS_HWDPSPHOTOS are album_id, category_id, title, caption, tags, D_upload, n_views. The attributes of JOS_HWDVIDSVIDEOS are video_type, video_id, title, description, tag, category_id, D_uploaded, V_size, n_views, size.

2.3. Data Flow Diagram:

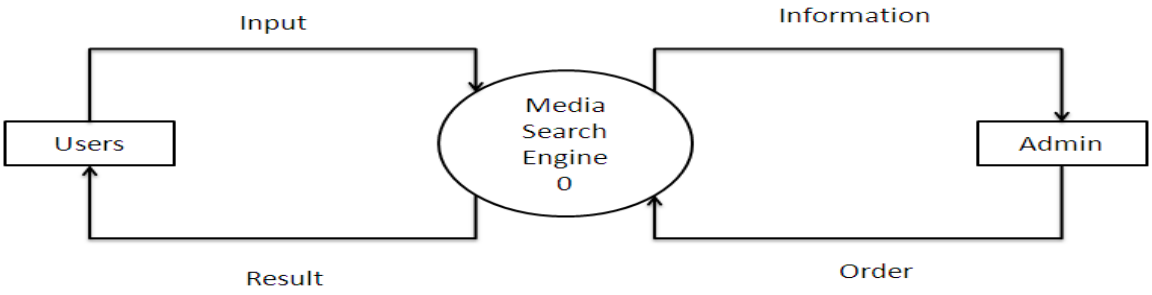

Figure3. DFD Level 0

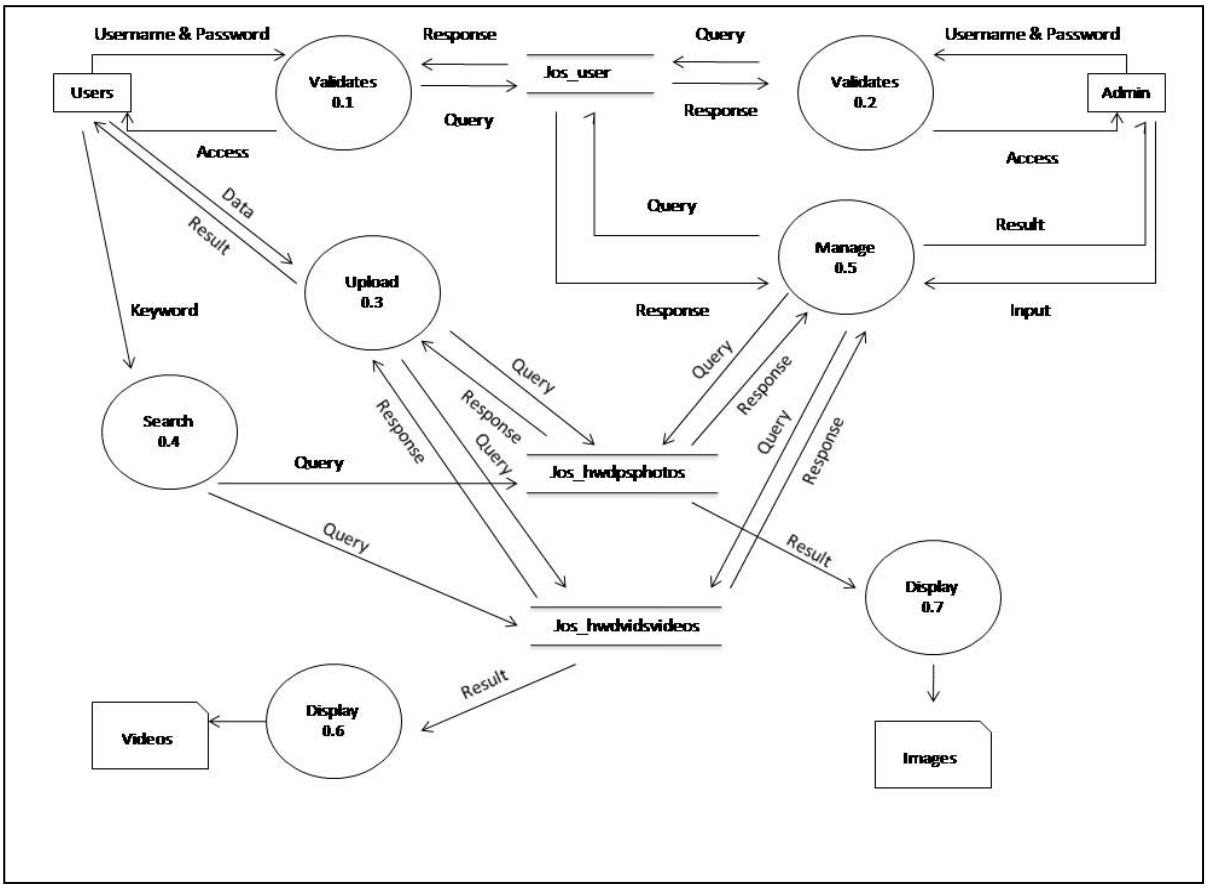

Figure4. DFD Level 1

The level 1 DFD usually contains between 3 and 7 bubbles. That is, the system is represented as performing 3 to 7 important functions. In Fig 3: DATA FLOW DIAGRAM (Level-0), the main function of the "Media Search Engine" is to store huge amount of images and videos and to provide them to the user in respect of the keyword. Here registered users can only upload data in the site and any users can access them. The administrator can also manage the registered users. In order to log in to the site the user need to input the username and password, then if the information matched with those of the information that are stored in the

Figure5. (user interface of Image search page)

A fundamental reality of application development is that the user interface is the system to the users. What users want is for developers to build applications that meet their needs and that are easy to use. User interface design is important for several reasons. First of all the more intuitive the user interface the easier it is to use, and the easier it is to use and the less expensive to use it. The better the user interface the easier it is to train people to use it, reducing training costs. The better the user interface the less help people will need to use it, reducing the support costs. The better the user interface the more the users will like to use it, increasing their satisfaction with the work that has been done. The most important thing that we believe to make the user interface consistent and easy to use, thus the first thing we tried to make the searching as easy as possible so we have used the same font for all the texts that are to be displayed on the screen and used the white color scheme throughout, so to make it soothing to the user eyes and brain to enable them to build an accurate mental model of the way the system works.

Figure 6. (user interface of video search page)

4. Conclusion:

In the conclusion we can say that it will be very effective and user friendly to use. Person with minimal knowledge regarding computer and internet can take advantage from it. Huge amount of data can be stored easily in error free manner. It displays the popular information's first for which we get access to important information's in no time. Though every task is never said to be perfect in this development field even more improvement may be possible in this system.

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