

A Different Angle over E-Advertisement Services in India Prospective

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Abstract: In this study “E-advertisement” is a web application that automatically matches posters of AD’s with potential viewers through a communication network in which a host system communicates with the Posters and Potential Viewers. The host system obtains and stores a first set of records each corresponding to a particular ads. This set of records can then be searched by a remote data terminal associated with a potential viewer. The results of this search are then provided to the potential poster, who indicates specific ad listings that the viewer may be interested in. The viewer provides identifying information which is then provided to the poster of the indicated ads. Provisions are made to ensure that the ad posters who list ads support the system. Further, the system permits automatic evaluation of potential viewers to screen posters whose information does not match minimum criteria. It’s a system for selectively displaying ad listings to potential viewers and for obtaining ad viewer profile information associated with said potential viewers which is provided to ad posters of ad described in said ad listings. [Researcher. 2010;2(6):54-64]. (ISSN: 1553-9865).

Keywords: Login, Registration Process, Administrator, Search

1. Introduction:

This web application is being launched because a need for a destination where the local community could come together and help each other is seen. Community members within a city can come here to find an apartment to live in, sell their old car, or music system, promote their small business, find a life partner, join a salsa class, find people who share their interests, get an audience for a local event, trade any item that they might want or have to offer and make new friends while doing all of the above.

1.1 Purpose of E- Advertisement in our life:

In this application fulfills the requirements of an individual related to classifieds (situation vacant / buy n sell / matrimonies ...) and Yellow Pages. It’s a destination where the local community could come together and help each other. A person can search for a house on rent without the involvement of a property dealer and save the extra money which he/she would have paid as commission. Moreover, the person do all this in a single click of the mouse button i.e., searching / traversing & posting advertisements etc. can be done while sitting at home.

1.2 Objective of E-Advertisement:

The summary of the objective of this software is to completely automate the process of:

1. Provide better understanding between ad posters and its viewers.
2. Provide a user friendly environment so that the ad posters can post their ads easily and free of cost.

3. To maintain and store ad details, response details, ad viewers details, ad posters details
4. Provide excellent and easy to access means of communication medium between ad posters and its viewers.
5. Provide value to its contributors by making available to them its vast global audience reach
6. Provide Classifieds as a service to enable its users to connect with one another.
7. Provide local commerce site, uniquely integrating Classifieds and Yellow Pages. The system offers unmatched values such as Real Estate, Travels,
8. Jobs/Training, Movies/Entertainment, buy/sale, Matrimonial and more.

The following advertising opportunities are offered:-

- Banner Advertising
- Add Your Logo
- Button Advertising

2. Problems in advertisement:

The existing system i.e., classifieds and yellow pages system works by manually supplying information regarding an Advertisement to be placed in the media (say Newspapers, magazines etc.) which must be checked thoroughly before given for final print.. The existing system has got lot of intricacies within itself and need lot of human effort and paper works. All above the data need to be maintained properly and maintaining this is a tedious and risky

process as a small printing error may completely change the sense of the Advertisement. Moreover to view a data or to keep a record of a particular Advertisement may need lot of paper to be searched. Some of the negative aspects of the existing system are as follows:

- 1) Course of action is time consuming. Wherever a need for search arises, the process evolves search through paper records.
- 2) Readability of records is constrained. All the records may not be handled or written by the same person. So the format and style of records differ and hence it is difficult to understand.
- 3) Paper records are easily damaged in course of time. The life time of paper record is unreliable less that it easily gets spoiled.
- 4) Expenditure is high. Manual system needs added man power.
- 5) It is difficult for the user to categorize and do the comparative study of the AD's on the

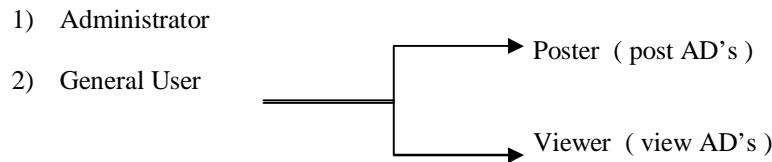
basis of just reading about it on a piece of Paper.

3. Problem Solving Methodology:

3.1 Proposed System of E-Advertisement:

The proposed system is a computerized one. This has greater accuracy and efficiency. This takes only limited time for retrieval of desired result from the user. The proposed system can be used to maintain efficiently the postings and retrieval of any type of Advertisement posted by a Poster. The proposed system is also useful and helpful in checking out different Advertisements by a Viewer so that he/she can easily categorize and select the appropriate AD for him/herself depending on the requirement and his/her choice. He/she can also create his/her mail account using my system. Since my system is allowing Banner Advertisements to obtain revenue out of it, a user can post his/her company's or firm's Advertisement using my system.

The system includes two users:

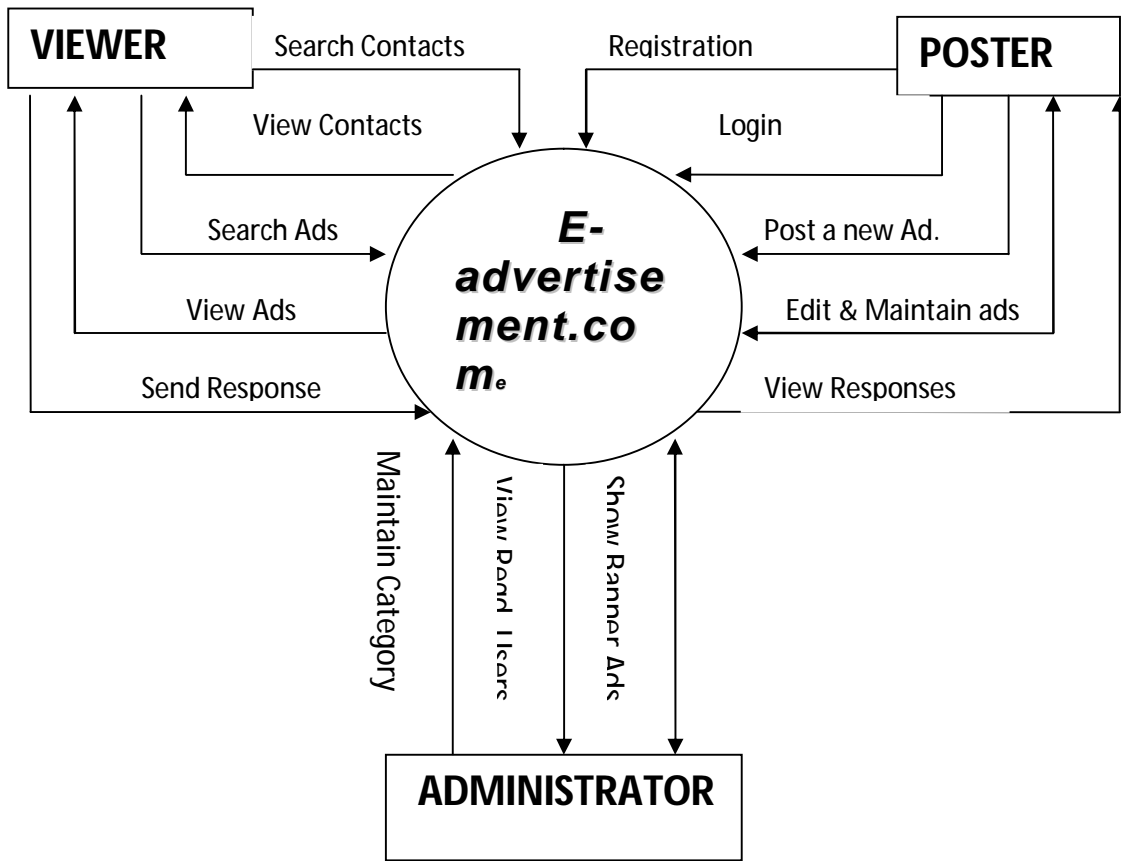


The user gets into the system using user name and a unique password. Each user has his own accessibility permission to accomplish his task flawlessly. The administrator also has a ID and password to get access to the system so that no unauthorized person is able to keep an eye on the working of the complete system.

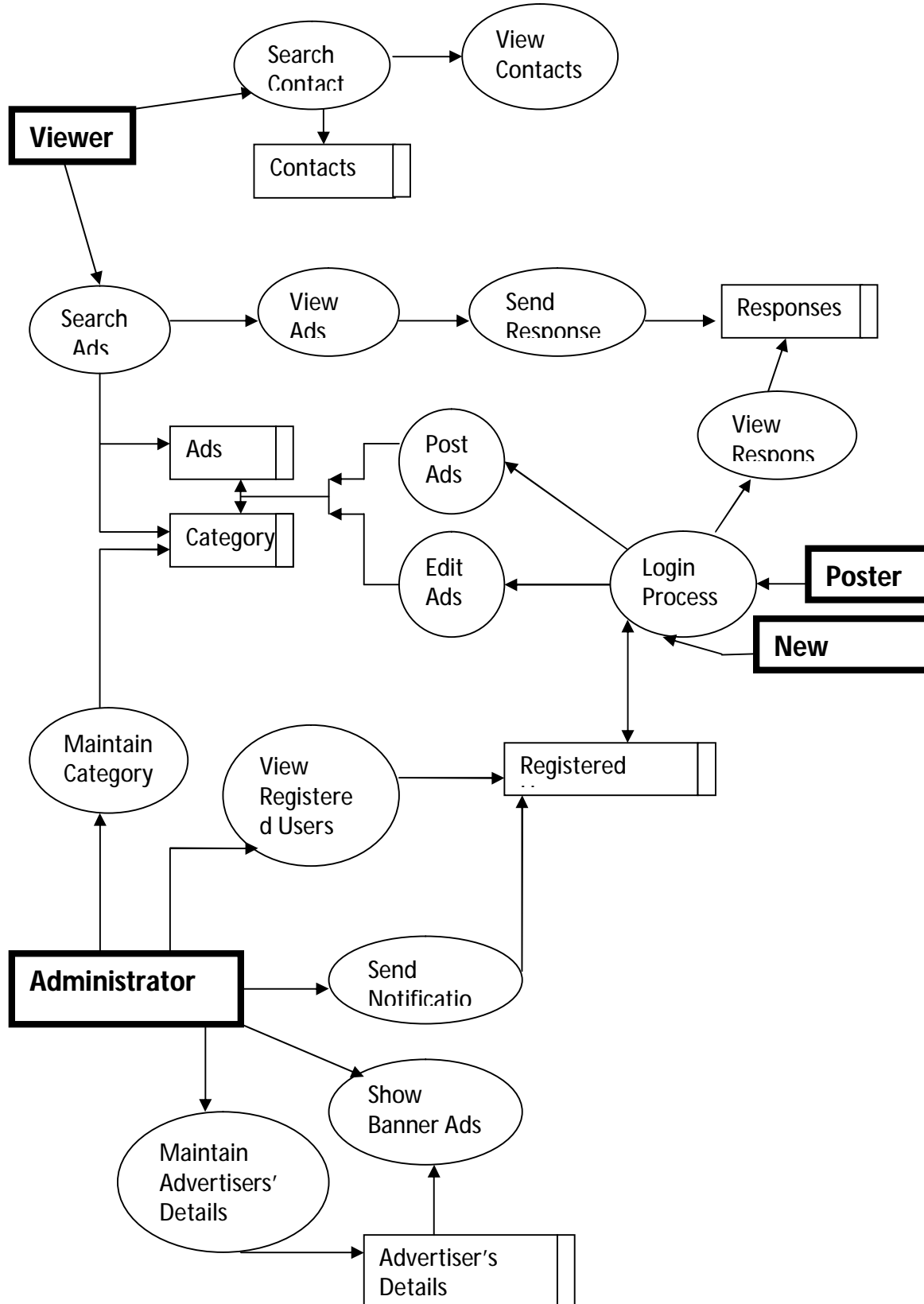
3.2 Advantages of the Proposed System:

This is an era of Information Technology where getting information is the base of each and every thing. Success of any business depends upon its popularity and goodwill. Today, market has been expanded and you have to be a global player, today every individual wants to access most of the information from his own place and then do transaction. The project would help in effective and systematic access to the Advertisements posted by the Poster and invalid access by any person will be caught at the time of registration of the Viewer.

3.3 Data Flow Diagram of E-Advertisement:



3.4 Context Level DFD for E-Advertisement - LEVEL-1 DFD for E-Advertisement:



3.5 Modules of E-Advertisement:

1. **Search Ads:** Through this module Viewer can view ads, can also send response to particular poster.
2. **Yellow Pages:** Through this module works as yellow pages. Provide contact details about various companies, institutes, banks etc.
3. **Login :** In this module Poster enter the User id and password is checked and only valid user id and password will get entry into member’s zone. This is a security feature to avoid entry of unauthorized users.
4. **Registration Process:** Through this module new posters can registered them. After giving their details, they will get a user id and password. Then to get entry into poster section they need to provide this id and password and only poster with valid id and password will get entry into poster zone. This is also a security feature to avoid entry of unauthorized user.
5. **Poster :**Through this module a poster can post a new ad, update ad details. He can update including user name and password and search and shortlist the Viewers, check the status of advertisement’s response. He can reply to the viewers In short this module deals with the whole advertisement process.
6. **Administrator:** This is the Administrator’s module by which he keep the eye on whole site and maintain and upgrade the site’s service for sake of users. Administrator can show banner ads of others, which help the site in revenue.
7. **Log Out:** To provide functionality to logout your id and return to home page.
8. **Write Mail:** You can write any mail and also attach any document or image and send to your destinations.
9. **Mail Inbox:** You can check your mail also and attach the important files with your mail box.
10. **Help:** Provide the functionality to get help about the online reminder.

3.6 Process Logic

3.6.1 E-Advertisement Process Architecture:

Layered Architecture

Database Layer	Contains the data and database-related objects like stored procedures, triggers, packages, etc.
Application Layer	Contains the objects addressing the business logic; Most of the middle-level Java objects will be here in application layer.
Web Interface Layer	It will be on the web server; It contains the web pages (JSPs) of the application which will interact with the front-end browsers
Client Layer	Contains the web browser which interacts with web server

3.6.2 Processes & Process Logic of E-Advertisement:

Poster’s Section Processes:

- **Login Process:** In this process, the user ID and password entered by the user are validated and once it is done, the user will get entry into this zone. If the Poster is new, he/she can register him/herself with the system by following simple steps.
- **Post AD Process:** In this process, the Poster can post his/her Advertisements in the system by filling up the information about the AD. (for instance, selecting the AD category say, buy n sell, events, matrimonial etc from the list)
- **Edit AD’s Process:** In this process, the poster may edit or modify the contents of his/her Advertisement. He/she may also delete the AD posted by him once the purpose of posting it is sought.
- **View Response Process:** In this process, the poster can check whether the Advertisement posted by him/her has got any responses and if yes he/she may consider the best deal among the responses obtained or wait for a better one.

3.6.3 Viewer’s Section Processes of E-Advertisement:

- **Search AD’s Process:** In this process, the Viewer may search for Advertisements as categorized by the system. Also, the viewer may send response to one or more AD’s viewed by him/her.

- **View AD’s Process:** In this process, the Viewer can view the different Advertisements posted by the poster as categorized by the system. Also, the viewer may view one or more AD's posted by different posters.
- **Send Response Process:** In this process, the Viewer may send response to one or more Advertisements as categorized by the system. These Advertisements may be posted by the same or different posters. Also, the viewer may send response to one or more AD's viewed by him/her.

3.6.4 Administrator’s Section Processes of E-Advertisement:

- **Maintain Category Process:** In this process, the Administrator who has the responsibility to keep an eye on the working of the complete system maintains a category list for Advertisements such as ‘buy n sell’, ‘matrimonial’, ‘Events’ etc. The administrator has the right to modify the category list according to changing needs of the AD Posters & Viewers.
- **View Registered Users Process:** In this process, the Administrator can view the details of the users who have registered him/herself with the system. This will help the administrator to keep a track of the users of the system and thus help to assess the popularity of the system.
- **Send Notification Process:** In this process, the Administrator can send notification to different users of the system about the various activities of the system.
- **Show Banner AD’s Process:** In this process, the Administrator can display Banner Advertisements as specified by the Advertisers. This will obtain revenue for the system.
- **Maintain Advertiser’s Details Process:** In this process, the Administrator will maintain the details of the Banner Advertisers such as their ID’s, names, AD_ID, Duration of AD etc. This maintenance will help in timely collection of revenue and renewal of AD’s.

3.7 Database Design of E-Advertisement:

3.7.1 Data Structures: This part of the Design consists the overall database schema or we can say that tables which consists various types of records. Table of aa database consists attributes, entities, tuples for storing and manipulating records

Some of the tables are as follows:

- **AD:** This table maintains details of the different Advertisements.

Field Name	Null ?	Data Type
AD_ID(PRIMARY KEY)	Not Null	VARCHAR(4000)
AD_CATEGORY(FOREIGN KEY – CATEGORY TABLE)	Not Null	VARCHAR(4000)
AD_DESCRIPTION		VARCHAR(4000)
AD_TITLE		VARCHAR(4000)
AD_STATUS		VARCHAR(4000)
AD_CITY		VARCHAR(4000)
NO_OF_RESPONSES		NUMBER
POSTER_ID (FOREIGN KEY – POSTER TABLE)	Not Null	VARCHAR(4000)
ADD_IMAGE		BLOB
ADD_VIDEO		BLOB

- **CATEGORY:** This table maintains details of the different categories listed by the Administrator.

Field Name	Null ?	Data Type
CATEGORY_ID(PRIMARY KEY)	Not Null	VARCHAR(4000)
CATEGORY_NAME	Not Null	VARCHAR(4000)

CATEGORY_DESC		VARCHAR(4000)
CATEGORY_URL		VARCHAR(4000)

- **POSTER:** This table maintains details of the Poster of the Advertisements who is a registered/authorized user of the system.

Field Name	Null ?	Data Type
POSTER_ID(PRIMARY KEY)	Not Null	VARCHAR(4000)
AD_CATEGORY(FOREIGN KEY – CATEGORY TABLE – AD TABLE)	Not Null	VARCHAR(4000)
POSTER_FNAME	Not Null	VARCHAR(4000)
POSTER_LNAME		VARCHAR(4000)
POSTER_CITY		VARCHAR(4000)
POSTER_STATE		VARCHAR(4000)
POSTER_COUNTRY		VARCHAR(4000)
POSTER_PIN		VARCHAR(4000)
POSTER_EMAIL	Not Null	VARCHAR(4000)
POSTER_PASSWORD		VARCHAR(4000)
POSTER_GENDER	Not Null	VARCHAR(4000)
POSTER_PHONENO	Not Null	VARCHAR(4000)

- **VIEWER:** This table maintains details of the different viewers.

Field Name	Null ?	Data Type
VIEWER_ID(PRIMARY KEY)	Not Null	VARCHAR(4000)
VIEWER_FNAME	Not Null	VARCHAR(4000)
VIEWER_LNAME		VARCHAR(4000)
VIEWER_EMAIL	Not Null	VARCHAR(4000)

- **ADMINISTRATOR:** This table maintains details of the Administrator of the system.

Field Name	Null ?	Data Type
USER_NAME	Not Null	VARCHAR(4000)
PASSWORD(PRIMARY KEY)	Not Null	VARCHAR(4000)

- **BANNER ADVERTISERS:** This table maintains details of the Banner Advertisers who are an Important part of the system as they are responsible for the generation of Funds.

Field Name	Null ?	Data Type
ADVERTISER_ID(PRIMARY KEY)	Not Null	VARCHAR(4000)

ADVERTISER_NAME	Not Null	VARCHAR(4000)
ADVERTISER_EMAIL		VARCHAR(4000)
AD_ID(FOREIGN KEY)	Not Null	VARCHAR(4000)
DURATION		VARCHAR(40)

3.8 Application Requirements of E- Advertisement:

Hardware

- **CPU** : Any Intel Pentium Class or Compatible Processor (Above 150MHz Clock Speed).
- **RAM** : Minimum 500MB RAM.
- **Hard disk** : 1GB minimum requirement.
- **Keyboard** : Microsoft Natural Keyboard or compatible Keyboard with 101/102 keys
- **Mouse** : Standard serial port mouse or Ps/2 Port mouse.
- **Monitor** : Standard SVGA color monitor supporting resolution of up to 1024x768.

Software

Development Environment of E-Advertisement:

1. **Operating System: Windows XP:** The system will be built on windows compatible environment. The application will be web based developed using Java technology.
2. **Web Server: BEA’s Web Logic 8.1** Application Server to serve as Servlet/JSP engine.. The system requires Web Logic Application Server for serving the requests for Servlet.
3. **Server side Application Software:** Java Server Pages (JSP)
4. **Business Logic Software:** Java Beans. (JB)
5. **Client Side Application Software:** Java Script, HTML
6. **Data Base: Oracle 9i.** The system requires Oracle 9i; as a database; however the system will be ODBC complaint to work on any standard database.
7. **Client Browsers:**
 - a. Internet Explorer 5.0 or Netscape Navigator 4.7
 - b. The system requires Internet Explorer or Netscape Navigator browser for client side.

4. Test and Evaluation

Testing is the process of evaluating with package with an intention of finding errors. The package of be tested is executed with a set of samples test cases and the outputs are then observed to determine whether the performance of the package adheres to as expected. Testing is vital for the success of the system. A test suite has been prepared, which consists of various test case along the expected results or outputs. This aids in the evaluation even after doing certain modifications to the project. The success of testing in revealing errors depends critically on the test cases. In software system the results of testing are used later on during maintenance also. The product for Avery India limited has been duly tested for various test cases and the results and outputs have been checked for validations.

5. Levels of Testing

The basic levels of testing are:

- Unit Testing
- Integration Testing
- System Testing
- Acceptance Testing

These different levels of testing attempt to detect varied faults. The relation of fault and different levels of testing are as shown below.

Levels of Testing

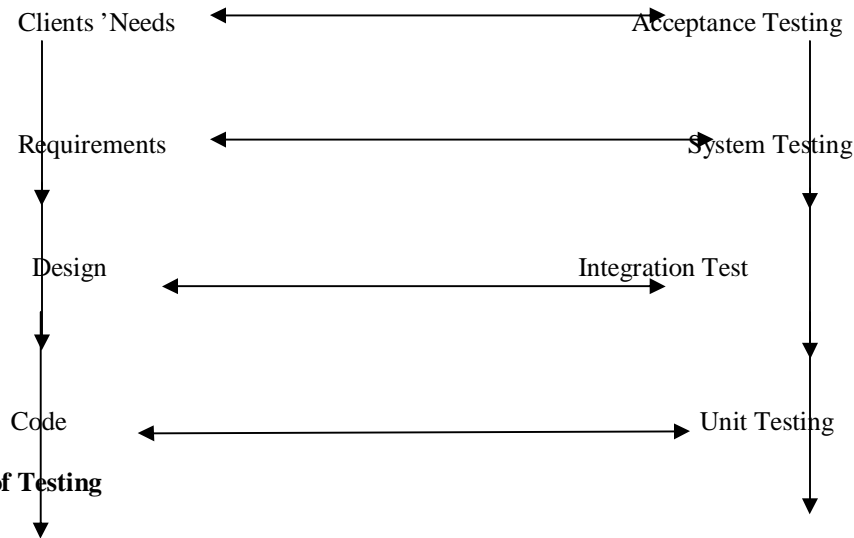


fig: - Levels of Testing

5.1 Unit Testing

In my project the small modules are tested. This is the first level of testing wherein different modules are tested against the specification produced during the design for the modules. This is essential for verifications of the code written during the coding phase and hence, the goal here is to test the internal logic of the modules.

5.2 Integration Testing

In the next level of testing, many tested modules are combined into subsystems, which are then tested. The goal is to see the modules can be integrated properly, the emphasis being on testing interface between the modules. This testing activity can be considered as testing design; hence the emphasis here is to test the various modules interaction.

5.3 System testing

During System testing the system is used experimentally to ensure that the software not fall, i.e it will run according to its specification and up to the mark with realistic data of the client to check whether the software is working properly. testing here focuses on the external behavior of the system. The internal logic of the system is not emphasized. The live data is entered by the user and reports are tested to their satisfaction.

5.4 Preparation of test data.

The package has been developed as a GUI with ORACLE 8i and MS ACCESS as the RDBMS. thus the test data was designed such that it was sufficient to test data was designed such that it was sufficient to test the worthiness of various modules. The test data was entered and the checks performed to ensure the efficient performance of the system.,

5.5 Testing with dummy data

The testing with dummy data nearly went on during all the phases of the coding side by side. Entry forms, reports and the other things that were developed are tested with the dummy data at every stage. the results were matched with the expected outputs. At various stages, wrong inputs. Reports were also checked for data for various stages and transactions.

5.6 Testing with live data

Finally to complete the system testing, testing with live data entered by the user was done to ensure that the system works accurately and efficiently. The dummy data checks could never be comprehensive enough to test the system fully. Different test cases were generated to check its exactness. Wrong inputs were intentionally fed to check for the systems after getting the desired output the software developed was implemented and made live at the various client sites all over INDIA.

Evaluation: The evaluation phase ranks vendor proposals and determines the one best suited, Evaluation of the system is performed to identify its strengths and weaknesses. The actual evaluation can occur along any of the following dimensions:

- ✓ Operational Evaluation: Assessment of the manner in which the system functions, including case of use, response time, overall reliability and level of utilization.
- ✓ Organizational Impact: Identification and measurement of benefits to the organization in such areas as financial concerns, operational efficiency and competitive impact.
- ✓ User Manager Assessment Evaluation of the attitudes of senior and user manager within the organization, as well as end-users.
- ✓ Development Performance: Evaluation of the development process in accordance with such yardsticks as overall development time and effort, conformance to budgets and standards and other project management criteria.

6. Implementation & Maintenance of E-Advertisement:

6.1 Implementation:

Implementation is the process of personnel check out, install the required equipment and application and train user accordingly. Depending on the size of the organization and its requirements the implementation is divided into three parts

Stage Implementation: Here system is implemented in stages. The whole system is not implemented at once. Once the user starts working with system and is familiar with it, then a stage is introduced and implemented. Also the system is usually updated, regularly until a final system is sealed.

Direct Implementation :The proposed new system is implemented directly and the user starts working on the new System. The shortcoming, if any, faced are then rectified later.

Parallel Implementation: The old and the new system are not used simultaneously. This helps in comparison of the results from the two systems. Once the user is satisfied and his intended objectives are achieved by the new system, he stop using the old one. My project was implemented on approach of prototype model whose functionality was increased day by day, as the client was given full liberty in choosing his needs and get to the maximum benefit out of the system developed.

6.2 Maintenance: Maintenance is enigma of the system development. Analysts and programmers spend far more time maintaining programs and packages than writing them. Maintenance accounts for 60-80% of the total system development cost incurred. The problems in maintenance occur largely because software is handmade product designed in adhoc fashion with a few standards. Poor documentation makes maintenance of the programs even more difficult. The more carefully is the system thought out and developed, with attention paid to external influence over reasonable lifetime, the less is the maintenance required.

Types of Maintenance

Maintenance has been classified as

- Corrective maintenance
- Adaptive Maintenance
- Perfective Maintenance

Corrective Maintenance

This means repairing the processing failures or making changes because of previously uncorrected problems or false assumptions.

Adaptive Maintenance

This means changing the program functions as and when required.

Perfective Maintenance

This means enhancing the performance or modifying the programs to respond to the user's additional or time to time changing needs.

Future Scope of E- Advertisement:

- Providing the SMS alerts facility to users to remove the dependency on email account (web).
- Providing the social media site to express, review and share in the form of Blogs, Photos, Videos, discussions in multiple Explosively popular areas of interest such as Movies, Travel, Events and much more.
- Nurturing the dream of providing Email account facility to users so they can feel the independence of mail account at the same site. The idea of having a Mail account has been dealt in the system but Many more functionalities can be added to it.

Conclusions:

As evidence of the success of this mission, there are millions of items listed each day in thousands of different categories. There are items for almost any interest that one could imagine, from sheet music to automobiles to hand tools to real estate. And the variety doesn't stop there. Need a computer? One may find it listed in the proper category, in any configuration from very old and obsolete to the latest greatest machine available. What about antiques? One can find an antique quilt that is up for highest bid, or maybe an old violin, whose beautiful tones have enchanted many though its years. Tickets. Maybe a ticket to the next concert of ones favorite artist or play production. One can even find that special bottle of wine, some aged, exotic cheese, and the perfect 'mood' music for that special occasion. In this instance it may be true that on eBay, they have something for everybody, whatever their tastes may be.

Scope For Future Work on E-Advertisement:

Since this system has been generated by using Object Oriented programming, there are many chances of reusability of the codes in other environment even in different platforms. Also its present features can be enhanced by some simple modification in the codes so as to reuse it in the changing scenario. The site is made in all possible way to meet the user requirements using latest version of available software and hardware. But as user requirements and operating environment keep changing further extensions can be made on this. In future some more schemas can be added in the "E-advertisement" hence these schemas are to be included in the software developed.

Limitations

Since, every system has some limitations so our proposed system is also not untouchable in this regard. Although it includes every kind of features, but it can't be used in a huge organization where number of networks are very large, because the database used in this system is an average one. Also it doesn't have different kind of access feature for different users.

Though it was planned for this system to be absolutely perfect but everything as such has some limitations, so does the System. Following may be the drawback in this system.

- Though this system is developed as a multi user system but it is not a real time system.
- The interaction with the database, every time they are loaded thus the system tends to be a bit slow.

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