DISK ANALYZER

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ABSTRACT

The project "**DISK ANALYZER** "is going to be designed using Java 1.6 as front end and Microsoft Access 2003 as back end. The project aims at analyzing and managing the disk details in the system such as total, used and free space in both text and graphical manner. Pie Charts are used to show the data. The folders and files of given drive can be viewed in tree view manner. The disk management details contain searching for setup, office documents, temp files, zero-byte files and more space occupied files can be tracked. The unnecessary files removal option is provided so that temp files, zero-byte files can be removed. The repeated files in the disk can be located with path of repeated occurrences. It is a piece of software that checks drives for space and usage and explores files and folders visually, simplifying file cleanup for identifying old or unnecessary files or downloads so that you can remove them and free up space.

Keywords: Drive Information, Search, Redundancy, using Java as Front End and Microsoft Access as Back End.

I. INTRODUCTION

Disk Analyzer is going to be designed using Java 1.6 as front end and Microsoft Access 2003 as back end. The project aims at analyzing and managing the disk details in the system such as total, used and free space in both text and graphical manner. Pie Charts are used to show the data. The folders and files of given drive can be viewed in tree view manner. The disk management details contain searching for setup, office documents, temp files, zero-byte files and more.

1.1 Drive Information:

The drive information module contains extracting information such as total drive space, used space, the disk type such as fixed or removable. The disk' percentage of total space, used space is displayed in pie chart format. The folders information includes selecting the drive, displaying all folders in that drive. The folder if selected displays the file information, path and name of the file.

1.2 Search:

The search module contains options search setup files, presentation, excel workbook, MS-access databases, pdf files, temporary files and zero-byte files. The temporary and zero-byte files can be deleted if not required.

1.3 Redundancy:

The redundancy module contains options to find files located repeatedly in the disk. The files saved more than once are displayed with path information so that extra copy can be easily identified and deleted.

II.STRUCTURE OF THE PROJECT:

Some of the important structure are includes.

Drive Information:

- Show Drive Info
- Show Folders Info

Search:

- Setup file
- Word Documents
- PowerPoint Presentations
- Excel Workbooks
- Access Databases
- PDF (Portable Document Formats) Files
- Temp Files by Extension
- Zero-byte files

Redundancy:

Find repeated files

III. EXISTING APPROACH:

The existing disk analyzer tools have some drawbacks are listed below. The Windows Explorer or some other disk analyzer tools do not show the file size in graphical manner. The repeated files and their location in the disk cannot be identified. We need manual removal of temporary or zero-byte files. Setup files location needs manual search to find them.

IV. PROPOSED SYSTEM:

To reduce the drawbacks in existing system, the new proposed system is being developed. The advantages of the proposed system are. The new system shows the file size in graphical manner. The repeated files and their location in the disk can be identified. Automatic removal of temporary or zero-byte files. Setup files location search is easy now.

4.1. System Configuration:

HARDWARE SPECIFICATION

The hardware used for the development of the project is:

PROCESSOR	:	Intel Core 2 Duo 2.4 GHz
RAM	:	1 GB DDR2 RAM
MONITOR	:	15" COLOR
HARD DISK	:	80 GB
CDDRIVE	:	LG 52X
KEYBOARD	:	STANDARD 102 KEYS
MOUSE	:	3 BUTTONS

SOFTWARE SPECIFICATION

The software used for the development of the project is:

OPERATING SYSTEM	:	Windows XP Professional with SP2
LANGUAGE	:	JAVA
VERSION	:	1.6
BACK END	:	MS – Access 2003

4.2 Language Specification:

JAVA

Java is a programming language originally developed by James Gosling at Sun Microsystems and released in 1995 as a core component of Sun Microsystems' Java platform. The language derives much of its syntax from C and C++ but has a simpler object model and fewer low-level facilities. Java applications are typically compiled to bytecode that can run on any Java virtual machine (JVM) regardless of computer architecture. Java is a programming language originally developed by James Gosling at Sun Microsystems and released in 1995 as a core component of Sun Microsystems' Java platform. The language derives much of its syntax from C and C++ but has a simpler object model and fewer low-level facilities. Java applications are typically compiled to bytecode that can run on any Java virtual machine (JVM) regardless of computer architecture.

MS-Access 2003

It is a personal computer-based RDBMS. This provides most of the features available in the high-end RDBMS products like Oracle, Sybase, and Ingress etc. VB keeps access as its native database. Developer can create a database for development & further can create. The tables are required to store data. During the initial Development phase data can be stored in the access database & during the implementation phase depending on the volume data can use a higher end database.

4.3 System Design:

Input Design

Input design is the process of converting user-originated inputs to a computer-based format. Input design is one of the most expensive phases of the operation of computerized system and is often the major problem of a system. In the project, the disk activities are made with several easy-to-use options. In the project, the less input is given to display the output. The office documents such as word, excel and access databases are searched by just selecting the menu options. Only the extension-based file search needs the extension input. The menu

selection is enough for drive space, folder and file information display. The drive selection is enough for repeated files search. The files are displayed if they are saved in more than one place in particular drive.

Code Design

The code design should be such that with less amount of coding we can achieve more results. The speed of the system will be more if the coding is less. Whether the data in the system is usable and readable by the system is depending on the coding. Designing the code depends on the programming language chosen and mostly they are not specified while outlining the design of the system. The system uses Sun Java to develop its code. The goal of coding is to translate the design of the system in to code in a given programming language. The aim of the code design is to implement the system in best possible manner. In the project, the coding is being done such that proper validations are made to get the perfect input. No error inputs are accepted in addition, coding is designed such that the search is avoided in protected and unauthorized access folders so that the limited user is not able to display the files in that locations.

Output Design

Drive Information

The drive space information is displayed both numerically and graphically using labels are chart controls. The PIE chart type is used to display the used and free space.

Folder Information

The drives are displayed in tree view and after expanding the drive node, the folders are displayed as children nodes recursively. The folder node if selected, displays the files information in the right-side list view controls. The file location, name and size are displayed in list view.

Search Information

The file location information are displayed one by one with both filename and location. The temp files and zero bytes can be deleted after the display is finished. During the processing, the operation can be cancelled. Separate search options are made for different types of files.

Repeated Files information

The repeated files location information is displayed one by one with both filename and location. The number of occurrences is displayed first followed by the locations.

4.4 System Testing:

In the testing process we test the actual system in an organization and gather errors from the new system and take initiatives to correct the same. All the front-end and back-end connectivity are tested to be sure that the new system operates in full efficiency as stated. System testing is the stage of implementation, which is aimed at ensuring that the system works accurately and efficiently.

1. **Unit Testing**:

Unit testing verification efforts on the smallest unit of software design, module. This is known as "Module Testing". The modules are tested separately. This testing is carried out during programming stage itself. In these testing steps, each module is found to be working satisfactorily as regard to the expected output from the module.

2. Integration Testing:

Integration testing is a systematic technique for constructing tests to uncover error associated within the interface. In the project, all the modules are combined and then the entire programmer is tested as a whole. In the integration-testing step, all the error uncovered is corrected for the next testing steps.

3. Validation Testing:

To uncover functional errors, that is, to check whether functional characteristics confirm to specification or not.

4.5 System Implementation:

Implementation is the process of converting a new system design into operation. It is the phase that focuses on user training, site preparation and file conversion for installing a candidate system. The important factor that should be considered here is that the conversion should not disrupt the functioning of the organization**.**

V. SYSTEM ARCHITECTURE:
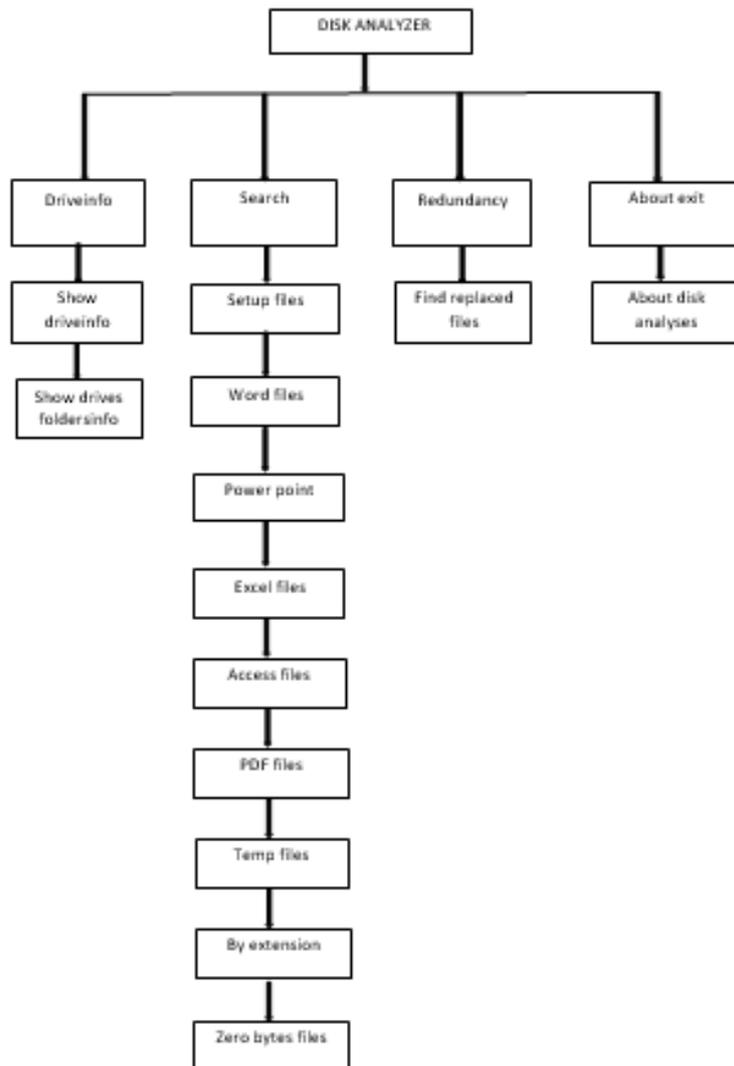
VI. CONCLUSION:

It is concluded that the application satisfies the needs of end-user. The application is tested very well and errors are properly debugged. The disk information can be viewed easily with detailed information. In addition, the application is capable of deleting the temporary or zero-byte files recursively in all folders. The location of repeated files is easily found out and the unwanted copy can be deleted so that the disk usage is regularized. Thus, the application fine tunes the disk in many ways.

VII. ACKNOWLEDGEMENTS:

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